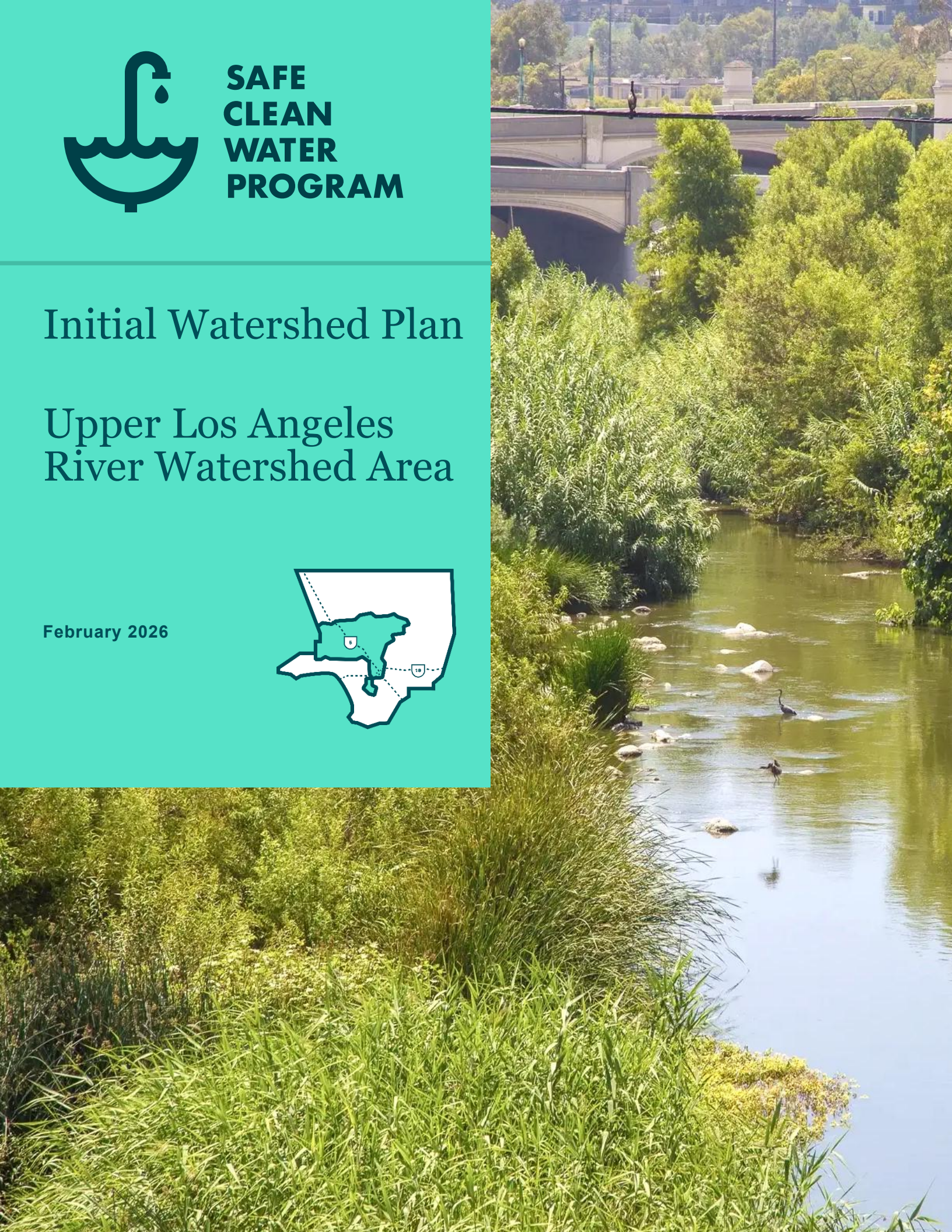
SAFE CLEAN WATER PROGRAM

Initial Watershed Plan

Upper Los Angeles River Watershed Area

February 2026



Executive Summary Overview

This Initial Watershed Plan provides detailed information on targets, needs, strategies, and opportunities, within the scope of the SCW Program, for the Upper Los Angeles River (ULAR) Watershed Area (WA).

Additional information on the contents of this Plan can be found below.

INITIAL WATERSHED PLAN EXECUTIVE SUMMARY

Provides an overview of the SCW Program's Watershed Planning Initiative, links to related resources and tools, and summarizes key findings, targets, and strategies for the Watershed Area.

CHAPTER 1. Introduction

Provides SCW Program background, introduces Watershed Planning and its process, details Watershed Planning engagement, and highlights key supporting SCW Program and other efforts.

CHAPTER 2. Watershed Area Characteristics

Watershed Area characteristics define each Watershed Area 's potential and challenges for achieving Goals and inform tailored targets and strategies.

CHAPTER 3. Baselines and Benefits Provided by Funded Projects

Summarizes baselines, benefits, and forecasted potential benefits of funded SCW Program Projects to assist in target-setting and to provide a foundation for adaptive Watershed Planning.

CHAPTER 4. Quantifying Progress Toward SCW Program Goals

Introduces metrics for quantifying SCW Program Project benefits and sets targets for tracking progress toward SCW Program Goals.

CHAPTER 5. Strategies for Addressing Needs and Achieving Goals

Identifies Watershed Area Needs and outlines strategies, actions, and opportunities that describe how to meet Watershed Area targets and achieve SCW Program Goals through multi-benefit Projects and Programs.

CHAPTER 6. Watershed Planning Tool

Introduces the online Watershed Planning Tool that supports strategic decision-making and communicates progress through an interactive map and dashboard.

CHAPTER 7. Next Steps and Recommendations

Outlines an Adaptive Management approach to address data gaps, track and assess progress, and implement incremental updates that keep Initial Watershed Plan outputs effective and relevant.

APPENDICES A - J

Defines key Watershed Planning terms, Indicators, and Performance Measures; summarizes engagement and the Community Strengths and Needs Assessment (CSNA); and outlines the analyses and data sources used to establish baselines, benefits, targets, and opportunities, including full-page opportunity maps for the Watershed Area, Municipalities, and Supervisorial Districts.

Figure ES-1.

Please visit the Safe, Clean Water Program website for additional Watershed Planning information, including:

- An Initial Watershed Plan Programmatic Executive Summary containing high-level information on the Watershed Planning Initiative, and Program-wide targets, needs, strategies, and opportunities,
- A live, interactive version of the Plan in the form of the Watershed Planning Tool, and
- Initial Watershed Plans for the other eight SCW Program WAs.

Using the Initial Watershed Plans and Planning Tool

The Watershed Planning Initiative supports a range of interested parties across the ULAR WA and LA County. The following parties should expect to engage with the Watershed Planning Initiative and this Initial Watershed Plan in the following ways:

- **Los Angeles County Public Works (Public Works)** will continue to integrate strategic planning, new findings, and tools across the Safe, Clean Water Program to better advance SCW Program Goals.
- **Public Works, Regional Oversight Committee (ROC), Scoring Committee, and Watershed Area Steering Committees (WASCs)** will use the Initial Watershed Plans to make more informed decisions on strategic investments. The Plans will be used to assess Projects and Programs, ensure Projects and Programs contribute to SCW Program Goals, and assess progress toward SCW Program Goals.
- **WASCs** will also reference the Plans in the annual recommended Stormwater Investment Plans (SIPs) and flag key areas of interest for proposers to target in subsequent Calls for Projects.
- **Municipalities and Project, Program, Project Concept, and Scientific Study Proponents** will use these tools to develop strategic, multi-benefit Projects, Programs, and Studies that align with the needs identified in this Plan. When applying for Infrastructure Program funding, Proponents are required to demonstrate Project alignment with the Plan.
- **Community members and other interested parties** may explore local project benefits, and advocate for priorities through the Community Strengths and Needs Assessment (CSNA) Survey and Dashboard.
- **Watershed Coordinators** will support implementation of the Initial Watershed Plans by supporting proponents in aligning applications and reports accordingly.

Upper Los Angeles River Watershed Area Initial Watershed Plan Outputs Summary

Watershed Area Characteristics, Potential, and Challenges

Characteristics

WA characteristics offer insight into the challenges and possibilities for SCW Program progress within the ULAR WA. The Watershed Planning Initiative uses these WA-specific factors to establish Targets and identify meaningful strategies to support the long-term achievement of the SCW Program.

The ULAR WA includes 12 Municipalities[1] and parts of Unincorporated Los Angeles County. The majority of the WA's footprint falls within Unincorporated Los Angeles County (44%) and the City of Los Angeles (43%). The WA spans approximately 392,000 acres in midwestern Los Angeles County, stretching from the Santa Susana and Simi Hills, through San Fernando Valley to downtown Los Angeles before reaching the river's outlet at the Pacific Ocean in Long Beach.

As a result of the concentrated development pattern, pollutant loading and runoff volumes are exacerbated in the WA, at about 176,000 acre-feet per year (ac-ft/yr) on average, despite the presence of substantial open space, which underscores the critical need for stormwater capture, treatment, and infiltration interventions. In addition to the diverse land use within the ULAR WA, the region encompasses socioeconomically diverse communities with densely populated neighborhoods characterized by a higher Disadvantaged Community (DAC) population and historically underserved neighborhoods, setting it apart as an area with high environmental justice needs.

[1] The following Municipalities are located within the ULAR WA, with the Municipality covering the largest portion of the WA first: Unincorporated County, Los Angeles, Glendale, Burbank, Pasadena, La Canada, Flintridge, Calabasas, South Pasadena, Alhambra, San Fernando, Hidden Hills, Monterey Park, and Santa Clarita.

Other key ULAR WA characteristics include:

- Zinc, total phosphorus, and bacteria are priority pollutants for Watershed Planning,
- 29% of land cover in the WA consists of impervious surfaces[2],
- 24% of urban area in the WA is covered by tree canopy,
- 40% of the WA is parks and open space,
- The required DAC benefit ratio for the WA is 45%[3], and
- Spans several managed, unconfined groundwater basins including the San Fernando, Central, and Raymond Basins.

As such, the following potential and challenges have been identified. Please see Chapter 2 for more information.

[2] Land use data were provided by the Los Angeles County Office of the Assessor and is representative of conditions on the ground as of January 2019.
[3] Per Goal J, the required DAC benefit ratio is determined as 110% of the proportion of the DAC population relative to the total population within the WA.

Potential and Challenges

POTENTIAL & CHALLENGES FOR DELIVERING WATER QUALITY BENEFITS

Channelized waterways and high pollutant loads from dense urban runoff contribute to widespread waterbody impairments, but opportunities remain for multi-benefit solutions.

POTENTIAL	CHALLENGES
• There is potential to implement both high-impact regional Projects in areas with elevated pollutant loads and smaller, distributed efforts throughout the watershed to support ongoing water quality improvements. • Source control measures provide potential to prevent pollutants from entering stormwater runoff, reducing the load on downstream treatment or capture systems and improving overall water quality.	• Extensive concrete-lined channels, limited open space, and flood control infrastructure pose challenges for implementing large-scale or in-channel treatment solutions. • Flashy river system intensifies pollutant loadings.

POTENTIAL & CHALLENGES FOR DELIVERING WATER SUPPLY BENEFITS

Impervious surfaces and engineered systems limit natural infiltration, but infiltration to groundwater offers potential to boost local water supply through stormwater capture and reuse.

POTENTIAL	CHALLENGES
• Watershed Area overlies eight major groundwater basins with overlying soils of high hydraulic conductivity which allows for a range of possibilities to increase water supply through natural infiltration. • Dense concentration of impervious landscape in developed areas produces a large volume of runoff for potential capture and reuse in the Watershed Area.	• Urban soil conditions and high pollutant loads may limit natural infiltration and require pre-treatment such as hydrodynamic separators, sedimentation chambers, or media filters before water can be reused. • The Los Angeles region has been historically vulnerable to long dry periods superseded by intense storms. Designing infrastructure that handles both extremes is complex.

POTENTIAL & CHALLENGES FOR DELIVERING COMMUNITY INVESTMENT BENEFITS

Historically underserved neighborhoods with limited green space and high environmental burdens present a strong need and opportunity for equitable, multi-benefit community investments.

POTENTIAL	CHALLENGES
• The upper Watershed Area has large areas of existing open and recreational space that can be enhanced and/or restored to address the countywide High Park Needs while simultaneously improving water quality through stormwater and urban runoff management. • Targeted investments can enhance vegetation, tree canopy, and environmental restoration—especially in Disadvantaged Communities, schools, and densely developed areas—advancing multi-benefit outcomes.	• The upper Watershed Area supports a variety of native plants, fish, insects, birds, and mammals. This level of biodiversity may complicate the environmental permitting process for some Project types. • Addressing these needs equitably requires creative, data-driven planning and robust community engagement to ensure meaningful, multi-benefit outcomes.

Figure ES-2.

Baselines, Benefits, Indicators, Targets, and Watershed Area Needs

Baselines and Benefits

In the first five years of the SCW Program (FY20-21 to FY24-25), $191 million in SCW Program funds have been invested in 46 Regional and Municipal Program Projects in the ULAR WA. Together, these Projects and their benefits form the 2025 Constructed Baselines and Total Benefits.

The 2025 Constructed Baseline represents anticipated benefits by constructed Projects and provides a reference point for tracking future investments and measuring progress over time. 2025 Total Benefits provide a snapshot of SCW Program Project benefits at the start of the Watershed Planning process and inform target setting, quantifying WA Needs, and identifying strategies and opportunities. Total Benefits include benefits from anticipated, planned, and constructed projects plus future reported project benefits that will be based on project performance monitoring.

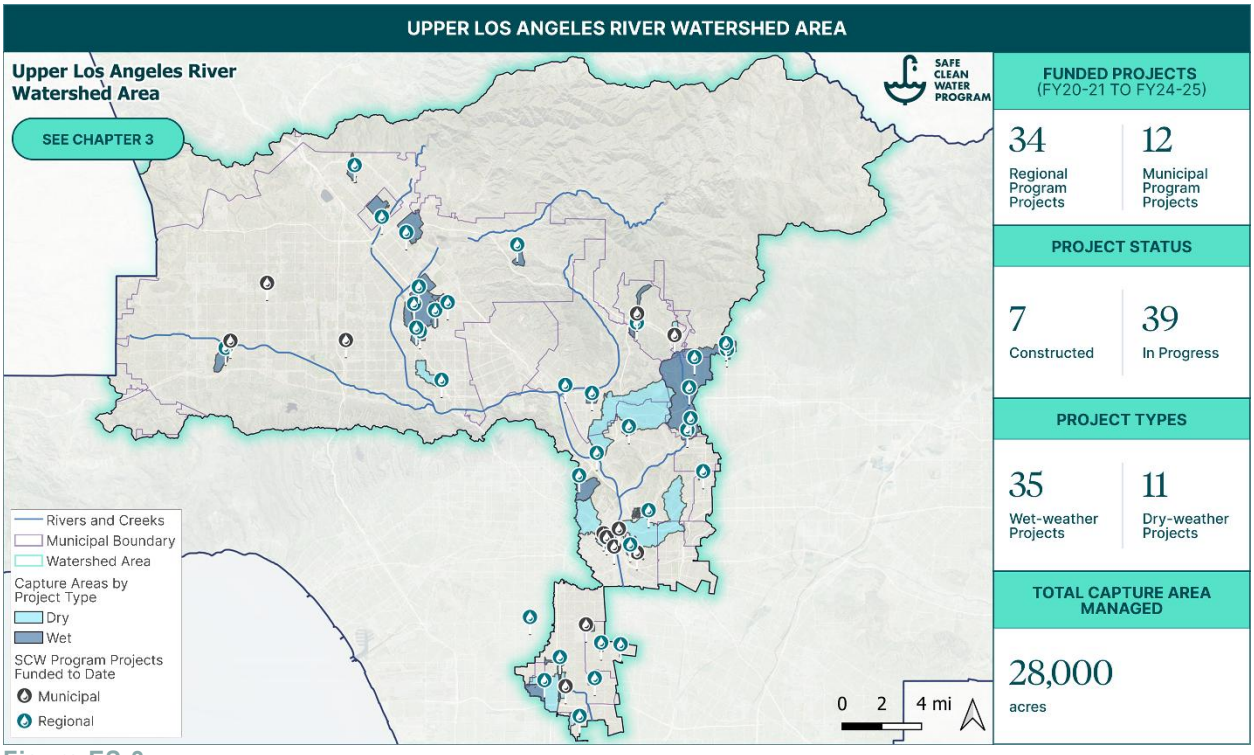


Figure ES-3.

Indicators and Performance Measures

To track progress, this Plan uses metrics called Indicators and Performance Measures (PMs). Each Indicator aligns with one of the 14 SCW Program Goals. Indicators are metrics used to sum Project benefits and enable progress tracking across large spatial scales, such as the SCW Program region or per WA. Indicators are supported by a set of PMs which quantify and track benefits at the Project scale. Indicators and PMs are organized into nine Planning Themes to allow for efficient WA and SCW Program-wide summaries.

Targets

Each Indicator correlates to a Target. Targets are aspirational, calibrated to the scope of the SCW Program, and tailored to the ULAR WA. Targets are based on relevant SCW Program Ordinance requirements, WA characteristics, other existing countywide efforts, and data-informed assessments such as the 2025 Total Benefits and forecasts developed through the Plan. Where Targets from other countywide efforts (e.g., the County Water Plan) exist for a given Indicator, they guide target setting. SCW Program Targets reflect the Program's potential contribution to these broader regional objectives.

Watershed Area Needs

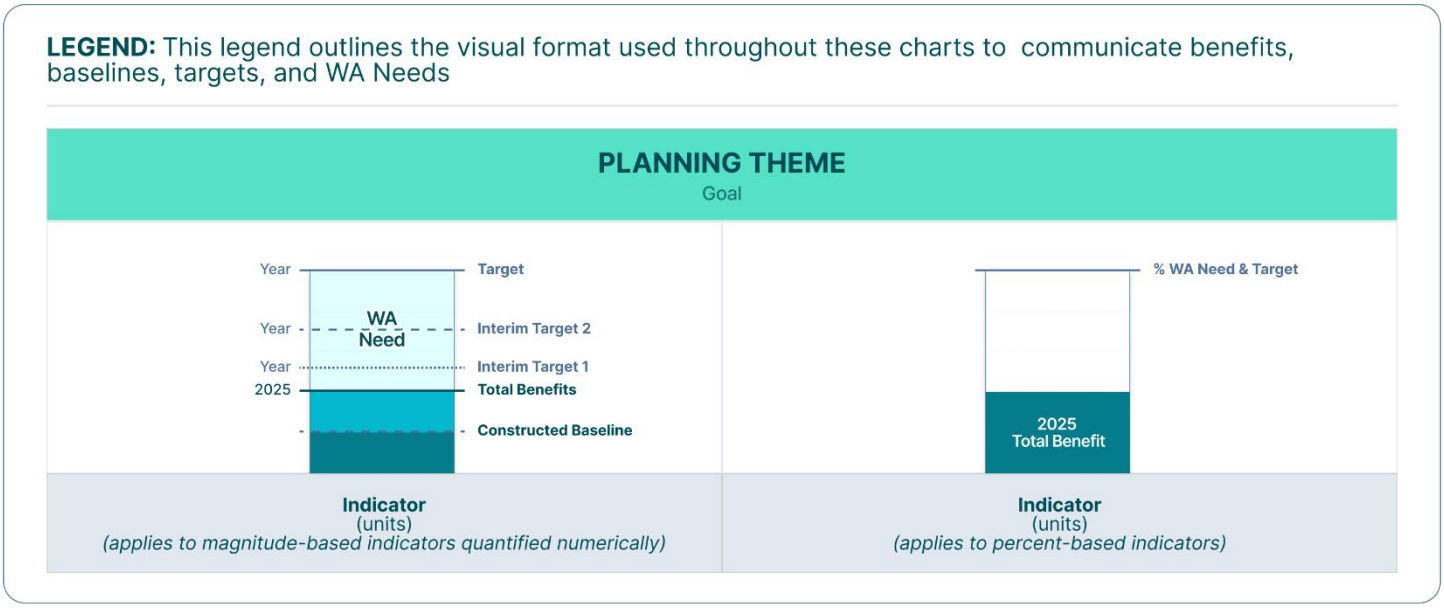
For each Indicator, its 2025 Total Benefits are summarized. WA Needs represent the progress that is needed to meet the Targets. WA Needs summarize why strategies are needed. Please see Chapter 5 to learn more about how WA Needs are determined.

Upper Los Angeles River Watershed Area Metrics

By establishing Constructed Baselines, Total Benefits, Targets, and WA Needs, this Plan supports SCW Program implementation by promoting data-driven planning, informed decision-making, and transparent progress tracking to ensure that the ULAR WA continues to make measurable progress toward SCW Program Goals.

ULAR WA 2025 Total Benefits, 2025 Constructed Baselines, Targets, and WA Needs for each Indicator are summarized below. See Chapters 3, 4, and 5 for an overview of the methods for establishing benefits, baselines, targets, and WA Needs. More detailed methods and data sources are available in Appendix H.

LEGEND: This legend outlines the visual format used throughout these charts to communicate benefits, baselines, targets, and WA Needs



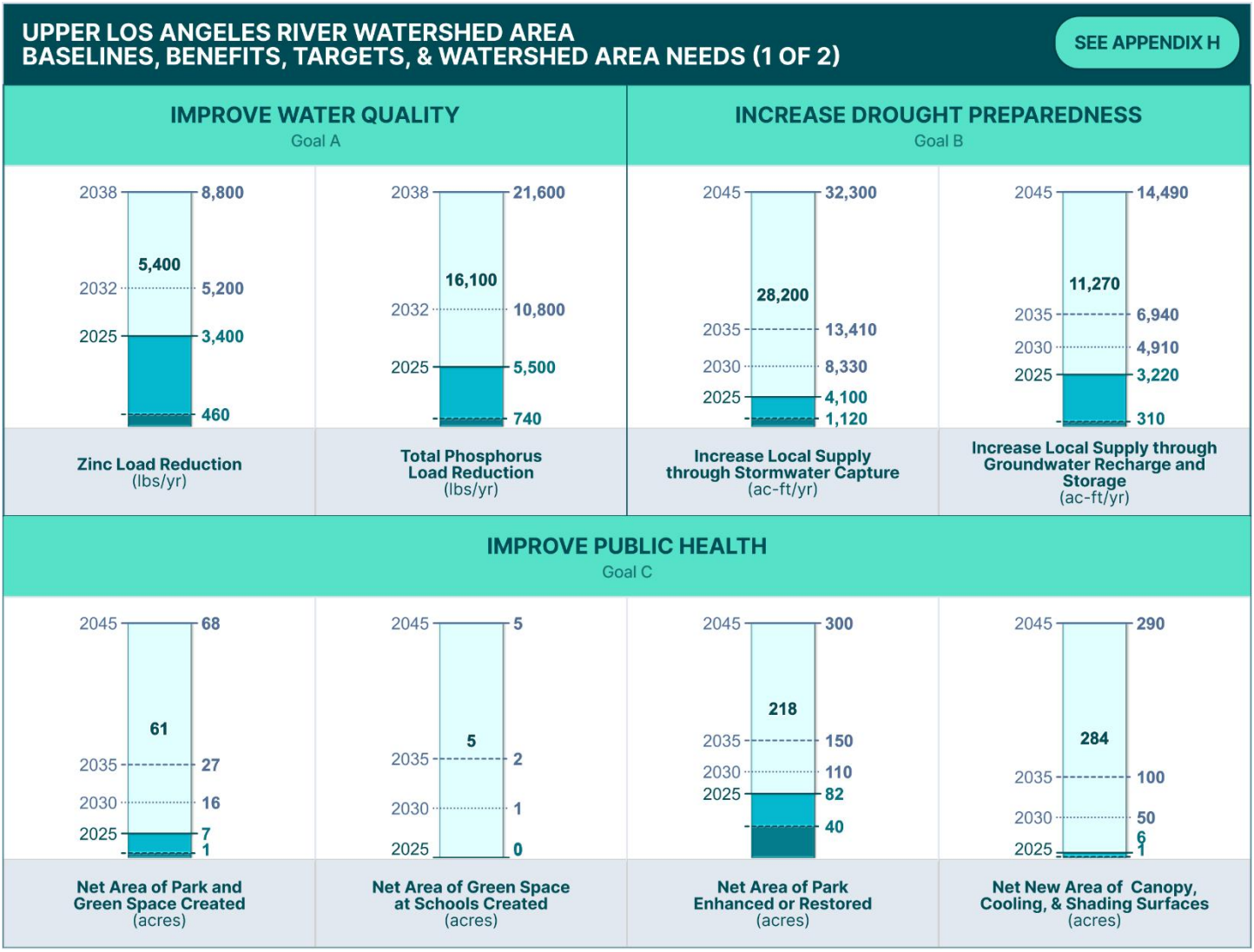
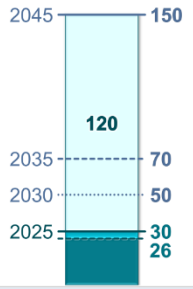


Figure ES-4.

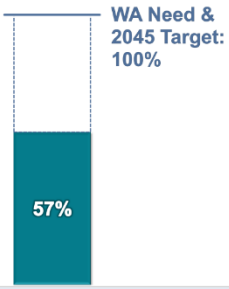
UPPER LOS ANGELES RIVER WATERSHED AREA BASELINES, BENEFITS, TARGETS, & WATERSHED AREA NEEDS (2 OF 2)

SEE APPENDIX H

DELIVER MULTI-BENEFITS WITH NBS AND DIVERSE PROJECTS
Goal E, F, G

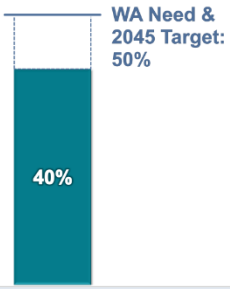


Net Area of Habitat Created, Enhanced, or Restored (acres)



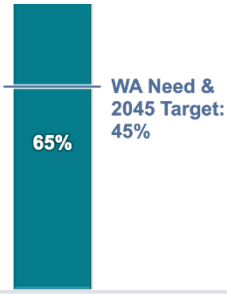
Proportion of Projects and Programs Addressing a Community-Stated Priority or Concern (%)

LEVERAGE FUNDING & INVEST IN RESEARCH & DEVELOPMENT
Goal D, H, I

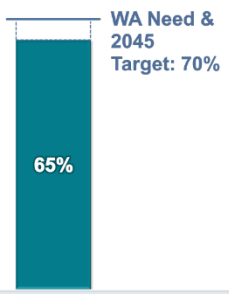


Estimated Total Full-Time Equivalent (FTE) Jobs Created (#)

EQUITABLY DISTRIBUTE BENEFITS
Goal J, K

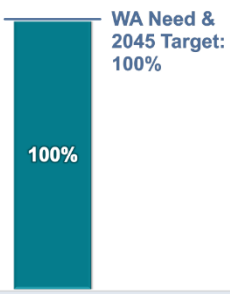


DAC Benefit Ratio (%)



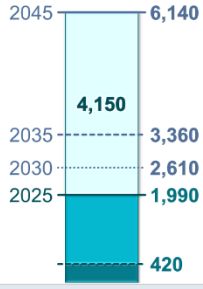
Proportion of Municipal Program Funds Spent on New Projects or Programs (%)

ENSURE ONGOING OPERATIONS AND MAINTENANCE FOR PROJECTS
Goal N

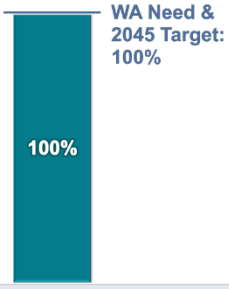


Quantity of O&M Plans (of all completed SCW Program Projects to date) Sustaining Intended Project Benefits (%)

PROMOTE GREEN JOBS AND CAREER PATHWAYS
Goal M

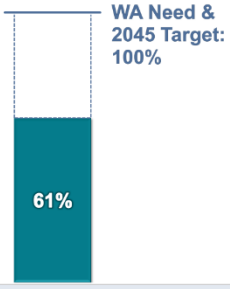


Estimated Total Full-Time Equivalent (FTE) Jobs Created (#)



Proportion of Projects Entered in a Project Labor Agreement (PLA) (where applicable) (%)

PRIORITIZE MEANINGFUL ENGAGEMENT



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

Figure ES-5.

Strategies and Opportunities

Strategies

Strategies outline ways to address WA Needs and achieve SCW Program Goals through multi-benefit Projects and Programs. Actions that support the implementation of each strategy are included. Strategies and actions are supported by opportunities, seen as mapping layers or references. These mapping layers and references outline where there is the greatest opportunity to implement strategies and actions. Rather than identifying specific Project sites, opportunities highlight areas where Water Quality Benefits, Water Supply Benefits, or Community Investment Benefits are most needed.

Strategies are designed to be implemented synergistically to maximize co-benefits and Water Quality Benefits. While each strategy can support individual SCW Program Goals on its own, they are most effective when enacted together. To support this integrated approach, the Plan identifies composite opportunities, which highlight areas where a Project or Program could support two or more SCW Program Goals in addition to water quality improvement. Composite opportunities serve as a strategic foundation for prioritizing investments that combine multiple strategies to deliver multi-benefit Projects and Programs that address multiple SCW Program Goals.

Strategies, actions, and opportunities are tailored to the ULAR WA's characteristics. A key emphasis is on advancing multi-benefit Projects that pair water quality improvements with water supply and community enhancements, while balancing long-term goals with near-term Regional Program funding limitations. ULAR WA strategies promote implementation of stormwater capture and reuse Projects across the urban landscape (e.g., dry wells, bioswales, and green streets) and which integrate greening elements to improve public health and mitigate urban heat island effects and post-wildlife conditions.

Figure ES-6 below shows strategies developed within each Planning Theme to support strategic decision making in the ULAR WA that facilitate efficient progress toward SCW Program Goals.

Strategies, actions, and opportunities to address WA Needs are detailed in Chapter 5 of the Initial Watershed Plan, Appendices I and J, and the Planning Tool.

UPPER LOS ANGELES RIVER WATERSHED AREA STRATEGIES	
IMPROVE WATER QUALITY 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 Goal B	
2.1	Link MS4 compliance and water supply 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 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 NATURE-BASED SOLUTIONS & DIVERSE PROJECTS Goal 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 Nature-Based Solutions to reduce wildfire risk and enhance ecosystem resilience
LEVERAGE FUNDING & INVEST IN RESEARCH & DEVELOPMENT Goal 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 Goal 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 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 Goal N	
8.1	Maintain a skilled, local workforce to ensure quality construction and comprehensive operations & maintenance (O&M)
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, all SCW Program Projects and Programs are required to include a Water Quality Benefit.

Figure ES-6.

Opportunities

Maps are included in the Plan and Planning Tool to encourage SCW Program Projects that provide multiple benefits. The following maps show two composite opportunities; the first map shows opportunities where Projects could deliver both Water Quality and Water Supply Benefits and the second map shows opportunities for Projects to deliver those benefits plus others such as Community Investment Benefits. While these maps highlight areas with the highest potential, other areas not highlighted may still offer valuable opportunities. Composite opportunities are detailed in Section 5.2.1.10 and Appendix I of the Plans. Full-page maps and guidance on using these mapping layers in the Planning Tool are available in Appendix J.

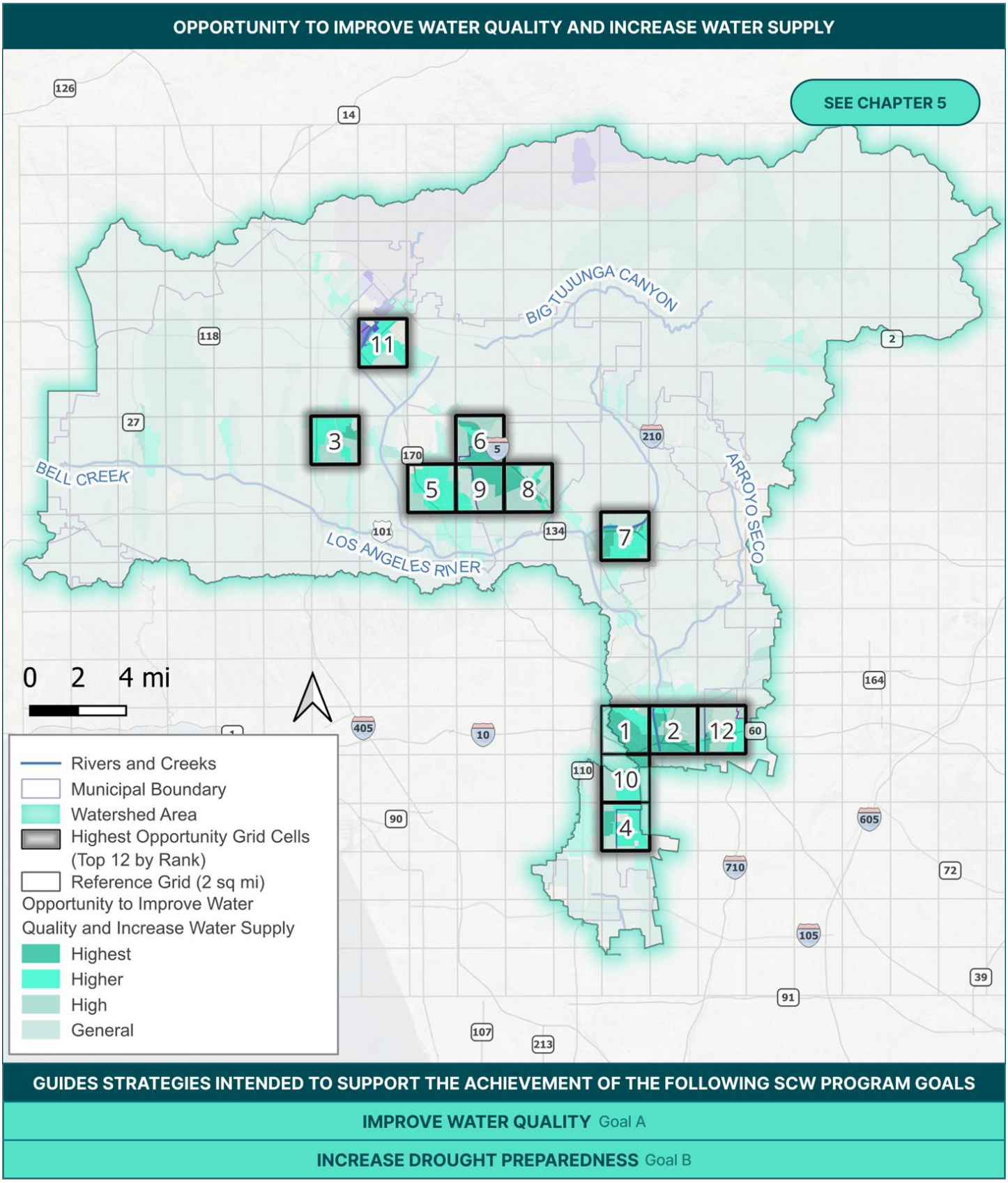
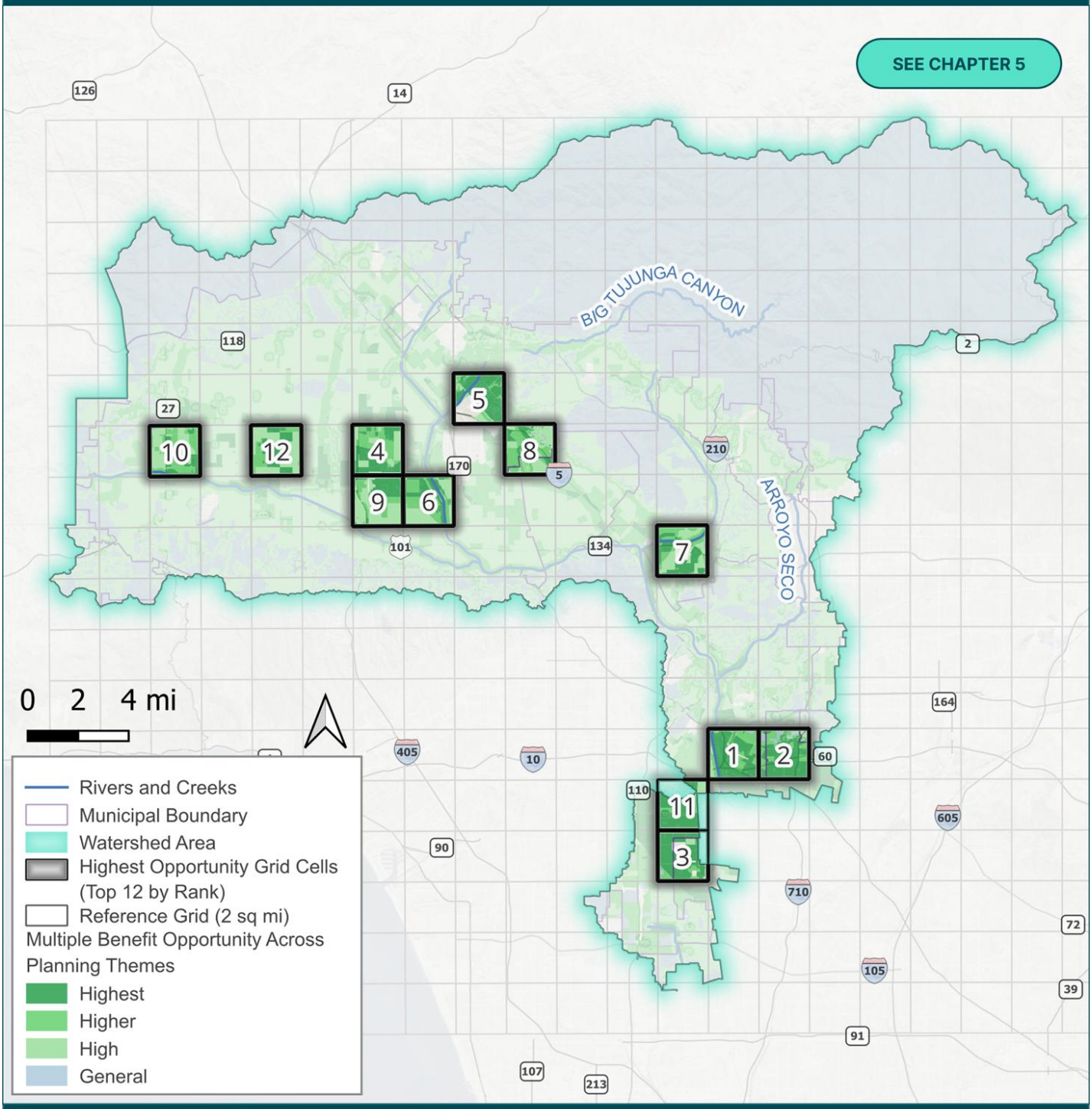

OPPORTUNITY TO IMPROVE WATER QUALITY AND INCREASE WATER SUPPLY
SEE CHAPTER 5
BIG TUJUNGA CANYON
BELL CREEK
LOS ANGELES RIVER
ARROYO SECO
11
3
6
5
9
8
7
1
2
12
10
4
0 2 4 mi
Rivers and Creeks
Municipal Boundary
Watershed Area
Highest Opportunity Grid Cells (Top 12 by Rank)
Reference Grid (2 sq mi)
Opportunity to Improve Water Quality and Increase Water Supply
Highest
Higher
High
General
GUIDES STRATEGIES INTENDED TO SUPPORT THE ACHIEVEMENT OF THE FOLLOWING SCW PROGRAM GOALS
IMPROVE WATER QUALITY Goal A
INCREASE DROUGHT PREPAREDNESS Goal B

Figure ES-7.

MULTIPLE BENEFIT OPPORTUNITY ACROSS PLANNING THEMES



GUIDES STRATEGIES INTENDED TO SUPPORT THE ACHIEVEMENT OF THE FOLLOWING SCW PROGRAM GOALS

- **IMPROVE WATER QUALITY** Goal A
- **INCREASE DROUGHT PREPAREDNESS** Goal B
- **IMPROVE PUBLIC HEALTH** Goal C
- **DELIVER MULTI-BENEFITS WITH NATURE-BASED SOLUTIONS & DIVERSE PROJECTS** Goal E, F, G
- **EQUITABLY DISTRIBUTE BENEFITS** Goal J, K

Figure ES-8.

Initial Watershed Plan: Upper Los Angeles River Watershed Area

Next Steps and Recommendations for Watershed Planning

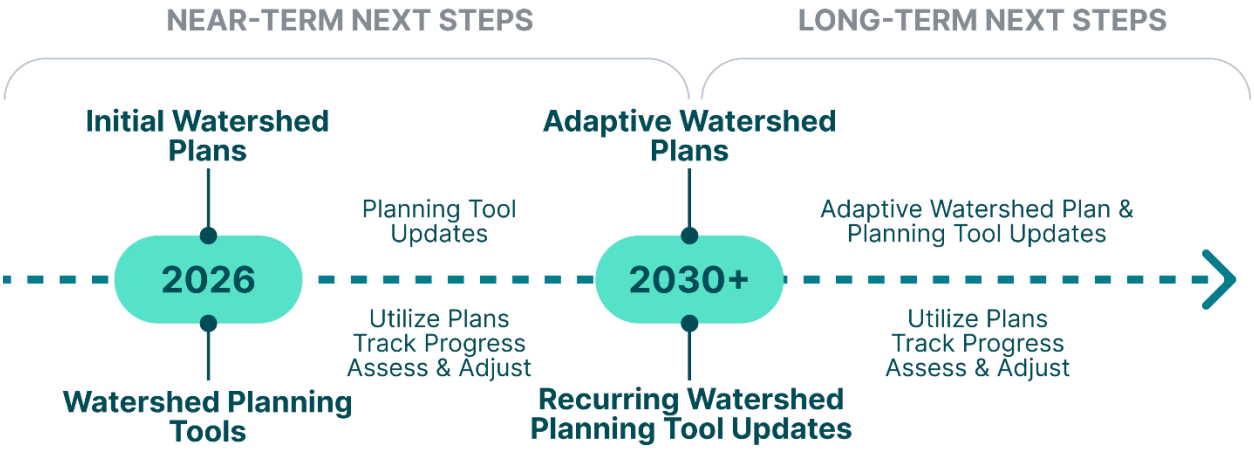


Figure ES-9.

In February 2026, the Plan was adopted by the Los Angeles County Flood Control District (LACFCD) Chief Engineer to serve as a SCW Program guidance document and support future decision-making by the Regional, Municipal and District Programs. Public Works, SCW Program Governance Committees, Municipalities, and Project and Program Proponents will use the Plan and Planning Tool to support the implementation of Projects and Programs that further SCW Program Goals.

Watershed Planning will address key planning gaps through engagement, data collection, new guidance and guidelines, Scientific Studies, and updates to the SCW Program Portal. Gaps will be addressed through Adaptive Management efforts (e.g., new guidance, data collection, studies) and incorporated in future Adaptive Watershed Plans and the Planning Tool.

As Project implementation progresses and benefits estimates are validated, anticipated benefits by planned Projects will be superseded by their Constructed Benefits and reported benefits. Tracking each of these three benefit subtypes will support Adaptive Management efforts by providing a basis for assessing Project performance and implementation progress.

In the long term, the Watershed Planning Initiative will execute annual updates to the Planning Tool to ensure Project data and opportunities remain current. Adaptive Watershed Plans, to be developed roughly every five years or as needed, will assess the Plans' impact and use, incorporating new planning elements and data to reflect ongoing progress, emerging priorities, and evolving WA conditions.

SAFE CLEAN WATER PROGRAM

Initial Watershed Plan

Upper Los Angeles River Watershed Area

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Chapter 1. Introduction

The Upper Los Angeles River (ULAR) Initial Watershed Plan represents a historic milestone for the Safe, Clean Water (SCW) Program, by providing targeted guidance on what can be achieved within the scope of the SCW Program and reflects the diverse landscape of the ULAR Watershed Area (WA). The Initial Watershed Plans should be used to inform regional stormwater priorities to ensure that Project and Program[1] implementation aligns with both the SCW Program 14 Ordinance-established Goals[2] (Goals) and community needs.

The SCW Program was established to improve water quality, enhance local water supply, and invest in communities. Grounded in the principles of sustainability, equity, and resilience, the SCW Program supports multi-benefit Projects and Programs that improve water quality while simultaneously delivering meaningful outcomes for communities, such as increased local water supply, improved air quality, reduced urban heat, and increased access to green space, across the Los Angeles region.

The ULAR WA Initial Watershed Plan sets targets and defines strategies tailored to local challenges and opportunities to serve as a strategic blueprint for what can be accomplished using SCW Program funds and supplemented with local, state, federal and other leveraged funding sources. It reflects the collective insights and priorities of the Regional Oversight Committee (ROC), Watershed Area Steering Committees (WASCs), Municipalities, Community Leaders, and Community-Based Organizations (CBOs). This Initial Watershed Plan is intended to support the ROC, the ULAR WASC,

[1] As defined in Chapter 16 of the Los Angeles County Flood Control District (LACFCD; District) Municipal Code (LACFCD Code §16):

- “Project” means the development (including design, preparation of environmental documents, obtaining applicable regulatory permits, construction, inspection, and similar activities), operation and maintenance (including monitoring), of a physical structure or facility that increases Stormwater or Urban Runoff capture or reduces Stormwater or Urban Runoff pollution in the SCW Program Watershed Areas.
- "Program" means a planned, coordinated group of activities related to increasing Stormwater or Urban Runoff capture or reducing Stormwater or Urban Runoff pollution in the SCW Program Watershed Areas.
- A “multi-benefit Project” must have (1) a Water Quality Benefit, and (2) a Water Supply Benefit or a Community Investment Benefit, or both.
- 16.05.C. 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.

[2] As defined in Chapter 18 of the LACFCD Municipal Code (LACFCD Code §18).

Project and Program proponents, Municipalities, Planners, CBOs, and Community Leaders in tracking SCW Program progress and making strategic investments. Infrastructure Program Project Applicants are required to demonstrate alignment with the Initial Watershed Plan in all future applications, which can be streamlined by following the strategies outlined in this Plan. Additionally, the WASC will encourage and recommend Projects and Programs that reflect alignment and deliver multiple benefits to ensure that funding addresses the highest-priority WA needs while maximizing Water Quality, Water Supply, and Community Investment Benefits (CIBs). For additional information, please visit the SCW Program Watershed Planning webpage.

This Initial Watershed Plan provides a tailored set of baselines and benefits (Chapter 3), targets (Chapter 4), and strategies (Chapter 5) for the ULAR WA. Initial Watershed Plan outputs draw on the ULAR WA's unique characteristics (Chapter 2), findings from key efforts to date—including SCW Program Scientific Studies—best available data, and input from interested parties (Section 1.4). They offer practical guidance for Los Angeles County Public Works (Public Works), the ROC, ULAR WASC, Municipalities, and Project and Program proponents to implement Projects and Programs that deliver multiple benefits, address diverse needs, and support progress toward achieving Goals. Importantly, the Initial Watershed Plans are not intended as comprehensive watershed management plans and do not detail specific Projects to implement. Instead, they provide targeted guidance based on what can be achieved within the scope of the SCW Program and its WAs.

Complementing this Initial Watershed Plan are two key resources:

- An Initial Watershed Plan Progammatic Executive Summary is available as a separate companion document to the Initial Watershed Plans. This Executive Summary serves to distill the key elements of each WA's Initial Watershed Plan—such as baselines, benefits, targets, strategies, and opportunities—while also providing broader context about Goals, structure, and implementation framework. It is intended to help readers quickly understand the core components of each Initial Watershed Plan and how local planning efforts fit into the overarching objectives of the SCW Program.
- The Watershed Planning Tool (Planning Tool; Chapter 6), an online interactive, living resource that tracks progress, supports Project and Program planning, and helps to inform strategic funding decisions. Integrated with the SCW Program Portal—including the Stormwater Investment Plan (SIP) Tool, Projects Module, and Reporting Module—it enables WASCs to evaluate funding

scenarios, assess Project contributions, and ensure alignment with current Project data and implementation progress.

These resources are companions to the Initial Watershed Plans and communicate their outputs and progress to interested parties and community members. These planning elements are summarized in Figure 1-1 and their functions and intended users are summarized in Section 1.3 and detailed throughout this plan. Additionally, the Initial Watershed Plans will establish a shared language to promote a clear understanding of Watershed Planning[3] concepts and Initial Watershed Plan outputs. Key definitions and acronyms are presented in Appendix A and Appendix B, respectively.

Together, the Initial Watershed Plans, Planning Tool, and SCW Program-wide Executive Summary launch an adaptive cycle that will assess progress and adjust outputs through future Watershed Planning efforts, such as Adaptive Watershed Plans (Chapter 7). Informed by community input, scientific findings, and performance data, this approach enables responsive and effective planning.

[3] For purposes of the Initial Watershed Plans and other SCW Program efforts, “Watershed Planning” refers to a dynamic process by the SCW Program involving establishing targets to quantify progress towards SCW Program Goals, incorporating evolving interested party and community priorities, and identifying opportunities for multi-benefit Projects and Project concepts, Programs, and Studies. This process is intended to guide prospective applicants, Municipalities, and Los Angeles County Public Works in developing Projects and Programmatic investments that will best serve the nine SCW Program WAs. This definition encompasses planning activities that guide the strategic allocation of SCW Program resources within each WA. It does not extend to, or account for, stormwater management, water quality improvement, or related infrastructure efforts conducted independently of the SCW Program.

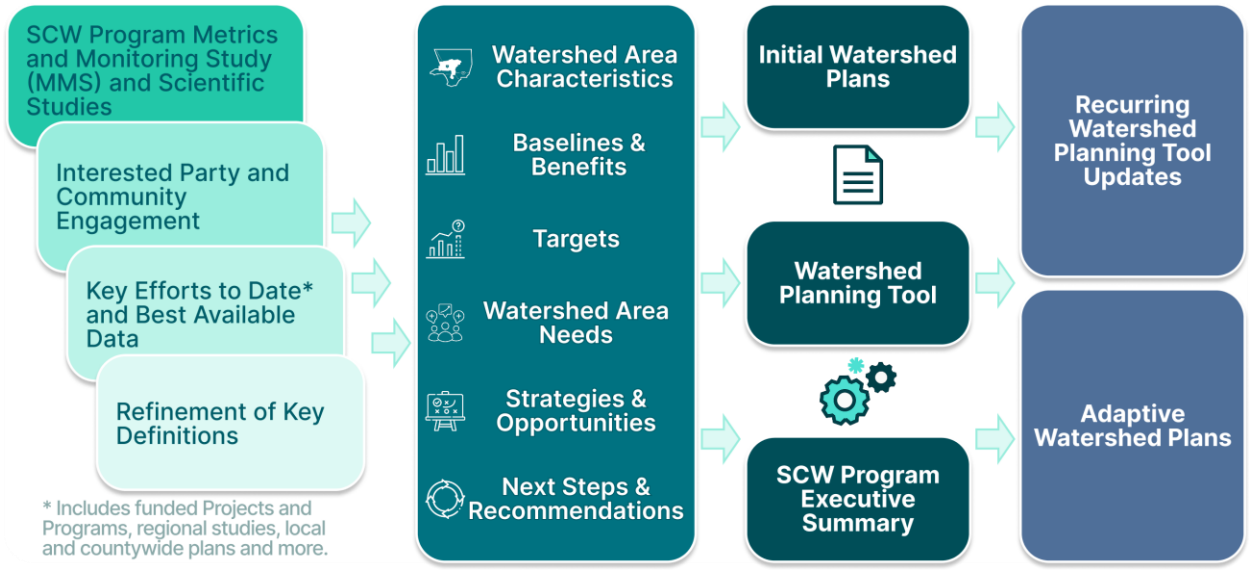


Figure 1-1. Major Initial Watershed Plan inputs and outputs of SCW Program Watershed Planning

1.1 Safe, Clean Water Program Background

In November 2018, Los Angeles County voters approved Measure W, establishing a special parcel tax to fund the SCW Program in the Los Angeles region. The SCW Program collects approximately $280M annually to support implementation of multi-benefit Projects and Programs, making it the largest program for delivery of stormwater capture Projects and Programs in the nation. All investments from Projects and Programs align with the SCW Program's 14 Goals. Funding is distributed across three sub-programs: the Regional Program, Municipal Program, and District Program. Each sub-program and its funding allocation are detailed in Figure 1-2 below.

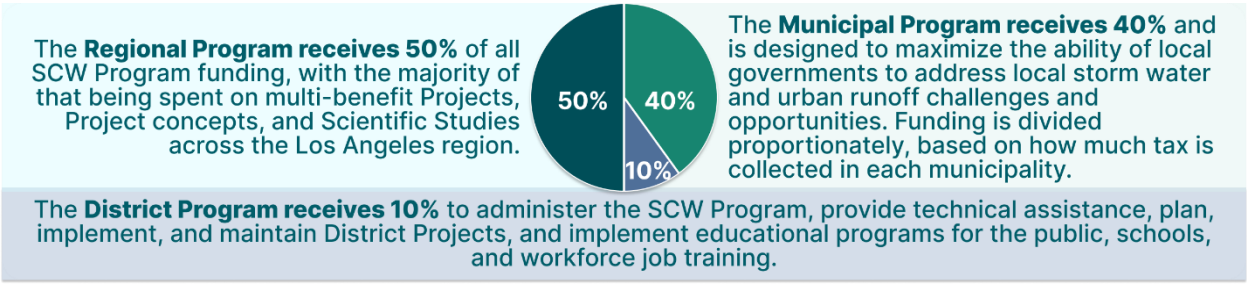


Figure 1-2. Funding allocations by each of the three main programs of the SCW Program

The SCW Program is organized around nine WAs within the Los Angeles region, capturing the unique circumstances and challenges of each WA by diverse representation, as shown in Figure 1-3.

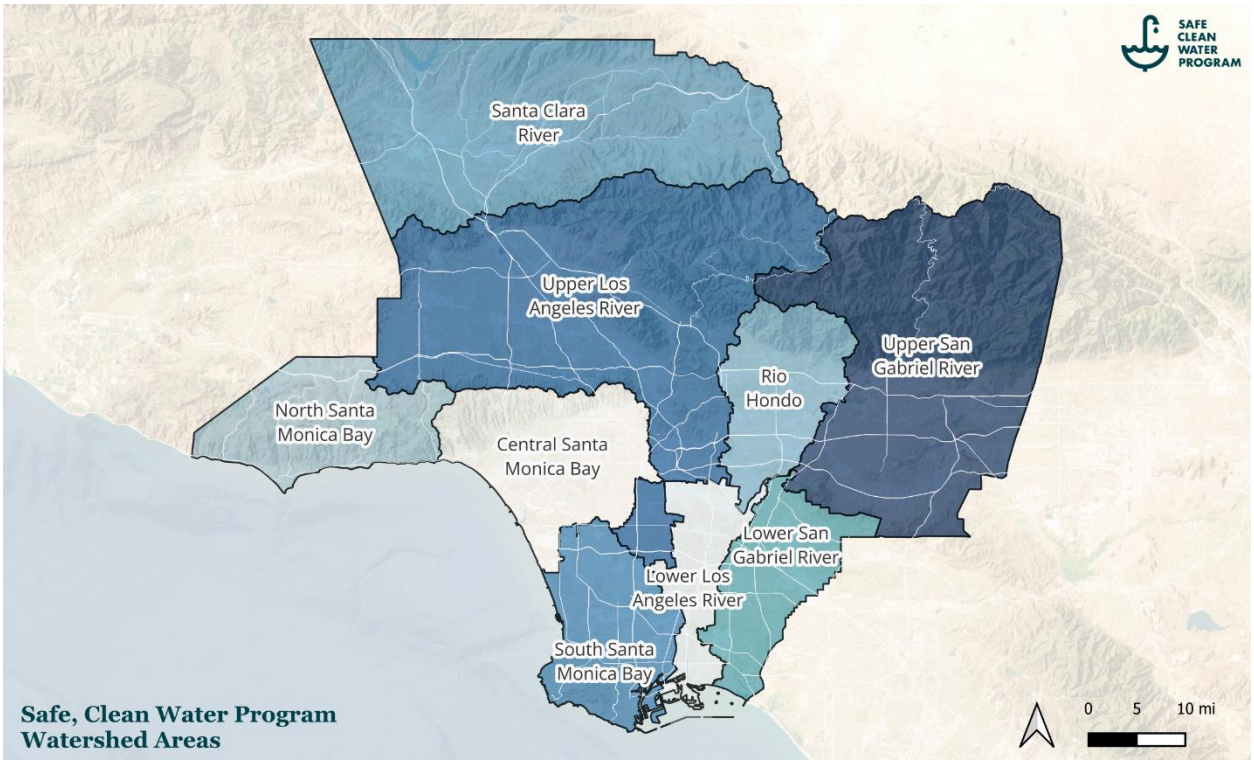


Figure 1-3. Nine SCW Program WAs

11 committees, listed below, oversee the governance of the SCW Program and help ensure that the SCW Program and its funded activities are fulfilling its objectives and goals.

- The **ROC** is responsible, on a Program-scale, for assessing whether Goals are being met. The ROC consists of subject matter experts with knowledge in Water Quality Benefits, Water Supply Benefits, Nature-Based Solutions (NBS), CIBs, public health, sustainability, and other relevant issue areas.
- The nine **WASCs** are occupied by municipal, agency, and community stakeholders. They review proposed Projects, Project Concepts, and Scientific Studies and develop SIPs for their respective WAs as part of the Regional Program. Each WASC is supported by at least one Watershed Coordinator, who assists in guiding Projects from concept to implementation and promotes engagement throughout the process.
- The **Scoring Committee** works in partnership with Public Works to review and finalize scores for Projects being considered for funding by each WASC for the Regional Program. The Scoring Committee is comprised of subject matter experts in Water Quality, Water Supply, NBS, and CIBs.

1.2 Why Watershed Planning?

The first five years of the SCW Program have been a tremendous success, with over $1.4 billion in funding allocations projected by 2030 for more than 200 multi-benefit Regional and Municipal Program Infrastructure Projects, 23 Scientific Studies Program Studies[4], 53 Technical Resources Program Project Concepts[4], 12 Watershed Coordinators, and a spectrum of valuable Programs for the 86 Municipalities across the nine SCW Program WAs.

Recognizing this momentum and the opportunity to increase community benefits through improved stormwater management, the Los Angeles County Board of Supervisors (BOS) adopted a motion in July of 2023 to accelerate SCW Program implementation. This motion led to the formation of the SCW Program Watershed Planning Section within Public Works—a dedicated team tasked with guiding regional and watershed-based planning. Subsequent motions further defined the vision for Watershed Planning, with Figure 1-4 highlighting examples of these BOS motions.

"A vision document that identifies areas within each watershed with the greatest potential opportunities for improvements would ensure continuity and connectivity between interventions. The vision would lessen the burden on both applicants and committees as they consider which suites of Projects could be most impactful." (2023-07-25)[1]

"These efforts are progressing toward a single publicly accessible planning portal that would provide direction for implementation. This comprehensive Planning Tool would likely assist a more diverse set of applicants to identify Projects that could achieve multiple benefits and best serve our communities." (2023-07-25)[1]

"These goals must be balanced with essential flexibility in the Program for governance committee discretion and changing conditions and community needs." (2023-07-25)[1]

"The watershed plans will help foster the design and implementation of the most impactful Projects and will also aid the District and governance committees in considering Project submissions and evaluating Program progress." (2023-11-27)[2]

"These plans will build upon other plans, in-progress efforts, and assessment of community needs to identify the most promising opportunities for achieving high-impact water quality, water supply, and community enhancing multi-benefit outcomes." (2023-11-27)[2]

"...watershed-specific needs and capabilities should be considered in planning, and...the Program needs to better quantify Program success and progress towards Goals." (2024-03-19)[3]

"Performance measures (or metrics) as well as related population indicators (targets) are already being incorporated to guide Watershed Planning, inform project development and solicitation, and to evaluate achievement of the [SCW Program] Goals." (2024-06-20)[4]

"The Watershed Planning process will involve extensive engagement with the WASCs, the ROC, Municipalities, community groups, and other interested parties." (2024-06-20)[4]

[1] BOS Motion of July 25, 2023, Agenda Item 23 Accelerating Implementation of the SCW Program
[2] BOS Motion of July 25, 2023, Agenda Item 23, 120-Day Report Back (2023-11-27)
[3] BOS Motion of March 19, 2024, Agenda Item 19 Progress and Adaptive Management of the SCW Program
[4] BOS Motion of March 19, 2024, Agenda Item 19, 90-day Report Back (2024-06-20)

Figure 1-4. Board of Supervisors Motions describing a vision for Watershed Planning

[4] Counts Scientific Studies and Project Concepts included in the FY20-21 to FY25-26 SIPs.

The Initial Watershed Plans aim to enhance implementation by providing guidance for future investments by Public Works, WASCs, and Municipalities toward the most impactful multi-benefit Projects and Programs. Developed through a collaborative and responsive phased engagement approach[5], this guidance, and its highlighted priorities, are driven by engagement input from governance committees (i.e., the WASCs and ROC) and informed by technical analyses. The Initial Watershed Plans directly reflect governance committee priorities and draw on their regional expertise to provide Public Works, the ROC, WASCs, Municipalities, and Project and Program proponents with SCW Program-specific resources to guide implementation and establish targets for tracking progress toward Goals.

Additionally, the Initial Watershed Plans will support broader planning initiatives beyond the SCW Program by providing a framework for decision-making that can align with and contribute to regional and local objectives. These include efforts such as the OurCounty Sustainability Plan, County Water Plan (CWP), Watershed Management Programs (WMPs), Vision 2045, and the City of Los Angeles' Green New Deal Sustainable City pLAn (L.A.'s Green New Deal). See Section 1.4.3 for more on how these and other key efforts are leveraged in this Initial Watershed Plan.

1.3 Watershed Planning Process & Structure

SCW Program Watershed Planning is an iterative process that incorporates elements of the Results-Based Accountability Turn the Curve Thinking framework (Mark Friedman, 2005) and the United States Environmental Protection Agency (USEPA)'s *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*. These foundational approaches guided the development of the Initial Watershed Plans, the online Planning Tool, and the framework for Adaptive Watershed Plans. To communicate progress toward achieving Goals and describe the shared vision of capturing and cleaning stormwater while also enhancing communities, Watershed Planning organizes concepts and results around each Goal. Goals are then grouped into nine Planning Themes, as illustrated in Figure 1-5.

The Watershed Planning process integrates interested party input, regional and local plans and requirements, key effort objectives and findings, technical analyses, and progress by SCW Program Projects to establish WA targets (Chapter 4) and strategies (Chapter 5). These elements are brought together in the nine Initial Watershed Plans

[5] The Initial Watershed Plan engagement process followed a "listen–confirm–advance" approach—listening to input from the WASC and ROC, confirming a shared understanding to ensure alignment, and using validated input to guide analyses and set priorities.

and Planning Tool to guide the implementation of impactful, multi-benefit Projects and Programs.

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

Figure 1-5. Planning Themes and Goals (LACFCD Code §18.02)

Figure 1-6 outlines Watershed Planning's adaptive, iterative process and each of its core elements. Throughout this process, outreach and engagement play a central role, informing and shaping each component.

Start Here

1 Define Indicators and Performance Measures (PMs)

Indicators encourage aspirational vision-setting and enable tracking of progress towards SCW Program Goals (Goals) through usage of PMs (or metrics) at varying scales.

2 Determine Constructed Baselines and Total Benefits

Total Benefits	Constructed Baselines	Forecasted Benefits

The Total Benefits and Constructed Baselines provided by Projects funded in the first five years of the SCW Program are fundamental to Watershed Planning and allow for forecasts based on the current trajectory of the SCW Program.

3 Evaluate Watershed Area (WA) Characteristics

Key Features, Progress, Potential, Capabilities, Financial Snapshot

Watershed Planning will be customized to each WA based on its unique characteristics, finances, and communities.

10+ Watershed Planning Adaptive Management

Initial Watershed Plan	Watershed Planning Tool Updates	Adaptive Watershed Plans

The Watershed Planning process will be living and adaptive to accommodate evolving priorities and data. The Planning Tool will be updated annually to reflect progress by and opportunities for new Projects and Programs. Adaptive Watershed Plans may be developed periodically to advance Planning and further support strategic decisions.

4 Set SCW Program & WA Targets

Targets for each Indicator are established based on unique WA characteristics, along with interim targets, to set a vision for the SCW Program and its WAs and establish initial "goal posts" for tracking progress toward achieving SCW Program Goals in the coming years.

9 Support SCW Program Funding Decisions

Stormwater Investment Plans (SIP)	District Plan	Municipal Annual Plans

WASCs and Municipalities are empowered to drive funding decisions using best available data alongside interested party and community input. WASCs may elect to use the Planning Tool as an add-on to the SIP Tool to support strategic investments.

5 Develop Strategies & Actions

Assess WA Needs by comparing targets to Total Benefits, which sets the stage for developing strategies that advance Goals. With input from governance committees and interested parties, strategies are developed that describe how to address WA Needs. Strategies comprise sets of specific actions that characterize the types of Projects and Programs required to implement the strategies.

8 Develop the Watershed Planning Tool

Planning Map	Planning Dashboard

The Planning Tool is a dynamic web tool that functions as a living, iterative element of the Initial Watershed Plans. The Planning Tool will be regularly updated as Initial Watershed Plan gaps are addressed and new investments are made. Built-in scenario building functionality will support Watershed Area Steering Committee (WASC) deliberations.

7 Publish the Initial Watershed Plans

Nine illustrative documents	SCW Program Executive Summary

The Initial Watershed Plans compile the previous elements and present benefits, baselines, targets, and strategies for each WA, along with identified data gaps to address through Adaptive Management. A SCW Program Executive Summary synthesizes these outputs for the SCW Program.

6 Identify Opportunities

Mapping Layers	References & Resources

Opportunities describe physical and conceptual areas with the most potential for implementing Projects and Programs that align with strategies and support progress toward meeting targets and achieving Goals.

Figure 1-6. SCW Program Watershed Planning Elements

Building on this process, the Initial Watershed Plans and the Planning Tool serve as living, iterative resources that can be used by a range of interested parties—Public Works, WASCs, the ROC, Municipalities, Project and Program proponents, and community members—to:

- **Support** the enhancement of SCW Program implementation (e.g., planning, funding, and progress tracking across the WAs and SCW Program).
- **Expand** and enhance the range of benefits provided by new and continuing Projects and Programs.
- **Communicate** progress and governance committee priorities clearly.

Specifically, the Initial Watershed Plans and the Planning Tool can be used by the interested parties mentioned above to collaboratively accelerate progress toward Goals as described below:

- **WASCs, the ROC, and BOS** can use these resources to communicate priorities, assess Project benefits, and guide future SIPs and funding decisions.
    - **Assess baselines, benefits, and targets:** Review WA baselines, benefits, metrics, targets, WA Needs, and key quantification methods.
    - **Communicate priorities:** Share priorities and strategies with Project Proponents, Municipalities, community members, and other interested parties.
    - **Identify synergies and study gaps:** Align funding decisions with local and regional planning efforts and flag needs for Scientific Studies.
    - **Plan next steps:** Consider near-term and long-term (2030+) recommendations for Watershed Planning.
    - **Review progress:** Evaluate individual and cumulative Project benefits to assess progress to date and inform planning.
    - **Consider funding scenarios:** Test Regional Program SIP Project and Program funding scenarios developed in the SIP Tool using the Planning Tool to evaluate progress and potential contributions by Project and Program applicants.
    - **Identify overlaps and gaps:** Spot Project benefit redundancy and opportunities to directly support Goals to inform future funding decisions.
    - **Incorporate community insight:** Use findings from the Community Strengths and Needs Assessment (CSNA) to understand community priorities and inform future decisions.
- **Municipalities and Project and Program proponents** can refine and align their Projects and Programs with governance committee and community

priorities, identify opportunities, and select design features that address local needs and support multiple Goals.

  - **Understand WA context:** Evaluate potential and challenges for achieving Goals.
  - **Refine Project Concepts and scopes of work:** Ensure Projects and Programs are designed with clear reference to SCW Program targets and strategies and are aligned with Goals. Refine Project Concepts to be responsive to evolving watershed and community needs. Well-defined scopes with distinct Project components can help with the identification of specific leveraged funding opportunities (e.g., grants) and support leveraging outside resources. Clear articulation of multi-benefit elements can make Projects more competitive for complementary funding programs.
  - **Utilize opportunities:** Leverage composite geographic information system (GIS)-based opportunities to identify the best areas where Projects can provide both Water Quality Benefits and co-benefits like Water Supply Benefits and CIBs.
  - **Align with community input**: Ensure Projects reflect community priorities and concerns by incorporating insights from the CSNA Survey and Dashboard into Project-specific engagement and design choices.

- **Community members and other interested parties** are empowered with knowledge, tools, and data to track progress, engage meaningfully, and advocate for impactful, equitable watershed investments.
  - **Learn about Watershed Planning and Projects:** Understand SCW Program Watershed Planning, local WA characteristics, and local planned and constructed Project benefits.
  - **Understand targets and strategies:** Explore WA-specific targets and priorities to inform future Projects and Programs.
  - **Advocate for local priorities and Projects:** Get involved in Watershed Planning engagement through the CSNA and identify locations for beautification and voice individual priorities and concerns.
  - **Identify local challenges:** Recognize water issues and how Projects and Programs are prioritized.
  - **Track progress:** Use the Planning Tool to monitor progress toward Goals and view the latest Project and Programs.

- **Watershed Coordinators** will support implementation of the Initial Watershed Plans by helping interested parties align SCW Program applications and reports with the Initial Watershed Plans.

- **Promote understanding of the Initial Watershed Plans:** Communicate the purpose, key outputs, and how to use the Initial Watershed Plans and Planning Tool to support Project Concept development and progress tracking.
- **Solicit and integrate CSNA feedback:** Conduct targeted CSNA survey outreach consistent with Strategic Outreach and Engagement Plans and translate community feedback into actionable insights to inform project development, WASC priorities, and future outreach.
- **Disseminate WASC priorities and Initial Watershed Plan opportunities:** Highlight WASC priorities and impactful opportunities outlined in the Initial Watershed Plans. Use CSNA findings to communicate community-stated priorities and concerns, guide additional engagement, and assist Project proponents and Municipalities to focus their efforts where they would be most impactful.
- **Support Project ideation, alignment, and partnerships:** Identify and/or advance priority Projects aligned with WA targets, needs, strategies, and opportunities by engaging potential Project proponents, Municipalities, and other partners to foster collaboration, encourage multi benefit Projects, and support leveraged funding pursuits.

Together, the Initial Watershed Plans and Planning Tool launch an Adaptive Watershed Planning cycle that assesses progress and adjusts strategies to address lessons learned and evolving priorities.

1.4 Working Together

The Initial Watershed Plans synthesize input from interested party engagement, technical studies, and local and regional planning efforts to develop coordinated targets and strategies for the SCW Program. These collective efforts establish a clear understanding of WA characteristics, which directly inform the development of SCW Program targets (Chapter 4), strategies, and opportunities (Chapter 5).

SCW Program targets, strategies, and opportunities are designed to be both practical and aligned with broader planning initiatives (Table 1-1), supporting the SCW Program's Goals while contributing meaningfully to other local and regional priorities. This integrated, collaborative approach strengthens collective problem-solving and positions the SCW Program to effectively help address complex water and climate challenges facing the Los Angeles region.

1.4.1 Engagement with Interested Parties

Watershed Planning activities facilitated both regional and WA-specific engagement across a range of interested parties. Watershed Planning was guided by a robust 2024–2025 engagement schedule designed to support genuine dialogue and timely input from SCW Program governance committees (ROC, WASCs, and the Scoring Committee) as well as other interested parties. The engagement strategy prioritized focused, structured facilitation, rather than open-ended discussion to ensure input had a meaningful and actionable impact on technical analyses and planning decisions.

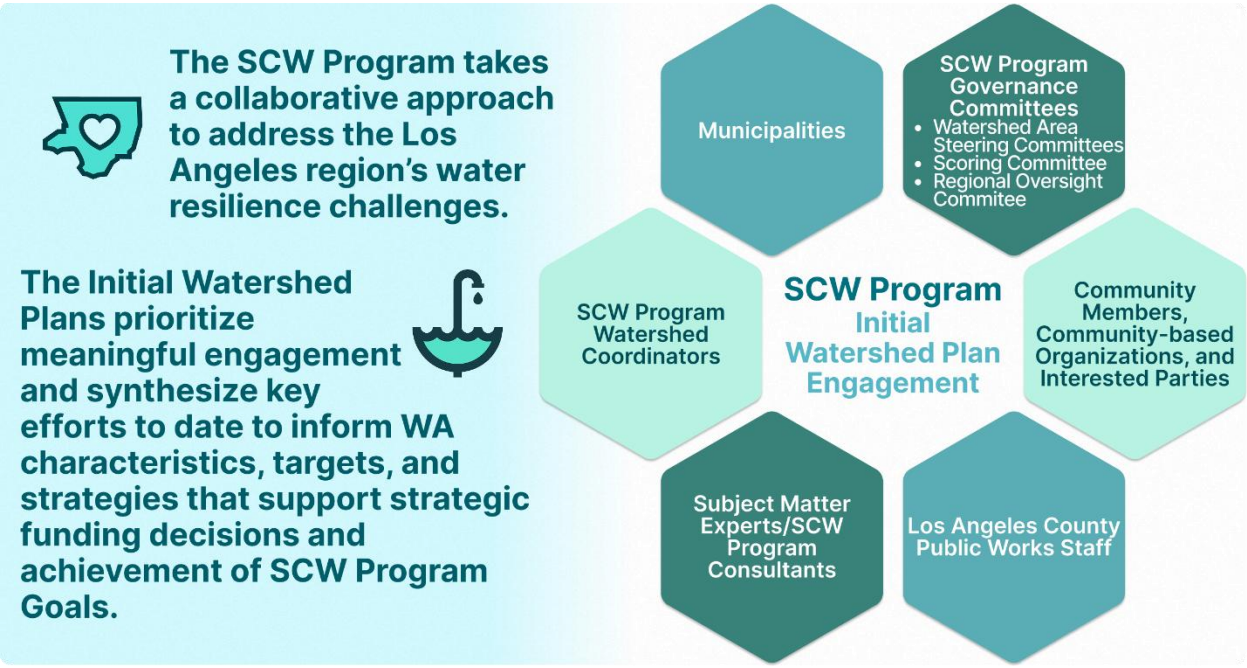


Figure 1-7. Initial Watershed Plan engagement and collaborators

Watershed Planning's collaborative, cross-sector approach engaged a diverse range of interested parties (Figure 1-7) across key areas of expertise. The Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit Group contributed insights on regulatory compliance and water quality; OurWater LA provided guidance on equity-focused CIB analyses, NBS, and green jobs; the schools working group emphasized school greening; and Rebuild Southern California Partnership offered expertise in workforce development and Project delivery. These are examples of how engagement led to broad expertise contributing to strategy development across all SCW Program Goals.

A phased engagement approach was implemented, with input from each phase informing the development of the Initial Watershed Plans. This input directly supported

the identification of WA-specific and SCW Program-wide priorities and strategies, as presented in Chapter 5. A full summary of engagement activities conducted with governance committees, interested parties, and the public—including public meetings—is provided in Appendix C.

1.4.2 Community Strengths and Needs Assessment (CSNA)

In November 2024, the SCW Program Watershed Planning Section launched the CSNA, which consists of a Survey and an online Dashboard that gathers community perspectives to strengthen the achievement of SCW Program Goals. The CSNA allows community members to share their concerns, priorities, and what they value about their communities. Using CSNA Survey results as a reference, Projects and Programs can be more responsive to those community-stated priorities. Those who live, work, study, or serve in a community often best understand the challenges and strengths of their community. Responsiveness to ideas shared by a community can support greater relationships related to a specific Project and bolster long-term partnerships between a community and the agencies and representatives that serve them.

The CSNA Survey (Figure 1-8) consists of 11 questions about what residents appreciate and enjoy about their community as well as other issues they are concerned about or would like to see addressed, including stormwater issues. Additionally, the CSNA Dashboard, a GIS online platform, visually displays survey response trends, which can be filtered by WA, Municipality, and community. The public CSNA Dashboard may also be used to support other planning initiatives beyond the SCW Program. Data from the CSNA is also featured in the Watershed Planning Tool to support Watershed Planning and Project implementation. Additional information on the CSNA is in Appendix D and details how the CSNA can be leveraged to support Watershed Planning, and Project and Program implementation are outlined in Chapter 5.

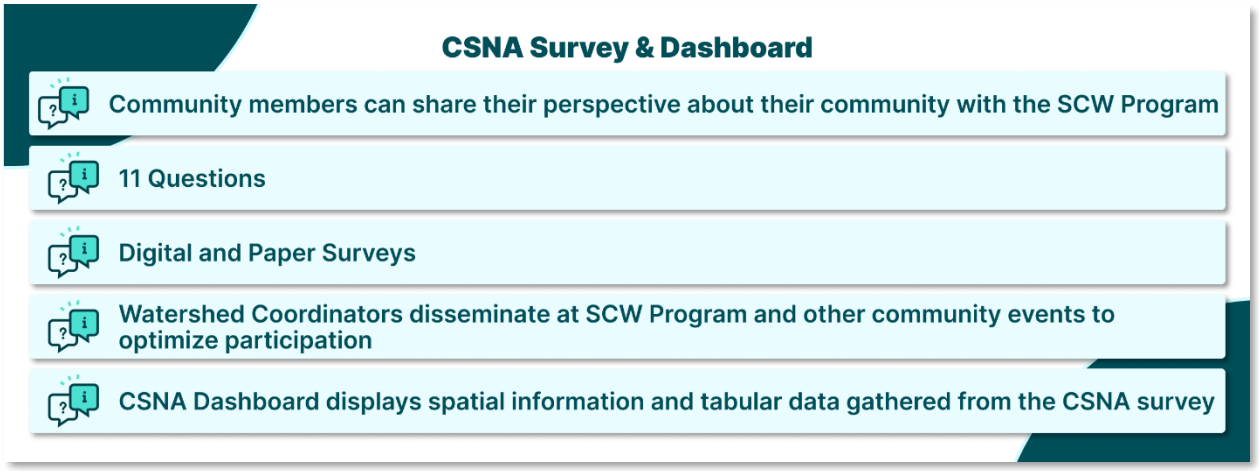


Figure 1-8. CSNA Survey and Dashboard Summary

1.4.3 Leveraging Key Efforts to Date

A wealth of regional and local studies, as well as planning and engagement efforts, were considered and incorporated where appropriate to support the development of this Initial Watershed Plan.

The Initial Watershed Plans are also informed by several guiding documents developed by the SCW Program. These documents offer foundational knowledge for understanding the SCW Program, its elements, definitions, requirements, and processes. Examples of key SCW Program guidance and guideline documents include:

- Equity in Stormwater Investments White Paper (2022)
- Regional Program Funding Process Handbook (2022)
- SCW Program Handbook for Municipalities (2023)
- 2024 Metrics and Monitoring Study (MMS) (2024; see also subsection 1.4.3.1 below for more information)
- SCW Program Watershed Planning Framework (2024)
- Reporting Module Guidance – New Regional Program Performance Measures (2025)
- SCW Program Feasibility Study Guidelines (2025)
- Supplemental Guidance to Support Feasibility Study Guidelines (2025)
- SCW Program 2025 Interim Guidance (2025)
- Project Modification Guidelines (2025)

Supplementary SCW Program resources and documents are available on the SCW Program website.

The following subsections describe key efforts and SCW Program studies, including the MMS and Regional Program Scientific Studies, leveraged to inform development of this Initial Watershed Plan.

1.4.3.1 Metrics and Monitoring Study

The SCW Program MMS was developed to establish consistent methods and definitions for measuring the performance and outcomes of SCW Program Projects. As part of its process, MMS convened a Stakeholder Advisory Committee and conducted public workshops and analyses about Community Investment, Water Quality, and Water Supply Benefits. Input from equity-focused engagements was synthesized into a white paper, Equity in Stormwater Investments: Measuring Community Engagement and Disadvantaged Community Benefits for Equitable Impact in the Safe, Clean Water Program. The white paper advised the SCW Program to develop an interactive survey tool to gather community input on needs and preferences that resulted in the CSNA, which will be discussed later in this Initial Watershed Plan. Also, the white paper recommended the creation of metrics to evaluate Projects and Programs based on community priorities and vulnerabilities, to guide decision-making and strengthen how Projects and Programs seek to meet community priorities and address concerns. Figure 1-9 summarizes the key SCW Program Adaptive Management[6] recommendations identified by MMS and which were included in the SCW Program's iterative Watershed Planning process, when applicable.

[6] "Adaptive Management" is an iterative, incremental approach to making decisions and adjustments in response to new learnings.

Figure 1-9. SCW Program Metrics and Monitoring Study Recommendations

The Initial Watershed Plans build on these key MMS outcomes by using the datasets, analytical insights, and metrics to assess baselines and benefits (Chapter 3) and quantify progress toward Goals (Chapter 4). Early Watershed Planning efforts evaluated and summarized MMS outcomes in the context of each WA to ensure key insights were incorporated into the Initial Watershed Plans and to begin filling identified data and definitional gaps.

1.4.3.2 Local and Regional Planning Efforts

In addition to the MMS, the Initial Watershed Plans also capitalize on results from other key planning and implementation efforts to date, identified through regional expertise and engagement input, and includes local and regional plans, databases of funded Projects and Programs, regional studies, and more. These efforts informed the Initial Watershed Plan technical analyses so that recommendations here align with existing local and countywide efforts and contribute toward parallel countywide goals and targets (e.g., OurCounty Sustainability Plan, County Water Plan, Vision 2045) where applicable.

Table 1-1 below highlights specific efforts referenced that are applicable to the ULAR WA. The full list of key efforts to date, which were reviewed to help inform the Initial Watershed Plans is in Appendix E.

Table 1-1. Highlights of key efforts to date in the ULAR WA

Effort Category	Effort Name	Source/Agency	Related Planning Element(s)
Water Supply	Greater Los Angeles County Regional Integrated Regional Water Management Plan (IRWMP)	GLAC IRWM Region	Targets
Water Supply	Los Angeles Department of Water & Power Stormwater Capture Master Plan	City of Los Angeles Department of Water & Power (LADWP)	Strategies, Opportunities
Water Quality	Coordinated Integrated Monitoring Program (CIMP) for the Upper Los Angeles River Watershed Management Group (WMG)	Upper Los Angeles River WMG	WA Characteristics
Water Quality	Enhanced Watershed Management Program (WMP) for the Upper Los Angeles River Watershed	Upper Los Angeles River WMG	WA Characteristics
Water Quality	LA River Bacteria TMDL Schedule (p.72 in link)	State Water Resources Control Board (SWRCB)	Opportunities
Waste-water	Draft One Water LA 2040 Plan	City of Los Angeles Sanitation (LASAN)	Targets
Regional Plan	2021 LA County Climate Vulnerability Assessment (CVA)	Los Angeles County Chief Sustainability Office	Targets, Strategies, Opportunities
Regional Plan	LA River Master Plan	Los Angeles County Public Works	Strategies, Opportunities
Regional Plan	Los Angeles County Parks Needs Assessment (PNA) and Parks Needs Assessment Plus (PNA+)	Los Angeles County Department of Parks and Recreation	Targets, Strategies, Opportunities
Regional Plan	Los Angeles County Water Plan (CWP)	Los Angeles County Public Works	Targets, Strategies
Regional Plan	2019 OurCounty Sustainability Plan	Los Angeles County Chief Sustainability Office	Targets, Strategies, Opportunities
Regional Plan	Strategic Outreach and Engagement Plan	Upper Los Angeles River Watershed Coordinators	WA Characteristics
Regional Plan	The Los Angeles County Community Forest Management Plan (CFMP)	Los Angeles County Chief Sustainability Office	Targets, Strategies, Opportunities

Effort Category	Effort Name	Source/Agency	Related Planning Element(s)
Regional Plan	Using Watershed Science to Build Consensus and Maximize Benefits of L.A. County's Safe Clean Water Program	Accelerate Resilience Los Angeles	Strategies
Regional Plan	Vision 2045: Thriving in a Hotter and Drier LA County through Local Stormwater Capture and Pollutant Reduction	Heal the Bay	Strategies
Local Plan	LAUSD 100-Day Plan	Los Angeles Unified School District (LAUSD)	Strategies, Opportunities
Local Plan	LAUSD Green School Yards for All	LAUSD	Strategies, Opportunities
Local Plan	School Greening Index	LAUSD	Strategies, Opportunities
Local Plan	Sepulveda Basin Vision Plan	City of Los Angeles Bureau of Engineering	Strategies, Opportunities

1.4.3.3 SCW Program Scientific Studies

Outputs developed by the Scientific Studies Program, implemented as part of the Regional Program, are a key resource for Watershed Planning. Scientific Study results support Watershed Planning by informing strategies and opportunities (Chapter 5) and filling data or knowledge gaps needed to inform Adaptive Management (Section 7.1).

The Scientific Studies Program is designed to fund research, data collection, and technical tools that improve the effectiveness, efficiency, and equity of SCW Program investments. Its primary purpose is to advance understanding of stormwater management challenges and solutions—such as pollutant behavior, climate impacts, and community benefits—and to inform planning, design, and evaluation of Projects and Programs.

To date[7], the SCW Program has funded 23 unique Scientific Studies, including 13 that have been funded in the ULAR WA[8]. Outputs from completed Scientific Studies, such

[7] As of the FY25-26 SIP. Note that the Infrastructure Program did not accept applications for the FY25-26 Call for Projects.
[8] Scientific Studies may receive funding from multiple WAs, meaning a given Study can be included in more than one WA's SIP.

as the Evaluation of Infiltration Testing Methods for Design of Stormwater Drywell Systems, are incorporated into the strategies and opportunities in Chapter 5 to help the ULAR WASC, Municipalities, and Project proponents frame effective multi-benefit Projects. This completed Scientific Study evaluated the accuracy, reliability, and cost-effectiveness of different infiltration testing methods used to inform drywell system design within the ULAR WA and may serve as a valuable reference for planning future stormwater capture approaches.

WASCs, Municipalities, and Project proponents are encouraged to leverage completed Scientific Studies to maximize the overall impact of stormwater management efforts within the ULAR WA. Appendix E details all Scientific Studies funded through the SCW Program. For Scientific Study locations and additional information, see the SCW Program Portal Map and Dashboard, and visit the Reporting Repository for related reporting completed to date.

Future Watershed Planning efforts, including Adaptive Watershed Plans, will consider findings from SCW Program Scientific Studies and other relevant scientific research as they emerge to inform ongoing, evidence-based planning.

Chapter 2. Watershed Area Characteristics

WA characteristics provide the physical, social, and environmental context needed to develop targeted, effective strategies. Understanding factors such as land use, hydrology, infrastructure, and community demographics allows the Initial Watershed Plans to support establishment of targets and identification of multi-benefit solutions that are tailored to local conditions. The following sections summarize information from key efforts to date (Table 1-1), such as the MMS, ULAR WA Strategic Outreach and Engagement Plans, LA River Master Plan, and WMPs, highlighting key WA characteristics that set the stage for establishing WA-based targets, strategies, and opportunities.

2.1 Key Watershed Area Features

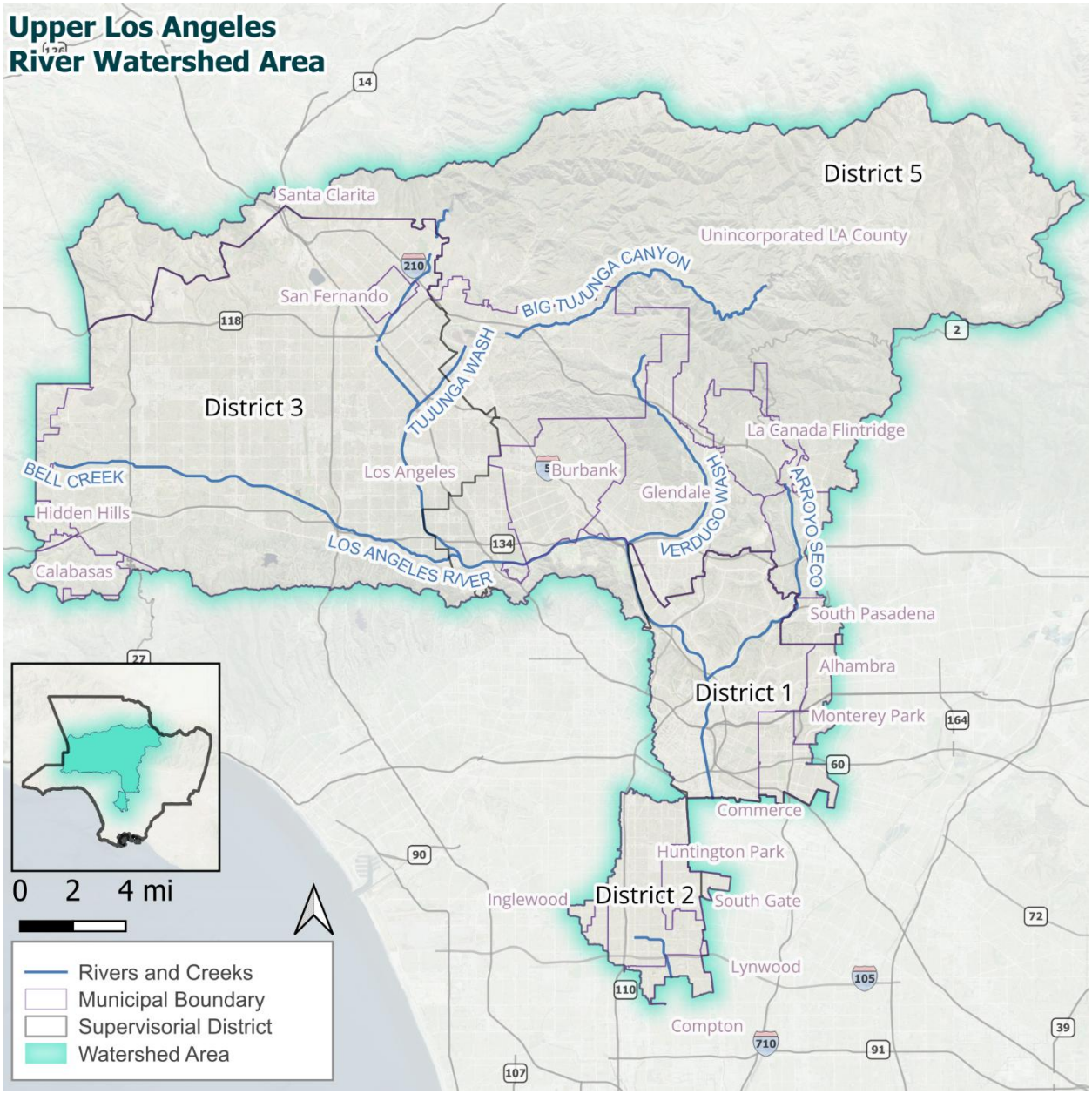
The ULAR WA is the largest of the nine SCW Program WAs, spanning approximately 392,000 acres[9], stretching from the Santa Susana and Simi Hills, through San Fernando Valley to downtown Los Angeles, ending where the Los Angeles River and Compton Creek exit from the City of Los Angeles (Figure 2-1). The ULAR WA includes 12 Municipalities and parts of Unincorporated Los Angeles County, with much of the area falling within Unincorporated Los Angeles County (44% of the WA) and the city of Los Angeles (43% of the WA). Impervious surfaces make up 29%[10] of the ULAR WA's landscape, but they are not distributed evenly. The northern ULAR WA is primarily undisturbed open space, supporting a large variety of native and introduced flora and fauna. The southern ULAR WA is densely developed, resulting in the majority of impervious land cover concentrated within these compact urban clusters. As a result of the concentrated development pattern, pollutant loading and runoff volumes are exacerbated in the south despite the presence of substantial open space in the north.

[9] Calculated using WA boundaries available through the SCW Program Spatial Data Library; excludes ocean areas.
[10] Land use data were provided by the Los Angeles County Office of the Assessor and is representative of conditions on the ground as of January 2019.

The ULAR WA generates approximately 176,000 acre-feet per year (ac-ft/yr) of stormwater runoff in an average year, prompting a critical need for strategic stormwater management.

In addition to the diverse land uses within the ULAR WA, the region is characterized by the second largest proportion of historically underserved and disadvantaged communities (DACs) by population (as defined in California Water Code §79505.5), in comparison to the other eight SCW Program WAs. Based on the ratio of the DAC population to the total population in the ULAR WA, the required DAC benefit ratio[11] for the ULAR WA is 45%. This means that 45% of all SCW Program Project and Program benefits (e.g., Water Quality Benefits, Water Supply Benefits, CIBs) provided in the ULAR WA are to support DACs.

[11] Per Goal J, the required DAC benefit ratio is determined as 110% of the proportion of the DAC population relative to the total population within the WA.



The following Municipalities are located within the ULAR WA, with the Municipality covering the largest portion of the WA listed first.

Unincorporated County, Los Angeles, Glendale, Burbank, Pasadena, La Canada Flintridge, Calabasas, South Pasadena, Alhambra, San Fernando, Hidden Hills, Monterey Park, Santa Clarita

Figure 2-1. ULAR WA and its Municipalities

Table 2-1 below summarizes key WA statistics to highlight how the ULAR WA compares to other WAs in the SCW Program. Figure 2-2 presents example characteristics of the ULAR WA that were used to inform target settings. The following sections highlight these key WA features, which help establish WA-based targets and identify WA Needs, targets, and strategies.

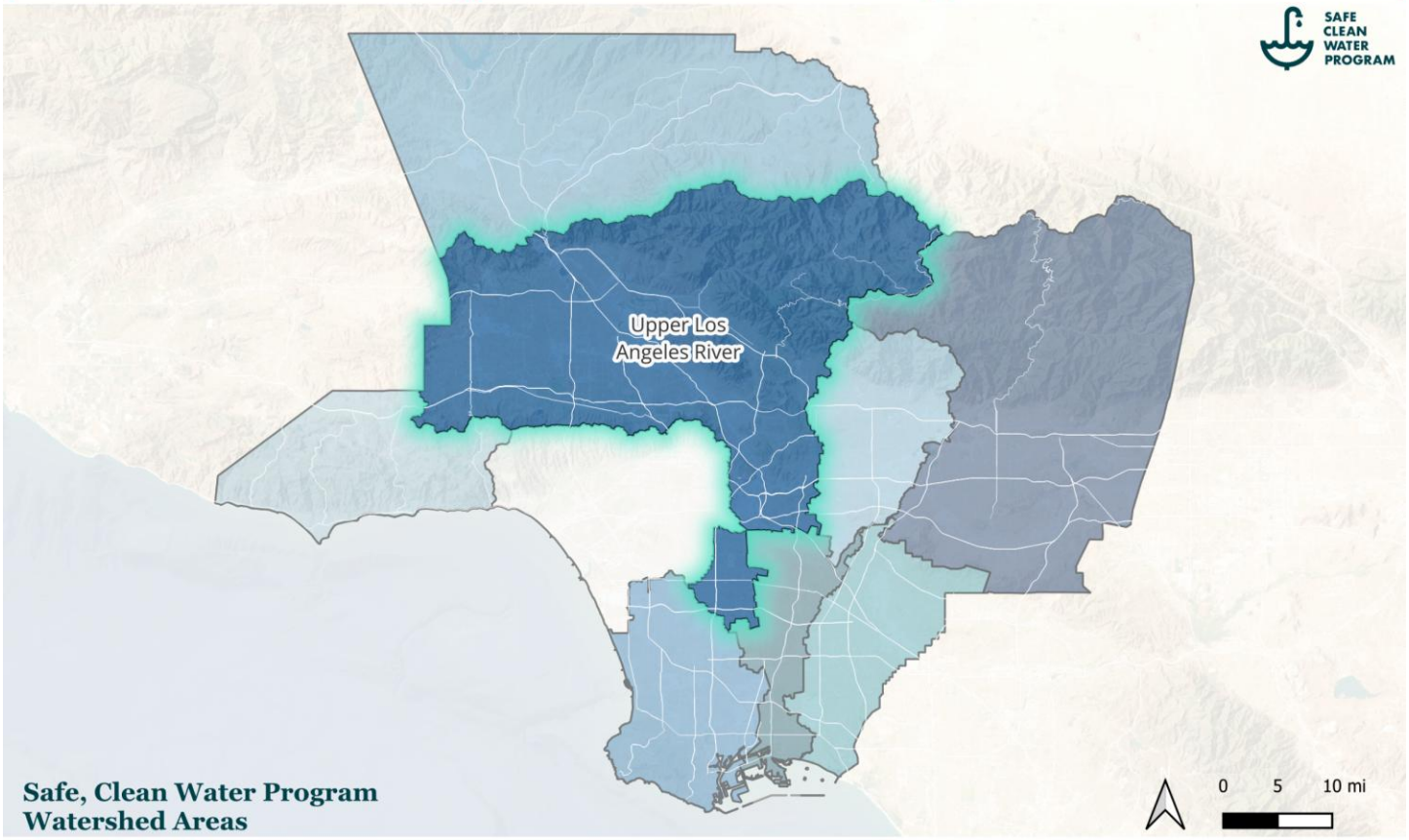
Table 2-1. Summary of key WA features

Watershed Area	Total Area (acres)[1]	Impervious Area (acres) (% of total area)[2]	Total Avg. Annual Runoff (ac-ft)	Priority Pollutants[3]	Est. Total Population[4]	Required DAC Benefit Ratio[5]
Central Santa Monica Bay	118,000	52,400 (44%)	70,000	Zinc, Bacteria	1.8M	45%
Lower Los Angeles River	54,500	35,800 (66%)	37,300	Zinc, Bacteria	869.7k	67%
Lower San Gabriel River	80,800	46,600 (58%)	60,000	Zinc, Bacteria	889.2k	22%
North Santa Monica Bay	99,800	6,600 (7%)	26,000	Total Phosphorus, Bacteria	71.2k	N/A
Rio Hondo	84,600	32,400 (38%)	52,100	Zinc, Total Phosphorus, Bacteria	743.7k	33%
Santa Clara River	306,900	20,100 (7%)	94,600	Bacteria	278.3k	12%
South Santa Monica Bay	92,700	51,000 (55%)	50,000	Zinc, Total Phosphorus, Bacteria	995.3k	30%
Upper Los Angeles River	**392,000**	**113,100 (29%)**	**176,000**	**Zinc, Total Phosphorus, Bacteria**	**3.0M**	**45%**
Upper San Gabriel River	313,900	57,700 (18%)	180,000	Zinc, Total Phosphorus, Bacteria	1.0M	22%

[1] Calculated using WA boundaries available through the SCW Program Spatial Data Library; excludes ocean areas.
[2] Land use data were provided by the Los Angeles County Office of the Assessor and is representative of conditions on the ground as of January 2019.
[3] Priority pollutants selected based on the limiting pollutants identified in each WA's WMPs.
[4] Based on 2020 American Community Survey data.
[5] Per Goal J, the required DAC benefit ratio is determined as 110% of the proportion of the DAC population relative to the total population within the WA.

Total Area[1]	Impervious Area[2]	Average Annual Stormwater Runoff
392,000 acres	113,100 acres (29% of total area)	176,000 ac-ft/yr

Local & Regional Park and Open Space		Required Disadvantaged Community (DAC) Benefit Ratio[3]
157,200 acres (40% of total area)	"The Upper Los Angeles River is bursting with biodiversity and native habitat" - Upper Los Angeles River Watershed Area Steering Committee	45%



Percent Tree Canopy Cover in Urban Areas	Total Population	Managed Unconfined Aquifer[4]
24%	3.0M residents	San Fernando Basin Central Basin Raymond Basin

Watershed Management Program Implementation Cost	Priority Pollutants	Regional and Municipal Program Tax Collected to Date (FY20-21 to FY24-25)
$4.7B	Zinc Total Phosphorus Bacteria	$342.2M

[1] Calculated using WA boundaries available through the SCW Program Spatial Data Library; excludes ocean areas.
[2] Land use data were provided by the Los Angeles County Office of the Assessor and is representative of conditions on the ground as of January 2019.
[3] Per Goal J, the required DAC benefit ratio is determined as 110% of the proportion of the DAC population relative to the total population within the WA.
[4] Three largest managed unconfined aquifers shown.

Figure 2-2. Summary of key ULAR WA characteristics used for target setting

2.1.1 Physical and Natural Features

The physical and natural features of the ULAR WA define the hydrology and existing conditions of the WA that influence approaches to stormwater management and strategies to improve waterbody conditions. The following are notable conditions and features of the ULAR WA:

The ULAR WA is shaped by a dense urban landscape intersected by major tributaries of the Los Angeles River, where a mix of concrete channels, soft-bottom reaches, and adjacent green spaces reflect the intersection of natural systems and built infrastructure.

- The ULAR WA is bound by the Santa Susana Mountains to the north and the San Gabriel Mountains to the east.
- The ULAR WA is characterized by a combination of mountain ranges, historic wetlands that are now plains and urban development. The northern portion of ULAR WA is dominated by publicly accessible forests and open space, and many parks.
- The western and lower WA are impervious-dominated landscapes with dense urbanization.
- Major water features in the ULAR WA include the Los Angeles River, Arroyo Seco, Verdugo Wash, Tujunga Wash, and Pacoima Wash.
    - The Los Angeles River runs through the San Fernando Valley, home to the mile-51 marker, or the officially delineated headwaters of the 51-mile-long river.
    - The Los Angeles River crosses through the Santa Monica Mountains and Verdugo Hills to meet a very short softbottom portion of the River, also known as Frogtown, in Downtown Los Angeles.
    - The Los Angeles River flows through commercial, industrial, and residential land uses, and empties into the Pacific Ocean in Long Beach.
    - The Los Angeles River was channelized during the mid-20th century to protect lives and property from floods. Additional flood control, including dams and spreading grounds, have been implemented during the same period[12].
    - Most of the Los Angeles River is lined with concrete along its sides and bottom. Some areas of the river have a “soft bottom” where soil and plants form the bottom of the channel. Other areas have concrete walls forming a rectangular channel, often called a box channel, or a

[12] See the Los Angeles River Master Plan for more information.

trapezoidal channel formed by levees. In leveed areas, the top of the levee is often used as an access road or recreational trail[12].
    - The Los Angeles River is fed by four primary sources: snowmelt from nearby mountains, runoff during rain, urban runoff from residential lawns and other human activities, and treated wastewater.
    - The Arroyo Seco is a ~25-mile-long major tributary to the Los Angeles River that functions as a seasonal river and canyon system that is vital for recharge of the underlying Raymond Basin. Its headwaters originate in the San Gabriel Mountains, with natural stream conditions persisting until downstream of the Devil's Gate Dam, where it has been channelized for flood management.
- The ULAR WA overlies the San Fernando, Central, Raymond, Verdugo, Sylmar, Main San Gabriel, and Eagle Rock Groundwater Basins which are all characterized as unconfined aquifers.
- The northeast portion of the ULAR WA has been historically vulnerable to wildfires, with multiple fires recorded in the past century[13], following a similar burn pattern in the recent January 2025 fires (Figure 2-4).
- Elevation changes and hydrologic conditions in the ULAR WA generate high runoff volumes over short time periods, making it difficult to capture and treat peak flows effectively. These steep elevation gradients also worsen post-wildfire water quality, as high runoff velocities mobilize large volumes of sediment.

[13] Refer to the California Department of Forestry and Fire Protection (CAL FIRE) Historical Fire Perimeters map.

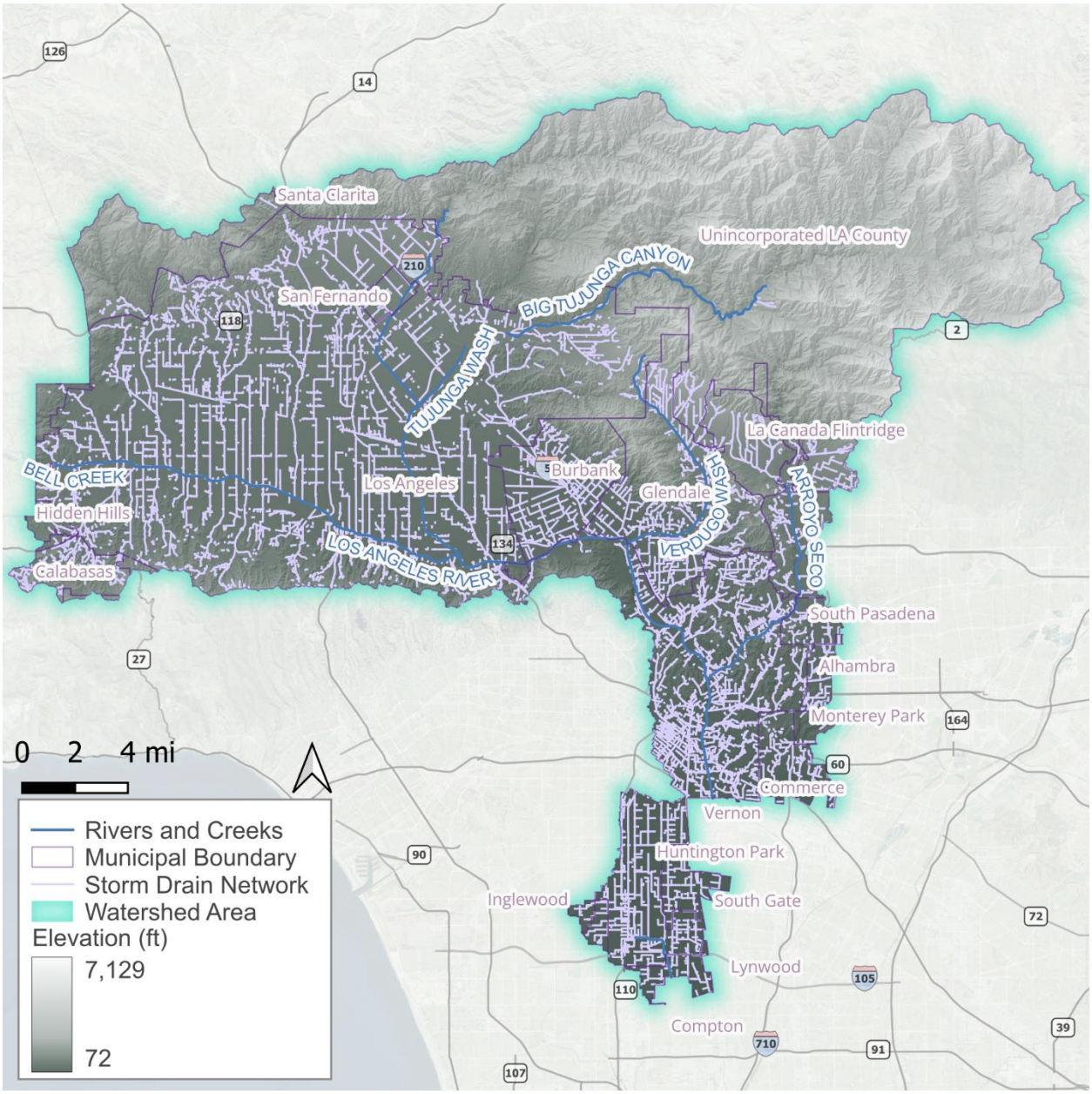


Figure 2-3. ULAR WA elevation profile

In January 2025, ten wildfires, including the Palisades, Eaton, Hurst, and Archer Fires, devastated parts of Los Angeles County, burned over 3,500 acres of land in the ULAR WA (Figure 2-4). Over recent decades, the size, intensity, and duration of wildfires in the western United States have increased, posing a growing threat to both natural habitats and residential communities. These trends are expected to worsen in the future due to climate change[14]. In addition to destroying wildland and residential areas,

[14] See United States Geological Survey How Wildfires Threaten U.S. Water Supplies.

wildfires negatively impact water quality and public health by increasing runoff of sediment, heavy metals, and other pollutants, as well as elevating levels of air pollution[15].

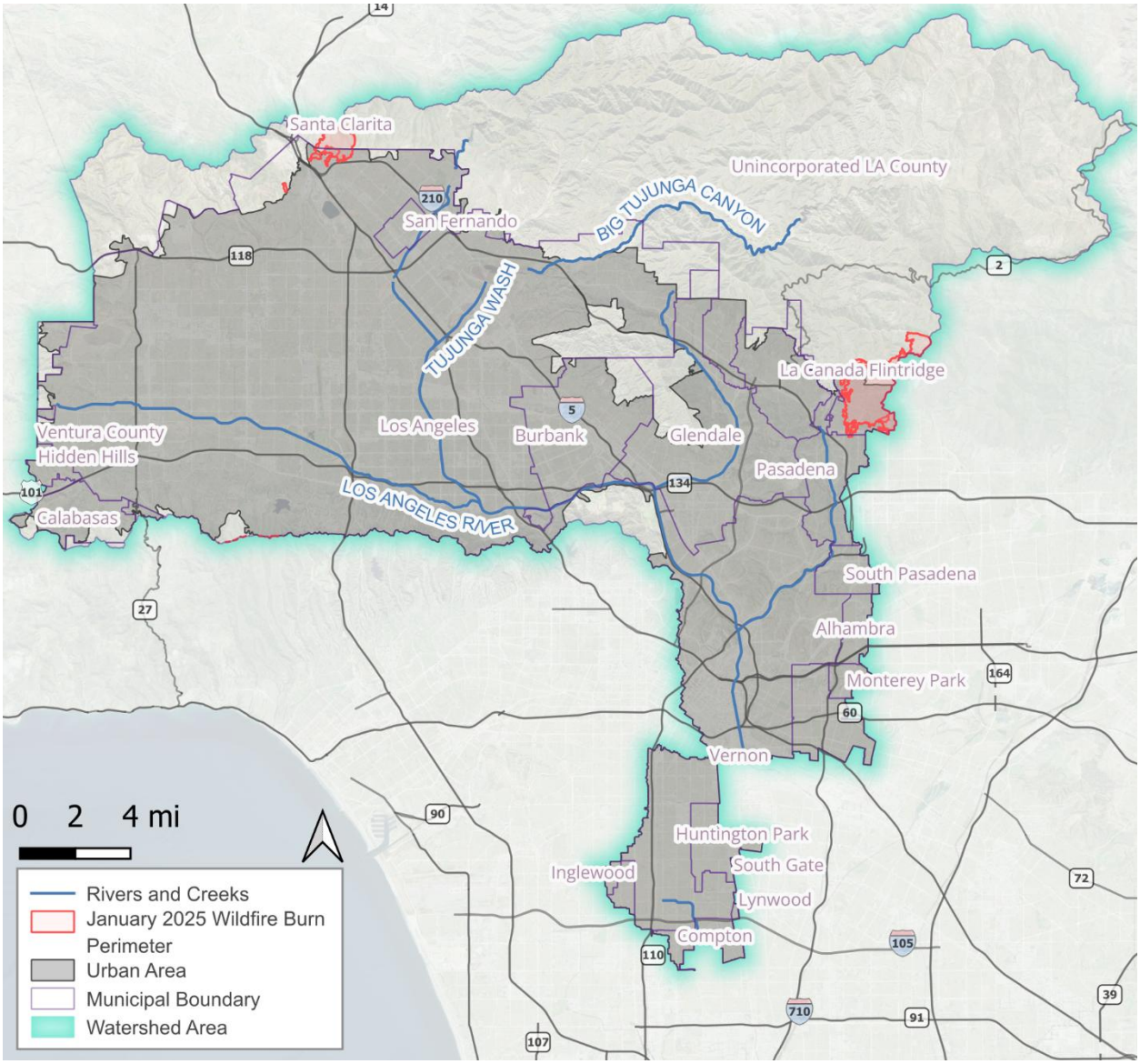


Figure 2-4. January 2025 wildfire burn perimeter in the ULAR WA

[15] See California Air Resources Board 2022 Scoping Plan for Achieving Carbon Neutrality.

2.1.2 Land Use and Population Characteristics

In addition to the physical aspects detailed above, development patterns, industries, and the people that make up the watershed often influence not only the conditions experienced in a watershed, but also the needs of that watershed that can be addressed through programs like the SCW Program. The following summarizes key characteristics for the ULAR WA, with a focus on those that most strongly define its needs, potential, and challenges in supporting the achievement of SCW Program Goals:

- The WA is predominantly urban area with high-density residential, industrial, and commercial land uses within the lower WA.
- The upper portion of the WA in Unincorporated Los Angeles County contains substantial open space, much of which supports recreational uses.
- The urban clusters within the ULAR WA contain a dense and complex transportation network that plays a major role in shaping land use and stormwater runoff dynamics. Key components include freeways (such Interstates 5, 10, and 210), an extensive system of arterial roads and boulevards, rail infrastructure, and well-established transit hubs and corridors in areas like Downtown Los Angeles and Glendale.
- The extensive impervious surfaces (29% of overall land use) from residential and transportation (predominately highways and roads) land uses in western and southern ULAR WA contribute to rapid runoff generation.
- There is a significant need for regional green infrastructure[16] in areas with larger land availability and site-specific low impact development (LID)[17] Projects in urbanized areas to enhance public health and community well-being.
- There are several areas of historically underserved communities (Figure 2-5) within the ULAR WA with limited access to high-quality open space, parks, and recreation facilities[18], exacerbating community health impacts and urban heat island effects.

[16] "Green infrastructure" includes methods for naturally managing rain and flood waters to reduce and treat stormwater runoff while also improving the local environment by mimicking natural processes, as defined in Appendix IV of the OurCounty Los Angeles Countywide Sustainability Plan.
[17] "Low Impact Development (LID)" is a stormwater management approach that aims to mimic a site's natural hydrology by utilizing design techniques that infiltrate, filter, store and evaporate stormwater runoff at or near its source.
[18] See the Parks Needs Assessment Map Viewer Park Need from 2019 PNA Analysis to view areas with the highest need for park space. This analysis considers a range of factors, including park availability, accessibility, and condition, to ensure that park need is accurately assessed.

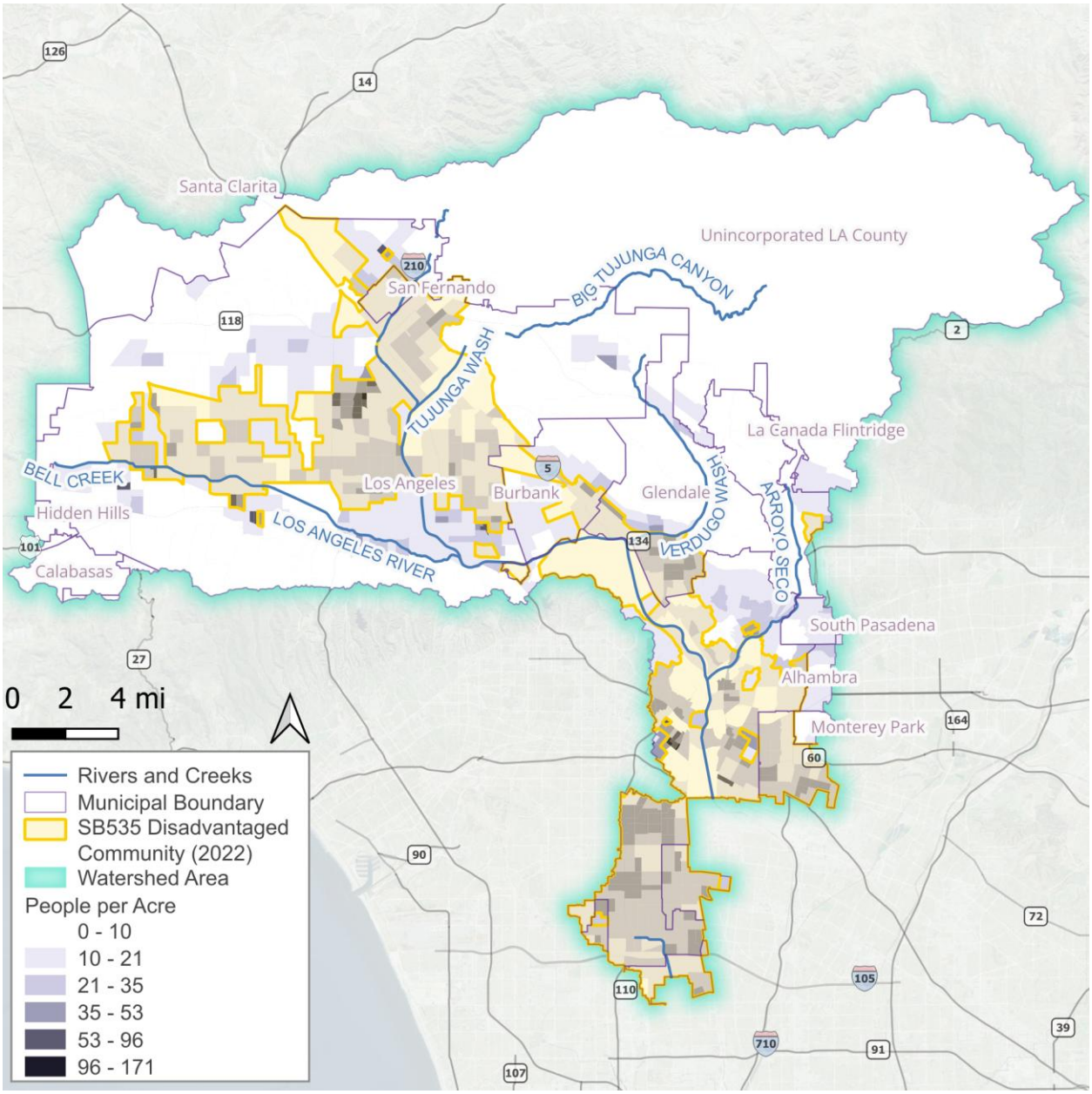


Figure 2-5. Population density and DACs in the ULAR WA

2.1.3 Waterbody Conditions

Water quality regulations aim to improve the conditions of water bodies so they can support their full range of beneficial uses. These conditions are often shaped by the cumulative influence of the watershed's physical, natural, and land use characteristics detailed in the sections above and may lead interested parties within the ULAR WA to pursue certain strategies over others to address the WA's impairments more effectively. The following are general waterbody conditions for the ULAR WA, which have been summarized from key efforts to date, such as those shown in Table 1-1, that may influence related strategies:

- Impaired waterbodies (Los Angeles River and tributaries) with regulatory Total Maximum Daily Loads (TMDLs) for metals, bacteria, nutrients, and trash.
- The source of waterbody pollutants is primarily urban runoff, including contributions from roads, automotive wear (brakes, tires), industrial sources, and trash.
- Experiences high annual pollutant loads in urban runoff, especially from metals such as zinc (Figure 2-6), copper, and lead.
- Pollutant loadings which can be exacerbated by the "flashy"[19] river system caused by the ULAR WA's dramatic topography gradients.
- The Los Angeles River offers minimal natural infiltration due to concrete channelization causing pollutants to be quickly transported downstream.
- Existing water quality Projects (green streets, LID) partially address impairments, but significant opportunities for improvement remain.
- The wildfires of January 2025 created post-fire conditions with elevated water quality risks. Burned areas contribute high sediment loads, ash, nutrients, and fire-related contaminants (e.g., heavy metals, polycyclic aromatic hydrocarbons (PAHs)) to downstream flows. These pollutants can impair receiving waters, reduce infiltration efficiency, and overload pretreatment systems.

[19] Where streamflow responds rapidly to rainfall, producing quick, high-magnitude rises and falls in flow due to steep terrain, limited storage, or extensive impervious surfaces.

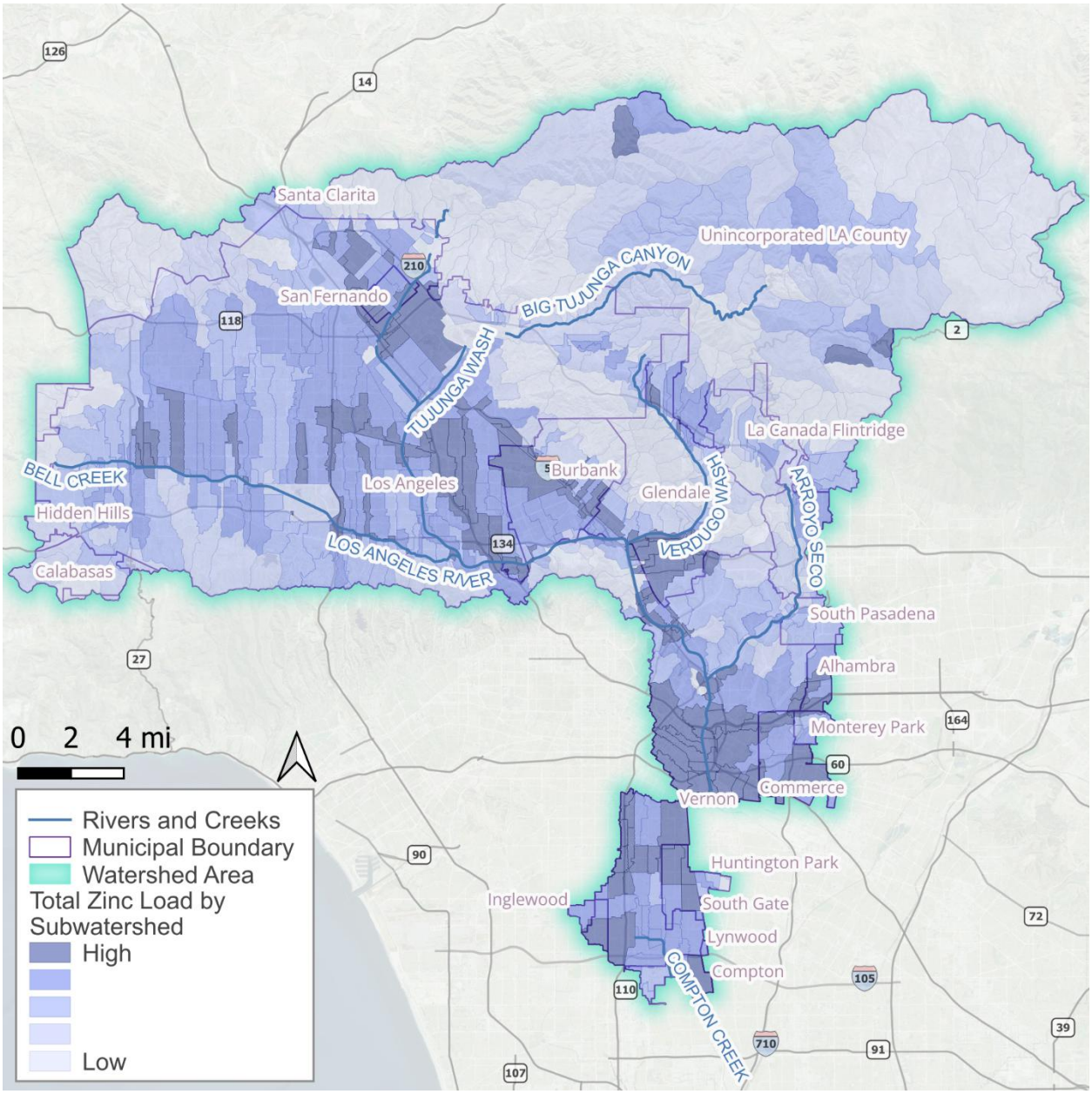


Figure 2-6. Total zinc load in stormwater runoff across the ULAR WA

2.1.4 Existing Stormwater Capture Facilities & Non-SCW Program Projects

In developing a full picture of WA characteristics, it is also important to understand the other major existing or planned infrastructure in the watershed. Many of these non-SCW Program projects are complementary to the Goals of the SCW Program and may help meet the needs of the ULAR WA. These may include Projects that have already

been completed and are operational or those that are planned for construction under other regional programs and efforts. Major efforts and infrastructure for the ULAR WA are summarized below in Table 2-2.

Table 2-2. Summary of existing major stormwater capture facilities and non-SCW Program Projects

Program	Project Count	Est. Project Stormwater Capture (ac-ft/yr)
MS4 Watershed Control Measures Completed & Planned[1]	8	800
Integrated Regional Water Management Plan (IRWMP)[2]	17	13,050
Major Capture Facilities[3]	5	83,820
Total	38	97,670

[1] Watershed Control Measures as defined in item IX.B.5.b of the Los Angeles Region Regional Phase I MS4 National Pollutant Discharge Elimination System Permit. These Projects were summarized using data collected via the Watershed Reporting Adaptive Management & Planning System (WRAMPS). Estimated Project stormwater capture assumes capture is three times the Projects' daily storage capacity, as reported by WRAMPS users. Does not include SCW Program or IRWMP approved Projects.
[2] Includes non-SCW Program, IRWMP approved Projects that have annual stormwater recharge and/or annual yield of stormwater capture and direct use greater than 0 ac-ft/yr as reported via the Greater Los Angeles County IRWMP OptiTool.
[3] Includes existing dams, reservoirs, and spreading grounds with footprints in the ULAR WA that were identified in the MMS as facilities to consider when assessing water supply contribution estimates and potential. In the ULAR WA this includes 4 spreading grounds and 1 dam/reservoirs. Estimated Project stormwater capture is based on annual average runoff simulated by Watershed Management Modeling System version 2.0 (WMMS2) and Net Countable Supply ratios developed by the MMS. See Appendix H for more information.

2.2 Summary of Potential and Challenges for SCW Program Projects and Programs in the Watershed Area

The potential and challenges for each SCW Program WA were identified through a comprehensive assessment of WA-specific characteristics. These characteristics include existing water quality conditions, natural and physical features (e.g., topography, soil types, underlying groundwater basins, and hydrologic connectivity) as well as land use patterns and population demographics. In addition, the assessment considers predicted climate change effects, recognizing that the Los Angeles region is projected to experience more frequent and severe wildfires, coupled with less frequent but more intense storm events[20]. These shifts are expected to increase the volume and velocity of runoff, elevate pollutant loads, and exacerbate flood risks. Together,

[20] See the Los Angeles Basin Study for more information.

these factors shape both the opportunities for implementing effective multi-benefit stormwater Projects and the constraints that must be addressed to ensure their success.

To inform this assessment, data and insights were drawn from a range of technical and planning sources, including applicable WMPs, Coordinated Integrated Monitoring Programs (CIMPs), and SCW Program Strategic Outreach and Engagement Plans. Additional context was provided by relevant local and regional plans, such as General Plans, Groundwater Sustainability Plans (GSPs), and climate adaptation strategies. See Table 1-1 for direct links to these referenced documents. By integrating these diverse sources of information, the SCW Program is better positioned to support equitable, data-driven decision-making and to tailor strategies that respond to each WA's unique environmental, infrastructure, and community conditions.

The ULAR WA presents a unique combination of potential and challenges in advancing the Goals of the SCW Program. For example, the ULAR WA is characterized by its "flashy" river system flows driven by the dramatic topographic gradient from its headwaters in the Santa Susana and Simi Hills to the San Fernando valley and the concentration of impervious surfaces in the developed WA. Hydrologic conditions in the ULAR WA lead to high runoff volumes over short time durations, making it difficult to capture and treat peak flows effectively.

To address these challenges and to leverage the ULAR WA's unique composition, the ULAR WASC recommends prioritizing multi-benefit Projects that integrate three main categories of scalable, flexible best management practices (BMPs) including LID, green streets, and regional Projects to achieve stormwater management, environmental, and public health outcomes. Prioritizing distributed green infrastructure, in combination with enhanced operations & maintenance (O&M) (Section 5.2.1.8), is also recommended to maximize localized benefits. In addition, the ULAR WA has a large population of DACs in its densely developed areas, ranking second highest of the nine SCW Program for the proportion of historically underserved and environmental justice communities (Required DAC benefit ratio of 45% per Goal J).

This section highlights additional unique characteristics of the ULAR WA, which provide essential context for setting targets and identifying effective, locally relevant strategies. The summaries in the sections below are organized by Planning Themes and illustrate how the ULAR WA's specific conditions influence its potential and challenges in supporting the following Program Goals:

- Improve Water Quality *(Goal A)*,
- Increase Drought Preparedness *(Goal B)*, and
- Improve Public Health *(Goal C)*, Deliver Multi-Benefits with NBS and Diverse Projects *(Goals E, F, and G)*, and Equitably Distribute Benefits *(Goals J and K).*

2.2.1 Improve Water Quality

Water quality improvement is a key Goal of the SCW Program and is a required benefit for all SCW Program Regional and Municipal Projects and Programs. The ULAR WA has high annual pollutant loads, especially metals (e.g., zinc, copper, lead), which is a result of the flashy river system flows and dense urbanization. For Watershed Planning purposes, priority pollutants in the ULAR WA include zinc, total phosphorus, and bacteria. However, Municipalities should implement Projects that aim to improve overall water quality by addressing a broad range of pollutants that are prevalent within their WA, including trash, bacteria, and contaminants commonly found in urban runoff. In addition, Projects should, where feasible, be designed to support compliance with their TMDL and other relevant regulatory water standards to ensure comprehensive watershed improvements. The ROC Water Quality Working Group has provided recommendations on overall Program contributions to County-wide water quality compliance targets. The ULAR WA's potential and challenges for improving water quality and contributing to this Goal are summarized below and begin to point to the formulation of Initial Watershed Plan targets (Chapter 4) and strategies for meeting those targets and achieving SCW Program Goals (Chapter 5).

Potential Opportunities:

- Soil types within the ULAR are highly permeable, which facilitate natural filtration processes and contribute to improved water quality.
- Over half of the WA's stormwater runoff remains untreated by SCW Program wet-weather capture Projects which presents a considerable opportunity to continue to improve water quality.
- Existing plans and efforts—such as the completed ULAR WA Scientific Study (Evaluation of Infiltration Testing Methods for Design of Stormwater Drywell Systems) and EWMPs—have identified numerous additional Project opportunities at both the regional and site-specific scale. These plans establish objectives focused on regional collaboration, stormwater runoff capture, pollutant reduction, and compliance with MS4 permit-driven TMDL requirements. Supported by CIMPs, which track water quality trends and evaluate the effectiveness of BMPs, these planning efforts provide a strong

foundation for data-driven decision-making. Building on this prior analysis and monitoring, the SCW Program is well-positioned to fund Projects that are strategically designed to improve water quality at the watershed scale.

- Adding wet-weather capture storage to existing dry-weather capture Projects could yield enhanced treatment capabilities.
- Heavily urbanized areas and existing urban open spaces are well suited for green streets Projects that incorporate LID BMPs (curbside bioswales, permeable pavement, etc.) that can promote natural filtration.
- Runoff flows and associated pollutants following wildfires may be mitigated by advancing climate-ready communities through implementation of best O&M practices and NBS, which reduce chance of wildfires, utilize native vegetation, and promote ecosystem resiliency. While particularly beneficial along the urban-wildland interface where wildfire risks are heightened, such practices can also provide meaningful water quality benefits throughout the ULAR WA.

Challenges and Constraints:

- Lack of substantial open space for traditional stormwater infrastructure (detention basins, large GI Projects) in the built environments of the ULAR.
- Complexity, infrastructure conflicts, and high costs are often encountered when retrofitting the highly urbanized and topographically diverse landscapes characteristic of the lower ULAR WA. For example, the Evaluation of Infiltration Testing Methods for Design of Stormwater Drywell Systems Scientific Study underscores the technical challenges of designing drywell systems in constrained urban soils and limited space conditions.
- Flashy river system flows intensify pollutant loadings.

Figure 2-7. Cross-section of the upper reach of the Los Angeles River

2.2.2 Increase Drought Preparedness

Another Goal of the SCW Program is to increase drought preparedness by capturing stormwater and/or urban runoff to augment local water supply and reduce reliance on potable water supplies to support long-term water sustainability and reliance. The SCW Program 2025 Interim Guidance defines new water supply sources as follows.

What Counts as New Locally Available Water Supply Under the SCW Program?

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 aquifers with geotechnical analysis and/or community acknowledgement to confirm infiltration and use, and
- 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 Appendix H) 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.

The ULAR WA's capability to achieve this Goal can be summarized by highlighting opportunities and potential challenges and constraints identified in the ULAR WA to date. These are summarized below and begin to point to the formulation of Initial Watershed Plan strategies that will be further contextualized with quantitative Indicators and targets in subsequent chapters.

Potential Opportunities:

- The ULAR WA overlies several groundwater basins with overlying soils of high hydraulic conductivity, providing opportunities to increase water supply through natural infiltration. The unconfined managed aquifers in the ULAR WA include:
    - Sylmar Basin
    - San Fernando Basin
    - Raymond Basin
    - Eagle Rock Basin
    - Main San Gabriel Basin
    - Central Basin
    - Verdugo Basin
- Opportunity to enhance groundwater recharge through the eight existing spreading grounds with improved and strategically planned diversions and supporting stormwater management infrastructure.
- ULAR WA's extensive impervious landscape and highly developed areas produce a large volume of runoff for potential capture and reuse.
- Large areas of the WA that are still untreated provide opportunities for additional capture and reuse Projects in the ULAR WA.
- The Los Angeles region has historically relied on imported water for most of its water supply, with smaller contributions from local recycled water and groundwater resources[21]. Stormwater capture and reuse present opportunities to increase local supply and reduce reliance on potable water for non-potable uses such as irrigation.

Challenges and Constraints:

- Urban valleys and floodplains in the lower ULAR WA are comprised of clay loams and silty clays with lower permeability that limit natural infiltration

[21] An analysis by the 2019 OurCounty Sustainability Plan found that in 2017 approximately 59% of water used in Los Angeles County was sourced from outside the region. Only 9% came from local recycled water sources and 32% was sourced from local groundwater resources (p. 57).

potential. Additionally, urban areas include compacted and engineered soils that reduce infiltration rates.

- Higher pollutant loading rates in stormwater in the ULAR WA may also require pre-treatment before conveyance to recoverable points, resulting in higher capital and O&M costs.
- The implementation and engineering challenges associated with large-scale regional capture Projects may limit their adoption although these Projects often enhance the cost-effectiveness for capture and reuse Projects.
- The Los Angeles region has been historically vulnerable to long dry periods superseded by intense storms (U.S. Drought Monitor). Water Year 2023 exemplified this pattern, as the severe drought from 2020 to 2022 was abruptly followed by an extraordinarily wet winter and spring driven by a series of atmospheric rivers. Designing infrastructure to manage both extremes of this hydrologic whiplash is complex.
- Several historical and existing environmental concerns and areas of soil contamination are present within the WA. Siting Projects in these areas, especially those involving stormwater infiltration, may risk mobilizing existing contaminants and impacting groundwater quality. Projects aiming to increase local water supply through stormwater capture and infiltration will need to assess existing contamination to determine feasibility. The following resources may support a preliminary review:
    - GeoTracker (State Water Resources Control Board)
    - Envirostor (CA Department of Toxic Substances Control)
    - GAMA Wells (State Water Resources Control Board)

Figure 2-8. Sepulveda Dam on the Los Angeles River in San Fernando Valley

2.2.3 Improve Public Health, Deliver Multi-Benefits with NBS and Diverse Projects, and Equitably Distribute Benefits

The WA characteristics summary used datasets newly proposed by the MMS to provide an initial snapshot of WA characteristics related to these Planning Themes/Goals. Every new Project is viewed as a chance to improve public health in underserved communities and DACs, whether through adding walking paths, sports fields, community gardens, or simply shade and aesthetic improvements. Employing a diverse set of Project types, including NBS, provides multiple benefits to the surrounding community, including water quality, water supply, and improvements to public health. The bullets below summarize some of the key opportunities and challenges/constraints of implementing multi-benefit Projects that have been identified in the ULAR WA to date. This will be further contextualized with quantitative Indicators and Targets in subsequent chapters.

Potential Opportunities:

- The upper ULAR WA has large areas of existing open and recreational space that can be enhanced and/or restored while simultaneously improving water quality through stormwater and urban runoff management. Projects in the ULAR WA have the potential to deliver significant multi-benefit outcomes, in addition to improved water quality, to a broad cross-section of the population, including historically underserved and disadvantaged communities.

- Providing benefits in this WA, with a required DAC benefit ratio of 45%, can advance environmental justice by ensuring that communities disproportionately burdened by pollution and lacking in park and infrastructure resources receive targeted, high-impact improvements.
- Environmental restoration, increased vegetation and canopy, and enhanced green spaces, particularly at schools and in the most intensively developed areas of the WA, would improve the delivery of multi-benefits and improve place-based measures of SCW Program benefits.
- Regional greening efforts at schools, such as the Los Angeles Unified School District's (LAUSD) Green Schools for All Plan, represent opportunities for partnerships that promote Projects that include Water Quality Benefits and greening elements along with other multi-benefits.
- Expanding green spaces in the ULAR Watershed Area can enhance public health by increasing soil moisture and creating localized buffers that help mitigate the intensity, size, and impacts of wildfires. Implementing NBS, such as the use of native vegetation, further strengthen ecosystem resilience by supporting habitats that are more drought-tolerant and capable of recovering from wildfire events. By reducing the severity of wildfires, these buffers can limit the release of harmful air pollutants such as wildfire smoke, which poses respiratory health risks. In addition, greener landscapes can reduce post-fire runoff pollutants such as sediment, heavy metals, and nutrients, thereby improving water quality and supporting healthier communities.

Challenges and Constraints:

- Limited existing green space and available land within the built-out communities of the lower ULAR WA make the development of new recreational areas particularly challenging. For traditional park development, property acquisition is required, which can be cost-prohibitive.
- The upper ULAR WA supports a variety of native plants, fish, insects, birds, and mammals. The WAs biodiversity may complicate the environmental permitting process for some Project types.
- Large, high density developed areas in the ULAR WA will require creativity and nuance to harmonize potential Projects and Programs in those areas.
- Ensuring equitable distribution of resources and benefits requires careful, data-driven planning and robust engagement, adding complexity and sensitivity to Project outcomes.

Figure 2-9. Pedestrian and bike trail along the Los Angeles River

2.3 SCW Program Financial Snapshot

The following provides brief financial snapshots of both the Regional and Municipal Programs within the ULAR WA. These summaries highlight SCW Program funding, allocations, and eligible expenditures[22] to date, offering financial context for past and ongoing investments. This information also provides insight for interim target and strategy development (Chapter 5).

2.3.1 Regional Program Financial Snapshot and Outlook

Table 2-3 presents a summary of budgets and expenditures in the ULAR WA by the Regional Program based on the last five Fiscal Years (FYs). The ULAR WA receives approximately $38.3M annually from Regional Program funds. The latest ULAR WA

[22] SCW Program eligible expenditure types include:

- Infrastructure development tasks,
- Scientific and technical studies, and Stormwater or Urban Runoff modeling and monitoring,
- Projects or studies to pilot or investigate new technologies or methodologies to increase or improve Stormwater or Urban Runoff capture or reduce Stormwater or Urban Runoff pollution
- The development of Feasibility Studies,
- The modification, upgrade, retrofit, or expansion of an existing Project to incorporate new elements to increase Stormwater or Urban Runoff capture and reduce Stormwater or Urban Runoff pollution, and
- Stormwater or Urban Runoff Programs such as, but not limited to, school education and curriculum, public education, watershed coordination efforts, and local workforce job training.

See Appendix A or the SCW Program Implementation Ordinance (LACFCD Code §16) for the complete list and definitions of eligible expenditures.

SIP (FY25-26) shows that 69%[23] of the expected Regional Program funding from FY25-26 through FY29-30 is already allocated[24] to previously funded Projects and Programs in the ULAR WA. As more Projects progress to construction or completion, additional Regional Program funds may be earmarked for these existing Projects to ensure their completion and/or ongoing O&M.

While five-year funding allocations are reassessed and established annually through the SIPs, it is not uncommon for Projects to experience unexpected cost increases, schedule shifts, or other implementation challenges. Project Modification Requests (PMRs)[25] serve as an important SCW Program mechanism that allows Project proponents to submit revised funding requests in response to changing conditions, such as updated cost estimates, changes in scope, or delays.

In recent years, higher-than-average inflation and rising construction costs have prompted several Project proponents to submit PMRs to request funding adjustments and ensure Project completion. These adjustments often result in increases from the Project's original SIP allocations, drawing from a WA's uncommitted funds in a new SIP. While this can reduce available funding for new Projects, PMRs play a critical role in supporting the Adaptive Management of SCW Program investments—ensuring that Projects already in the pipeline remain viable and deliver their anticipated benefits.

Additionally, as Projects are completed and as a greater proportion of Regional Program funding is dedicated to the O&M of those Projects, the future available funding to support new Projects and Programs is anticipated to decrease. This highlights the importance of utilizing leveraged funding from outside the Regional Program to responsibly manage available resources. Maximizing leveraged funding supports the initiation of new Projects and Programs while also funding later phases of existing efforts, helping support the achievement of SCW Program Goals efficiently and effectively. Further discussion of Regional Program financial outlooks and programming forecasts is below.

Leveraging other funding sources is also one of the 14 SCW Program Goals (Goal D). The SCW Program aims to maximize leveraged funding from state, federal, private, and philanthropic sources to amplify the impact of SCW Program investments.

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[23] See the SCW Program SIP Tool for more information.
[24] References to "earmarked" or "allocated" Regional Program funds reflect funding projected for the four future years shown in the 5-year SIP. Regional Program budgets for a given FY are determined annually by each WASC and approved through the SIPs. Projected funding shown in the SIPs is not guaranteed and is subject to change in subsequent SIPs.
[25] Refer to the Project Modification Guidelines for additional background and detailed information on the PMR process.

Leveraged funding can help offset capital and operational costs, enabling the development of more ambitious, cost-effective, and equitable multi-benefit Projects and Programs. Related strategies for leveraging other funding sources are available in Section 5.2.1.5.

Table 2-3. Regional Program financial snapshot for the ULAR WA

Program	Regional Program Financial Snapshot for the ULAR WA[1]							
	SCW Program Funding					Expenditures (FY20-21 to FY24-25)		
	Regional Program Funds Collected and Anticipated (FY20-21 to FY24-25)	Total Budgeted and Projected (FY20-21 to FY29-30)[2]	Total Budgeted to Date (FY20-21 to FY24-25)	Total Leveraged Funds	Total Number of Projects/ Studies Funded	SCW Program Expenditures	Leveraged Funding Expenditures	Total Expenditures
Infrastructure Program	$191.7 M	$298.5.6M	$167.5M	$201.5M	34	$35.9M[3]	$114.4M[3]	$150.3M
Scientific Study Program		$11.8M	$8.1M	$819.8K	13	$5.8M[3]	$40.0K[3]	$5.8M
Technical Resources Program		$4.3M	$3.1M	N/A	16	$3.1M[4]	N/A[4]	$3.1M
Watershed Coordinators		$6.0M	$3.0M	N/A	3	$3.0M[4]	$0[4]	$3.0M
Total		$320.6M	$181.7M	$202.3M	63[5]	$47.8M	$114.4M	$162.2M

[1] Counts Infrastructure Program Projects, Scientific Studies, and Project Concepts funded in FY20-21 through FY25-26 SIPs. The Project/Study count reflects unique Projects and Scientific Studies and does not count removed or withdrawn Projects. Note that the Infrastructure Program did not accept applications for the FY25-26 Call for Projects.

[2] Reflects Regional Program funding budgeted for FY20-21 to FY25-26 and funding projected for FY26-27 to FY29-30 based on the FY25-26 SIP. Note that funding projected is not guaranteed and is subject to change in subsequent SIPs.

[3] Based on completed Regional Program reports as of July 2025. Includes expenditures through Q2 of FY24-25; Q3 and Q4 data are not yet available.

[4] Reporting data not available for Technical Resources Program (TRP) Project Concepts and Watershed Coordinators. This table assumes that TRP and Watershed Coordinator expenditures are equivalent to their budgeted SCW Program funding.

[5] Total does not count Watershed Coordinators.

While many Project Concepts[26] have been evaluated and funded to date in this WA, the time for a Project to mature from a conceptual idea to constructed and operational infrastructure can span multiple years. To date, 16 of 17 Project Concept applications submitted in the ULAR WA have been funded and included in their respective SIPs. Of those, two have advanced to apply and be selected for funding through the Infrastructure Program. Table 2-4 summarizes the pipeline of Projects currently receiving funding that are in development phases, ranging from planning to construction, in the ULAR WA.

Table 2-4. Backlog of Regional Program Projects in the ULAR WA as of July 2025

Concepts in Technical Resource Program[1]	Infrastructure Program Projects Current Phase[2]				
	Projects in Planning	Projects in Design	Projects in Bid/Award	Projects in Construction	Projects Constructed
14	5	21	0	1	7

[1] Based on Project Concepts included in SIPs FY20-21 through FY25-26. Note that in the ULAR WA, two Project Concepts have since progressed and been approved for funding through the Infrastructure Program.
[2] Current phase is the based on completed Regional Program FY24-25 Mid-Year Reports as of July 2025. For Projects that have not yet begun reporting (e.g., FY24-25 Projects), the Project's earliest funded phase was assumed to represent the current phase to support this discussion.

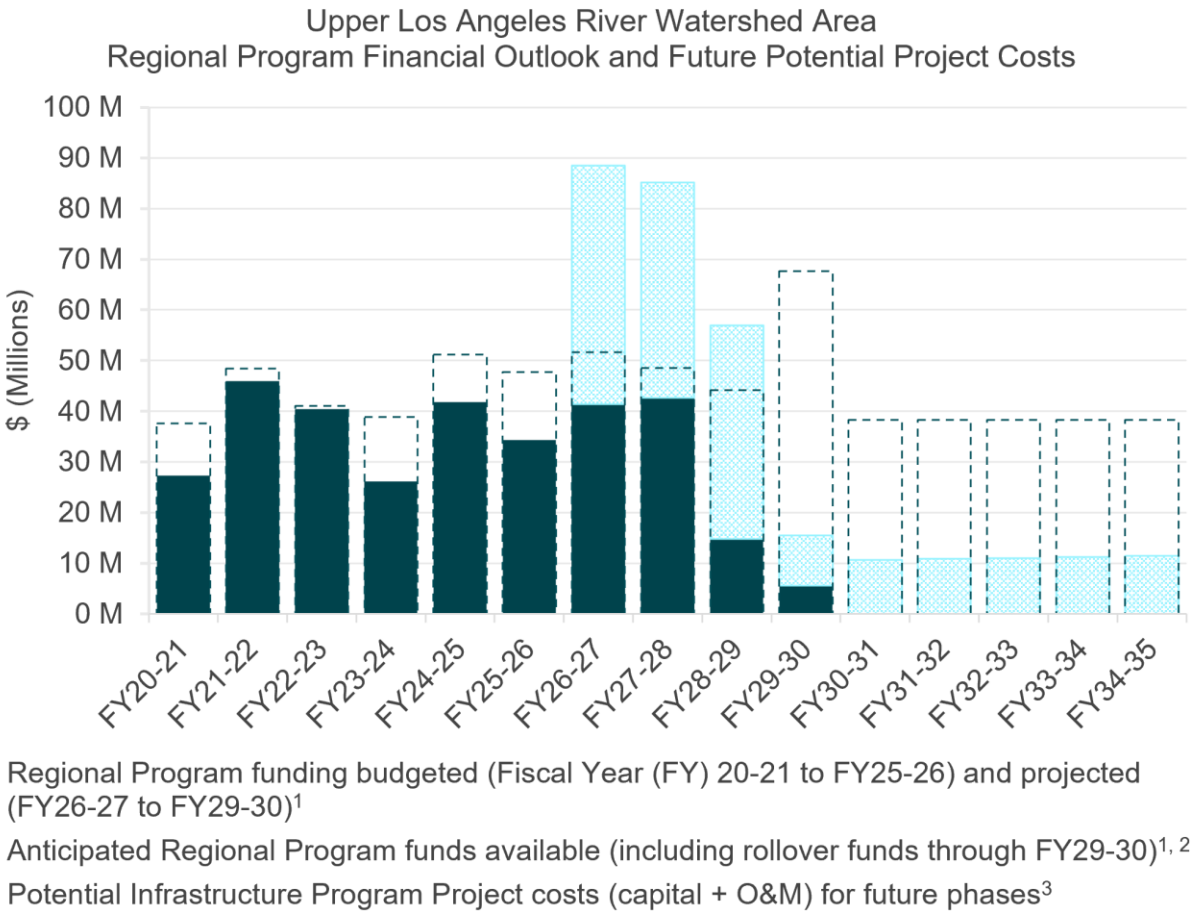
To explore how much leveraged funding may be needed to complete the pipeline of Projects already in the ULAR WA SIP, a financial model was developed using data provided by Project proponents in applications and reporting. For each Project in the ULAR WA SIP, the financial outlook models the future capital costs (i.e., design and construction), O&M costs, and potential cost escalations due to inflation that are not currently included in SIP projections. This is important because the SIP only includes requested funding and does not earmark SCW Program funding for future phases (i.e., if a Project only requests design funding from the Regional Program, its construction costs are not earmarked in the SIP). This "backlog" of potential future costs is hypothetical, Project proponents may pursue other funding sources outside the Regional Program to complete their Projects, and funding for Projects in the SIP may be discontinued in future years; however, the results provide useful insights to bracket expectations for Regional Program funding in this WA.

The ULAR WA receives approximately $38.3M per year from the Regional Program to fund Projects and Programs. Forecasts of future capital, O&M, and inflation costs for Regional Program Projects and Project Concepts already in an approved SIP

[26] Refers to Project Concepts submitted under the Technical Resources Program, which provides technical assistance to develop feasibility studies for stormwater and urban runoff capture Projects intended to meet the minimum requirements of the SCW Program Feasibility Study Guidelines for future submission to the Infrastructure Program.

suggests the need for funds equivalent to five years of the ULAR WA's annual Regional Program budget. As shown in Figure 2-10, substantial leveraged funds would be needed by Municipalities and Project Proponents who plan to request Regional Program funds for new Projects if previously funded Projects and Project Concepts were approved for funding for their later Project phases. Figure 2-10 details the forecasted capital and O&M costs for Regional Program Projects already in the SIP (accounting for inflation), and the amount of leveraged funding that would be needed if all Projects requested new Regional Program funding in the coming years. Although forecasted costs could be deferred to future years, this approach carries risk of substantial cost escalation due to inflation. Note that the forecasts presented herein only consider Infrastructure Program Projects already in approved SIPs, and do not forecast lifecycle costs for Technical Resources Program Project Concepts that may also apply to the Infrastructure Program in the future.

Over the next 10 years, forecasted capital and O&M costs for Regional Program Projects that have already entered the SCW Program funding pipeline for the Project implementation phases such as planning, design, and construction could amount to 7% of the anticipated annual Regional Program funds collected for the ULAR WA. O&M costs alone could amount to 22% of annual ULAR WA funding and will continue to increase as more Projects complete construction. This is important to consider when programming future SIPs because sufficient funds may need to be reserved for O&M; otherwise Project proponents will need to leverage O&M funding from outside the Regional Program.



[1] Based on the FY25-26 Stormwater Investment Plan.
[2] Rollover is not included after FY29-30, as future funding has not yet been projected beyond then.
[3] Financial analysis shows the potential costs to fund all future phases of the Projects already included in past SIPs, if the SCW Program is their only funding source. These potential costs may exceed, or represent a substantial portion of, available SCW Program Regional Program funding for at least 10 years. Leveraged funding from non-SCW Program sources will be needed to advance these Projects through future phases.

Figure 2-10. ULAR WA Regional Program Infrastructure Program financial outlook

2.3.2 Municipal Program Financial Snapshot

Figure 2-5 presents a summary of Municipal Program funding, expenditures, and allocated budget for the ULAR WA. Since municipal boundaries do not follow WA boundaries (some Municipalities may straddle two WAs), Table 2-5 presents Municipal Program funding totals for the Municipalities in the ULAR WA. Municipalities receive direct funding from the Los Angeles County Flood Control District (LACFCD) via the Municipal Program proportional to the revenues generated within its boundaries[27].

[27] See the SCW Program Handbook for Municipalities for more information.

Municipalities have discretion over which Projects and Programs to fund with their respective Municipal Program disbursements.

Table 2-5. Municipal Program financial snapshot for Municipalities included in the ULAR WA

Municipality[1]	Municipal Program Disbursements[2]	Total Interest Accrued to Date[2]	Total Expenditures in Annual Reports[2]	FY23-24 Est. Rollover to future FY[3]	FY24-25 Annual Plan Allocations
Uninc. County	$44.9M	$0.3M	$45.2M	$0	$11.1M
Los Angeles	$145.2M	$1.4M	$82.8M	$63.8M	$36.3M
Glendale	$6.7M	$0.2M	$3.7M	$3.2M	$4.4M
Burbank	$5.7M	$0.3M	$0.6M	$5.4M	$1.0M
Pasadena	$6.2M	$0	$2.7M	$3.5M	$2.3M
La Canada Flintridge	$1.5M	$19.9K	$0.8M	$0.7M	$0.4M
Calabasas	$1.5M	$17.7K	$0.8M	$0.7M	$0.4M
South Pasadena	$1.0M	$13.8K	$0.7M	$0.3M	$0.3M
Alhambra	$3.4M	$0.1M	$1.0M	$2.6M	$0.6M
San Fernando	$1.1M	$2.3K	$0.5M	$0.6M	$0.3M
Hidden Hills	$0.3M	$1.1K	$0.2M	$0.1M	$39.0K
Monterey Park	$2.9M	$7.4K	$2.7M	$0.2M	$1.0M
Santa Clarita	$12.9M	$0.5M	$6.8M	$6.5M	$2.7M
Total	$233.5M	$2.8M	$148.5M	$87.8M	$60.8M

[1] Municipalities included in the ULAR WA.
[2] Reflects total Municipal Program Disbursement to each Municipality from FY20-21 to FY23-24. For Municipalities that span multiple WAs, disbursements and expenditures may not be exclusive to this WA. Municipal Program Annual Reports for FY24-25 are due in February 2026 and are not yet available. Information is self-reported by each Municipality and may be incomplete.
[3] Rollover to FY24-25.

Chapter 3. Baselines and Benefits Provided by Funded Projects (FY20-21 to FY24-25)

A fundamental element of Watershed Planning is the compilation and summary of the cumulative benefits and progress to date of SCW Program-funded Projects and Programs. This chapter compiles Regional and Municipal Program Projects, collectively referred to as "SCW Program Projects", funded prior to the development of this Initial Watershed Plan (FY20-21 through FY24-25)[28] and summarizes their benefits and forecasted potential benefits to assist with target-setting. SCW Program Project benefits are categorized as follows[29]:

- **Total Benefits:** Reflect the sum of benefits across all SCW Program Projects using the most up-to-date estimates or data for each Project regardless of stage, including planned, constructed, and reported benefits. Total benefits reflect the sum of three subtypes of benefits:
    - **Anticipated Benefits by Constructed Projects** reflect benefits anticipated from SCW Program Projects completed to date.
    - **Anticipated Benefits by Planned Projects** reflect benefits anticipated from SCW Program Projects in planning, design, or construction phases, based on modeling, conceptual plans, and/or design plans.
    - **Reported Project Benefits** reflect post-construction or operational benefits supported by monitoring, reporting, or performance data. *Note that metrics for reported benefits are not included or quantified in the Initial Watershed Plans. SCW Program guidance for Project monitoring and post-performance metrics is expected to be published in early 2026.*

Over time, as Project implementation progresses and benefits are validated, Anticipated Benefits by Planned Projects will be superseded by their constructed benefits and, subsequently, by reported benefits. Tracking each of these three benefit

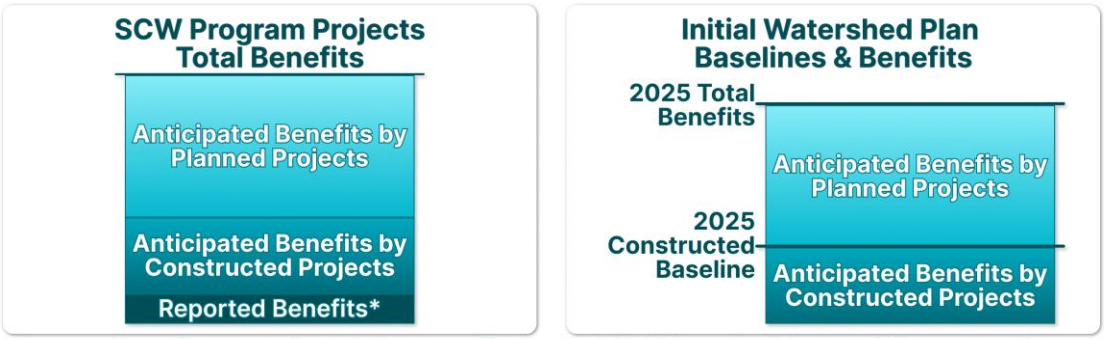
[28] Note that baselines and benefits throughout this Initial Watershed Plan refers to the benefits of SCW Program Projects only. These included Regional Infrastructure Program Projects included in SIPs FY20-21 through FY24-25 and Municipal Program Projects with expenditures in FY20-21 through FY23-24 in Municipal Annual Reports and funding allocations in FY24-25 Municipal Annual Plans.
[29] See Appendix H for data sources and methods for quantifying 2025 Constructed Baselines and Total Benefits.

subtypes will support Adaptive Management efforts by providing a basis for assessing Project performance and implementation progress.

This Initial Watershed Plan uses these benefit subtypes to quantify and assess:

- **2025 Total Benefits:** Snapshot of SCW Program Project benefits at the start of the Watershed Planning process. These results inform key Initial Watershed Plan elements, including target-setting (Chapter 4), the quantification of WA Needs (Chapter 5), and the identification of strategies to address those needs (Chapter 5). Although reported benefits are not yet available, **anticipated benefits** from both planned and constructed Projects present a picture of current investments and support data-driven strategies rooted in past decisions. 2025 Total Benefits are the basis of benefit forecasts (Section 3.2.2).
- **2025 Constructed Baselines:** Anticipated benefits by constructed Projects that have completed construction as of 2025. Constructed baselines provide a reference point for tracking future investments and measuring progress over time.

Total Benefits and its subtypes along with the 2025 Constructed Baseline are illustrated in Figure 3-1.



* Reported benefits are not included or quantified in the Initial Watershed Plans. SCW Program guidance for Project monitoring and post-performance metrics is expected to be published in early 2026.

Figure 3-1. SCW Program Project Baselines and Benefits conceptual illustration

Future Watershed Planning efforts will establish post-construction monitoring metrics to track reported benefits and may also establish metrics to quantify benefits provided by SCW Program Scientific Studies and Programs (Chapter 7).

While the 2025 Constructed Baselines and Total Benefits represent a starting point, new investments and evolving SCW Program Project implementation will be tracked and annually updated via the Planning Tool to communicate progress toward meeting targets (set in Chapter 4) and achieving SCW Program Goals.

3.1 SCW Program Projects in the Upper Los Angeles River Watershed Area

In the first five years, the SCW Program allocated $170.7M in the ULAR WA to fund 46 Projects (34 from the Regional Program and 12 from the Municipal Program)[30], seven of which have been constructed so far. Figure 3-2 summarizes SCW Program Projects funded to date in the ULAR WA. These Projects and their benefits make up the 2025 Constructed Baselines and Total Benefits presented in this chapter. These Projects have a total 24-hour storage capacity[31] of approximately 5,056 ac-ft, managing runoff from over 28,000 acres, and reflect a wide variety of Project types and configurations. See Figure 3-3 for a map of the ULAR WA SCW Program Projects. See Table 3-1 and Table 3-2 for additional Project details for these Regional and Municipal Program Projects in the ULAR WA, respectively.

Note that SCW Program Projects are categorized as either being a wet-weather or a dry-weather Project:

- **Wet-weather Project:** Designed to capture and treat stormwater and non-stormwater runoff. These Projects are typically designed to capture and treat 100% of stormwater runoff generated within their capture area during the 85th percentile, 24-hour storm event.
- **Dry-weather Project:** Designed to capture and treat non-stormwater runoff. These Projects are typically designed to capture and treat 100% of the non-stormwater runoff generated within their capture areas.

[30] The Regional Program Project count herein reflects unique Projects while the SCW Program Portal relies on an application-based database. The SCW Program Portal may report 35 Projects in the ULAR WA, while the unique Project count is 34 (i.e., one Project applied and received funding in more than one SIP year). Municipal Program Project counts may also differ, as they were manually reviewed to eliminate duplicates and to ensure that only Activities meeting the definition of a "Project" were included in the 2025 Constructed Baselines and Total Benefits. Only Municipal Program Projects with expenditures in FY20-21 through FY23-24, or with allocations in FY24-25, are included. Lastly, the SCW Program Portal is a dynamic tool that automatically updates as SCW Program Projects are added or removed from the database. In contrast, the 2025 Constructed Baselines and Total Benefits presented herein are static and based on a snapshot of data as of 2025.

[31] 24-hour storage capacity includes a Project's structural capacity plus the additional capacity that can be treated over a 24-hour period through infiltration or other means. The SCW Projects Module calculates 24-hour capacity as the capacity captured during the 24-hour 85th percentile design storm, with the maximum capacity being 100% of the volume of the design storm. 24-hour capacity is the basis for Project scoring metric A.1 Water Quality Cost Effectiveness.

The Regional Program Infrastructure Program Scoring Criteria includes these Project types, with separate Water Quality Benefit scoring sections for each. While the scoring criteria aligns with most Project designs, there are several unique SCW Program Projects that blur the distinction between the two types. For example, some Projects scored as “dry-weather” may also be designed to capture and treat stormwater runoff.

Although non-stormwater pollutant load reductions achieved by dry-weather Projects are not modeled in this Initial Watershed Plan (acknowledged as a Project data gap in Section 7.1), each dry-weather Regional Program Project was individually evaluated to assess its stormwater capture and treatment abilities. These stormwater pollutant load reductions provide meaningful contributions to the 2025 Constructed Baselines and Total Benefits. Table 3-1 identified each Project’s type (wet- or dry-weather) and flags dry-weather Projects which are also anticipated to deliver stormwater pollutant load reduction benefits.

Upper Los Angeles River Watershed Area
Summary of Regional and Municipal Program Projects

SCW Program Funded Projects (FY20-21 to FY24-25)

34 Regional Program Projects

12 Municipal Program Projects

SAFE CLEAN WATER PROGRAM

Project Status

7 Constructed

39 In Progress

Project Types

35 Wet-weather Capture

11 Dry-weather Capture

BMP Types*

13 Infiltration Facility
3 Cistern
11 Infiltration Well
9 Treatment Facility
3 Green Street
1 Diversion to Sanitary Sewer
2 Bioretention
4 Bioinfiltration
0 Permeable Pavement

Total Capture Area Managed

28,000 acres

Capture Area Sizes

21 < 0-200 acres
17 200 - 1,000 acres
8 >1,000 acres

Total Project 24-hour Storage Capacity

5,056 ac-ft

Total Cost Share Funding**

$190.3 Million

Budgeted and Projected to Date (FY20-21 to FY24-25)

$170.7 Million

Projects Benefiting DACs

32 Projects

Projects Implemented Across

7 Municipalities

Projects Addressing Given Pollutant

23 Total Zinc
8 Bacteria
2 Total Nitrogen
0 Total Phosphorus
13 Other***

Projects Providing Water Supply Benefits

25 Connected to Aquifer**
6 Connected to Wastewater Treatment for Reuse
12 Uses Water Onsite

Projects Providing Community Benefits

39 Implement Natural Processes
38 Utilize Natural Materials
26 Has Local Support**
34 Improve Flood Management
34 Enhance Habitat or Park Space
24 Remove Impervious Area
11 Improve Access to Public Waterways
29 Provide Recreational Opportunities
12 Increase Green Spaces at Schools
37 Reduce Heat Island Impacts
38 Increase Shade and Trees

* BMP type describes the primary mechanism by which water will be captured/managed by the Project. The BMP types shown here represent the type used for water quality and water supply modeling.
** Counts Regional Program Projects only based on data availability.
*** Pollutants Addressed does not apply to dry-weather Projects. "Other" includes dry-weather Projects, Copper, Lead, Toxics, and Chlorides.

*Note that benefit summaries reflect **unique** SCW Program Projects only, not benefits from parallel initiatives outside the SCW Program. Future Watershed Planning efforts may quantify post-construction monitoring Project metrics and benefits provided by SCW Program Project Concepts, Scientific Studies, or other Municipal Program Activities.*
The benefits presented above represent modeled values and total benefits reported through the SCW Program Portal. See Tables 3-1, Table 3-2, and Appendix H for Project-specific details, and Appendix H and the Regional Program Feasibility Study Guidelines for methodologies and considerations used to characterize these benefits.

Figure 3-2. Summary of SCW Program Projects funded to date in the ULAR WA

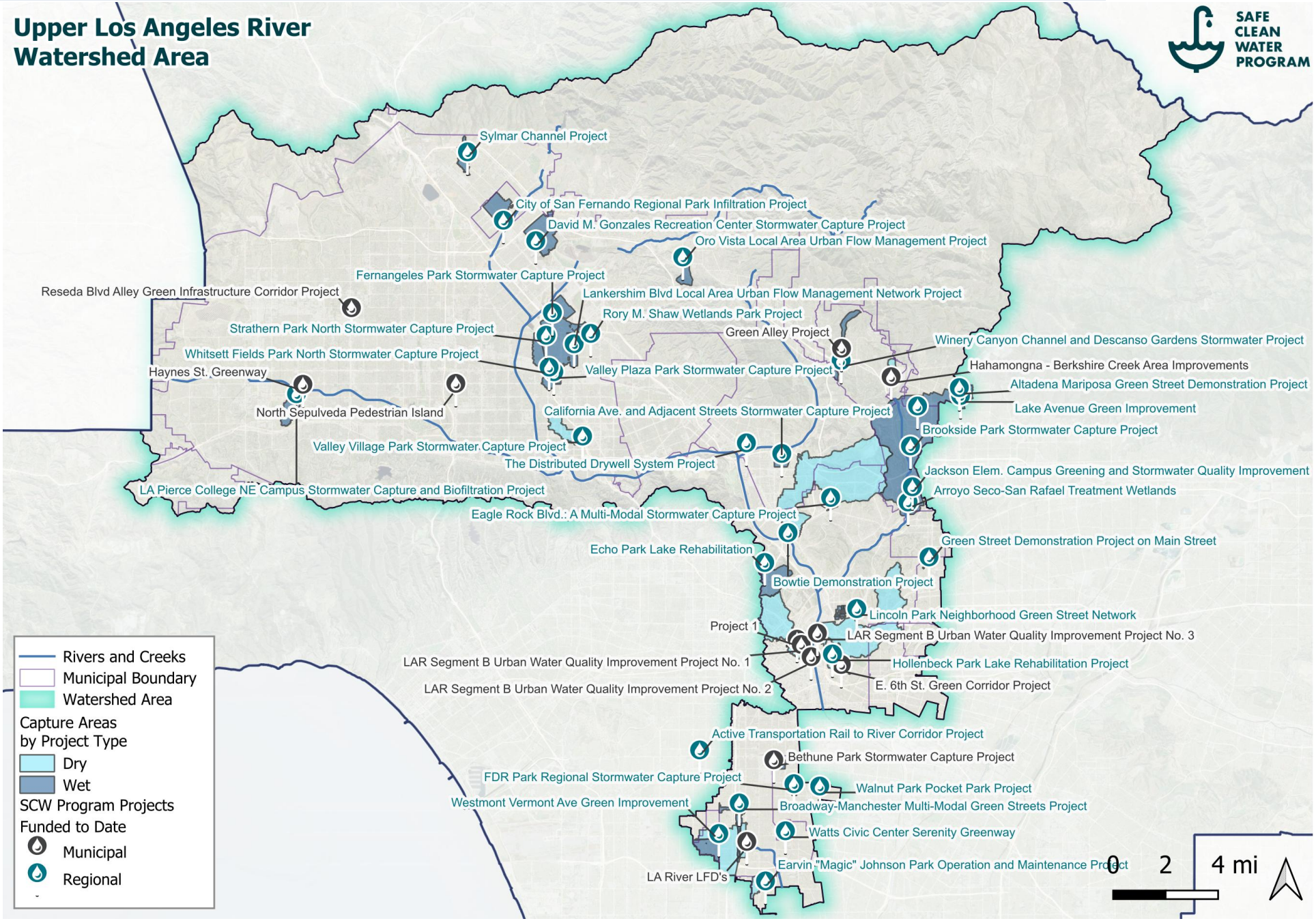


Figure 3-3. SCW Program Projects funded to date in the ULAR WA

Table 3-1. Regional Program Projects funded to date in the ULAR WA

Regional Program Projects funded to date in the ULAR WA				
Project Name	SIP Year(s)[1]	Project Type[2]	Funded Phase(s)	Current Phase[4]
Active Transportation Rail to River Corridor Project - Segment A	FY20-21	Wet	Construction, O&M	Construction
City of San Fernando Regional Park Infiltration Project	FY20-21	Wet	Construction, O&M	Post-Construction Monitoring
Echo Park Lake Rehabilitation	FY20-21, FY22-23	Wet	O&M	O&M
Fernangeles Park Stormwater Capture Project	FY20-21	Wet	Planning, Design, Construction, O&M	Design
Franklin D. Roosevelt Park Regional Stormwater Capture Project	FY20-21	Wet	Construction, O&M	Post-Construction Monitoring
Lankershim Boulevard Local Area Urban Flow Management Network Project	FY20-21	Wet	Planning, Design, Construction, O&M	Design
Oro Vista Local Area Urban Flow Management Project	FY20-21	Wet	Planning, Design, Construction, O&M	Design
Rory M. Shaw Wetlands Park Project	FY20-21	Wet	Design, Construction	Design
Strathern Park North Stormwater Capture Project	FY20-21	Wet	Planning, Design, Construction, O&M	Design
The Distributed Drywell System Project	FY20-21	Wet	Construction, O&M	O&M
Valley Village Park Stormwater Capture Project	FY20-21	Dry[3]	Planning, Design, Construction, O&M	Design
Walnut Park Pocket Park Project	FY20-21	Wet	Construction	O&M
Altadena - Lake Avenue Green Improvement	FY21-22	Wet	Design	Design
Altadena Mariposa Green Street Demonstration Project	FY21-22	Wet	Design, Construction	Design
Arroyo Seco-San Rafael Treatment Wetlands	FY21-22	Wet	Design, Construction	Design
Broadway-Manchester Multi-Modal Green Streets Project	FY21-22	Wet	Construction	Design
David M. Gonzales Recreation Center Stormwater Capture Project	FY21-22	Wet	Design, Construction	Design
Lincoln Park Neighborhood Green Street Network	FY21-22	Wet	Planning, Design, Construction, O&M	Planning
Los Angeles Pierce College Northeast Campus Stormwater Capture & Use and Biofiltration Project	FY21-22	Wet	Design, Construction	Design

Regional Program Projects funded to date in the ULAR WA				
Project Name	SIP Year(s)[1]	Project Type[2]	Funded Phase(s)	Current Phase[4]
Valley Plaza Park Stormwater Capture Project	FY21-22	Wet	Design, Construction	Design
Westmont - Vermont Avenue Green Improvement	FY21-22	Wet	Design	Design
Jackson Elementary School Campus Greening and Stormwater Quality Improvement Project	FY22-23	Wet	Design, Construction, O&M	Design
Watts Civic Center Serenity Greenway	FY22-23	Wet	Planning, Design, Construction, O&M	Design
Whitsett Fields Park North Stormwater Capture Project	FY22-23	Wet	Design, Construction	Design
Winery Canyon Channel and Descanso Gardens Stormwater Capture and Reuse Project	FY22-23	Wet	Design, Construction, O&M	Planning
Brookside Park Stormwater Capture Project	FY23-24	Wet	Design	Design
California Avenue and Adjacent Streets Stormwater Capture Project	FY23-24	Wet	Design, Construction, O&M	Planning
Eagle Rock Boulevard: A Multi-Modal Stormwater Capture Project	FY23-24	Dry[3]	Design, Construction, Bid/Award	Design
Earvin "Magic" Johnson Park Operation and Maintenance Project	FY23-24	Dry[3]	O&M	O&M
Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project	FY23-24	Wet	Planning, Design, Construction, O&M	Design
Hollenbeck Park Lake Rehabilitation Project	FY23-24	Dry[3]	Planning, Design, Construction, O&M	Planning
Sylmar Channel Project	FY23-24	Wet	Planning, Design, Construction, O&M	Planning
Bowtie Demonstration Project	FY24-25	Dry[3]	O&M	O&M
Green Street Demonstration Project on Main Street	FY24-25	Wet	Design, Construction	Construction

[1] Represents the SIP fiscal year(s) in which a Project's application was originally selected for Regional Program funding

[2] Wet-weather Projects capture both stormwater and non-stormwater runoff. Typically, wet-weather Projects are designed to capture 100% of the design storm event.

[3] Dry-weather Project that also provides wet-weather Water Quality Benefits. Project types under the Regional Program have historically been used for scoring purposes; so, while some Projects may be labeled as 'dry-weather' for scoring purposes, such Projects may also provide some wet-weather runoff capture or treatment. Dry-weather Projects that capture and treat wet-weather runoff typically manage less than 50% of the design storm event.

[4] Current phase as reported in the FY24-25 Mid-Year Reports.

Table 3-2. Municipal Program Projects funded to date in the ULAR WA

Municipal Program Projects funded to date in the ULAR WA			
Project Name	Municipality	Project Type[1]	Status
Bethune Park Stormwater Capture Project	Uninc. County	Wet	In Progress
East 6th Street Green Corridor Project	Los Angeles	Wet	In Progress
Green Alley Project	La Canada Flintridge	Dry	In Progress
Hahamongna - Berkshire Creek Area Improvements	Pasadena	Dry	In Progress
Haynes Street Greenway	Los Angeles	Wet	In Progress
LA River LFD's (Segment A, Compton Creek)	Los Angeles	Dry	In Progress
LAR Segment B Urban Water Quality Improvement Project No. 1 – (R2-02)	Los Angeles	Dry	In Progress
LAR Segment B Urban Water Quality Improvement Project No. 2 – (R2-J)	Los Angeles	Dry	In Progress
LAR Segment B Urban Water Quality Improvement Project No. 3 – (R2-G)	Los Angeles	Dry	In Progress
North Sepulveda Pedestrian Island (Sepulveda Green Median)	Los Angeles	Wet	In Progress
Project 1	Uninc. County	Wet	In Progress
Reseda Blvd Alley Green Infrastructure Corridor Project	Los Angeles	Wet	In Progress

[1] Wet-weather Projects capture both stormwater and non-stormwater runoff. Typically, wet-weather Projects are designed to capture 100% of the design storm event.

3.2 Baselines, Benefits, and Forecasts for the Upper Los Angeles River Watershed Area

The following subsections summarize 2025 Constructed Baselines and Total Benefits expected by SCW Program Projects funded to date within the ULAR WA. The 2025 Constructed Baselines provide a reference point for tracking future investments and measuring progress over time, while the 2025 Total Benefits provide a foundation for target-setting and strategy development, supporting the achievement of SCW Program Goals and the planning priorities of the ULAR WASC and other interested parties.

3.2.1 Baselines and Benefits for the Upper Los Angeles River Watershed Area

The 46 SCW Program Projects in the ULAR WA improve water quality while also delivering other co-benefits to communities including increased drought resiliency and improved public health. Figure 3-4 summarizes the ULAR WA 2025 Constructed Baselines and Total Benefits, which are organized by Planning Theme. SCW Program Projects funded to date in the ULAR WA are estimated to capture 4,100 ac-ft of stormwater and urban runoff annually, while also removing thousands of pounds of pollutants, such as 3,400 pounds of zinc and 5,500 pounds of total phosphorus per year. These Projects are anticipated to deliver over 82 acres of enhanced or restored park space, six acres of new tree canopy, cooling, and shading surfaces[32], and are expected to create an estimated 2,000 full-time equivalent (FTE) jobs in the region.

These baseline and benefit summaries include load reduction benefits for addressing the priority pollutants of zinc and total phosphorus. Zinc, total phosphorus, and bacteria are all priority pollutants for the ULAR WA because they are identified as limiting pollutants in the area's WMPs. Load reductions for zinc and total phosphorus are estimated using the regionally calibrated Los Angeles County Public Works Watershed Management Modeling System version 2.0 (WMMS2). While bacteria is also a priority pollutant for the ULAR WA, corresponding load reductions and a target cannot be modeled or quantified at this time. Unlike other pollutants, fecal indicator bacteria loads were not calibrated in WMMS2, and a runoff time series is not available. This is due to the unique complexities associated with modeling bacteria, including their high variability and site-specific behavior. As a result, quantification of

[32] These include initial results from Regional and Municipal Program reporting in early 2025 and are subject to additional review and revision.

bacteria load reduction is an Initial Watershed Plan Project data gap (Figure 7-6), which is anticipated to be addressed through near-term Watershed Planning Adaptive Management efforts.

Overall, SCW Program Projects funded to date will deliver a variety of benefits to the ULAR WA when constructed and operational. Watershed Planning will support delivery of future Projects that provide additional benefits that align with SCW Program Goals, and the ULAR WASC and other interested party priorities.

For this Initial Watershed Plan, Water Quality and Water Supply Benefits were determined through WMMS2 analysis and MMS outcomes and account for stormwater routing and capture by existing major capture facilities and SCW Program Projects. Note that while many other non-SCW Program-funded Projects and Programs provide benefits to the ULAR WA, the summaries presented in this chapter do not include those benefits. Non-SCW Program Projects, such as those funded through Integrated Regional Water Management Programs (IRWMPs) and MS4 Programs, their characteristics, and their Water Quality and Water Supply Benefits instead have been compiled and used to establish SCW Program-wide and WA-specific targets, as detailed in Chapter 4. Data sources and methods for quantifying benefits are provided in Appendix H. The Planning Tool Map also includes base layers for zinc, total phosphorus, and bacteria load from stormwater runoff to illustrate where pollutant loads are generally highest in each WA, independent of SCW Program and non-SCW Program Project implementation.

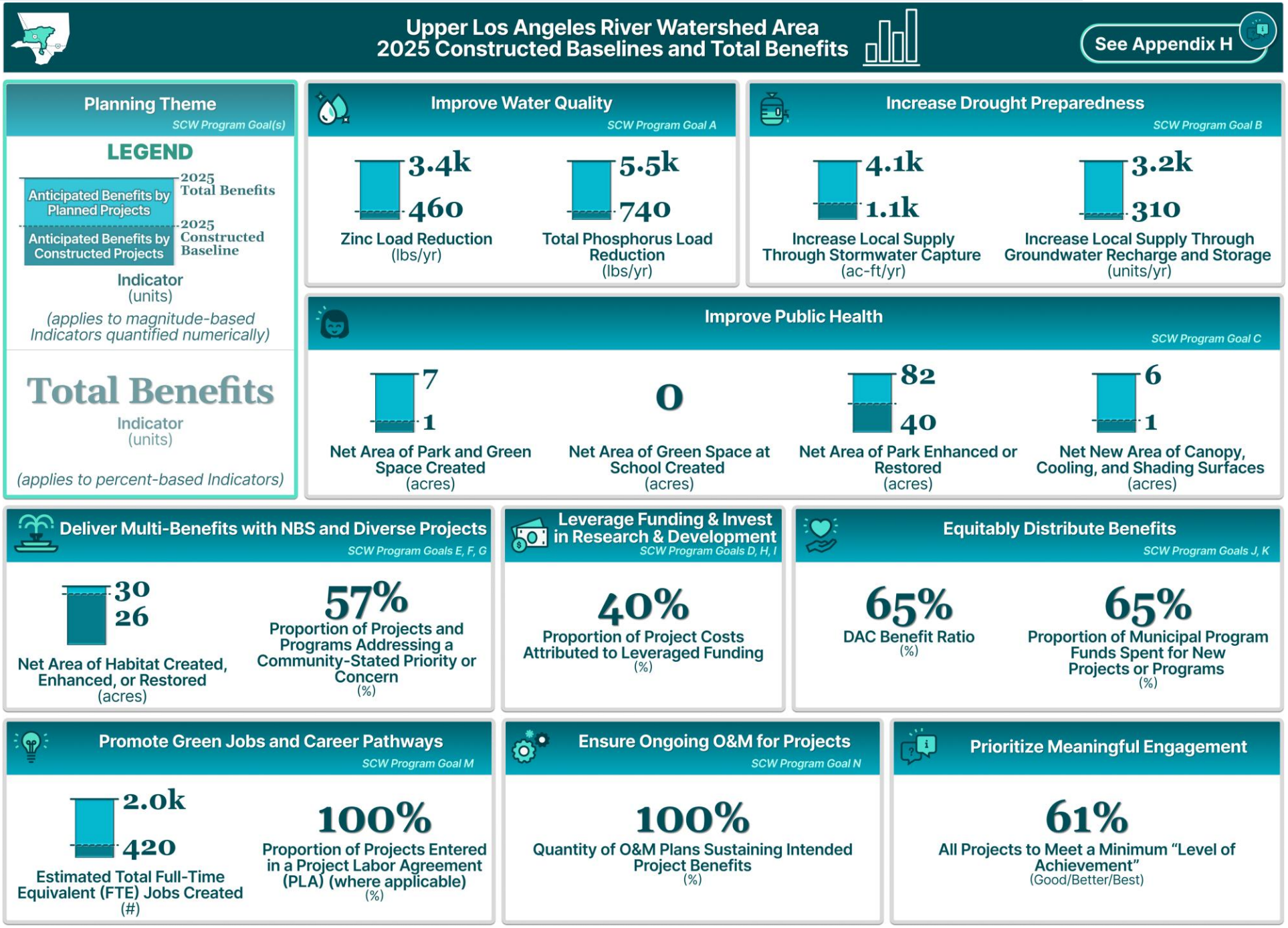


Figure 3-4. Summary of 2025 Constructed Baselines and Total Benefits provided by SCW Program Projects funded to date in the ULAR WA

3.2.2 Benefit Forecasts for the Upper Los Angeles River Watershed Area

Building upon 2025 Total Benefits, benefit forecasts estimate the potential trajectory of SCW Program Project benefits to provide context for target-setting (Chapter 4) and strategy development (Chapter 5). These forecasts are not targets; rather, they are illustrative, linear projections meant to inform planning discussions.

For clarity, forecasts assume an average annual rate of benefit accrual to estimate how SCW Program benefits might grow over time, if Regional and Municipal Program Projects funded to date (i.e., FY20-21 to FY24-25) are implemented as proposed and the SCW Program continues at its current pace. This approach provides a consistent frame of reference for comparing the current pace of benefits delivery to targets, supporting target-setting and strategy development by illustrating how much acceleration or improvement may be needed. Figure 3-5 presents a conceptual snapshot of 2025 Total Benefits and forecasts, illustrating how they are aligned to provide context for target-setting. Together, the 2025 Total Benefits and forecasts serve as foundational tools for setting realistic yet aspirational targets.

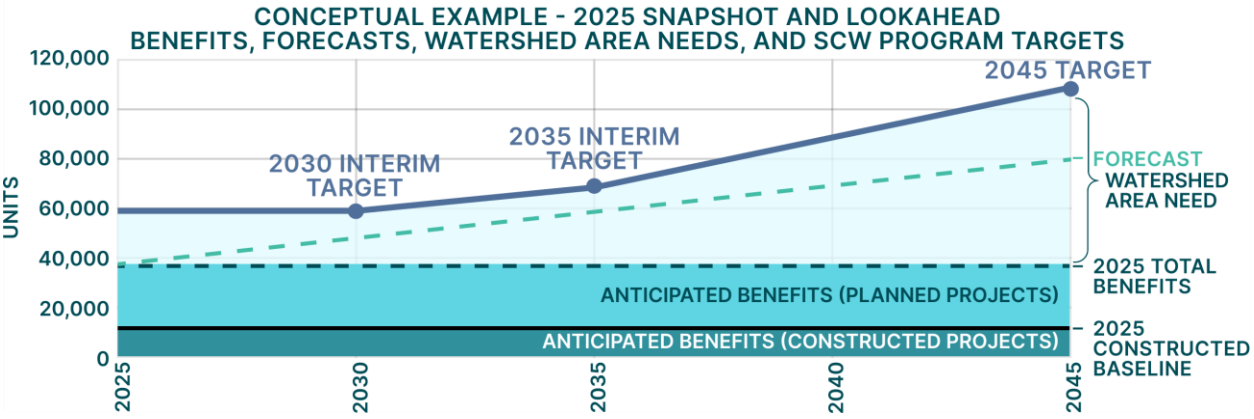


Figure 3-5. Conceptual example illustrating benefits, WA Needs, targets, and forecasts

Actual progress is expected to fluctuate due to various programmatic, financial, and external factors; at the same time, Initial Watershed Plan targets, strategies, and other efforts are expected to lead to improved efficiency and implementation. This underscores the importance of adaptive Watershed Planning and continuous tracking to support data-driven decision-making throughout the SCW Program lifecycle. If targets are reassessed as part of Adaptive Management (see Chapter 7), then new snapshots of benefits and forecasts may be updated at that time. Forecasts, along with details on their methodologies, assumptions, limitations, and considerations for interpreting and applying them, are provided in Appendix H.

Chapter 4. Quantifying Progress Toward SCW Program Goals

Metrics and targets are essential Watershed Planning tools, enabling vision-setting and the tracking and assessment of progress toward the achievement of Goals. This chapter outlines an initial set of Project-based metrics that estimate Project benefits at three levels: SCW Program-wide, WA-wide (via Indicators), and at the Project level (via Performance Measures). These metrics set the foundation for articulating a vision for the ULAR WA and serve as the starting point for tracking progress in the coming years.

4.1 Visioning Setting and Progress Tracking: Indicators & Performance Measures

Visioning and progress tracking are facilitated by Indicators and Performance Measures (PMs). Indicators are metrics which sum cumulative Project benefits across *large spatial scales*, such as the SCW Program as a whole (includes cumulative benefits from Projects in all nine WAs) and across each specific WA (includes cumulative benefits from Projects in one specific WA). Indicators are supported by a set of PMs which are metrics that are quantified and tracked at the *Project scale*.

Indicators and PMs, summarized in Figure 4-1, are anchored in the 14 SCW Program Goals, and organized into the nine Planning Themes to allow for efficient WA and SCW Program-wide summaries. These Indicators and PMs are used to quantify benefits, establish measurable, aspirational targets, and track progress toward achieving SCW Program Goals, based on best available Project information and data.

For example, each Project proponent and Municipality submits information and data specific to their Project for the PM: “Community-stated priority or concern addressed.” They identify which community-stated priorities or concerns their Project addresses and cite the source of that engagement input (e.g., CSNA, community engagement meetings, Parks Needs Assessment[33], etc.). Commonly cited priorities and concerns reported by Projects include addressing impacts of climate change (e.g., flooding, drought, wildfires), outdoor water pollution (e.g., oceans, rivers, lakes), and access to parks and recreational spaces.

[33] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

This PM directly supports the calculation of the associated Indicator: "Proportion of Projects and Programs addressing a community-stated priority or concern (%)." To quantify this Indicator, the PM data reported by Project proponents and Municipalities for their Projects are assessed to determine how many SCW Program Projects address at least one such priority or concern. The Indicator value is calculated by dividing the number of Projects addressing at least one priority or concern by the total number of SCW Program Projects, at both the Program-wide and WA-specific scales.

For instance, within the ULAR WA, 26 SCW Program Projects reported that they address a community-stated priority or concern that was stated through an engagement effort (e.g., CSNA, engagement meetings, Parks Needs Assessment[34], etc.). These include priorities such as increasing shade trees, reducing local flooding, improving air quality, improving water quality, and concerns about climate change impacts, water pollution, and the condition of public spaces. Using this PM data, the Indicator is calculated as:

$$\frac{\textbf{26}\ \text{Projects addressing a priority or concern}}{\textbf{46}\ \text{SCW Program Projects in the ULAR WA}} = \textbf{57}\%$$

Proportion of Projects and Programs addressing a community-stated priority or concern in the ULAR WA

Thus, 57% of Projects in the ULAR WA address a community-stated priority or concern. Note that while almost all SCW Program Projects funded to date provide at least one CIB, they may not necessarily address a community-stated priority or concern. This distinction is important because the CIBs provided may or may not align with the specific needs expressed by the local community. A Project may meet technical criteria for delivering a CIB without being responsive to the priorities or concerns raised through engagement. Ensuring that future Projects both provide CIBs and directly reflect community-stated priorities and concerns is essential to advancing place-based designs and fostering meaningful engagement.

A total of 19 Indicators and 51 PMs (Figure 4-2) have been selected to quantify and summarize SCW Program progress. These metric selections build on recommendations from the ROC and MMS and incorporate input from engagement with SCW Program governance committees. Details of Watershed Planning Indicators and PMs and their data points are in Appendix G. While these initial Indicators and PMs are limited to quantifying Project benefits, additional metrics such as post-construction Project metrics and metrics that quantify benefits from Programs and Scientific Studies may be incorporated through Adaptive Management (Chapter 7).

[34] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

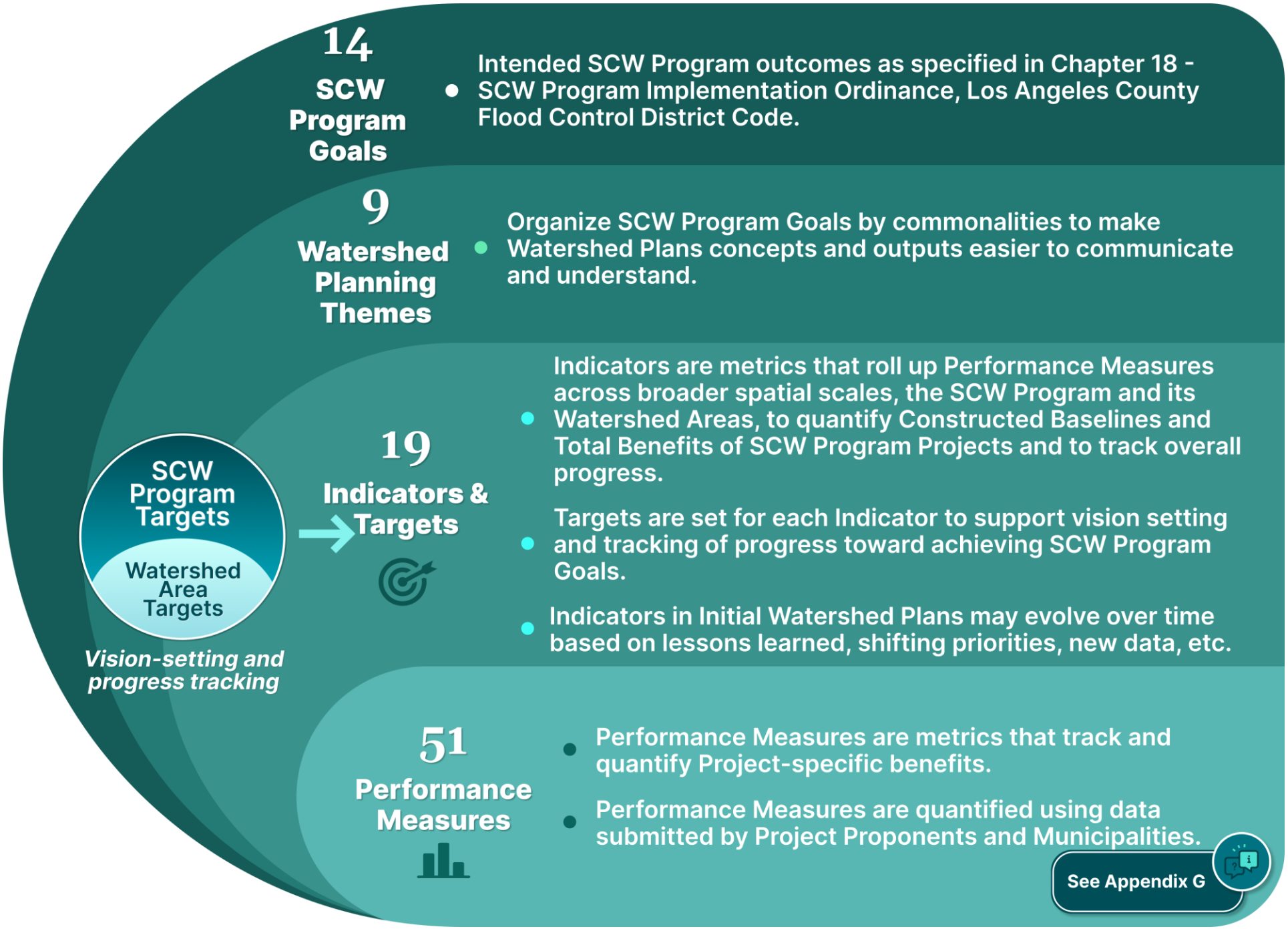


Figure 4-1. Indicators and PMs terminology

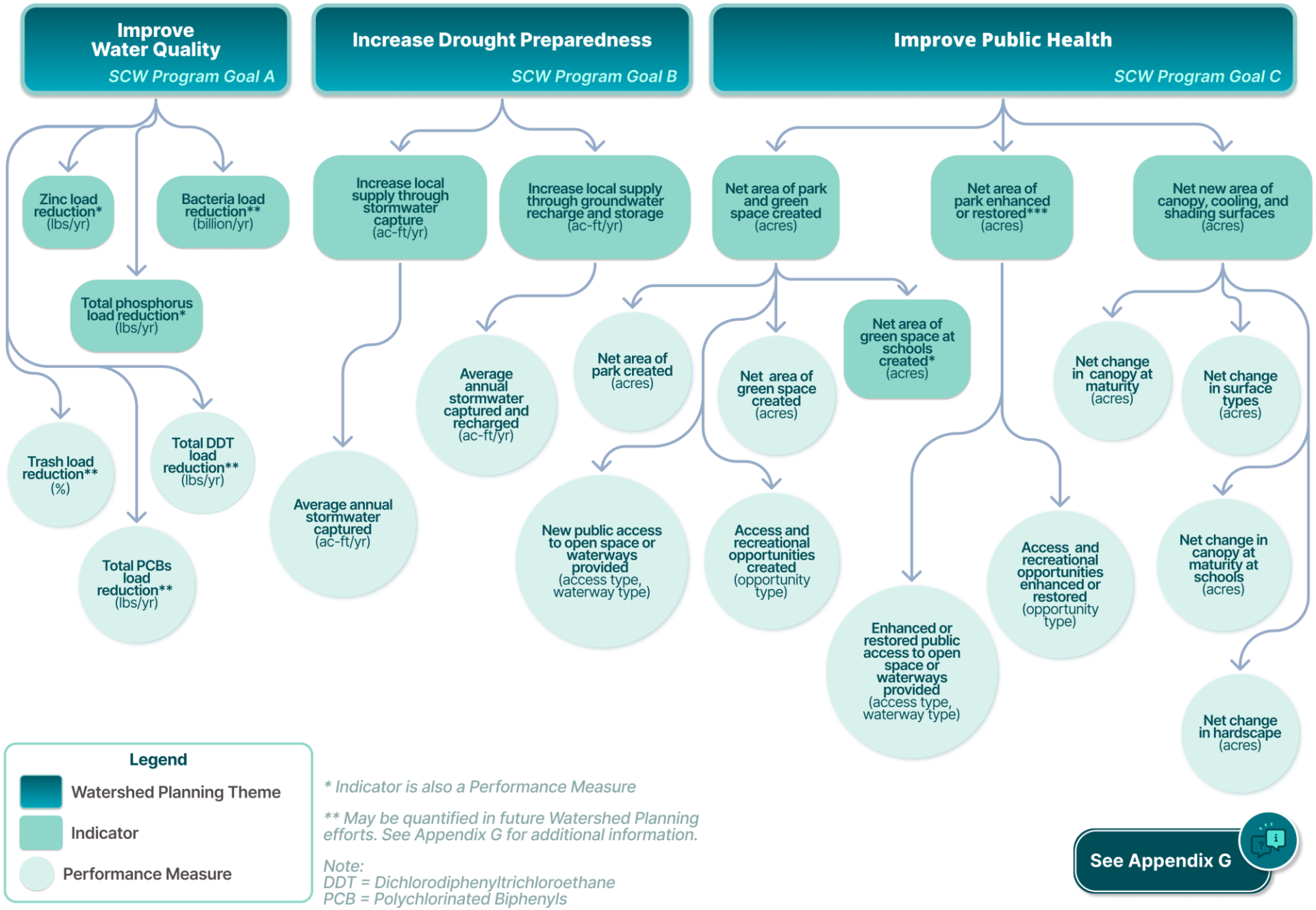


Figure 4-2. Indicators and PMs

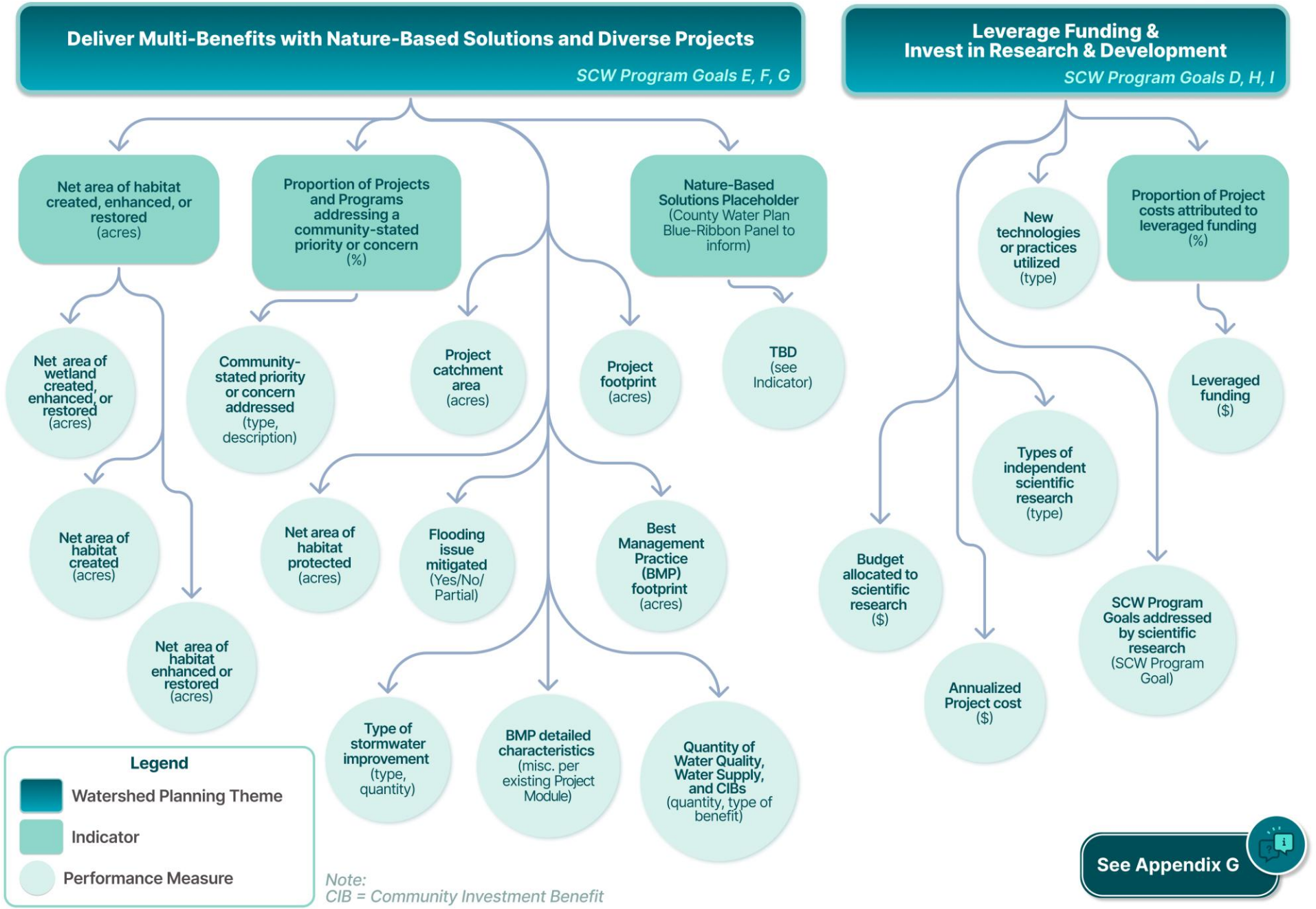


Figure 4-2. Indicators and PMs (continued)

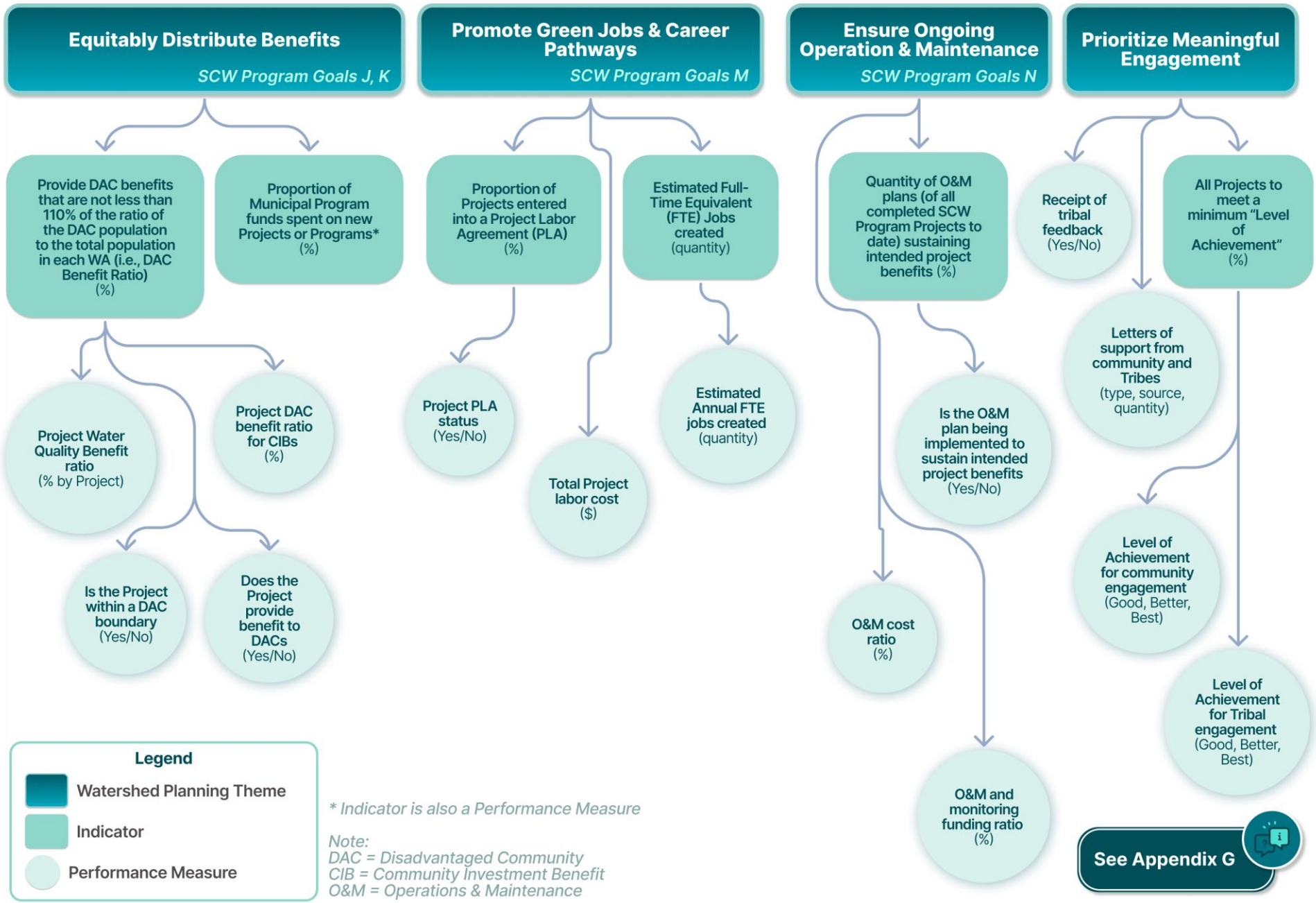


Figure 4-2. Indicators and PMs (continued)

4.2 Establishing Targets

For each Indicator outlined in the subsection above, this Initial Watershed Plan presents targets that reflect the vision for the SCW Program and its desired outcomes of improving water quality, increasing local water supply, and providing CIBs, along with the other 14 Goals. For each of the nine SCW Program WAs, measurable targets have been set with an aspirational lens for each Indicator. SCW Program targets represent minimum expectations for progress and may be surpassed as additional opportunities and benefits are realized.

The establishment of Indicators and targets aligns with the March 2024 BOS motion, which called for the development of:

> "Indicators and targets for the Program, to be developed with the [ROC], that can be used to measure achievement of Program Goals, guide Watershed Planning, and inform Project development, solicitation, and evaluation efforts."

SCW Program and WA targets are built upon a long history of efforts including engagement workshops and meetings with the WASCs and other interested parties, local planning efforts, funded SCW Program Projects and Scientific Studies, and efforts by the ROC and ROC Water Quality and CIB working groups. The following subsections describe this approach.

4.2.1 Determining the SCW Program's Contributions and Targets

The SCW Program is a key contributor in the effort to achieve goals essential to LA County's long-term vision for sustainability and resiliency. Numerous countywide planning and strategy documents have been developed that include countywide goals and targets that will be achieved via a variety of programs, including the SCW Program. For example, the OurCounty Sustainability Plan, County Water Plan, Vision 2045, and Parks Needs Assessment contain their own countywide targets for addressing climate change impacts, local water supply resiliency, and public health improvement through expanded recreational opportunities. Figure 4-3 illustrates a few key planning efforts identified and their targets as well as how the SCW Program alongside other programs will collectively work to meet them.

An important element of this Initial Watershed Plan is to establish the SCW Program contributions to these and other countywide targets. While several Indicators align with an existing countywide target, not all do. In some cases, targets are informed directly by SCW Program requirements—such as those outlined in the SCW Program

Implementation Ordinance (LACFCD Code §16 and §18). These include but are not limited to:

- **Transfer Agreement requirements:** The SCW Program Implementation Ordinance (LACFCD Code §18.09) requires recipients of SCW Program funds to comply with Transfer Agreement provisions. These include:
    - For Projects with an estimate capital cost over $25M, all contractors must be bound by the provisions of a Project Labor Agreement (LACFCD Code §18.09.B.9).
    - Requirements related to the operation, maintenance, and repair of the Project throughout its useful life (LACFCD Code §18.09.B.15).

  These requirements are reflected by a target of 100% for the Indicators: “Proportion of Projects entered in a Project Labor Agreement (where applicable)” and “Quantity of O&M plans (of all completed SCW Program Projects to date) sustaining intended Project benefits (%)”, respectively.
- **Municipal Program Spending Requirement:** Per the SCW Program Implementation Ordinance (LACFCD Code §18.06.C.1):

  > "A Municipality must spend at least seventy percent (70%) of its Municipal Program funds annually on eligible expenses related to Projects or Programs implemented on or after November 6, 2018, which also includes operations and maintenance of Projects built to comply with the MS4 Permit, so long as the Project complies with Municipal Program requirements."

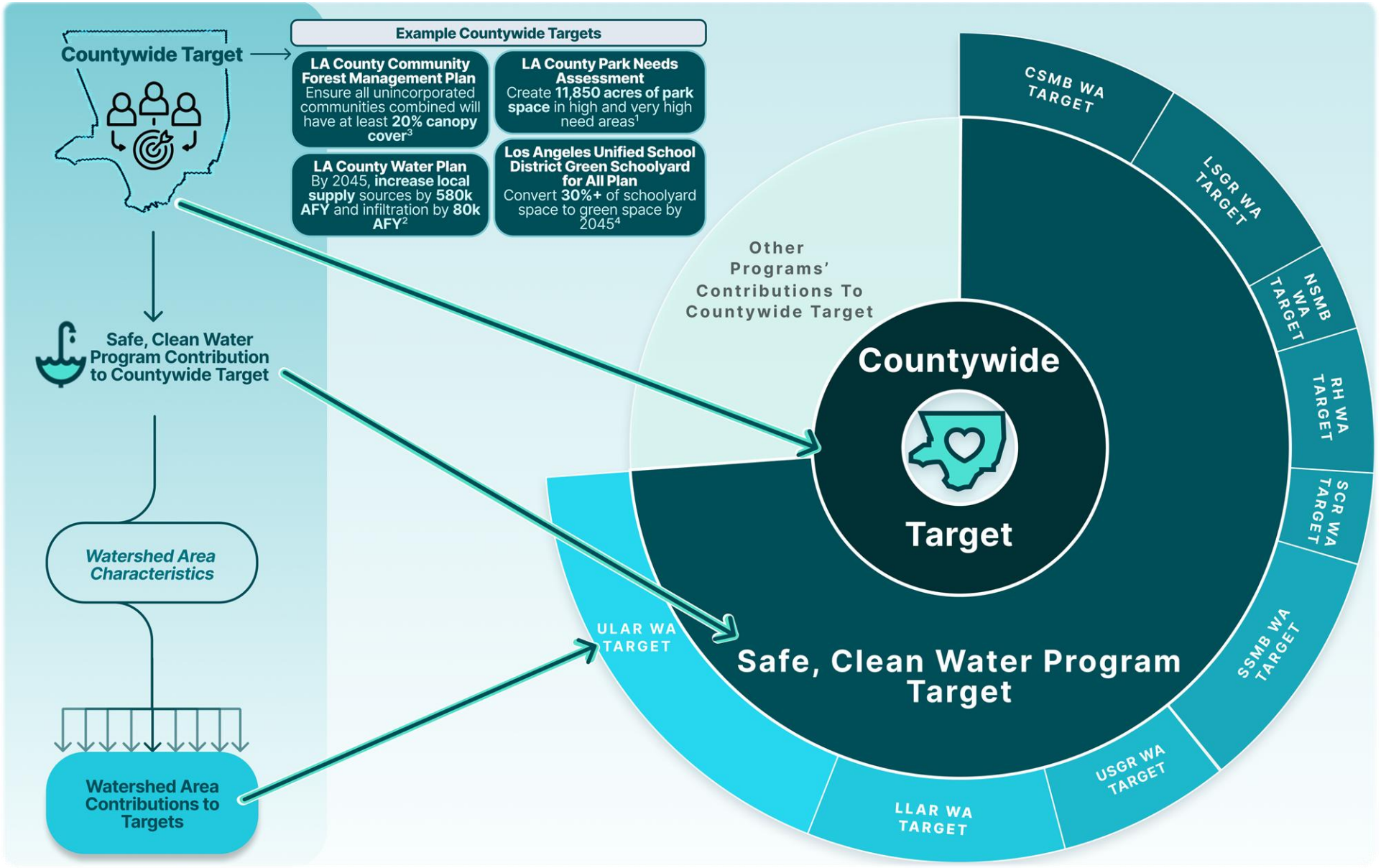
  This requirement is reflected by a target of 70% for the Indicator: “Proportion of Municipal Program Funds Spent on New Projects or Programs”.

For Indicators whose targets are not predetermined by a SCW Program Implementation Ordinance requirement, targets are established using a combination of top-down and bottom-up approaches as described below:

- **Top-Down Approach:** Applies a holistic perspective by referencing countywide targets established through broader planning efforts to set aspirational yet achievable SCW Program targets. It accounts for contributions from related initiatives, such as the IRWMPs, WMPs, and MS4 programs. Where a countywide target or SCW Program requirement is not identified for a given Indicator, local targets, outcomes of key efforts to date, and WA characteristics are considered, alongside 2025 Constructed Baselines, 2025 Total Benefits, and forecasts, to determine a SCW Program target.

- **Bottom-Up Approach:** Analyzes SCW Program Projects funded to date and assesses their 2025 Constructed Baselines, 2025 Total Benefits, and forecasted benefits (Chapter 3). 2025 Constructed Baselines, 2025 Total Benefits, and forecasts serve as a reference for what could be achieved by the SCW Program under its current pace of implementation. The bottom-up approach is combined with the top-down approach, to determine SCW Program and WA targets, and thus the SCW Program's contribution to the countywide targets, when applicable. Note that constraints identified through the Regional Program financial outlooks are not considered in this approach to maintain ambitious targets.

As illustrated in Figure 4-3, each of the nine WAs will contribute to SCW Program targets through individual WA-specific targets. The relative contribution toward SCW Program targets by each WA is largely based on their characteristics (Chapter 2), such as unconfined managed aquifer availability for recharge or the available park space for enhancement.



Note: This figure represents the conceptual process for an Indicator with a corresponding countywide target and does not apply to every Indicator

[1] LA County Department of Parks and Recreation. (2016). LA Countywide Comprehensive Parks & Recreation Needs Assessment. Page 3-66. May 2016.
[2] LA County Public Works. (2023). LA County Water Plan: Water Supply Resilience (CWP). Page 22. December 2023.
[3] LA County Chief Sustainability Office, Dudek. (2024). Room to Grow: A Community Forest Management Plan for Los Angeles County. Page 36. April 2024.
[4] Los Angeles Unified School District Facilities Services Division. (2024). Green Schoolyard for All Plan. Page 3. April 2024.

Figure 4-3. Conceptual approach to derive SCW Program target contributions from countywide targets

Figure 4-4 below demonstrates how the top-down approach references methods and countywide targets set by the OurCounty Sustainability Plan, the County Water Plan, and the ROC to establish SCW Program-wide and WA targets for the Indicator: “Increase local supply through stormwater capture”. See Appendix H for additional details and background on target-setting for this Indicator.

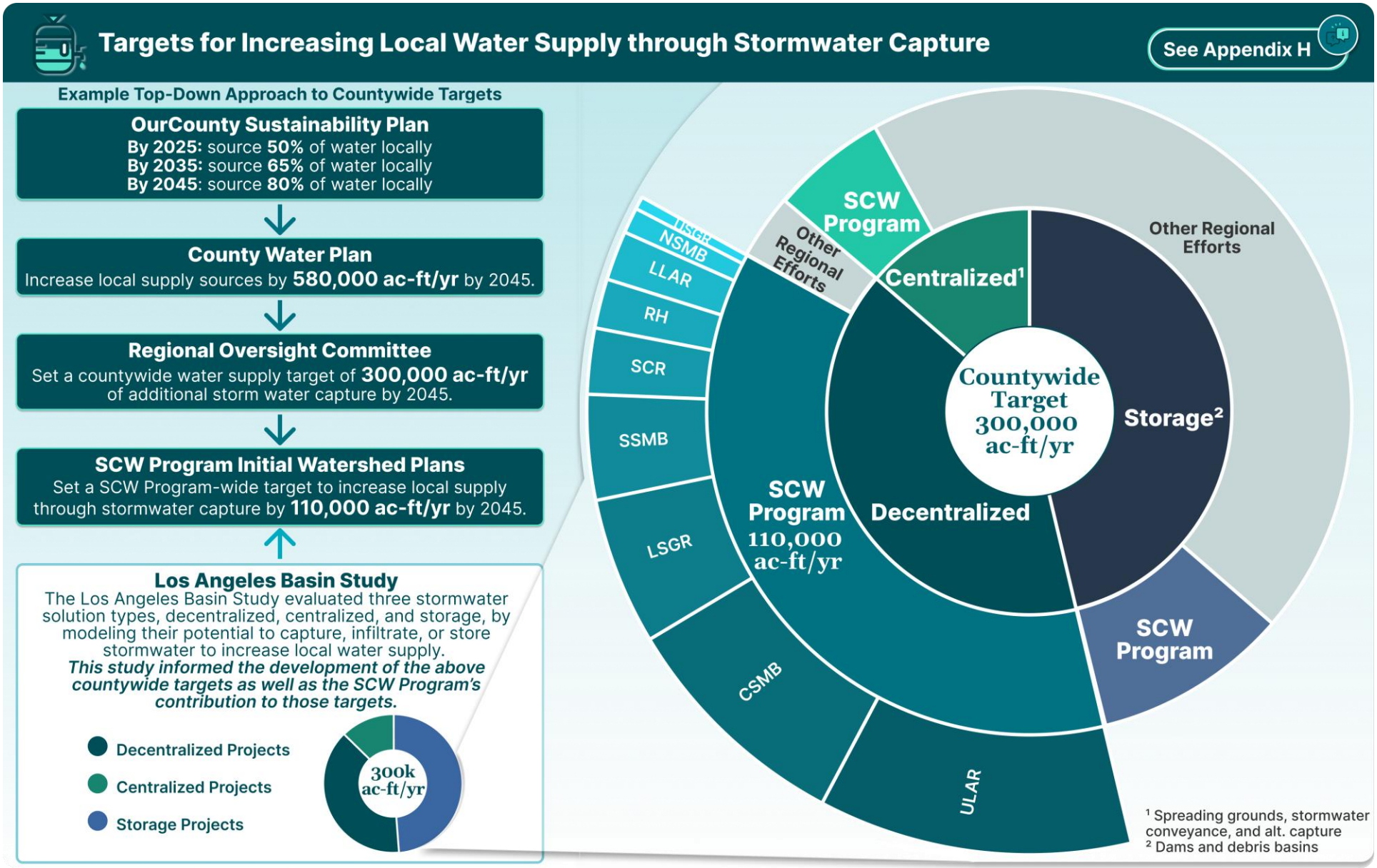


Figure 4-4. Example target setting top-down approach

Figure 4-5 and Figure 4-6 are examples of how the top-down and bottom-up approaches are combined to set targets for an Indicator without an identified countywide target ("Net Area of Park Enhanced or Restored") and with an identified countywide target ("Net Area of Park and Green Space Created"), respectively.

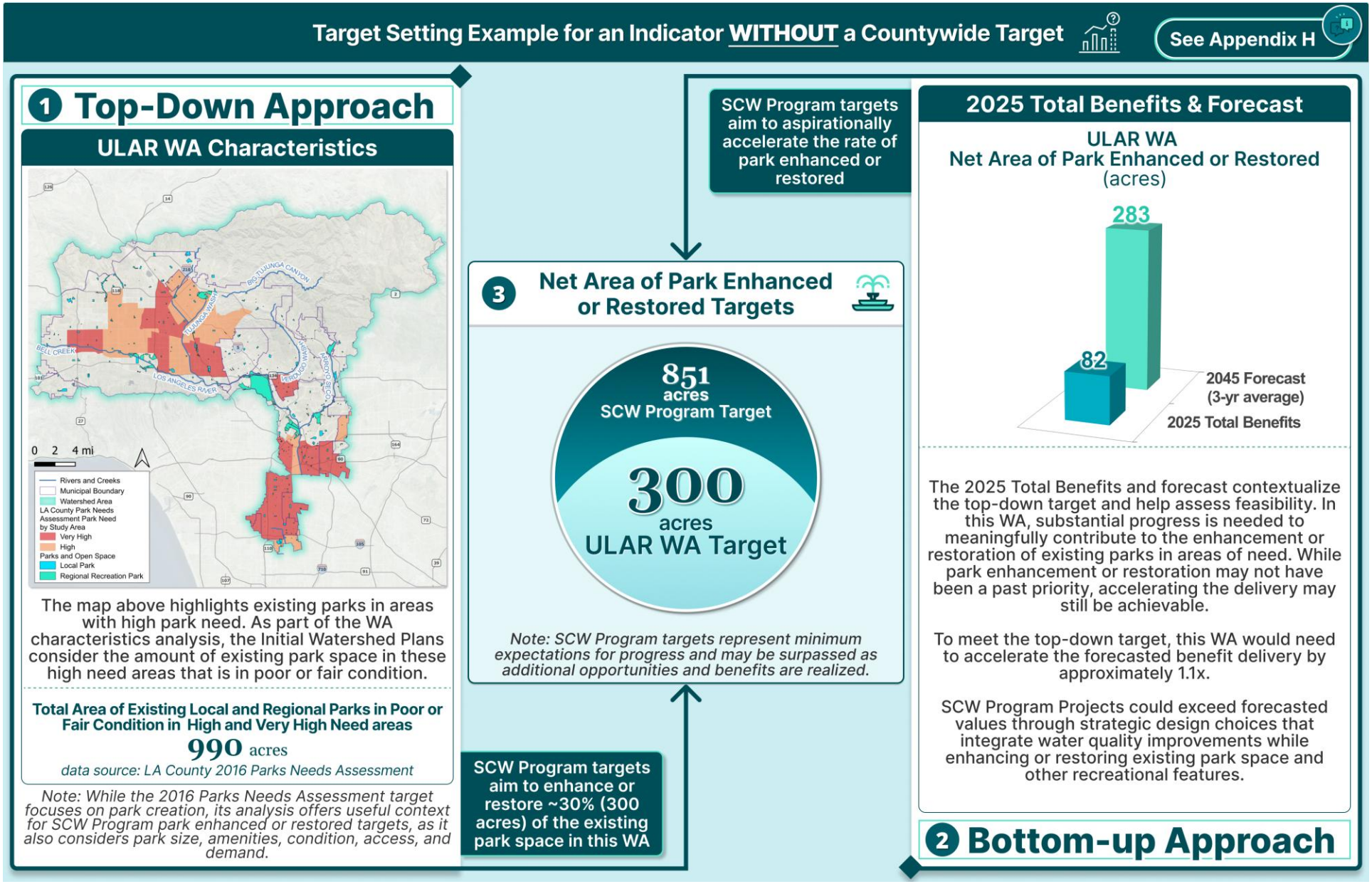


Figure 4-5. Example target setting for an Indicator without a countywide target

Target Setting Example for an Indicator WITH a Countywide Target

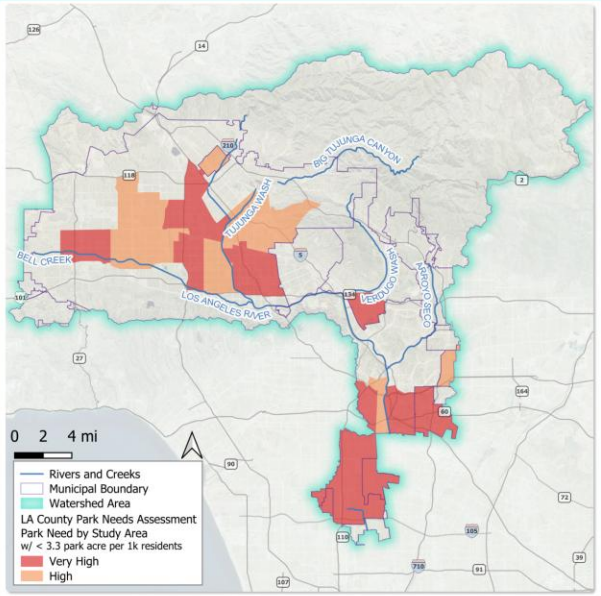
See Appendix H

1 Top-Down Approach

LA County 2016 Park Needs Assessment countywide target

Create 11,850 acres of park space in high and very high need Study Areas to provide 3.3 acres per 1,000 residents *(p. 3-66, Figure. 56)*

ULAR WA Characteristics



The map above highlights areas in need of new publicly accessible park space. The Initial Watershed Plans include the amount of new park space needed as part of the WA characteristics analysis.

New park space needed to meet the 2016 Parks Needs Assessment countywide target

3,870 acres

SCW Program targets aim to aspirationally accelerate the rate of park and green space creation

3 Net Area of Park and Green Space Created Targets

265 acres
SCW Program Target

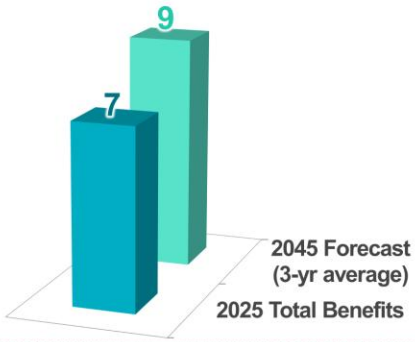
68 acres
ULAR WA Target

Note: SCW Program targets represent minimum expectations for progress and may be surpassed as additional opportunities and benefits are realized.

WA target aims to address ~2% (68 ac) of the identified need for park and green space.

2025 Total Benefits & Forecast

ULAR WA
Net Area of Park and Green Space Created
(acres)



The 2025 Total Benefits and forecast contextualize the top-down target and help assess feasibility. In this WA, substantial progress is needed to meaningfully contribute to the countywide target. While park and green space creation may not have been a past priority, accelerating the delivery may still be achievable.

To meet the top-down target, this WA would need to accelerate the forecasted benefit delivery by approximately 7.5x.

Park and green space creation can take many forms. While large new spaces may not always be feasible, smaller-scale interventions, such as pocket parks, green corridors, and integrated green infrastructure, can collectively deliver meaningful benefits and contribute significantly toward meeting targets.

SCW Program Projects could exceed forecasted values through strategic design choices that integrate water quality improvements with the creation of park or vegetated green space.

2 Bottom-up Approach

Figure 4-6. Example target setting for an Indicator with a countywide target

As described in Section 1.4, the synthesis of WASC and SCW Program governance committee engagement identified several priorities for Watershed Planning, including target setting. Figure 4-7 outlines the items that were considered during target setting for the ULAR WA. See Appendix C for additional information and all priorities considered.

Regional Oversight Committee and Watershed Area Steering Committee Engagement

	SCW Program Committee Priority	Effect on Initial Watershed Plan Targets
ULAR WSAC Items	Water supply Indicator geographic differentiation between infiltration, reuse, diversion.	Water supply-related Indicators align with those in the County Water Plan and use Watershed Area characteristics to establish stormwater capture and groundwater infiltration targets that align with each Watershed Area's unique potential and challenges.
	Create prioritized targets for hardscape redevelopment and removal, particularly in disadvantaged communities.	The Initial Watershed Plans include several Indicators—and associated targets—related to hardscape redevelopment and removal, particularly under the *Improve Public Health* and *Deliver Multi-Benefit with Nature-Based Solution and Diverse Projects* Planning Themes.
	Partnership targets that include multi-agency, Public-Private Partnerships, labor, and community.	This item is not included in Initial Watershed Plan target setting, as it is not directly aligned with a SCW Program Goal.
	Workforce Indicators need to be impacted by each Project.	The job creation-related Indicator consider contributions by each Project.
SCW Program Items*	Synergize targets of the Program with other agencies' climate and water targets.	Countywide targets are incorporated into target setting through the top-down approach.
	Link operations & maintenance spending with workforce development targets.	Operations & maintenance spending is linked to workforce development through the Indicator "Total Full-Time Equivalent (FTE) Jobs Created" and its corresponding target.
	Define Project scale and then evaluate the diversity of Project sizes to date, informed by Watershed Area characteristics.	Target setting considers Watershed Area characteristics and SCW Program Program Projects funded to date as part of the bottom-up approach.
Regional Oversight Committee Items	Define separate metrics for new versus enhanced green spaces or recreational spaces to support incentivizing and prioritizing new recreational areas.	The Initial Watershed Plans include separate Indicators and targets for newly created park and green space versus those that are enhanced or restored.
	Document additional planning documents recommended by the group against the existing list and consider their implications for opportunity analysis and target setting.	Additional planning documents recommended by the ROC were reviewed and integrated into target setting, strategies, and opportunities where applicable.
	Continue efforts to support delivery of benefits sought by communities that are or are not aligned with the "such as seven" of the Community Investment Benefits policy.	The Initial Watershed Plans include an Indicator—"Proportion of Projects and Programs Addressing Community-Stated Priorities or Concerns"—and a corresponding target, to track the delivery of benefits sought by communities.
	Concur that specific benefit types should have different distance benefit service areas dependent on scope and scale.	Community Investment Benefits and benefit ratio distances range from ¼ to 2 miles depending on Project scope and scale.
	With the MS4 Permits as the policy source, acknowledge a countywide target of meeting water quality standards in all receiving waters directly impacted by dry weather and stormwater runoff by 2038 as well as Develop Watershed Area-specific load reduction interim targets for 2032.	Both the overall pollutant load reductions and SCW Program contributions are calculated. Each Watershed Area has unique load reduction final water quality targets and interim targets for 2032 and 2038, respectively.

* SCW Program-wide items reflect common priorities amongst all nine WASCs

Figure 4-7. Regional Oversight Committee and WASC engagement summary of priorities for target setting

4.2.2 Targets for the Upper Los Angeles River Watershed Area

A comprehensive suite of WA targets is established for the ULAR WA as shown in Figure 4-8. These targets use a combination of the top-down and bottom-up approaches described in the previous subsection, linking to countywide targets when available and applicable. These WA targets set a vision for the ULAR WA and provide a foundation for tracking progress in the coming years toward the 14 SCW Program Goals. Appendix H provides details on how WA targets were calculated, which other planning initiatives and countywide targets were considered, and allows for relative comparison between ULAR WA targets and those of the other eight WAs.

In addition to final targets, interim targets are set for the ULAR WA. Interim targets measure the rate of progress in implementing strategies and actions (Chapter 5) and achieving Goals. Interim targets support Adaptive Management (Chapter 7) by prompting a review of strategies and actions if they are not being met. For the pollutant reduction Indicators under the Improve Water Quality Planning Theme, targets are set for 2032 and 2038, to align with water quality regulatory milestones. For all other Indicators, targets are set for 2030, 2035, and 2045. These milestones align with other ongoing planning initiatives in the Los Angeles region, such as the County Water Plan, the Los Angeles County General Plan 2035, L.A.'s Green New Deal, and the OurCounty Sustainability Plan. Interim targets are based on the quantification of WA Needs and are detailed and illustrated in Section 5.1.1.

Establishing targets enables the determination of ULAR WA's Needs, which represent the remaining progress required to meet targets and achieve Goals. For Watershed Planning, identifying WA Needs informs the development of strategies to address them. Strategies can then guide informed community investment decisions. The assessment of WA Needs and strategies to address them is presented in Chapter 5.

Upper Los Angeles River Watershed Area Targets

See Appendix H

Planning Theme *SCW Program Goal(s)*	Improve Water Quality *SCW Program Goal A*		Increase Drought Preparedness *SCW Program Goal B*	
Target Indicator (units) [LEGEND]	**8.80k** Zinc Load Reduction (lbs/yr)	**21.60k** Total Phosphorus Load Reduction (lbs/yr)	**32.30k** Increase Local Supply through Stormwater Capture (ac-ft/yr)	**14.49k** Increase Local Supply Through Groundwater Recharge and Storage (ac-ft/yr)

Improve Public Health
SCW Program Goal C

68 Net Area of Park and Green Space Created (acres)	**5** Net Area of Green Space at Schools Created (acres)	**300** Net Area of Park Enhanced or Restored (acres)	**290** Net New Area of Canopy, Cooling, and Shading Surfaces (acres)

Deliver Multi-Benefits with NBS and Diverse Projects *SCW Program Goals E, F, G*		Leverage Funding & Invest in Research & Development *SCW Program Goals D, H, I*	Equitably Distribute Benefits *SCW Program Goals J, K*	
150 Net Area of Habitat Created, Enhanced, or Restored (acres)	**100%** Proportion of Projects and Programs Addressing a Community-Stated Priority or Concern (%)	*at least* **50%** Proportion of Project Costs Attributed to Leveraged Funding (%)	*at least* **45%** DAC Benefit Ratio* (%)	*at least* **70%** Proportion of Municipal Program Funds Spent on New Projects or Programs* (%)

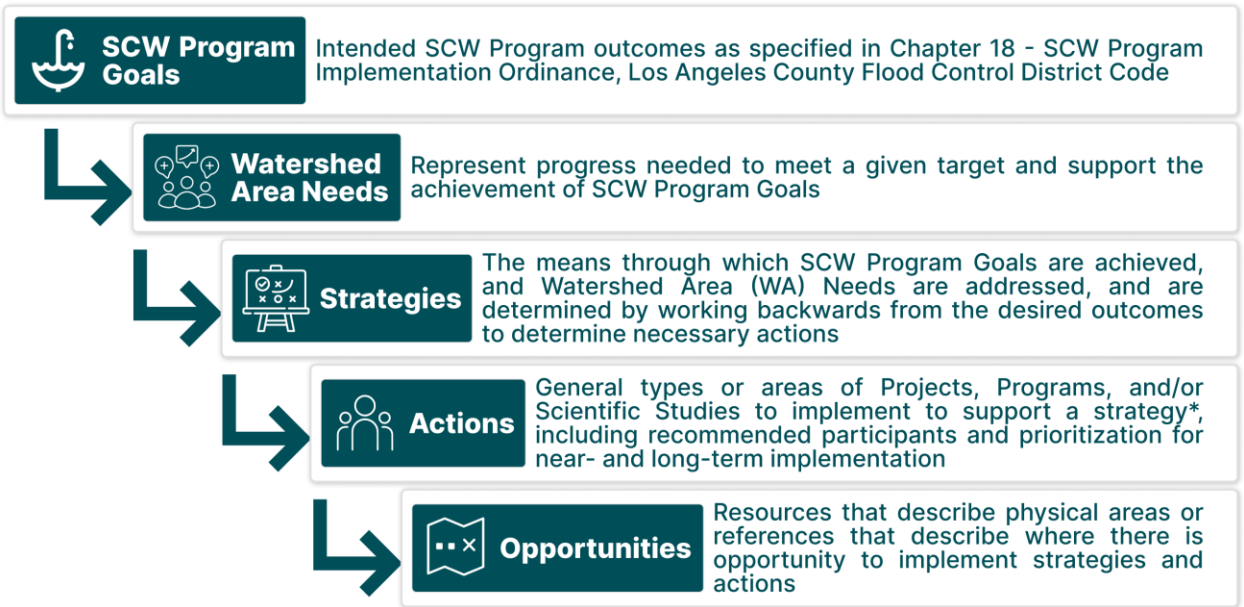
Promote Green Jobs and Career Pathways *SCW Program Goal M*		Ensure Ongoing O&M for Projects *SCW Program Goal N*	Prioritize Meaningful Engagement
6.14k Estimated Total Full-Time Equivalent (FTE) Jobs Created (#)	**100%** Proportion of Projects Entered in a Project Labor Agreement (PLA) (where applicable)* (%)	**100%** Quantity of O&M Plans Sustaining Intended Project Benefits* (%)	**100%** All Projects to Meet a Minimum "Level of Achievement" (Good/Better/Best)

* As required by Chapter 18 of the Los Angeles County Flood Control District Code for the SCW Program Implementation Ordinance (LACFCD Code §18).

Figure 4-8. ULAR WA targets by Indicator

Chapter 5. Strategies for Addressing Needs and Achieving Goals

Building on the 2025 Constructed Baselines and Total Benefits established in Chapter 3 and the targets defined in Chapter 4, this chapter identifies the ULAR WA Needs and presents strategies to address them. These strategies serve as a roadmap for achieving SCW Program Goals. Each strategy is supported by one or more actions and opportunities, which outline steps and available resources for implementation. Collectively, strategies, actions, and opportunities provide guidance to the ULAR WASC, the ROC, Municipalities, Public Works, and Project and Program proponents for addressing WA Needs and advancing the achievement of Goals. WA Needs, strategies, actions, and opportunities and their relation to each other are defined in Figure 5-1 below. The development of these elements for each WA is informed by a technical analysis of the ULAR WA's unique WA Needs and characteristics, a review of key efforts to date, and community-stated and WASC-identified priorities and concerns, gathered through engagement and the CSNA (Section 1.4).



* Strategies may contribute to the achievement of multiple SCW Program Goals and may address more than one WA Need. Actions and opportunities may support multiple strategies. All Projects and Programs must include a Water Quality Benefit as defined in Chapter 16 of the Los Angeles County Flood Control District Code (LACFCD) for the SCW Program Implementation Ordinance (LACFCD Code §16).

Figure 5-1. Strategies, actions, and opportunities

Strategies, actions, and opportunities presented in this section are informed by technical analyses, interested party engagement, and guidance from SCW Program

governance committees. These strategies are designed to be iterative and responsive, evolving over time through the SCW Program's Adaptive Management (Chapter 7).

Importantly, the Initial Watershed Plan strategies, actions, and opportunities are intentionally aligned with a broad range of ongoing local and regional planning initiatives to ensure cohesive and mutually reinforcing outcomes. These efforts include the Parks Needs Assessment[35], L.A.'s Green New Deal, OurCounty Sustainability Plan, County Water Plan, Vision 2045, LAUSD Green Schoolyards for All Plan, Community Forest Management Plan, and others (Table 1-1 and Appendix E). By aligning with these efforts, the SCW Program advances a unified regional vision that supports improved water quality, enhanced drought and climate resilience, equitable community investment, enhanced and expanded urban forest cover and vegetation, and the creation of healthier, climate-ready communities. This strategic alignment not only enhances the impact of individual Projects and Programs but also accelerates collective progress toward long-term environmental and social goals across the Los Angeles region.

5.1 Quantifying Watershed Area Needs

WA Needs represent the progress that is needed to meet the targets set in Chapter 4. For magnitude-based Indicators expressed in numerical terms (e.g., acres, ac-ft/yr, jobs created), the WA Need is determined as the difference between a target and its Total Benefits (Chapter 3), as illustrated in Figure 5-2. Recall that Total Benefits are informed by SCW Program Projects funded to date and their anticipated benefits, while targets represent aspirational benchmarks for each Indicator.

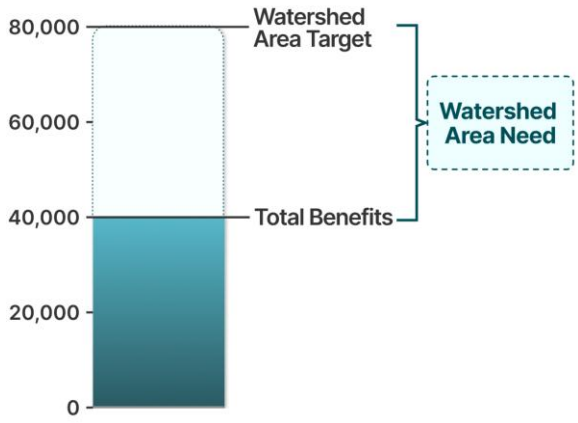


Figure 5-2. WA Need conceptual example for a magnitude-based Indicator

WA Needs for magnitude-based Indicators are expected to decrease incrementally over time, as more multi-benefit Projects and Programs are implemented in alignment with strategies that address multiple WA Needs and advance progress toward achieving Goals.

[35] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

Unlike magnitude-based Indicators, percentage-based Indicators do not accrue benefits in a linear or additive manner. Instead, they reflect cumulative progress over time. As a result, their progress may fluctuate (either decreasing or increasing from year to year) depending on the evolving proportion of benefits realized throughout the lifetime of the SCW Program. To ensure consistent long-term progress toward targets, WA Needs for percentage-based Indicators are set at their respective targets. This means that the specified percentage or greater must be achieved and sustained to demonstrate continued progress toward targets.

In addition to quantitative WA Needs, Watershed Planning encourages the consideration and addressing of community needs identified through Project-specific engagement, the CSNA, or engagement by other planning initiatives. *Note that the term "Need" used within the CSNA differs in context from WA Need.* For Watershed Planning purposes, Projects and Programs are linked to community-stated priorities and concerns through the Indicator: "Proportion of Projects and Programs addressing a community-stated priority or concern". This Indicator has a target of 100% (Figure 4-8), reflecting the vision that all Projects and Programs should address one or more community-stated priorities or concerns.

This Indicator provides a direct linkage between Watershed Planning and community input, as gathered through the CSNA and other engagement efforts such as Project or Program-specific engagement, the Parks Needs Assessment[36], OurCounty Sustainability Plan, County Water Plan, Vision 2045, and Community Forest Management Plan. Even if a WA has already met the 100% target, the WA Need remains at 100% to reflect the ongoing expectation that all future Projects and Programs continue to align with and address community-stated priorities.

5.1.1 Watershed Area Needs for the Upper Los Angeles River Watershed Area

WA Needs are illustrated by bar charts for each Indicator. As outlined by the legend in Figure 5-3, magnitude-based Indicators have three purple lines in the bar chart that represent two interim targets and the final target (2038 for water quality, 2045 for all other Indicators). For percentage-based Indicators, interim targets are not applicable, and their final (2045) targets can be interpreted as perpetual. The darkest blue portion illustrates the 2025 Constructed Baseline for that Indicator, while the middle blue portion shows the anticipated benefits by planned Projects, together these represent

[36] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

the 2025 Total Benefits by SCW Program Projects funded to date. The lightest blue bar quantifies the remaining WA Need to meet the final target.

Interim targets for magnitude-based Indicators are informed by the Regional Program Project financial outlooks, as described in Section 2.3.1 and detailed by Appendix F. Interim targets recognize that approximately 69%[37] of ULAR WA Regional Program funds are already allocated over the next five years (i.e., FY25-26 to FY29-30). This limits near-term financial flexibility to fund new Projects and Programs and advance progress toward targets. The interim targets have been developed to reflect this funding reality and Chapter 5 presents strategies to help address and alleviate this constraint. Specifically, a phased approach is used to distribute progress toward meeting WA Needs across interim target periods. This approach sets more modest interim targets in the next 5–10 years, with increased expectations for progress in the latter part of the implementation timeline. The interim targets for magnitude-based Indicators are distributed as follows:

- For Indicators under the Improve Water Quality Planning Theme:
    - 33% of the current WA Need is targeted by 2032[38].
    - The remaining 67% of the WA Need is targeted for completion between 2032 and 2038.
- For Indicators under all other Planning Themes:
    - 15% of the current WA Need is targeted by 2030 (covering the 2025–2030 period).
    - 33% is targeted by 2035 (covering the 2025–2035 period).
    - The remaining 67% is targeted for completion between 2035 and 2045.

This staggered approach acknowledges immediate Regional Program fiscal limitations while allowing for acceleration in later years as the WA Regional Program budget recuperates or as new funding sources are secured.

The 2025 Constructed Baselines, 2025 Total Benefits, targets, and WA Needs for the ULAR WA are presented in Figure 5-3 for each Indicator and are organized by Planning Theme. Appendix H presents ULAR WA Needs in a tabular format. The following section outlines the individual strategies to address the WA Needs presented below as well as opportunities for addressing multiple cross-thematic WA Needs.

[37] Per the FY25-26 SIP.

[38] For the pollutant reduction Indicators under the Improve Water Quality Planning Theme (e.g., Zinc Load Reduction), targets are set for 2032 and 2038, to align with water quality regulatory milestones. For all other Indicators, targets are set for 2030, 2035, and 2045. These milestones align with other ongoing planning initiatives in the Los Angeles region, such as the County Water Plan, the Los Angeles County General Plan 2035, the L.A.'s Green New Deal, and the OurCounty Sustainability Plan.

Figure 5-3. ULAR WA 2025 Constructed Baselines, 2025 Total Benefits, targets, and WA Needs

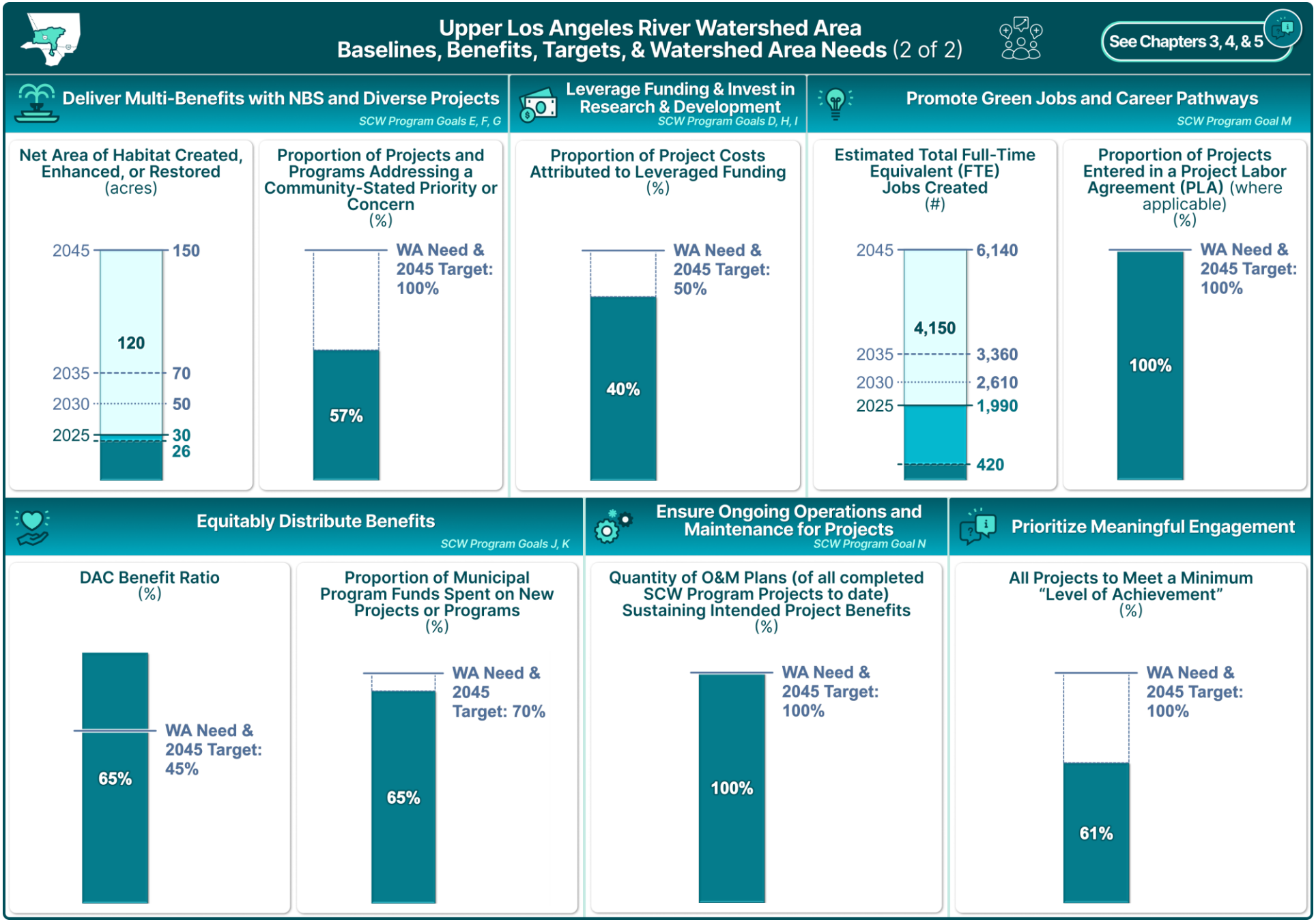


Figure 5-3. ULAR WA 2025 Constructed Baselines, 2025 Total Benefits, targets, and WA Needs (continued)

5.2 Strategies to Address Needs and Achieve Goals

To support Project and Program proponents, the ULAR WASC, the ROC, Municipalities, and Public Works in addressing ULAR WA Needs and achieving Goals, this section presents an initial set of strategies and actions. While the strategies presented in this Initial Watershed Plan do not prescribe specific Projects or Programs, they provide general guidance and resources to support strategic decision-making in the ULAR WA and an initial vision for approaches that can be taken for achieving Goals with increased efficiency and higher returns on investment. This Initial Watershed Plan is intended to provide general direction, including tailored benefit summaries, targets, and strategies for the WA. Nothing in this Initial Watershed Plan should be construed as a commitment by any participating entity to fund the implementation of any specific actions identified herein. Adoption of the Initial Watershed Plan is not intended to serve as approval or authorization for any specific activity that would be considered a project under the California Environmental Quality Act (CEQA) and any future proposed Projects would comply with SCW Program requirements, including environmental documentation, as required.

For each strategy, one or more opportunities have been identified. These opportunities represent physical or conceptual areas where implementing Projects and Programs could deliver cumulative SCW Program benefits by aligning with the associated strategies and supporting progress toward achieving the Goals. These areas of higher opportunity yield the most potential to contribute to a given Indicator and other countywide goals; however, they are not intended to represent precise locations where Projects are most feasible. Feasibility and effectiveness must be evaluated on a Project-by-Project basis.

Opportunities may be used as guides by the ULAR WASC, Municipalities, Public Works, and Project and Program proponents in identifying areas where Projects or Program implementation would have the greatest impacts. A demonstration of how the key planning elements (WA Needs, strategies, actions, and opportunities) come together to provide a toolkit through which Goals can be effectively achieved, serve as a guide to Project proponents, and support strategic funding decisions by the BOS, WASCs, Municipalities, and Public Works is shown in Figure 5-4 below.

Among the strategies presented, several “Priority Strategies” are recommended. These Priority Strategies were identified through WASC Watershed Planning engagement workshops (Chapter 1). WASCs are comprised of Municipalities, agencies, and other interested parties with experience and knowledge of the ULAR

WA and its communities. Each WASC must be comprised of seven members from Municipalities within the WA, five members from local agencies, and five members that represent community stakeholders. Due to the strategic and diverse membership requirements—as well as the technical expertise of its members—the WASC's Priority Strategies can be considered a strong reflection of priorities for future SCW Program Projects and Projects implemented in the ULAR WA. As such, Priority Strategies serve as an important component of Watershed Planning. The strategies presented in this Initial Watershed Plan include both ULAR WA-specific Priority Strategies as well as SCW Program-wide Priority Strategies that are common to multiple of the other eight WAs.

Additionally, given the Los Angeles region's historical vulnerability to wildfires, the Initial Watershed Plans aim to align wildfire resilience measures with water quality improvements to support multi-benefit Projects that enhance both public and environmental health. As a result, wildfire resilience strategies were developed to guide the integration of NBS, O&M best practices, and other fire-adapted infrastructure into Project planning. These strategies are intended to improve water quality in post-wildfire runoff, reduce wildfire risk, promote ecosystem resilience, and ensure that future Projects contribute meaningfully to long-term watershed health and community safety.

Upper Los Angeles River Watershed Area Strategies, Actions, and Opportunities Example

Outcome

SCW Program Goals

Improve Water Quality

SCW Program Goal A. Improve water quality and contribute to attainment of water-quality requirements.

Why?

Watershed Area Needs

*Watershed Area (WA) Needs summarize **why** strategies are needed*

5,400
Zinc Load Reduction (lbs/yr)

16,100
Total Phosphorus Load Reduction (lbs/yr)

How?

Strategies

*Strategies describe **how** to address WA Needs and achieve Goals*

Prioritize high performance Projects and Programs in areas with the highest pollutant loads

(strategy 1.1)

Implementation Timeline
NEAR TERM *(1 - 5 years)*

What?

Action(s)

*Actions describe **what** general types of Projects, Programs, and Studies to implement*

Prioritize wet-weather Projects

728 ac-ft

Estimated Project capacity (24-hour) to meet WA Need

Located in areas with the highest average annual load reduction opportunity for zinc, total phosphorus, and bacteria.

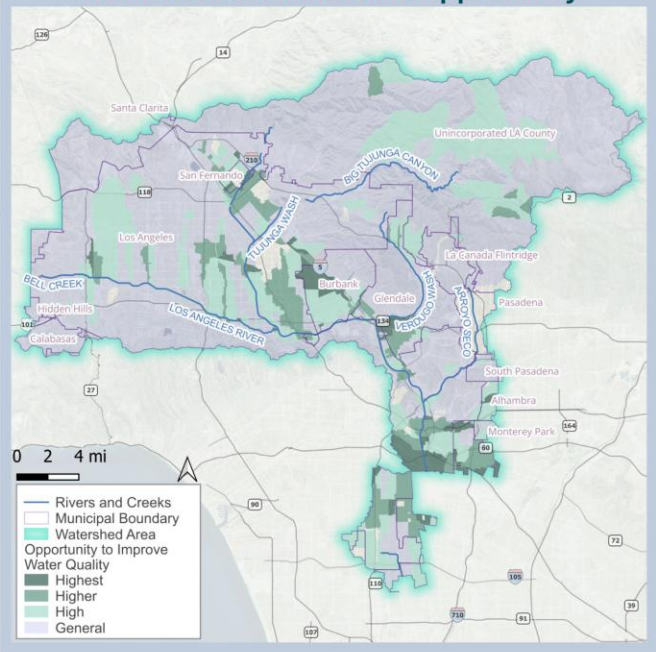
(action 1.1.2)

Where?

Opportunities

*Opportunities are mapping layers and/or references to existing efforts that describe **where** there is opportunity to implement strategies and actions*

Pollutant Load Reduction Opportunity



Please note that this figure serves only as an example of strategies and actions. See the Initial Watershed Plan Chapter 5.2.1 for a full list of strategies and actions for the ULAR WA.

Figure 5-4. Example of using strategies, actions, and opportunities to address WA Needs and achieve Goals

Strategies describe how to achieve SCW Program Goals and make progress toward targets by addressing WA Needs. Each strategy's supporting actions describe what types of eligible activities[39] (i.e., Projects, Programs, or Scientific Studies) could be implemented to best support the strategy. For example, supporting actions may describe:

- Projects with desirable attributes (e.g., wet or dry-weather capture, Project type, size, cost effectiveness) and/or locations (e.g., sites that capture portions of the ULAR WA that are currently untreated).
- Programs that address WA Needs and/or Goals, including identification of potential Scientific Studies and activities such as monitoring programs or community outreach and education efforts.
- Data collection efforts, such as Scientific Studies, which address key data gaps identified for Adaptive Management.

This section connects strategies to their respective opportunities, aiming to 1) assist Municipalities and Project and Program proponents in identifying the most impactful resources and areas for future Projects and Programs and 2) guide strategic funding decisions made by WASCs, Municipalities, and Public Works that would efficiently and effectively achieve Goals.

As shown in Figure 5-5, opportunities with both spatial and non-spatial attributes are provided as key resources to the WA. While spatial opportunities highlight geographic regions where actions can most effectively address the ULAR WA's specific needs and contribute to achieving SCW Program Goals, non-spatial opportunities provide complementary tools and resources to enhance overall Project and Program implementation. An example of non-spatial opportunities includes the SCW Program's Engagement Calendar and Leveraged Funding Reports.

[39] See Appendix A or the SCW Program Implementation Ordinance (LACFCD Code §16) for the complete list and definitions of eligible expenditures.

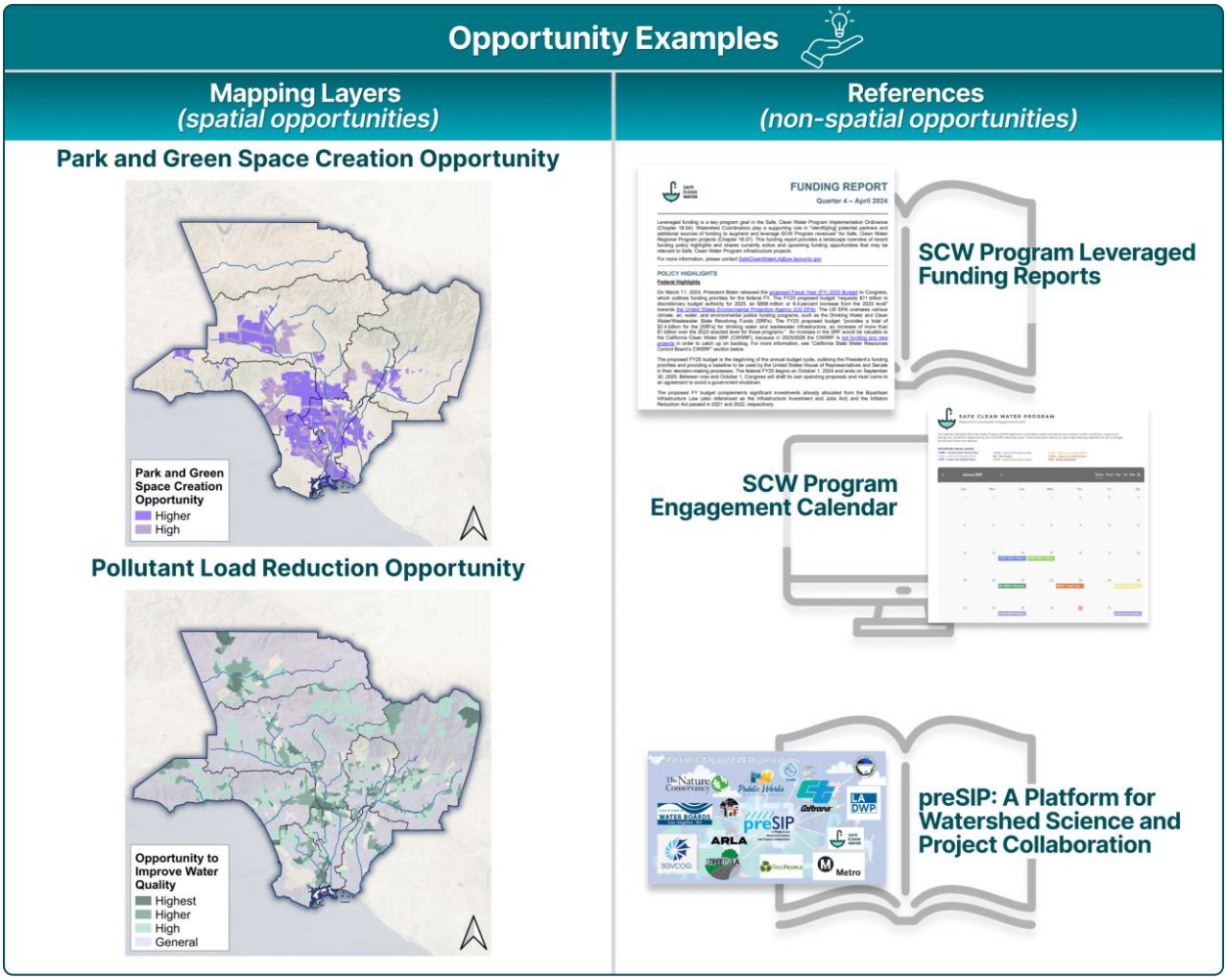


Figure 5-5. Opportunity examples (spatial and non-spatial)

Spatial opportunities are grounded in technical analyses designed to align regional and statewide data with the ULAR WA specific strategies and actions. These layers help identify physical areas with the greatest potential to address WA Needs and achieve Goals while supporting broader countywide objectives.

The foundation of spatial opportunities includes a range of input mapping datasets that reflect key WA Characteristics or known areas of need. These datasets are sourced from various planning efforts, including those developed by Public Works and other strategic initiatives such as the Parks Needs Assessment[40], the Community Forest Management Plan, and the Los Angeles River Master Plan[41]. Each contributes spatial and thematic insight that informs the identification of opportunities. Additionally,

[40] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.
[41] Note that the Los Angeles River Master Plan datasets referenced in this Initial Watershed Plan are based on regional analyses that included this WA.

community-stated priorities (gathered through the CSNA) are incorporated as their own dedicated opportunity. This ensures that input from community members and technical analyses are synthesized to guide the identification of where Projects and Programs are most needed.

Figure 5-6. Example opportunity layer development

A visual representation of this process is provided in Figure 5-6 using a single Indicator from the Improve Public Health planning theme as an example, where mapping layers from the Parks Needs Assessment[42] and the Los Angeles River Master Plan are strategically combined using technical expertise and local knowledge to identify areas of opportunity for park and green space creation.

A key element of the SCW Program is to deliver multi-benefit, watershed-based Projects and Programs that deliver a Water Quality Benefit while contributing to multiple other Goals. As illustrated in Figure 5-7, by combining opportunities across Planning Themes to create “composite” opportunities, the Initial Watershed Plans serve as a strategic foundation for prioritizing investments with the greatest potential to deliver multi-benefit Projects and Programs. These composite layers (presented in the Initial Watershed Plans and Planning Tool) provide a key resource for both the Regional and Municipal Programs to maximize return on investments.

[42] Refers to the 2016 Parks Needs Assessment.

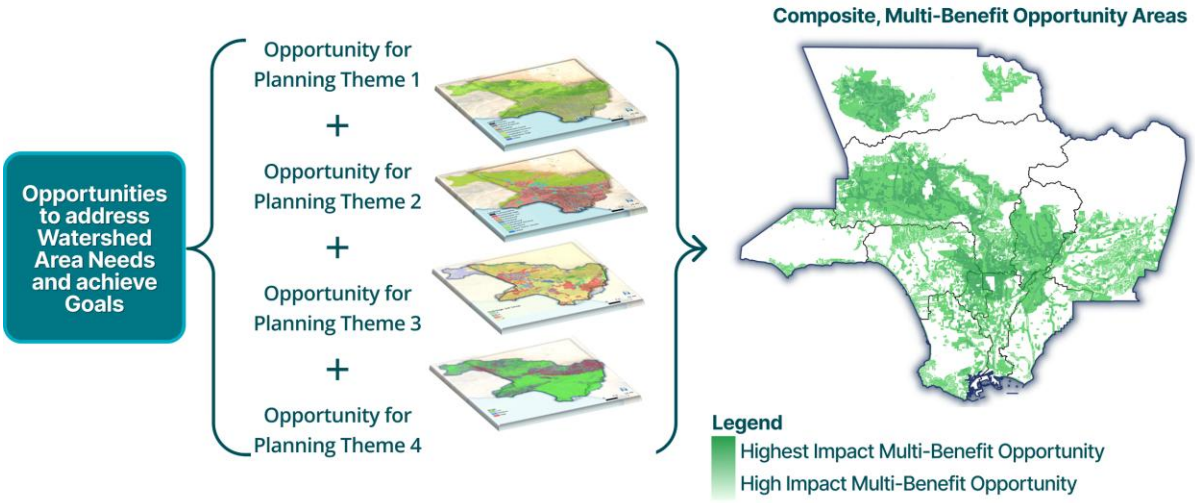


Figure 5-7. Conceptual example for identifying multi-benefit opportunities using "composite" layers

Appendix I provides details of opportunity analyses and full-page opportunity maps for the WA. Appendix J provides full-page composite opportunity maps for the WA, its Municipalities, and Supervisorial Districts. Over time, as implementation progresses, data gaps are addressed, and lessons are learned, opportunities will evolve.

5.2.1 Strategies, Actions, and Opportunities for the Upper Los Angeles River Watershed Area

This section presents the strategies, actions, and opportunities[43] identified for the ULAR WA. These elements are designed to advance progress toward the 14 SCW Program Goals and serve as a roadmap for coordinated, impactful implementation. Developed through technical analysis, interested party input, and alignment with other regional planning efforts, these strategies are intended to guide the ULAR WASC, Municipalities, Public Works, and Project and Program proponents in delivering effective, multi-benefit stormwater solutions.

[43] Strategies, actions, and opportunities may be broadly referred to in this Initial Watershed Plan as 'strategies' as they function as a cohesive unit to collectively describe pathways for addressing WA Needs and achieving Goals.

Hypothetical high-level estimates of the 24-hour Project capacities[44] and areas that could address the WA Needs in the ULAR WA for water quality, water supply, public health, and habitat are provided in Figure 5-8 and below:

- Approximately 820 ac-ft of 24-hour Project capacity to improve water quality and increase local water supply through stormwater capture.
    - Of that 820 ac-ft, approximately 700 ac-ft of 24-hour Project capacity are needed from Projects that both improve water quality and increase local water supply through groundwater recharge.
- 218 acres of park enhanced or restored,
- 61 acres of park or green space created,
- 284 acres of canopy, cooling, and shading surfaces,
- 120 acres of habitat created, enhanced, or restored, and
- 5 acres of green space created at schools.

The hypothetical Project capacities presented in this section are high-level approximations intended to translate water quality and water supply WA Needs (in pounds per year [lbs/yr] and ac-ft/yr, respectively) into a more tangible and accessible metric. Project capacities and their values are not SCW Program Indicators or targets, nor are they compliance measures or definitive solutions. Rather, they provide general context for interested parties to illustrate the scale of implementation needed to address water quality and water supply WA Needs.

When capacity estimates are noted, the phrase “or equivalent” is implied—different Project types and configurations may achieve similar outcomes with greater or lesser capacity. Projects located in areas with high pollutant loads or runoff volumes may demonstrate enhanced performance, addressing WA Needs with smaller footprints or lower capacities. Conversely, Projects targeting dry-weather flows or areas with substantial runoff volumes may deliver greater water supply benefits at lower Project capacities. Progress should be tracked using WA Needs and targets, not capacity estimates. For details on how Project capacities were approximated, see Appendix H.

Each of the following sections (Sections 5.2.1.1 to 5.2.1.9; one per Planning Theme [Improve Water Quality, Increase Drought Preparedness, etc.]) presents details on

[44] 24-hour Project storage capacity to meet the Water Quality and Water Supply WA Needs for the ULAR WA includes a Project’s structural capacity plus the additional capacity that can be treated over a 24-hour period through infiltration or other means. The SCW Projects Module calculates 24-hour capacity as the capacity captured during the 24-hour 85th percentile design storm, with the maximum capacity being 100% of the volume of the design storm. 24-hour capacity is the basis for Project scoring metric A.1 Water Quality Cost Effectiveness.

initial strategies that encompass near-term actions, which can be implemented or prioritized immediately using existing resources and partnerships, and long-term actions that lay the groundwork for sustained progress over a five-plus year horizon. These sections include the following components:

- A **summary** that recaps the potential and challenges in the WA for achieving Goals under the given Planning Theme and highlights input from interested parties and the WASC to emphasize priorities and provide context to the strategies, actions, and opportunities presented on the pages that follow.
- **Figures that outline strategies and actions** for achieving SCW Program Goals under the given Planning Theme. WA Needs and their final target year are included in these figures for context. Additionally,
    - Actions are accompanied by suggested supporting entities (i.e., "who should be involved") ranging from SCW governance bodies (e.g., Public Works, WASCs, Watershed Coordinators), to Municipalities, CBOs, and regulatory partners like the California State Water Resources Control Board (SWRCB). The ULAR WASC, Municipalities, Public Works, and Project and Program proponents are encouraged to reference the "who should be involved" field to identify actions that their investment and implementation decisions may support.
    - As described in Section 5.1.1, the timeline for addressing WA Needs by achieving these actions or equivalent is by 2045 for all Planning Themes except Improve Water Quality, which has a target date of 2038. Interim targets are detailed in Section 5.1.1 and Appendix H, along with additional information on how Project capacities were approximated.
- **Spatial opportunity maps** *(when applicable)* that highlight areas with the most opportunity for new Projects or Programs to implement strategies and contribute to achieving Goals. Each map is accompanied by a short description of key data sources, relevant considerations for their use, and corresponding strategies. Full-sized versions of these maps, along with detailed information on data sources, methods, and classification criteria, can be found in Appendix I. All opportunity layers are also available for interactive exploration through the Planning Tool. Note that spatial opportunity maps are based on regional analyses and datasets and are not intended to replace site-specific planning, key considerations for their use include:
    - Spatial opportunities rely on regional datasets and are mapped at large scale. Due to the scope and scale of spatial opportunity maps included in

the Initial Watershed Plans, map elements such as feature labels, boundaries, or alignment may not be perfectly precise.
    - Spatial opportunities support high-level spatial assessment and strategic planning. They convey patterns, highlight relative opportunities within each WA or Municipality, and provide spatial context. They should not be used as site-specific design tools.
    - Spatial opportunities serve as a preliminary planning resource. They are intended to inform early prioritization and identify areas of relative potential, not to serve as definitive markers of project viability or site-level suitability.
    - Local, site-specific feasibility assessments remain essential. Project and Program proponents should always conduct local assessments to evaluate actual site conditions, including feasibility constraints, potential hazards, and hydrologic or geotechnical factors, to ensure that Projects are appropriately validated, sited, and designed. Actual site-level opportunity may differ from spatial opportunities due to unique local conditions.
- **Non-spatial opportunity tables** *(when applicable)* provide resources and references to support strategy and action implementation. Each entry includes a brief description of the opportunity and its intended use, the source, and a direct link for access.

Following the sections for *individual* Planning Themes, composite multi-benefit opportunities are presented in Section 5.2.1.10 to support the ULAR WASC and ULAR WA Municipalities in identifying areas with the greatest potential for delivery of Projects and Programs that provide both Water Quality and Water Supply Benefits and those that address *multiple other* Planning Themes, in addition to the Water Quality Benefit requirement.

These composite opportunities combine the individual opportunities developed for each Indicator, offering guidance for delivering multi-benefit Projects as required by the SCW Program Implementation Ordinance, which states:

> - "[The Regional Program Infrastructure 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" (LACFCD Code §16.05.D.1).

> - "Projects implemented through the Municipal Program shall include a Water Quality Benefit. Multi-Benefit Projects and Nature-Based Solutions are strongly encouraged" (LACFCD Code §16.05.C).

Section 5.2.1.11 builds on these composite opportunities with an example of how a Project proponent might align implementation choices with the strategies presented herein. This example illustrates how implementation choices can be aligned to meet SCW Program requirements, maximizing multi-benefit outcomes, and helping guide future Project planning and decision-making within the ULAR WA.

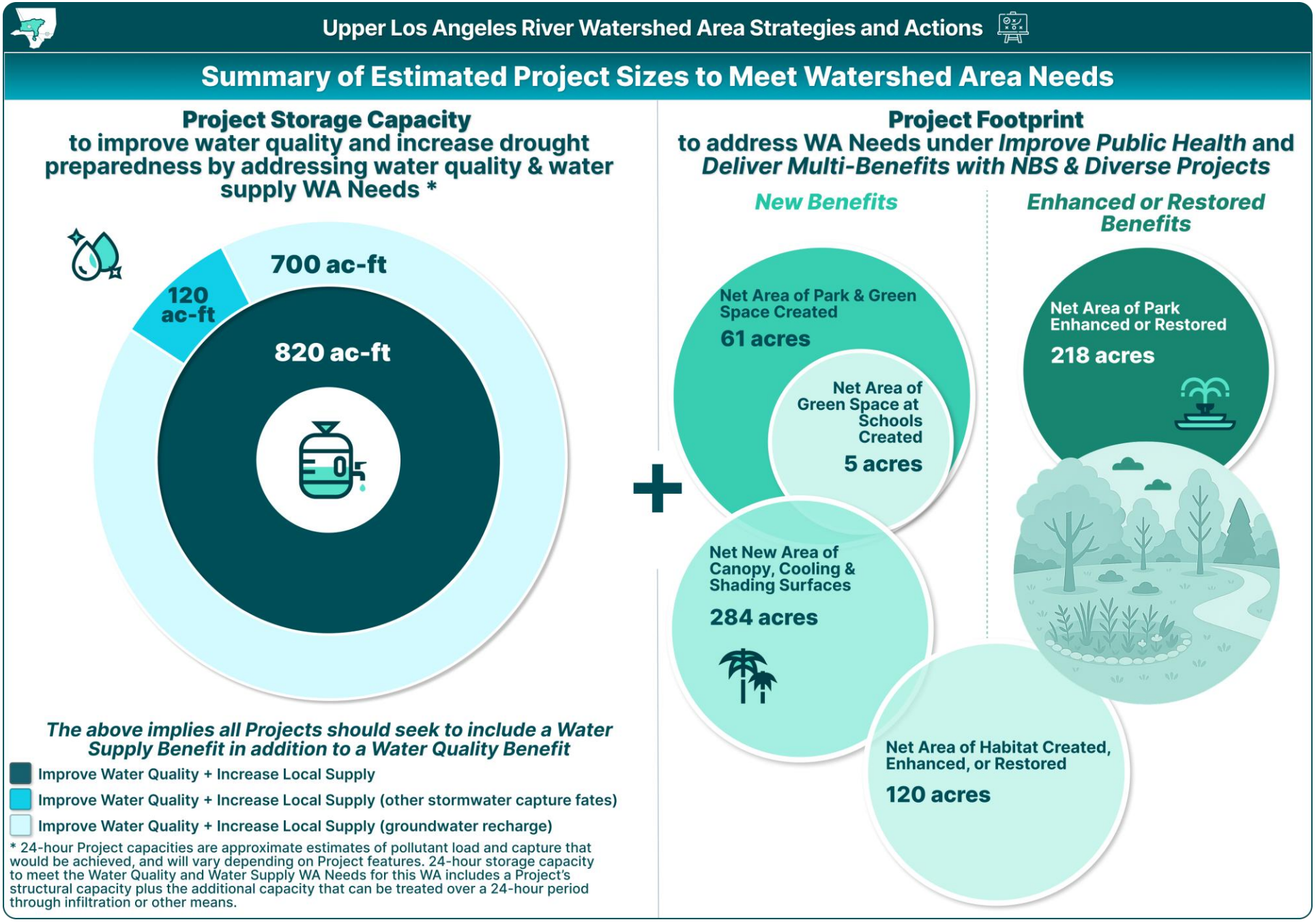


Figure 5-8. Approximate Project capacities and areas that would address ULAR WA Needs

5.2.1.1 Improve Water Quality: Strategies, Actions, and Opportunities

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 soil contaminants into the Los Angeles River and its tributaries. As a result, the ULAR WA and its contributing channels face persistent and complex water quality challenges. For the Initial Watershed Plans, zinc, total phosphorus, and bacteria are considered priority pollutants. However, where feasible, Projects should be designed to address both priority and other regulated pollutants to enable simultaneous progress toward compliance with applicable TMDLs. These strategies and their opportunities aim to inform Project prioritization, helping to guide strategic decision-making and avoid disjointed or scattershot implementation.

While the SCW Program alone cannot fully achieve regional water quality goals, it plays a critical role in supporting progress toward achieving them. The WASCs and the Regional Program financial outlooks (Section 2.3.1) have consistently emphasized the need to leverage other funding sources to maximize impact. Given the anticipated limited availability of Regional Program funding for new large-scale Projects in the near term, and the densely populated urban clusters, there is a critical need to strengthen Municipalities' capacity to implement small-scale and distributed stormwater Projects through the Municipal Program. These decentralized Projects are essential for sustaining momentum, delivering localized water quality improvements, and providing immediate community benefits while regional solutions are planned and developed. By supporting Municipalities in delivering a robust pipeline of smaller Projects, the ULAR WASC and SCW Program can bridge near-term funding gaps and advance immediate water quality goals. An approach that combines small-scale distributed infrastructure with regional investments, implemented over time through both the Regional and Municipal Programs, is key to maximizing collective impact and accelerating progress toward watershed health.

Improving water quality is a core SCW Program Goal and a requirement for all funded Projects and Programs. To date, SCW Program Projects in the ULAR WA have focused on priority pollutants such as total zinc, total phosphorus, and bacteria, often achieving above-average pollutant removal efficiencies despite relatively small capture areas. The ULAR WASC continues to prioritize multi-benefit Projects that integrate BMPs such as infiltration wells and facilities, bio-retention and filtration features, and green streets, solutions that reduce pollutant loads while also enhancing neighborhood aesthetics, increasing shade, and creating recreational spaces. Looking forward, strategies for water quality improvement are guided by a watershed-scale perspective, considering the spatial distribution and cumulative benefits of funded Projects. In the near term, prioritizing distributed green infrastructure, in combination with enhanced O&M (Section 5.2.1.8), is recommended to maintain momentum and maximize localized benefits. Over time, larger regional Projects can be more feasibly pursued downstream of existing SCW Program investments.

Upper Los Angeles River Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Watershed Area Needs
(by 2038)

5,400 Zinc Load Reduction (lbs/yr)	16,100 Total Phosphorus Load Reduction (lbs/yr)	728 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. 728 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

Figure 5-9. Improve Water Quality: strategies and actions to address ULAR WA Needs and achieve Goals

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

Figure 5-9. Improve Water Quality: strategies and actions to address ULAR WA Needs and achieve Goals (continued)

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Improve Water Quality

SCW Program Goal A

Opportunity to Improve Water Quality

(Figure 5-10)

This opportunity highlights areas of the ULAR WA with the most potential for new Projects to reduce bacteria, zinc, and total phosphorus loads to improve overall water quality. These areas represent where stormwater runoff is not managed by a SCW Program wet-weather Project and where runoff volumes (used as a proxy for bacteria loads) and total phosphorus and zinc loads are highest. Areas not currently managed by a SCW Program-funded Project, and that are not highlighted as a high, higher, or highest opportunity for improving water quality, still offer potential for beneficial pollutant capture (i.e., "general" opportunity). Project and Program proponents should always perform local analyses to determine the pollutant loading and potential to provide Water Quality Benefits at the Project scale.

Most SCW Program wet-weather Projects are designed to manage runoff from the 85th percentile, 24-hour design storm event, as the majority of urban areas' annual runoff is produced by storms equal to or smaller than this storm event This provides sufficient capture while keeping costs feasible. It is assumed that stormwater runoff from a Project's upstream drainage area is effectively captured and detained during such events. As a result, capture areas already managed by these Projects are excluded from this opportunity analysis.

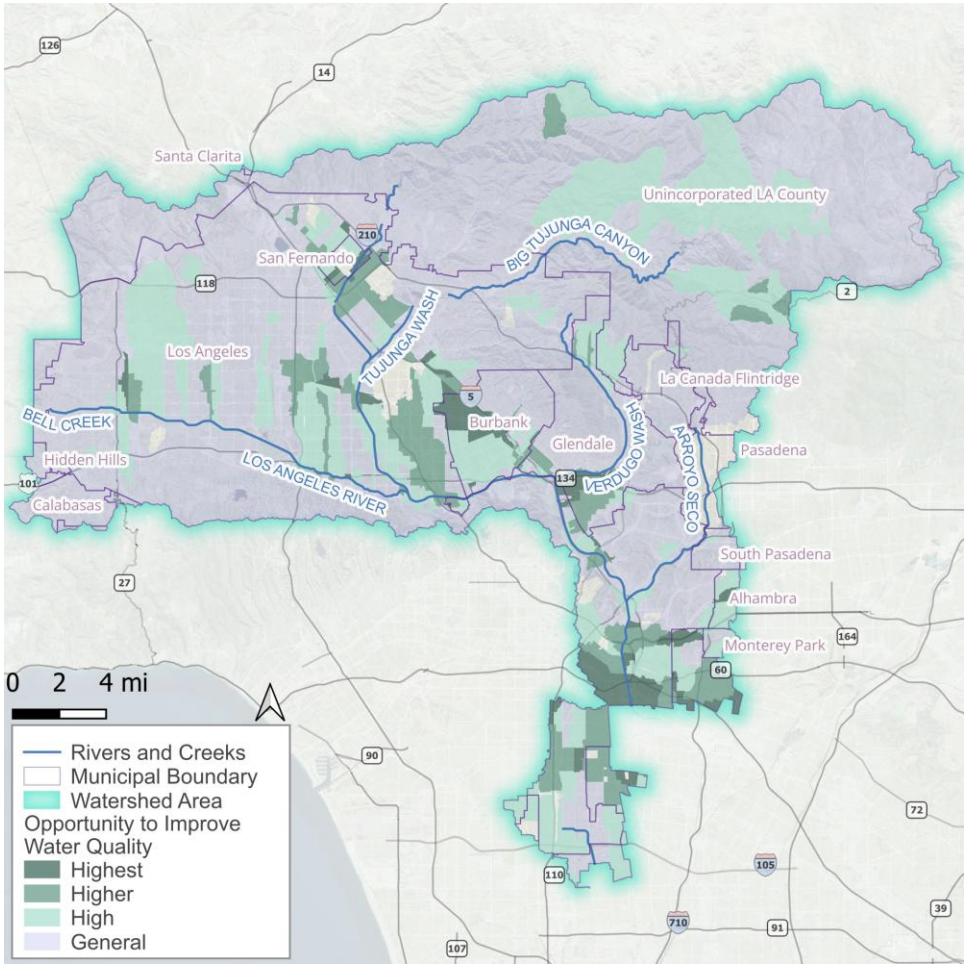


Figure 5-10. Opportunity to Improve Water Quality

Supports strategies:

- **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
- **2.2** Maximize stormwater runoff capture and management for water supply

Upper Los Angeles River Watershed Area Opportunities

Improve Water Quality

SCW Program Goal A

Table 5-1. Improve Water Quality: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Improving Water Quality				
Opportunity	Strategies	Purpose	Source	LINK
Opportunity to co-locate or coordinate investments with non-SCW Program existing and ongoing stormwater capture efforts	1.1, 2.1, 2.2	WRAMPS2 is a hub for LA County to report progress on watershed-based regulatory requirements and toward water capture goals. The Capture Dashboard presents real-time stormwater capture summaries by green infrastructure and water conservation facilities.	WRAMPS2	WRAMPS2 & Capture Dashboard
	1.1, 2.1, 2.2	The Greater Los Angeles County IRWMP Opti system is an interface that allows stakeholders to directly communicate with one another throughout the IRWMP process and helps to locate, connect, share, and integrate IRWMP project information.	Greater Los Angeles County (GLAC)	GLAC IRWMP Opti
Stormwater Project opportunities in the Upper Los Angeles River Watershed	1.1	The SCW Program Scientific Study, preSIP: A Platform for Watershed Science and Project Collaboration, developed a science-based Project opportunity dashboard. This preSIP dashboard identifies potential stormwater Project opportunities in both the ULAR WA.	SCW Program Scientific Study Program	preSIP Dashboard
Opportunity to reduce bacteria loads by implementing Projects in priority catchments	1.1	The SCW Program Scientific Study, Load Reduction Strategy Adaptation to Address the LA River Bacteria TMDL for the ULAR Watershed Management Group dashboard identifies priority catchments for Project implementation and bacteria load reduction in the ULAR watershed. Use this dashboard to help identify priority catchments for both wet and dry-weather Projects, and to review the status of Human Waste Source Investigations.	SCW Program Scientific Study Program	Load Reduction Strategy Adaption

5.2.1.2 Increase Drought Preparedness: Strategies, Actions, and Opportunities

Though there are known geohydrologic opportunities for stormwater infiltration, extensive impervious surfaces, resulting from urban development, have significantly reduced the ULAR WA's capacity for natural groundwater recharge. At the same time, the region's historical vulnerability to prolonged dry periods and hydrologic whiplash, most recently being the 2020 to 2022 severe drought (U.S. Drought Monitor), has led to groundwater over-extraction and associated water quality concerns. Coupled with a high reliance on imported water supplies, these conditions underscore the urgent need for innovative and sustainable strategies that enhance local water self-reliance and improve long-term water resilience within the ULAR WA. To enhance locally available water supply, the County Water Plan highlights three complementary approaches to stormwater capture: decentralized solutions (small-scale, distributed Projects), centralized solutions (e.g., spreading grounds), and storage solutions (e.g., dams, reservoirs, and debris basins). All three of these solutions are applicable within the ULAR WA.

To date, SCW Program funds allocated for the ULAR WA have been utilized to deliver multi-benefit Projects that augment local water supply such as those that capture, infiltrate, and/or reuse stormwater. These Projects have been implemented across a range of sites, including parks, schools, green streets, wetlands, and public rights-of-way. By reducing reliance on imported water, as indicated by the ROC WQ working group, and increasing local supply resilience, these Projects lay a critical foundation for long-term water self-reliance in the face of recurring drought conditions.

Strategies for increasing water supply in the ULAR WA focus on distributed multi-benefit Projects across the urban landscape. The WASC placed emphasis on integrating these decentralized Projects into the built environment in ways that simultaneously deliver multiple community co-benefits such as urban cooling through increased green space, reduced localized flooding, and improved public health outcomes. Given the anticipated constraints on Regional Program funding for large-scale decentralized infrastructure in the near term, the financial outlook and planning guidance point to the critical role of smaller, distributed Projects in advancing water supply objectives. Projects in the ULAR WA have multiple capture fate avenues for increasing local water supply including infiltration to the San Fernando, Central, and Raymond Basins (which are the three largest, managed unconfined aquifers underlying the WA) via NBS and existing spreading grounds, diversion via sanitary sewer to the Donald C. Tillman Water or Los Angeles-Glendale Water Reclamation Plants, or direct onsite reuse. See Section 2.2.2 for a summary of what is considered a new local water supply under the SCW Program. Municipalities are positioned to be key drivers in delivering distributed Projects in the near term, particularly those that can be embedded into existing capital improvement efforts or urban greening initiatives. Together, both Public Works and Municipalities can further bolster local water supply through centralized solutions as well, including enhancements to major existing capture facilities such as the ten spreading grounds, three dams and reservoirs, and seven debris basins that have existing footprint in the ULAR WA.

Upper Los Angeles River Watershed Area Strategies and Actions

Increase Drought Preparedness

SCW Program Goal B

Watershed Area Needs (by 2045)

28,200	820 ac-ft	11,260	700 ac-ft
Increase Local Supply through Stormwater Capture (ac-ft/yr)	Approx. 24-hr Capacity for Projects that Increase Local Water Supply	Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)	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. 820 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. 700 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 Donald C. Tillman Water Reclamation Plant or Los Angeles - Glendale Water Reclamation Plant for a **total estimated 24-hour Project capacity of approx. 120 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
	2.3.4 Utilize the completed SCW Program Scientific Study *Evaluation of Infiltration Testing Methods for Design of Stormwater Drywell Systems;* see the *Opportunity to enhance drywell effectiveness* for a direct link.	NEAR TERM	WASCs, Municipalities, Project proponents

*** SCW Program-wide Priority Strategy based on engagement**

Figure 5-11. Increase Drought Preparedness: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Strategies and Actions

Increase Drought Preparedness

SCW Program Goal B

Strategies	Action(s)		Who Should be Involved
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, dams, and debris basins to **yield approx. 50,610 ac-ft** of additional annual water supply per the Los Angeles Basin Study.	NEAR TERM	Public Works

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-11. Increase Drought Preparedness: strategies and actions to address ULAR WA Needs and achieve Goals (continued)

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Increase Drought Preparedness

SCW Program Goal B

Opportunity to Increase Water Supply Through Stormwater Capture *(Figure 5-12)*

This opportunity highlights areas in the ULAR WA where stormwater is not currently captured by an existing SCW Program Project to communicate where there is potential for new wet- or dry-weather Projects.

The darkest blue represents areas with the highest potential for siting either a wet- or dry-weather Project. While the darkest green areas represent areas with the highest opportunity to site a dry-weather only Project. The lightest blue and green areas, though lower in potential, are not currently managed by a SCW Program Project and generally present opportunities for new Project implementation.

Supports strategies:

- **1.1** Prioritize high performance Projects and Programs in areas with the highest pollutant loads
- **2.1** Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply
- **2.2** Maximize stormwater runoff capture and management for water supply

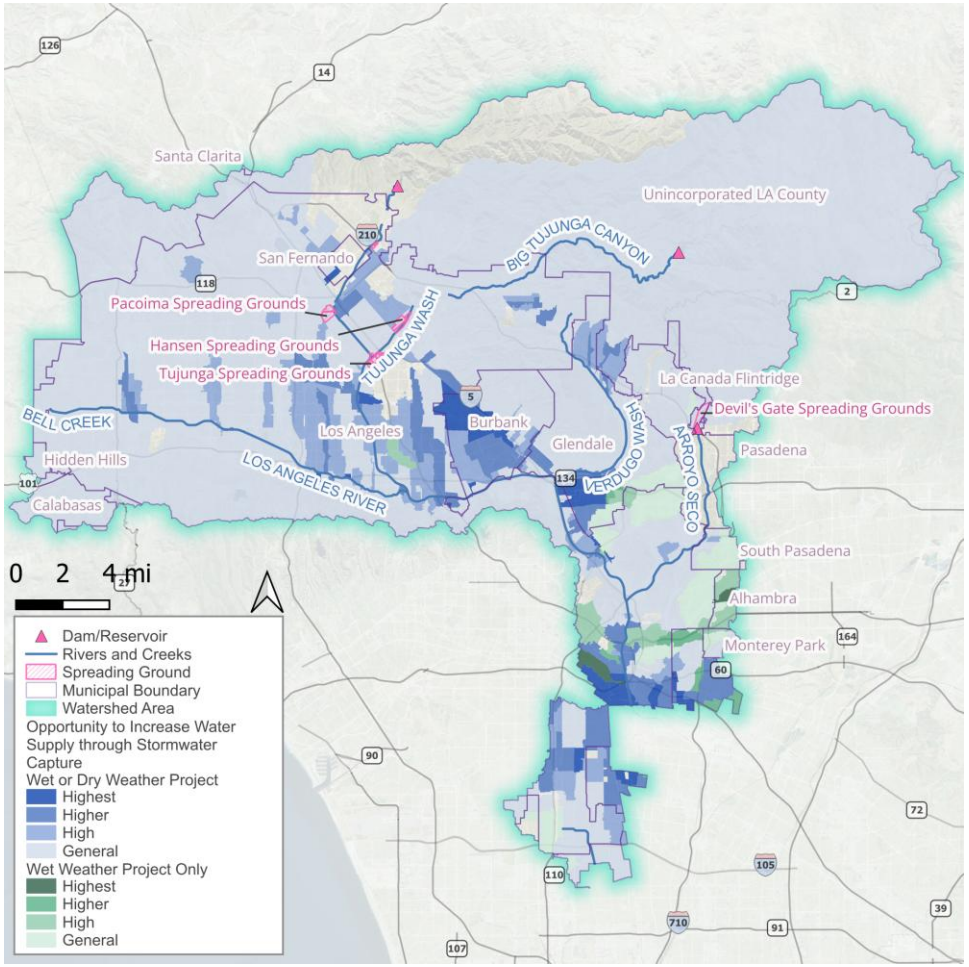


Figure 5-12 Opportunity to Increase Water Supply Through Stormwater Capture

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Increase Drought Preparedness

SCW Program Goal B

Opportunity to Increase Water Supply Through Groundwater Recharge and Storage *(Figure 5-13)*

This opportunity highlights areas with potential for implementing new Projects that capture and infiltrate stormwater or urban runoff to increase local supply through groundwater recharge via a managed unconfined aquifer.

To focus on areas with the greatest remaining potential, capture areas for major facilities that intercept more than 30% of upstream stormwater runoff and areas managed by SCW Program wet-weather capture Projects were excluded from this analysis.

Supports strategies:

- **1.1** Prioritize high performance Projects and Programs in areas with the highest pollutant loads
- **2.1** Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply
- **2.3** Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse

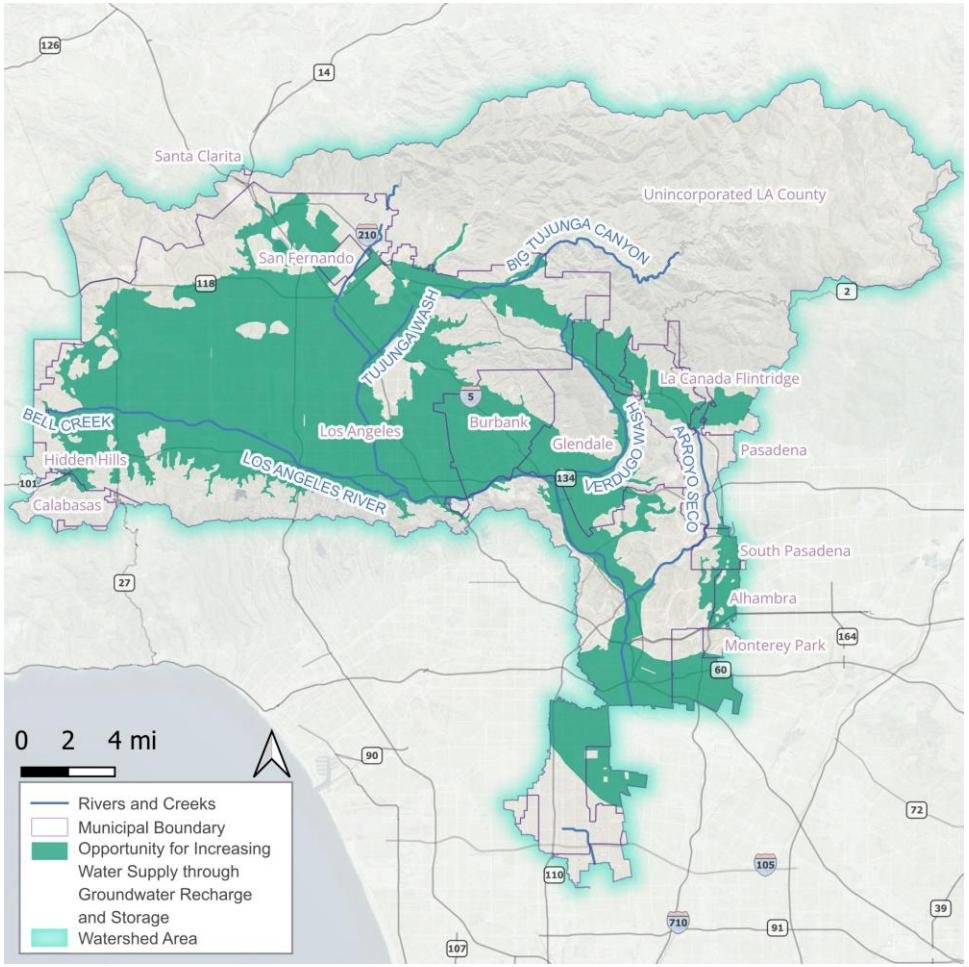


Figure 5-13. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage

Upper Los Angeles River Watershed Area Opportunities

Increase Drought Preparedness

SCW Program Goal B

Table 5-2. Increase Drought Preparedness: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Increasing Drought Preparedness				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to divert captured stormwater to the sanitary sewer system for reclamation and reuse	2.3	The LA Sanitation and Environment (LASAN) Facilities Map provides location information for LASAN water treatment plants including the Los Angeles-Glendale or Donald C. Tillman Water Reclamation Plants. This makes it a valuable resource for identifying when a Project might consider diverting captured stormwater to the sanitary sewer system to be reclaimed.	LA Sanitation and Environment	LA Sanitation and Environment Facilities
Opportunity to guide drywell sizing and placement for stormwater infiltration	2.2, 2.3	The study developed a stakeholder-informed toolbox of best practice testing methods, to guide the appropriate sizing and placement of drywells.	SCW Program Evaluation of infiltration testing methods for design of stormwater drywell systems	Evaluation of infiltration testing methods for design of stormwater drywell systems

5.2.1.3 Improve Public Health: Strategies, Actions, and Opportunities

The ULAR WA is the most densely populated of the nine SCW Program WAs, with intense development concentrated in its central and lower regions. While the upper watershed contains significant open space, opportunities for new parks and green infrastructure within the built environment are limited. This shortage of accessible, high-quality green spaces has contributed to a range of environmental and public health challenges, including the urban heat island effect, reduced air quality, and limited access to nature. In response, the ULAR WASC is prioritizing multi-benefit Projects that enhance public health outcomes. To address these interconnected challenges, strategies and actions have been developed that align with key outcomes and goals set forth in ongoing efforts such as the Parks Needs Assessment[45], Community Forest Management Plan, LA's Green New Deal Sustainable City Plan, and the LAUSD "Green Schoolyards for All" initiative.

Acknowledging the significant urban development and associated challenges in the ULAR WA, which limits the availability of land for new parks and related public benefits, the ULAR WASC emphasized that land rehabilitation (transforming existing underused or degraded land into vibrant, green, climate-resilient spaces) should remain a defining characteristic of most future Projects. Other interested parties voiced support for improvements including clean and accessible waterways (rivers and the ocean), enhanced flood protection, litter reduction, and expanded urban tree canopy to increase shading and mitigate heat. Equity remained a central theme during engagement, with calls for resource distribution that prioritizes historically underserved communities and low-income areas.

It is important to recognize that increasing access to open space, providing additional recreational opportunities, and supporting community resilience to climate change are all critical for improving public health. However, under the SCW Program, these benefits must be pursued as co-benefits of Projects and Programs rather than standalone objectives, as all Projects are required to provide a Water Quality Benefit. These co-benefits should be integrated into Projects and Programs that are primarily designed to address stormwater and urban runoff pollution. During Project planning and design, Project proponents and Municipalities should proactively seek opportunities to incorporate features, such as NBS or multi-benefit green infrastructure, that meet both the water quality requirements of the SCW Program and the broader needs of the communities they serve.

In highly urbanized areas, "leftover" spaces such as vacant parcels, utility corridors, and transportation right of ways, can be strategically repurposed to implement NBS that expand tree canopy and shade, enhance stormwater infiltration, and create accessible neighborhood green spaces. By using NBS, Projects can deliver multiple benefits through a single Project, advancing several Goals simultaneously. Nature-based approaches are inherently multi-benefit, allowing Projects to deliver Water Quality

[45] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

Benefits while also improving public health, enhancing climate resilience, expanding or enhancing habitat, and delivering other additional co-benefits. Incorporating NBS supports holistic, integrated multi-benefit solutions rather than single-purpose infrastructure.

Notably, low impact development and surface-based BMPs like bioswales, rain gardens, or green streets often offer greater potential for public-facing co-benefits than subsurface features, which may be less visible and less accessible to the community. Where feasible, surface BMPs and NBS should be prioritized or paired with community amenities to enhance the multi-benefit emphasis of the SCW Program.

Upper Los Angeles River Watershed Area Strategies and Actions

Improve Public Health

SCW Program Goal C

Watershed Area Needs
(by 2045)

63	5	218	514
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 Create, enhance, and restore park and green space, especially in high-need communities**	**3.2.1** 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
	3.2.2 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
	3.2.3 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
	3.2.4 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
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

*** SCW Program-wide Priority Strategy based on engagement** **** ULAR WASC Priority Strategy based on engagement**

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-14. Improve Public Health: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Improve Public Health

SCW Program Goal C

Opportunity for Park and Green Space Creation *(Figure 5-15)*

This opportunity builds on the Parks Needs Assessment results and Los Angeles River Master Plan analyses for the Los Angeles region to highlight areas where multi-benefit Projects that create park and green space are most needed. Rather than identifying specific sites, the opportunity highlights areas that need new park and green space and, therefore, areas where Projects can meaningfully improve community well-being.

Park and green space creation can take many forms. As defined in MMS, park creation includes new recreational amenities like seating, walking paths, or exercise equipment, while green space refers to added vegetation such as habitat, or lawn.

In densely urbanized areas like the ULAR WA, developing large new parks may be impractical. Instead, smaller-scale interventions, such as pocket parks, green corridors, or integrated green infrastructure, can still deliver meaningful recreational and climate resilience benefits to nearby communities. Projects in these areas would address both WA Needs and broader planning initiatives such as the OurCounty Sustainability Plan, Los Angeles County 2035 General Plan, and Community Parks and Recreation Plans.

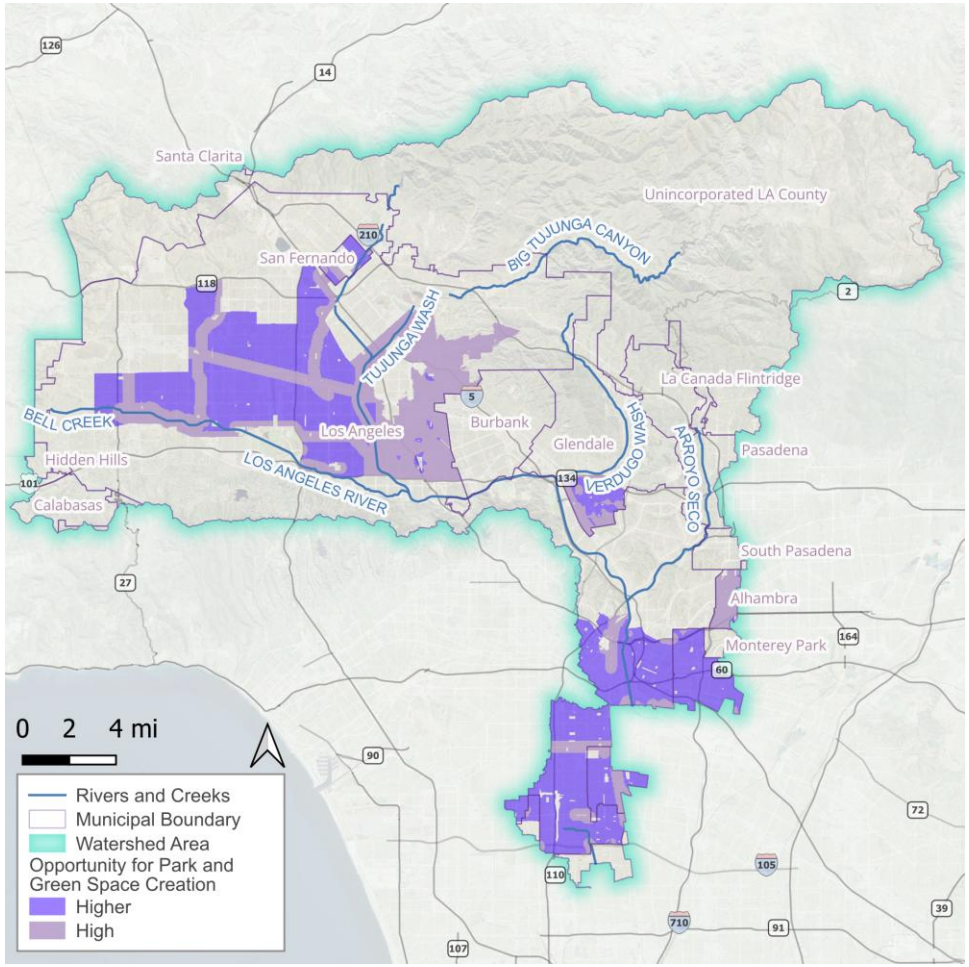


Figure 5-15. Opportunity for Park and Green Space Creation

Supports strategies:

- **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
- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Improve Public Health

SCW Program Goal C

Opportunity for Park Enhancement or Restoration *(Figure 5-16)*

This opportunity builds from the Park Needs Assessment Park Need results, Los Angeles River Master Plan regional access need analysis, and the LA County Department of Parks and Recreation's database of locations and conditions of existing parks and open space to highlight where Projects that enhance or restore park are most needed. The park spaces highlighted by this opportunity prioritize investments in parks located in Parks Needs Assessment High and Very High Need study areas, particularly those in poor condition and where improved access to open space and waterways are also needed.

While the Parks Needs Assessment is focused specifically on park creation, its Park Need results still offer valuable context for identifying park enhancement and restoration opportunities. This is because the Park Need analysis considered a broader set of factors beyond park creation, including park size, amenities, and condition, as well as demographic factors such as park access community pressure, which reflects the demand for high-quality parks in densely populated or underserved areas.

Supports strategies:

- **3.2** Create, enhance, and restore park and green space, especially in high-need communities
- **3.3** Help communities most affected by climate change mitigate and adapt to the effects of climate change
- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area

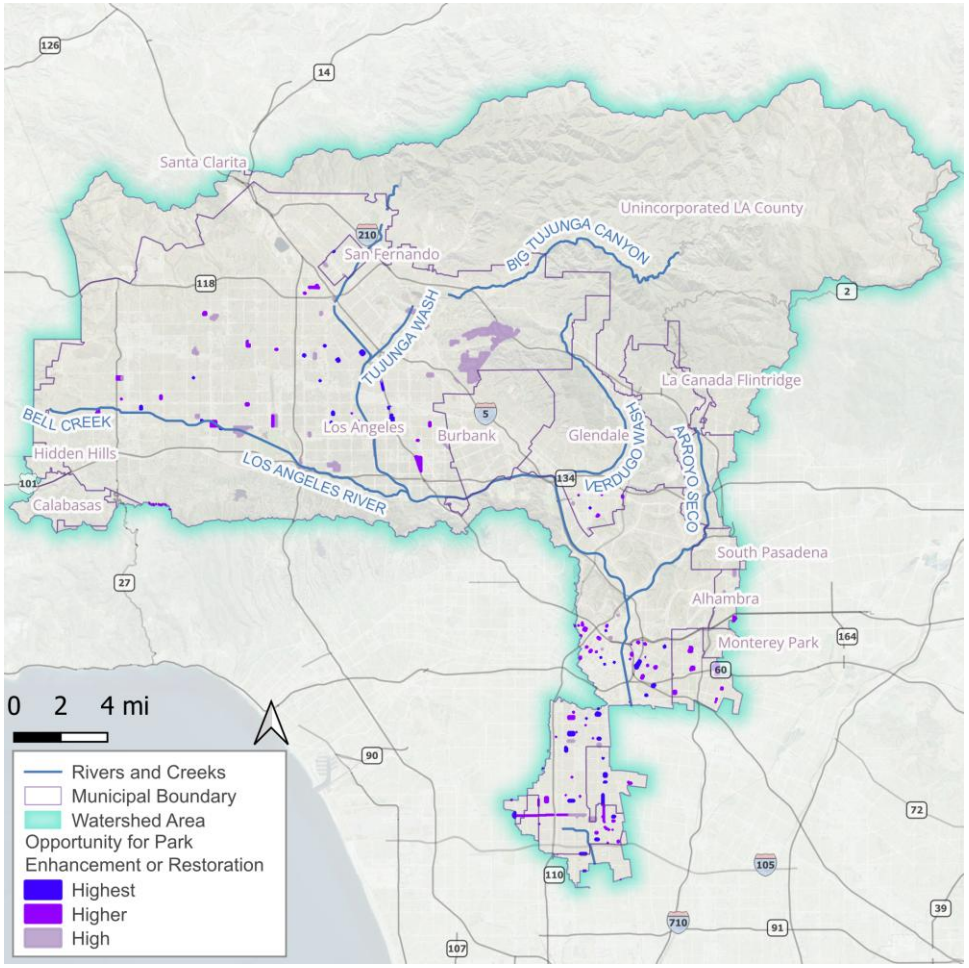


Figure 5-16. Opportunity for Park Enhancement or Restoration

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Improve Public Health

SCW Program Goal C

Opportunity to Create Green Space at Schools *(Figure 5-17)*

This opportunity highlights K-12 public, private, and charter schools with the most need for multi-benefit Projects that replace impervious area to create green space. The layer aligns with methods and definitions presented by the LAUSD Green Schoolyards for All Plan to assign a Greening Index to schools countywide. As a result, this layer emphasizes the development of multi-benefit Projects at schools with highly impervious schoolyards and those located in vulnerable communities as determined by the CalEnviroScreen 4.0 and Extreme Heat Tool analyses. The development of Projects that create green space at the highlighted schools would address WAs Needs and help to implement the OurCounty Sustainability Plan and LAUSD's Green Schoolyards for All Plan.

Supports strategies:

- **3.1** Evaluate open space and large lot potential, particularly on school campuses
- **3.3** Help communities most affected by extreme heat mitigate and adapt to the effects of climate change
- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area

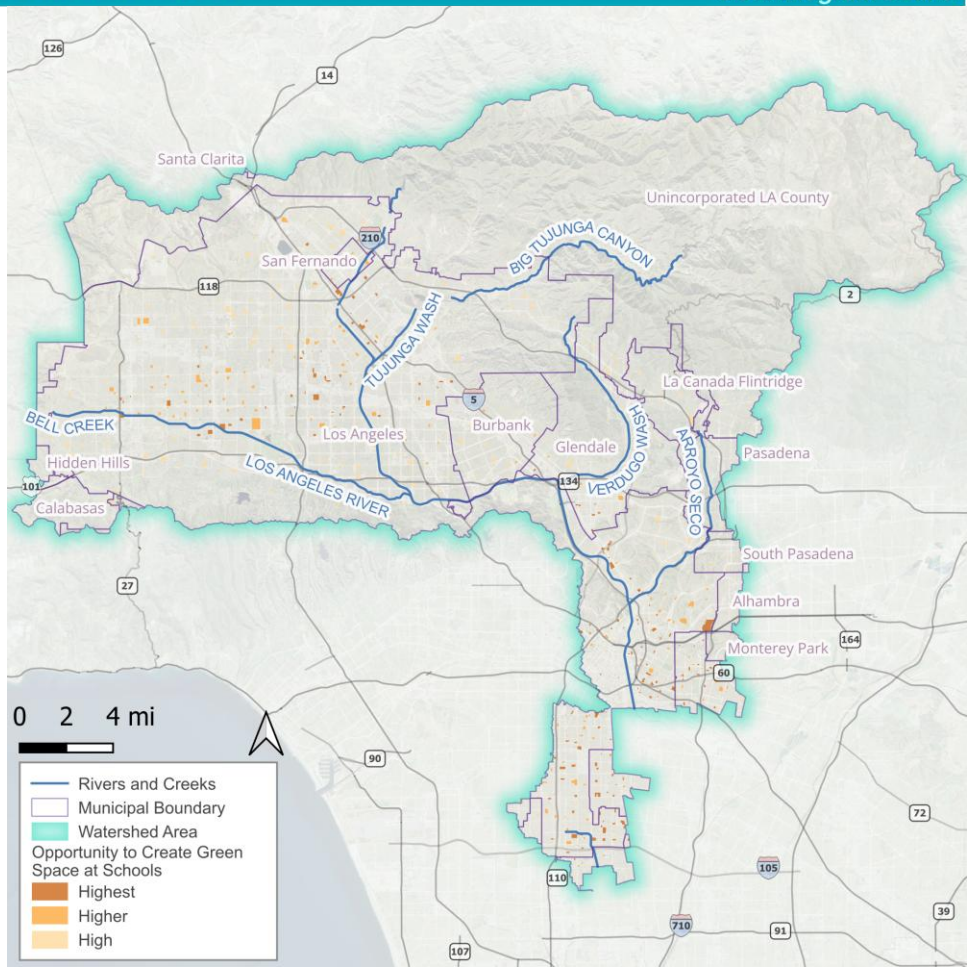


Figure 5-17. Opportunity to Create Green Space at Schools

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Improve Public Health

SCW Program Goal C

Opportunity to Create Canopy, Cooling, and Shading Surfaces *(Figure 5-18)*

This opportunity highlights areas with the most potential to improve public health and invest in vulnerable communities through new multi-benefit Projects that create tree canopy, cooling, and shading surfaces. This opportunity aligns with the County Community Forest Management Plan's canopy need analysis to provide a countywide layer that highlights areas with the lowest canopy coverage, and which are in the most vulnerable communities, as indicated by the LA County Climate Vulnerability Assessment's (CVA) Social Sensitivity Index (SSI).

Supports strategies:

- **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
- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area

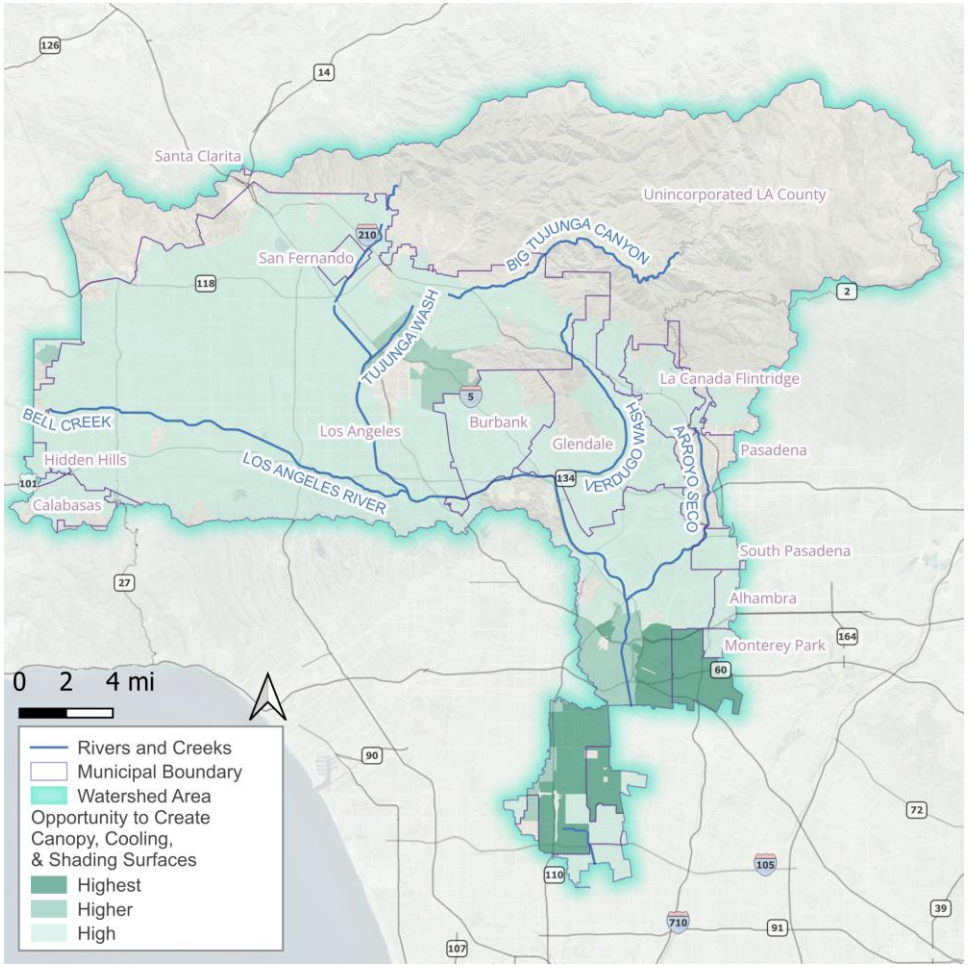


Figure 5-18. Opportunity to Create Canopy, Cooling, and Shading Surfaces

Upper Los Angeles River Watershed Area Opportunities

Improve Public Health

SCW Program Goal C

Table 5-3. Improve Public Health: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Improving Public Health				
Opportunity	Strategies	Description & Purpose	Source	LINK
Recommended Tree Species for LA County and Best Management Practices for Tree Care	3.3	To ensure creation of resilient tree canopy, utilize the Community Forest Management Plan resources for support in planting and maintain regionally appropriate and climate-resilient trees with the highest chance for successful establishment and long-term survival.	Los Angeles County Chief Sustainability Office (via the Community Forest Management Plan)	Community Forest Management Plan Resources [see 'Recommended Tree Species', Tree Management Practices', and 'Do Not Plant List']
Parks Needs Assessment Plus Priority Areas	3.3	The Parks Needs Assessment Plus identifies several priority areas that can help guide the integration of co-benefits into SCW Program Projects, including Priority Areas for: • Increasing Access to Regional Recreation • Increasing Access to Rural Recreation • Environmental Restoration	LA County Department of Parks and Recreation (via the Parks Needs Assessment Plus)	Park Needs Assessment Plus - GIS Layers or Parks Needs Assessment Plus Final Report
Green Schoolyards Program to prioritize schools	3.1, 3.2	The study generates site-specific recommendations and a scalable implementation plan identifying infrastructure projects for future SCW Program funding, integrating stormwater solutions into long-term regional and educational planning.	SCW Program LAUSD Living Schoolyards Program Pilot Study	LAUSD Living Schoolyards Program Pilot Study
Opportunity to coordinate with existing and planned Measure A efforts	3.2, 4.1	Use the Los Angeles County Regional Park and Open Space Park Investment Map to coordinate Project implementation with existing and ongoing efforts funded by the LA County Safe, Clean Neighborhood Parks and Beaches Measure (Measure A).	LA County Regional Park and Open Space District	The Los Angeles County Regional Park and Open Space Park Investment Map

5.2.1.4 Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects: Strategies, Actions, and Opportunities

The ULAR WA is a highly urbanized and diverse area that faces a wide array of challenges, from water quality and supply issues to urban heat, flooding, limited green space, and habitat degradation. Addressing these complex and overlapping issues requires the implementation of multi-benefit, NBS that are tailored to the specific needs of local communities, especially those most vulnerable to climate and environmental stressors.

To date, nearly all SCW Program Projects in the ULAR WA have incorporated NBS at a variety of scales, with capture areas ranging from tens of acres to over 5,000 acres. These Projects have not only targeted outdoor water pollution and stormwater capture but have also delivered additional CIBs, informed by community-stated priorities, such as reducing litter, increasing green space and shade tree cover, improving air quality, mitigating localized flooding, and enhancing recreational opportunities.

The ULAR WASC and the ROC is prioritizing multi-benefit Projects that directly contribute to increasing local water supply and improving water quality. The committee has emphasized the use of BMPs such as infiltration wells, subsurface systems, green streets, and cisterns as effective strategies to capture, store, and recharge stormwater. These approaches offer scalable, flexible solutions that not only enhance water supply reliability but also deliver important environmental and public health co-benefits, including improved water quality, reduced flooding, and increased climate resilience.

Multi-benefit strategies to guide the design and delivery of future Projects and Programs are informed by broader interested party engagement with ROC Working Groups and advocates, as well as alignment with regional and local planning efforts, including the Parks Needs Assessment[46], L.A.'s Green New Deal, California NBS Climate Targets, County Water Plan NBS Task Force, and the OurCounty Sustainability Plan. Across these efforts, a consistent message has emerged: multi-benefit Projects must prioritize community-wide outcomes, align with community-stated priorities, and support the growth of small-scale, distributed BMPs that can be integrated throughout the ULAR WA.

Ultimately, nature-based, multi-benefit Projects in the ULAR WA should be designed not only to achieve technical and regulatory performance targets but also to create tangible, lasting improvements in community quality of life, restore ecological functions, and build a more resilient, inclusive, and livable watershed for future generations.

[46] Refers to both the 2016 Parks Needs Assessment and 2022 Parks Needs Assessment Plus.

Upper Los Angeles River Watershed Area Strategies and Actions

Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects

SCW Program Goals E, F,G

Watershed Area Needs
(by 2045)

120
Net Area of Habitat Created, Enhanced, or Restored
(acres)

100%
Proportion of Projects and Programs Addressing a Community-Stated Priority or Concern
(%)

Strategies	Action(s)		Who Should be Involved
4.1 Acknowledge, where feasible, other capital improvement programs that can contribute to regional outcomes*	**4.1.1** Coordinate with municipal staff during the Project feasibility phase to integrate regional planning efforts with municipal scale capital improvement programs.	NEAR TERM	WASCs, Municipalities, Project proponents
	4.1.2 Refer to *section 1.4 Working Together* as well as *Appendix E. Key Efforts to Date* to identify and collaborate with other efforts contributing to benefits and outcomes in this WA.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
4.2 Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns	**4.2.1** Prioritize nature-based, multi-benefit designs that use NBS such as green streets or planted areas with water storage capacity such as rain gardens with bioswales. Projects should be designed to maximize simultaneous benefits including water quality improvement, stormwater capture, habitat creation, climate resilience, and public health outcomes. Reference the *Multiple Benefit Opportunity Across Planning Themes* composite layer for Project siting.	NEAR TERM	WASCs, Municipalities, Project proponents
	4.2.2 Develop Projects and Programs that will serve their communities by aligning their implementation to address community-stated priorities or concerns highlighted by the *Opportunities to Address Commmunity-stated Priorities and Concerns* layer, which incorporates CSNA survey responses.	NEAR TERM	Public Works, Project & Program proponents, CBOs & NGOs
	4.2.3 Strategically increase habitat and improve ecosystem function by implementing Projects and Programs that protect habitat areas and expand them through the creation of habitat buffers and linkages in areas with the highest ecosystem need by using the *Opportunity for Habitat Creation, Restoration, or Enhancement.*	NEAR TERM	WASCs, Municipalities, Project & Program proponents, Conservancies
	4.2.4 Leverage pre-screened sites, conceptual Project designs, engagement, and feasibility findings by the SCW Program Scientific Study *Community Garden Stormwater Capture Investigation* to implement and promote nature-based, small-scale distributed Projects that provide Water Quality and Water Supply Benefits as well as other CIBs.	NEAR TERM	WASCs, Municipalities, Project proponents
	4.2.5 Address drainage and flooding issues identified through the *Drainage Needs Assessment Program;* see the *Opportunities to Address Community-stated Priorities and Concerns* layer to guide Project implementation.	NEAR TERM	WASCs, Municipalities, Project proponents

*** SCW Program-wide Priority Strategy based on engagement**

Figure 5-19. Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Strategies and Actions

Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects

SCW Program Goals E, F, G

Strategies	Action(s)		Who Should be Involved
4.3 Advance fire-adapted communities by implementing multi-benefit Projects that employ NBS to reduce wildfire risk and enhance ecosystem resilience	**4.3.1** Implement green infrastructure Projects that, • Avoid planting highly flammable ornamental species and remove invasive plant species to reduce fuel load • Plant native, fire-resistant vegetation that support regenerative landscapes and adaptive recovery, • Enhance habitat for ecological resilience to aid in post-fire recovery and landscape stabilization, • Create green space and tree canopy that can serve as fire breaks and cooling zones, • Support soil moisture, through infiltration, mulching and shading techniques, and wetland creation, to reduce flammability by making vegetation and soil less likely to ignite during dry conditions, and • Use firewise planting principles to create defensible space around infrastructure while maintaining ecological function and stormwater performance.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	4.3.2 Use fire risk maps alongside other opportunity layers to implement Projects that can deliver co-benefits such as infiltration and cooling in high-risk wildfire zones. Reference the *Opportunity to Create Canopy, Cooling, and Shading Surfaces* specifically to identify climate-vulnerable communities which are in need of resilience-building infrastructure.	NEAR TERM	WASCs, Municipalities, Project proponents

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-19. Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects: strategies and actions to address ULAR WA Needs and achieve Goals (continued)

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects

SCW Program Goals E, F, G

Opportunity for Habitat Creation, Restoration, or Enhancement *(Figure 5-20)*

This opportunity highlights the most impactful areas to improve ecosystem function through biodiversity protection and enhancement, creation of new habitat, as well as linkages between habitat areas. This layer is derived from the Los Angeles River Master Plan, which performed a regional analysis of ecosystem needs (including within the ULAR WA) by evaluating habitat areas, buffers, linkages, confluences, and unprotected lands.

The analysis identifies areas with the greatest opportunity to implement multi-benefit Projects that leverage NBS to support healthy, resilient ecosystems. This opportunity combines the need to protect existing habitat with the need to expand these habitat areas through habitat buffers. Areas where habitat creation, restoration, and/or enhancement should be considered for incorporation into Project design (if technically and financially feasible) are depicted in Figure 5-20.

Supports strategies:

- **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

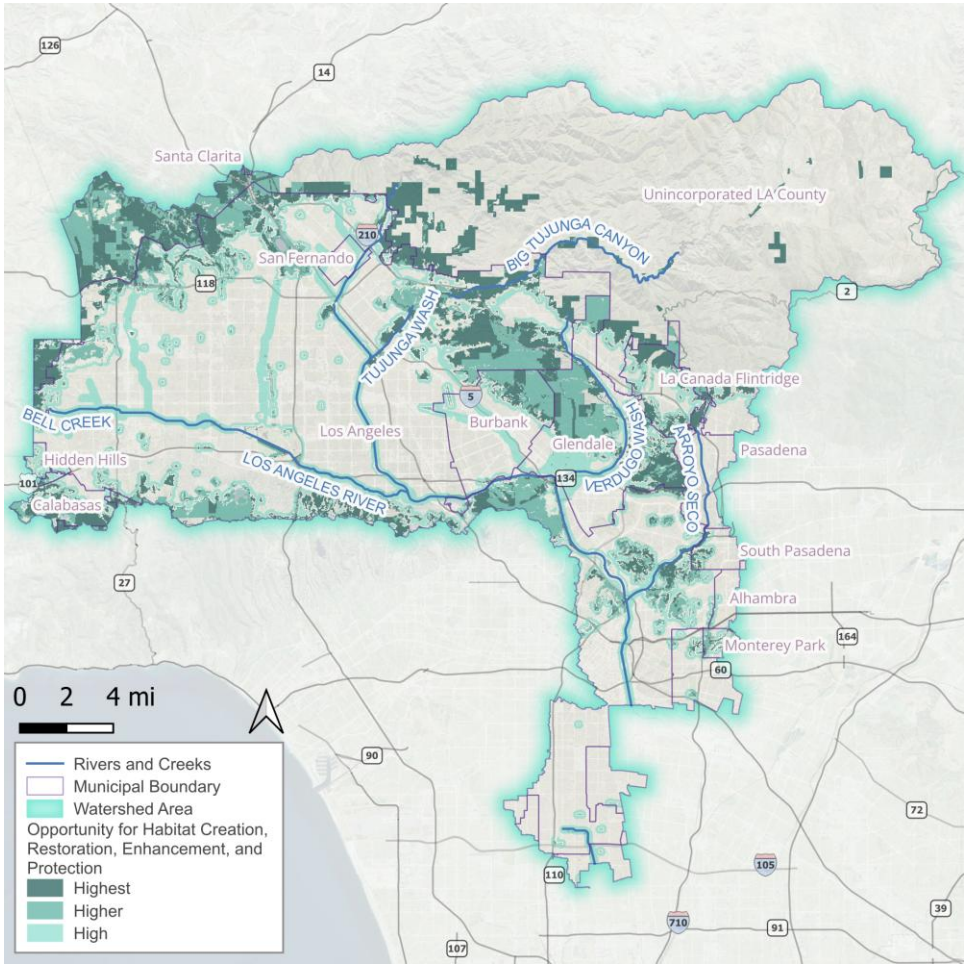


Figure 5-20. Opportunity for Habitat Creation, Restoration, or Enhancement

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects

SCW Program Goals E, F, G

Opportunities to Address Community-stated Priorities and Concerns *(Figure 5-21)*

This opportunity compiles community-identified priorities and concerns to help guide the development of Projects and Programs that directly serve local needs. The points on the map are from responses to the CSNA Survey, which includes outdoor areas identified by community members that are in need of beautification (see green points), and drainage issues submitted by Municipalities through the Los Angeles County Drainage Needs Assessment Program (DNAP).

Note that the CSNA dataset is dynamic and will grow over time as community members take the survey. Additionally, survey responses should not be extrapolated across broad spatial boundaries; they are intended to be reviewed individually, especially when evaluating responses near proposed Projects and Programs.

Due to the temporal and spatial complexities of this opportunity, Municipalities, Project and Program proponents, and other interested parties are encouraged to consider it using the Planning Tool, rather than rely on the static map included in this Initial Watershed Plan. Additionally, the Planning Tool allows users to view individual survey responses.

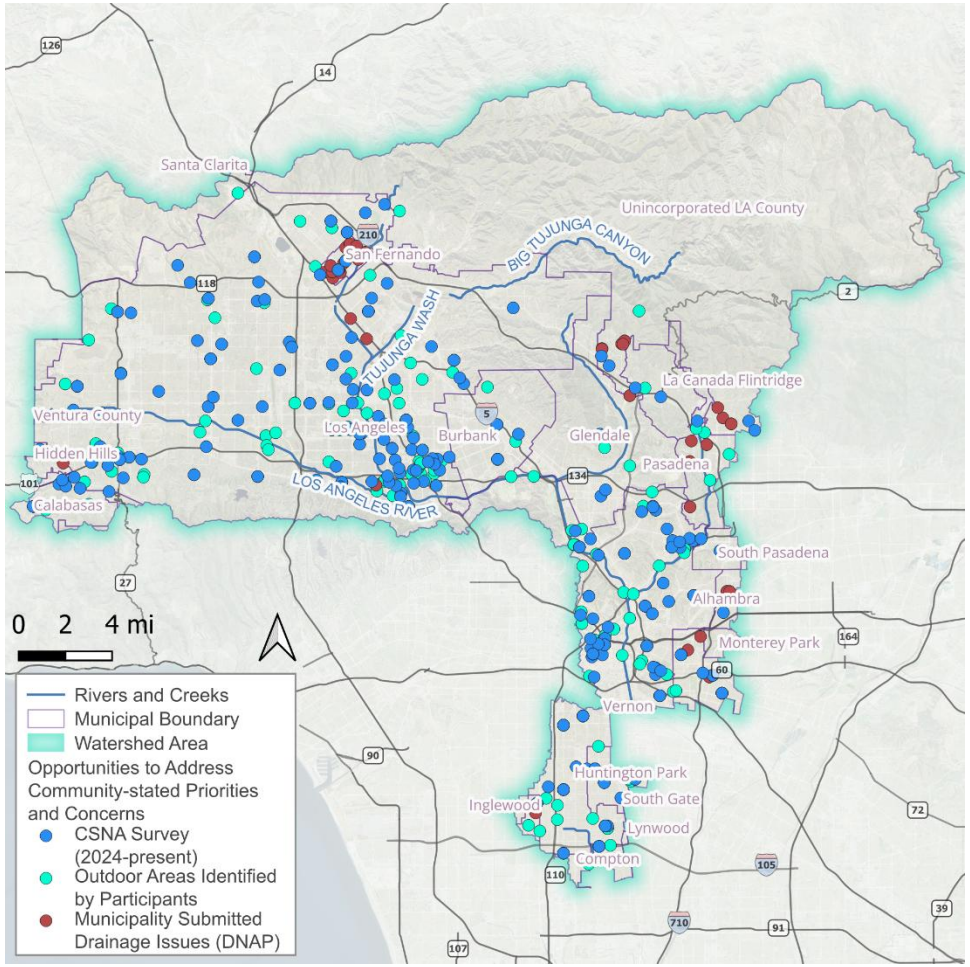


Figure 5-21. Opportunities to Address Community-stated Priorities and Concerns

Supports strategies:

- **4.2** Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns

Upper Los Angeles River Watershed Area Opportunities

Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects

SCW Program Goals E, F,G

Table 5-4. Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Delivering Multi-Benefits with Nature-Based Solutions & Diverse Projects				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to address community-stated priorities via the Parks Needs Assessment Study Area Profiles	4.3	Reference the Parks Needs Assessment and Parks Needs Assessment Plus Study Area Profiles to view and incorporate community suggestions for increasing and improving visits to rural parks and facilities, such as more shade, improved infrastructure, or expanded recreation amenities into Project and Program implementation.	LA County Department of Parks and Recreation (via the Parks Needs Assessment and Parks Needs Assessment Plus)	Parks Needs Assessment Appendix A: Study Area Profiles Parks Needs Assessment Plus Appendix A: Individual Regional Study Area Profiles, Appendix B: Individual Rural Study Area Profiles, and Appendix E: Survey Results
Opportunity to site Projects that utilized NBS to provide multiple benefits	4.3	Use the Greater Los Angeles NBS Assessments developed by the Nature Conservancy to determine the optimal places to site NBS to support biodiversity, manage stormwater, and provide a variety of additional benefits to nature and people.	The Nature Conservancy	Greater Los Angeles NBS Assessments
Opportunity for aligning natural and engineering processes to provide multiple benefits	4.3	The Engineering with Nature program within the US Army Corps of Engineers provides resources, research, and guidelines for integrating NBS that serve as engineering solutions while providing additional economic, environmental, and social benefits.	US Army Corps of Engineers	Engineering With Nature
Opportunity to prioritize Project siting in communities vulnerable to extreme changes in climate and wildfire risk	3.3	The LA County Climate Vulnerability Web Tool provides several climate hazard-related layers including those which illustrate wildfire projections.	LA County Climate Vulnerability Assessment	LA County Climate Vulnerability Web Tool – Wildfire Projections for LA County

Other Opportunities for Delivering Multi-Benefits with Nature-Based Solutions & Diverse Projects				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to enhance ecosystem resilience and biodiversity	3.3	The Biodiversity Analysis in Los Angeles (BAILA) was created with the intention of improving awareness of biodiversity across Greater Los Angeles County and enhancing regional conservation. The Biodiversity Assessment dashboard displays the BAILA Urban Typology map, showing differences in urban habitat across LA, and may be used in developing multi-benefit Projects that employ NBS and enhance ecosystem resilience.	The Nature Conservancy, Natural History Museum of Los Angeles County	Biodiversity Assessment dashboard BAILA Final Report
Opportunities for community garden stormwater capture Projects	1.2, 2.2, 4.1, 4.2	Leverage pre-screened sites, conceptual Project designs, engagement, and feasibility findings by the SCW Program Scientific Study Community Garden Stormwater Capture Investigation to implement and promote nature-based, small-scale distributed Projects that provide Water Quality and Water Supply Benefits as well as other CIBs.	SCW Program Scientific Study	Community Garden Stormwater Capture Investigation Scientific Study Final Report

5.2.1.5 Leverage Funding and Invest in Research and Development: Strategies, Actions, and Opportunities

The ULAR WA encompasses a broad range of priorities, including the implementation of distributed BMPs to improve water quality, increased maintenance and enhancement of regional facilities, expanded access to green space and recreational corridors along the Los Angeles River, and continued investment in community-driven benefits, particularly within DACs.

Addressing these multifaceted needs requires not only thoughtful planning and design but also strategic financial investment and research to address knowledge gaps. To this end, securing leveraged funding from state, federal, private, and philanthropic sources is a critical strategy for amplifying the impact of SCW Program investments. The ULAR WASC and ROC emphasized the importance of leveraged funding to offset Project implementation costs to conserve funds for O&M, which has been a historically uncertain challenge. Leveraged funding can help offset capital and operational costs, enabling the development of more ambitious, cost-effective, and equitable multi-benefit Projects and Programs.

To date, ULAR WA Regional Program Projects have secured approximately 40% of their funding from leveraged sources, such as grant awards from the California Natural Resources Agency California Department of Parks and Recreation, and others. To meet the leveraged funding target of 50%, future Regional Program Projects that can leverage at least half of Project costs, if not more, should be more readily considered for SCW Program funding than other Projects that leverage less than 50% of Project costs. Note that the Indicator associated with this target, “Proportion of Project Costs Attributed to Leveraged Funding”, is measured at the WA scale. This means that while individual Projects are encouraged to meet the 50% target, the WA target can also be achieved collectively across all Projects within the WA.

The Regional Program’s Scoring Criteria assigns maximum points, in the leveraged funds section and as validated by the Scoring Committee, to Projects that have secured at least 50% leveraged funding based on the Project’s total cost, which also informed leveraged funding target-setting in this Planning Theme. However, the Regional Program financial outlook indicates that Regional Program funding will be constrained in the near term, with annual revenue insufficient to support the development of new large-scale Projects without additional financial support. This reinforces the need to proactively pursue external funding sources and highlights the growing importance of bolstering Municipal Program efforts to deliver cost-effective distributed BMPs and community-scale improvements. Proactive pursuit of additional funding streams can increase the financial feasibility of larger or high-impact Projects.

Further, continued investment in research, such as the 11 Scientific Studies funded to date in the ULAR WA, and the dissemination of their findings is critical for identifying new, evidence-based approaches and for developing an understanding of the region’s unique

challenges and opportunities. While these and future studies will not directly identify eligible funding avenues, their findings may inform the design of Projects in ways that enhance Project efficiency and cost-effectiveness.

Several Initial Watershed Plan gaps and limitations, outlined in Section 7.1, highlight the importance of additional research and data collection to strengthen the SCW Program's ability to refine implementation efforts, track progress, and assess achievement of Goals. Addressing these gaps through Scientific Studies and other research efforts will help strengthen decision-making and support the selection and development of Projects across the ULAR WA. Multiple strategies within the Planning Themes also call for expanded research and Scientific Studies to support Project and Program design and accelerate progress toward Goals.

Embedding leveraged funding strategies early in Project development, supported by robust research, continuous data collection, and innovation, will help ensure long-term sustainability, fiscal efficiency, and community value. This integrated approach reinforces the SCW Program's commitment to delivering holistic, multi-benefit solutions while advancing innovation and technological progress in stormwater management.

Upper Los Angeles River Watershed Area Strategies and Actions

Leverage Funding & Invest in Research & Development

SCW Program Goals D, H, I

Watershed Area Needs
(by 2045)

***at least* 50%**
Proportion of Project Costs Attributed to Leveraged Funding
(% additional)

Strategies	Action(s)		Who Should be Involved
5.1 Bolster SCW Program and regional coordination to support identification and communication of alternative funding sources and opportunities	**5.1.1** Address knowledge gaps surrounding the availability of alternative funding sources by enhancing the SCW Program Portal to maintain and communicate a regularly updated database of applicable funding opportunities which compiles sources identified through previously funded Projects and Programs, the SCW Program Leveraged Funding Reports, and Watershed Coordinator-identified sources.	LONG TERM	Public Works
	5.1.2 Utilize the *SCW Program Leveraged Funding Reports*, which are available through the SCW Program website, to evaluate the potential for alternative funding sources.	NEAR TERM	Municipalities, Project & Program proponents
	5.1.3 Coordinate with Watershed Coordinators for assistance in identifying and applying for leveraged funding sources (see also strategy 4.1).	NEAR TERM	Municipalities, Project & Program proponents
	5.1.4 Coordinate with Caltrans to identify opportunities within Caltrans right of ways that contribute runoff to impaired waterways. Partner on the design and funding of NBS that treat stormwater at the source, reduce pollutant loads, and support natural flow regimes while providing habitat and community benefits.	NEAR TERM	Public Works, WASCs, Municipalities, Project & Program proponents, Caltrans
5.2 Bolster the Scientific Study Program through enhanced review, coordination, and dissemination of results	**5.2.1** Create a Scientific Advisory Panel to review and assess Scientific Study proposals and propose future research topics in alignment with SCW Program priorities *(as suggested in the 2026 SCW Program Biennial Progress Report)*.	NEAR TERM	Public Works
	5.2.2 Summarize and disseminate SCW Program funded Scientific Study results through the SCW Portal and future Adaptive Watershed Plans, to inform future study as well as Project and Program implementation and selection. *Note that outcomes from Scientific Studies completed to date have been incorporated throughout this Initial Watershed Plan, where applicable.*	NEAR TERM	Public Works

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-22. Leverage Funding and Invest in Research & Development: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Opportunities

Leverage Funding & Invest in Research & Development

SCW Program Goals D, H, I

Table 5-5. Leverage Funding & Invest in Research & Development: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Leveraging Funding & Investing in Research & Development				
Opportunity	Strategies	Description & Purpose	Source	LINK
SCW Program Leveraged Funding Reports	5.1	With support from the Watershed Coordinators, the SCW Program Regional Coordination team publishes quarterly Leveraged Funding Reports which provide an overview of recent funding policy highlights and shares active and upcoming funding opportunities that may be relevant to SCW Program Projects. In the near-term, Municipalities and Project and Program developers can reference these reports and can work with Watershed Coordinators to identify potential leveraged funding sources. Two of the most recent reports available at the time of this Initial Watershed Plan are linked here for reference. For the latest updates, please visit the SCW Program website.	SCW Program	Q3 – January 2025 SCW Program Funding - Matrix Quarter 1 Funding Report

5.2.1.6 Equitably Distribute Benefits: Strategies, Actions, and Opportunities

Advancing equity within the ULAR WA requires a deliberate and sustained focus on investing in Projects and Programs that directly benefit DACs. To date, 32 of the 46 SCW Program Projects funded in the ULAR WA are providing benefits to DACs such as improved water quality, 89 acres of new or enhanced park space, and over 1,500 new trees. These Projects are currently estimated to deliver approximately 65%[47] of the benefits provided by all SCW Program Projects in the ULAR WA, demonstrating that a substantial share of Program benefits is reaching DACs and exceeding the WA's Required DAC Benefit Ratio (45%). Note that the DAC population that is anticipated to receive the benefits, referred to as the DAC benefit service area, varies for each CIB type (e.g., park creation, increased tree canopy, water quality benefits, etc.) based on the type and magnitude of benefit provided. The DAC benefit service area for a Project varies from 0.25 miles for localized benefit such as increasing shade and vegetation to 2 miles for broader benefits such as school greening. Details on DAC benefit service areas for each benefit type can be found in Appendix H.

During engagement, the ULAR WASC and the ROC CIB and Benefit Ratio Working Group expressed interest in exploring opportunities for Project implementation in densely populated, low-income areas to ensure that benefits are equitably distributed throughout the WA while addressing historical disparities.

In response, the following strategies and opportunities recommend prioritizing underserved, densely populated, and climate-vulnerable communities by supporting Projects that deliver multi-benefit outcomes, such as improved water quality, enhanced green spaces, urban cooling, flood reduction, recreational opportunities, and local job creation. These benefits should be accessible, visible, and responsive to the needs of residents. Community-informed planning is central to equitable implementation; as such these strategies are supported by those under the Prioritize Meaningful Engagement Planning Theme.

Ultimately, equitable distribution of SCW Program benefits is about more than geography; it requires intentional design, community partnership, and long-term commitment to addressing disparities in environmental quality, infrastructure, and public health. These strategies, when implemented alongside those under the other Planning Themes, can support the ULAR WA in meeting its technical goals, while also advancing environmental justice, inclusion, and well-being for all its communities.

[47] This value represents the 2025 Total Benefits for the Indicator "DAC Benefit Ratio", which differs from the "Required DAC Benefit Ratio" outlined by Goal J.

Upper Los Angeles River Watershed Area Strategies and Actions

Equitably Distribute Benefits

SCW Program Goals J, K

Watershed Area Needs
(by 2045)

- ***at least 45%*** 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 as well as the *Opportunity to locate Severely Disadvantage Communities* resource 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

*** SCW Program-wide and ULAR WASC Priority Strategy based on engagement**

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-23. Equitably Distribute Benefits: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Opportunities

See Appendix I

Equitably Distribute Benefits

SCW Program Goals J, K

Opportunity to Provide Benefits to DACs

(Figure 5-24)

This opportunity combines the CalEPA DAC and CVA SSI layers to identify areas with the greatest potential for Projects and Programmatic investments to deliver impactful benefits to historically underserved and climate-vulnerable communities.

To reflect current SCW Program investments, this layer excludes areas already served by existing SCW Program Projects, specifically within their CIB service areas. Recognizing that each Project's CIB service area may vary depending on the specific benefits it provides, a default service radius of 0.25 miles was applied to existing SCW Program Projects for the purpose of this opportunity analysis. This conservative approach ensures that the opportunity to invest in DACs is not overly restricted, maintaining flexibility for new investments while avoiding redundancy.

By layering social vulnerability and historic underinvestment datasets, this opportunity aims to guide the ULAR WASC, Municipalities, and Project and Program proponents toward strategic, equity-focused investments that promote environmental justice, community resilience, and improved quality of life for the most impacted populations.

Supports strategies:

- **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

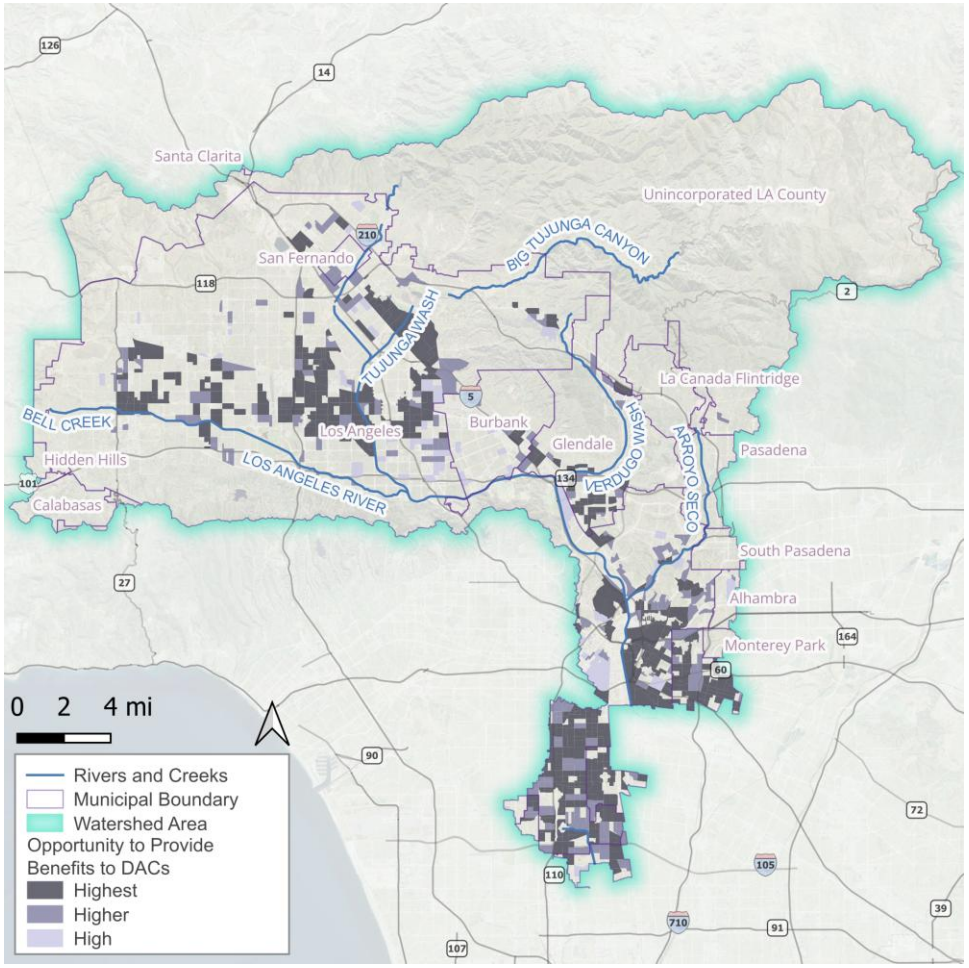


Figure 5-24. Opportunity to Provide Benefits to DACs

Upper Los Angeles River Watershed Area Opportunities

Equitably Distribute Benefits

SCW Program Goals J, K

Table 5-6. Equitably Distribute Benefits: other opportunities to address ULAR WA Needs and achieve Goals

Other Opportunities for Equitably Distributing Benefits				
Opportunity	Strategies	Description & Purpose	Source	LINK
Advice for Projects and Programs designed to achieve the equitable impact sought by the SCW Program	6.1, 6.2, 9.1, 9.2	The *Equity in Stormwater Investments* white paper provides critical context and recommendations for strengthening equity outcomes for SCW Program Projects including advice for engagement. *Note that recommendations have been incorporated in this Initial Watershed Plan, where applicable.*	University of California, Los Angeles	Equity in Stormwater Investments white paper
Opportunity to support communities sensitive to climate-related hazards	6.1	The CVA SSI is a tool used to evaluate how vulnerable a community is to climate-related hazards. While the opportunity layers above incorporate this dataset to identify opportunities within DACs, it can also be applied beyond the DAC context to highlight non-DAC areas that are sensitive to climate hazards and may benefit from infrastructure investments.	Los Angeles County Chief Sustainability Office	Los Angeles County Climate Vulnerability Assessment - Web Tool

5.2.1.7 Promote Green Jobs and Career Pathways: Strategies, Actions, and Opportunities

The ULAR WA presents significant opportunities for strategic investment in the local workforce to support SCW Program Projects and Programs, with workforce development being a top priority of the ULAR WASC. Given the breadth of the SCW Program's 14 Goals, workforce strategies must be multifaceted and inclusive. Key approaches include targeted hiring, skills training, and career pathway development that align with existing and emerging green infrastructure Projects. These strategies are informed by SCW Program workforce development research, including a comprehensive literature review of workforce training programs, models, and other resources that can be leveraged to cultivate a stable, skilled, and locally sourced labor force.

The ULAR WASC, the ROC, advocates, and the ROC CIB and Benefits Ratio Working Group emphasized the importance of prioritizing "high quality" jobs, especially 'green' jobs (those that offer stability, living wages, and benefits) over low quality and temporary jobs that lack those kinds of benefits. Notably, engagement with OurWaterLA, a local organization that includes experts in green jobs and workforce equity, identified public sector maintenance roles as more desirable than private sector alternatives, due to their reliability and long-term potential.

Additionally, workforce development efforts should be coordinated with partners such as the Los Angeles County Department of Economic Opportunity (DEO), City of LA Economic & Workforce Development Department, and Los Angeles County America's Job Centers of California, which are actively engaged in expanding access to meaningful employment and training pathways within the region. Collaboration with agencies and organizations that serve historically underserved communities, such as the Tribal Conservation Corps, and those that have interest in habitat restoration and watershed planning, such as Mountains Recreation and Conservation Authority, Santa Monica Mountains Conservancy, Los Angeles Conservation Corps, and the Council for Watershed Health (CWH), may also streamline access to green job pathways for underrepresented communities in areas like stormwater BMP maintenance, landscape restoration, and water quality monitoring. By connecting job creation to environmental justice and community well-being, the SCW Program can serve as a catalyst for both ecological resilience and economic empowerment in the ULAR WA.

Upper Los Angeles River Watershed Area Strategies and Actions

Promote Green Jobs and Career Pathways

SCW Program Goal M

Watershed Area Needs
(by 2045)

4,150
Estimated Total Full-Time Equivalent (FTE) Jobs Created
(#)

100%
Proportion of Projects Entered in a Project Labor Agreement (PLA) (where applicable)
(%)

Strategies	Action(s)		Who Should be Involved
7.1 Prioritize smaller Projects for which construction and maintenance jobs are more likely to come from a local labor force	**7.1.1** Prioritize the implementation of small-footprint distributed BMPs, such as green streets and lower impact development Projects, particularly in areas where they are cost-effective and community-supported, to encourage the creation of jobs for the local labor force that support multiple benefits.	NEAR TERM	WASCs, Municipalities, Project proponents
	7.1.2 Utilize the *SCW Program Portal Bid and Project Schedules* page and related *Reporting Module* functionality to solicit job opportunities and promote open procurement.	NEAR TERM	Municipalities, Project & Program proponents
7.2 Invest in research and Programs that promote permanent career pathways	**7.2.1** Initiate a Scientific Study, building from the Accelerate Resilience Los Angeles (ARLA) Workforce White Paper, that investigates the resources required to establish permanent career pathways within SCW Programs Projects and Program implementation and O&M.	LONG TERM	Public Works, Scientific Study proponents, ARLA, CBOs
	7.2.2 Establish a job training and certification program to create a career pathway for the SCW Program workforce.	LONG TERM	Public Works, DEO
7.3 Coordinate job placement and partner with workforce training and pre-apprenticeship programs	**7.3.1** Collaborate with local training providers (e.g., Los Angeles Alliance for a New Economy, Strategic Concepts in Organizing & Policy Education, community colleges) to support the establishment or expansion of pipelines for underrepresented communities into green careers, including stormwater BMP maintenance, landscape restoration, and water quality monitoring.	LONG TERM	Public Works, Municipalities, Watershed Coordinators
	7.3.2 Utilize the SCW Program Portal–including the Planning Tool–to spatially view current and proposed SCW Program Projects in the WA to identify near- and long-term workforce demands, with a focus on O&M and construction labor needs. Consider resource pooling across multiple Municipalities or Project sponsors when appropriate and feasible.	NEAR TERM	Public Works, Municipalities, Watershed Coordinators
	7.3.3 Partner with regional workforce programs such as the California Conservation Corps, Mountains Recreation and Conservation Authority, and The Bay Foundation to provide on-the-ground training in habitat restoration, wildfire resilience, and green infrastructure maintenance.	LONG TERM	Public Works, Municipalities, Watershed Coordinators

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-25. Promote Green Jobs and Career Pathways: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River Watershed Area Opportunities

Promote Green Jobs and Career Pathways

SCW Program Goal M

Table 5-7. Promote Green Jobs and Career Pathways: other opportunities to address ULAR WA Needs and achieve Goals

Opportunities for Promoting Green Jobs and Career Pathways				
Opportunity	Strategies	Description & Purpose	Source	LINK
SCW Program Portal – Bid Opportunities and Project Schedules Page	7.1, 7.2	Centralizes information submitted by Developers and Municipalities for upcoming bid opportunities for SCW Program Projects and Studies.	SCW Program	SCW Program Portal - Bid and Project Schedules

5.2.1.8 Ensure Ongoing Operations & Maintenance for Projects: Strategies, Actions, and Opportunities

The long-term viability, performance, and community value of Projects funded through the SCW Program in the ULAR WA depend on robust and sustainable strategies for O&M. Sustained O&M ensures that Projects continue to deliver intended benefits such as water quality improvement, flood management, and green space enhancements over their full life cycle. The ULAR WASC recognizes that the operations and maintenance of Projects have been a recurring challenge to date, primarily due to funding constraints, so in addition to formal O&M plans, the ULAR WASC aims to have applicants leverage funding to conserve local funds for O&M. To that end, SCW Program Goal N emphasizes the need for comprehensive O&M planning in Project applications, which requires Project applicants to demonstrate not only upfront design excellence but also clear and feasible O&M plans that when implemented lead to the ongoing operational success of Projects. To date, seven Projects, such as the Echo Park Lake Rehabilitation and Sylmar Channel Projects, have been completed in the ULAR WA, with formal O&M plans in place to ensure their ongoing effectiveness.

The following strategies are designed to support the development of a qualified and well-trained workforce, embed industry best practices in asset management, and promote adaptive maintenance approaches. These strategies closely align with broader concepts previously discussed under the Leverage Funding and Invest in Research and Development Planning, recognizing that strategic and leveraged funding can and will be necessary to strengthen long-term O&M capacity.

Embedding O&M considerations into the earliest stages of Project planning, design, and budgeting is essential. Proactively integrating these elements will ensure that each Project not only meets its initial objectives but continues to provide reliable, resilient, and equitable benefits for the communities it serves for decades to come.

Upper Los Angeles River Watershed Area Strategies and Actions

Ensure Ongoing Operations & Maintenance for Projects

SCW Program Goal N

Watershed Area Needs
(by 2045)

100%
Quantity of O&M Plans Sustaining Intended Project Benefits
(%)

Strategies	Action(s)		Who Should be Involved
8.1 Maintain a skilled, local workforce to ensure quality construction and comprehensive O&M	**8.1.1** Initiate a Scientific Study that can establish specific construction and O&M best practices for varying BMP and footprint types, and can aggregate lessons learned from constructed Projects that can be used in future Project planning. See related strategy 5.1.	NEAR TERM	Public Works, WASCs, Scientific Study proponents
	8.1.2 Develop and expand workforce pipelines for O&M personnel, with a focus on local hiring and job training programs that support career pathways in water infrastructure, green maintenance, and environmental monitoring. See related strategy 5.1.	LONG TERM	Public Works, Municipalities
8.2 Ensure sufficient resources are set aside for Project O&M and monitoring	**8.2.1** Leverage external funding sources—such as state and federal infrastructure and climate adaptation grants—to support long-term O&M costs by establishing funding pathways for O&M and monitoring requirements and best practices, thereby reducing reliance on limited SCW Program funds for recurring expenses. See related strategy 5.1.	NEAR TERM	Public Works, Municipalities, Project proponents
	8.2.2 Embed O&M into the early planning, design, and funding stages of Projects to ensure adequate funds are allocated, set clear expectations and responsibilities for O&M, and identify cost-effective design choices that reduce future maintenance burdens.	NEAR TERM	Public Works, Municipalities, Project proponents
	8.2.3 Develop partnerships with public agencies, CBOs, and maintenance contractors to establish coordinated approaches and share resources where feasible.	LONG TERM	Public Works, Municipalities
8.3 Promote wildfire resilience through fire-resilient O&M protocols for Projects	**8.3.1** Manage fire fuel by incorporating into O&M plans the regular removal of dry, excess biomass and dead plant material, particularly during fire season.	NEAR TERM	Public Works, Municipalities, Project proponents
	8.3.2 Maintain and promote use of dual-use infrastructure-such as stormwater channels that can function as fire fuel breaks or emergency access paths.	NEAR TERM	Public Works, Municipalities
	8.3.3 Ensure routine maintenance of major stormwater capture facilities—such as dams, reservoirs, and spreading grounds—to preserve design capacity, control pollutant loads, and maintain hydrologic safety, especially in post-fire and high-runoff conditions.	NEAR TERM	Public Works, Municipalities
	8.3.4 Enhance O&M for major capture facilities to optimize water storage, improve system responsiveness during storm events, and support the strategic use of captured stormwater for drought resilience and wildfire suppression.	LONG TERM	Public Works, Municipalities
	8.3.5 Incorporate adaptive O&M plans in Project planning and implementation that account for increased sediment and debris loading following wildfires.	NEAR TERM	Public Works, Municipalities
8.4 Integrate post-construction monitoring data into O&M plans	**8.4.1** Promote adaptive maintenance which integrates post-construction monitoring data for Projects into O&M schedules and plans, ensuring that these metrics directly inform maintenance activities and that issues are addressed proactively.	NEAR TERM	Public Works, Municipalities, Project proponents

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-26. Ensure Ongoing Operations & Maintenance for Projects: strategies and actions to address ULAR WA Needs and achieve Goals

5.2.1.9 Prioritize Meaningful Engagement: Strategies, Actions, and Opportunities

Meaningful engagement is not only a cornerstone of equitable Project and Program planning but is essential for the long-term success of multi-benefit initiatives that seek to address environmental, social, and infrastructural challenges. The Indicator for this Planning Theme "all Projects to meet a minimum "Level of Achievement" (%)"[48] measures the proportion of SCW Program Projects achieving 'Good', 'Better', or 'Best' community engagement, which includes tribal engagement[49]. To date, 61%[50] of SCW Program Projects funded in the ULAR WA have reported 'Good', 'Better', or 'Best' levels of overall community engagement, and 43% have reported 'Good', 'Better', or 'Best' levels of engagement specifically with tribes[51]. These Projects have collectively received 42 letters of support and conducted almost 80 engagement efforts, ranging from online media, fact sheets, and community presentations.

A recurring theme raised by interested parties is the need for accessible and culturally relevant education to help community members understand the SCW Program's funding mechanisms, Project timelines, and anticipated changes. While achieving widespread community awareness and support can be challenging, well-designed engagement and educational initiatives (especially those delivered in partnership with trusted local entities such as Watershed Coordinators, CBOs, and WASCs) can build trust and bridge communication gaps. Engagement with the Watershed Coordinators, advocates, and some WASCs highlighted the value of continued collaboration with federally and non-federally recognized Tribal Nations, underserved populations, Municipalities, and other public agencies.

Interested parties not only want to see visible, tangible improvements but also want assurance that their concerns are being heard and addressed. This underscores the need for ongoing dialogue, transparent decision-making, and education that addresses both the opportunities and challenges associated with watershed improvements. The ULAR WA's engagement strategies reflect an inclusive, informed, and community-driven approach—ensuring that residents are not just beneficiaries, but active partners in the transformation of their local environment.

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[48] "Level of Achievement" refers to the level of community engagement conducted by a Project. This information is self-reported by Project proponents and Municipalities using the Good, Better, Best framework for SCW Program outreach and engagement outlined in the SCW Program 2025 Interim Guidance.
[49] Tribal engagement is considered in the tracking of this Indicator, as tribes are community members. See the SCW Program 2025 Interim Guidance for additional guidance and definitions on community engagement and support.
[50] Percentages are based on self-reported "Good, Better, Best" assessments by Project proponents and Municipalities and assume that Project proponents and Municipalities accurately interpreted and applied the Reporting Module Guidance – New Regional Program Performance Measures. Note that values shown here represent 2025 total benefits, while values in the Planning Tool are dynamic and automatically update to reflect the most current user-reported data.
[51] Tribal engagement is tracked and quantified through the PM "Level of Achievement for tribal engagement".

Upper Los Angeles River 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, particularly in DACs. 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 support for Project Concepts as well as support with engagement, particularly in DACs.	LONG TERM	Project & Program proponents, Municipalities

Figure 5-27. Prioritize Meaningful Engagement: strategies and actions to address ULAR WA Needs and achieve Goals

Upper Los Angeles River 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

Note: Although the strategies and actions under this Planning Theme may not explicitly reference water quality, it is important to remember that, in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

Figure 5-27. Prioritize Meaningful Engagement: strategies and actions to address ULAR WA Needs and achieve Goals (continued)

Upper Los Angeles River Watershed Area Opportunities

Prioritize Meaningful Engagement

Table 5-8. Prioritize Meaningful Engagement: other opportunities to address ULAR WA Needs and achieve Goals

Opportunities for Prioritizing Meaningful Engagement				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity for community members to provide input on their priorities and concerns	9.1, 9.2	The CSNA survey is a key engagement tool of the SCW Program. The survey provides an opportunity for individuals to directly inform the planning and implementation of SCW Program investments. There is ongoing coordinated distribution of the survey by Watershed Coordinators and other entities but all individuals are encouraged to take the survey.	SCW Program CSNA	CSNA Survey
Advice for Projects and Programs designed to achieve the equitable impact sought by the SCW Program	6.1, 6.2, 9.1, 9.2	The *Equity in Stormwater Investments White Paper* provides critical context and recommendations for strengthening equity outcomes for SCW Program Projects including advice for engagement. *Note that recommendations have been incorporated in this Initial Watershed Plan, where applicable.*	University of California, Los Angeles	Equity in Stormwater Investments White Paper
		The Community Engagement and Support section of the SCW Program 2025 Interim Guidance provides clear expectations and practical direction for designing inclusive, meaningful engagement that is integrated throughout Project planning and implementation.	SCW Program	SCW Program 2025 Interim Guidance (see p. 7; Community Engagement and Support)

Opportunities for Prioritizing Meaningful Engagement				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to coordinate with existing outreach and engagement meetings and event	9.1	Reference the SCW Program SCW Program Watershed Coordinator Engagement Event Calendar to align Project and Program engagement with planned and ongoing meetings and events.	SCW Program	SCW Program Watershed Coordinator Engagement Event Calendar
		Reference the City of Los Angeles' Park Needs Assessment community engagement site to review upcoming activities and events to align or partner Project and Program-specific engagement efforts.	City of Los Angeles Department of Recreation and Parks	City of Los Angeles Park Needs Assessment: Community Engagement Site
Fire Hazard Reduction Opportunity	3.3, 4.3, 9.3	Resource guide that legally declares areas that show improved and unimproved properties as a public nuisance, and where necessary, requires clearance of hazardous vegetation to create a defensible space against wildfires.	Cal Fire	Defensible Space Guidelines Los Angeles County Defensible Space Inspection Program LAC Fire Code Inspection Informational Guide
		Visually details the most critical landscape conditions and clarifies what should be done to prepare residential homes for the greatest chance for survival.	LAC Fire Department	A Guide to Defensible Space: Ornamental Vegetation Maintenance

Opportunities for Prioritizing Meaningful Engagement				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to review existing regional and local engagement results	9.1	The CSNA Dashboard provides survey response trends from the CSNA Survey (2024-present), SCW Program Watershed Coordinator Surveys (2020-2024), and WaterTalks Needs Assessment (2018-2023). This collection of community thoughts should be referenced to inform future Project and Program engagement, reduce burden on community members, and increase the impact of SCW program Projects and Programs.	SCW Program; CSNA Dashboard	CSNA Dashboard – Survey Participation Layers
		The Parks Needs Assessment and Parks Needs Assessment Plus included extensive engagement to identify community suggestions and priorities. Refer to the following engagement outputs to understand efforts and community suggestions identified by the Parks Needs Assessment in your community to date.	LA County Department of Parks and Recreation (via the Parks Needs Assessment and Parks Needs Assessment Plus)	Parks Needs Assessment Appendix A: Study Area Profiles Parks Needs Assessment Plus Appendix A: Individual Regional Study Area Profiles, Appendix B: Individual Rural Study Area Profiles, and Appendix E: Survey Results
		Align Project and Program implementation with key engagement takeaways from the Los Angeles River Master Plan.	Los Angeles River Master Plan	Los Angeles River Master Plan Engagement Summary Report
		Align Project and Program implementation with key engagement takeaways from the OurCounty Sustainability Plan.	LA County Chief Sustainability Office (via the OurCounty Sustainability Plan)	OurCounty Stakeholder Engagement Summary Report

5.2.1.10 Composite Opportunities for Providing a Spectrum of Benefits

Projects and Programs that deliver multiple benefits (such as a Water Quality Benefit alongside a Water Supply Benefit and/or CIB, or both) are a cornerstone of the SCW Program. Synergies exist across strategies to achieve Goals; these strategies support individual Goals on their own but are most effective in supporting Goals when enacted jointly. For example, strategies related to NBS, CIBs, and equity frequently overlap and mutually reinforce one another[52].

Consider the following example: creating, enhancing, and restoring park and green space in high-need communities (strategy 3.2) through the delivery of nature-based, multi-benefit Projects and Programs (strategy 4.4) also helps communities most affected by extreme heat (strategy 3.3). At the same time, it contributes to equitable outcomes by considering land use disparities and environmental justice metrics (strategy 6.1). When these green spaces utilize native vegetation and are sited on previously impermeable surfaces, they go beyond satisfying strategy 3.2 by helping to mitigate the urban heat island effect and offering climate resilience benefits, especially when sited in climate-vulnerable areas.

Similarly, strategies to improve water quality and increase water supply are closely interconnected. Strategy 2.1 explicitly reinforces this linkage. For example, maximizing stormwater runoff capture and management for water supply (strategy 2.2) goes hand-in-hand with prioritizing high-performance Projects and Programs in areas with the highest pollutant loads (strategy 1.1). Projects that augment water supply through infiltration to a managed aquifer, diversion to sanitary sewers, or onsite reuse must first treat that stormwater runoff using Project BMPs or existing wastewater treatment and water reclamation facilities. To support the implementation of these synergies, the Initial Watershed Plans introduce two composite opportunities:

- **Multiple Benefit Opportunity Across Planning Themes**
- **Opportunity to Improve Water Quality and Increase Water Supply**

These composite opportunities provide guidance to the ULAR WASC, Municipalities, and Project and Program proponents by highlighting areas within the ULAR WA and each Municipality with the most potential to align strategies, deliver multiple benefits, and support multiple Goals.

[52] Recall that in accordance with the SCW Program Implementation Ordinance (LACFCD Code §16) all Projects and Programs must include a Water Quality Benefit, and all Regional Program Projects must have both a Water Quality Benefit and/or a Water Supply Benefit or CIB, or both. Municipal Program Projects that incorporate multiple benefits and NBS are strongly encouraged.

Multiple Benefit Opportunity Across Planning Themes

This multiple benefit composite opportunity (Figure 5-28) serves as a critical planning and communication tool for the ULAR WASC, Municipalities, and Project and Program proponents. Its purpose is to highlight areas within the ULAR WA and its Municipalities that offer potential for leveraging multiple strategies to efficiently and effectively deliver community and environmental benefits that address multiple Goals and maximize cumulative benefits rather than addressing needs in isolation. Specifically, this composite opportunity highlights locations where multi-benefit Project and Programs could most effectively provide Water Quality Benefits while supporting two or more of the following Goals and strategies:

- **Increase Drought Preparedness *(Goal B)***
  - **2.3** Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse
- **Improve Public Health *(Goal C)***
  - **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 *(Goal F)***
  - **4.2** Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns
- **Equitably Distribute Benefits *(Goal J).***
  - **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

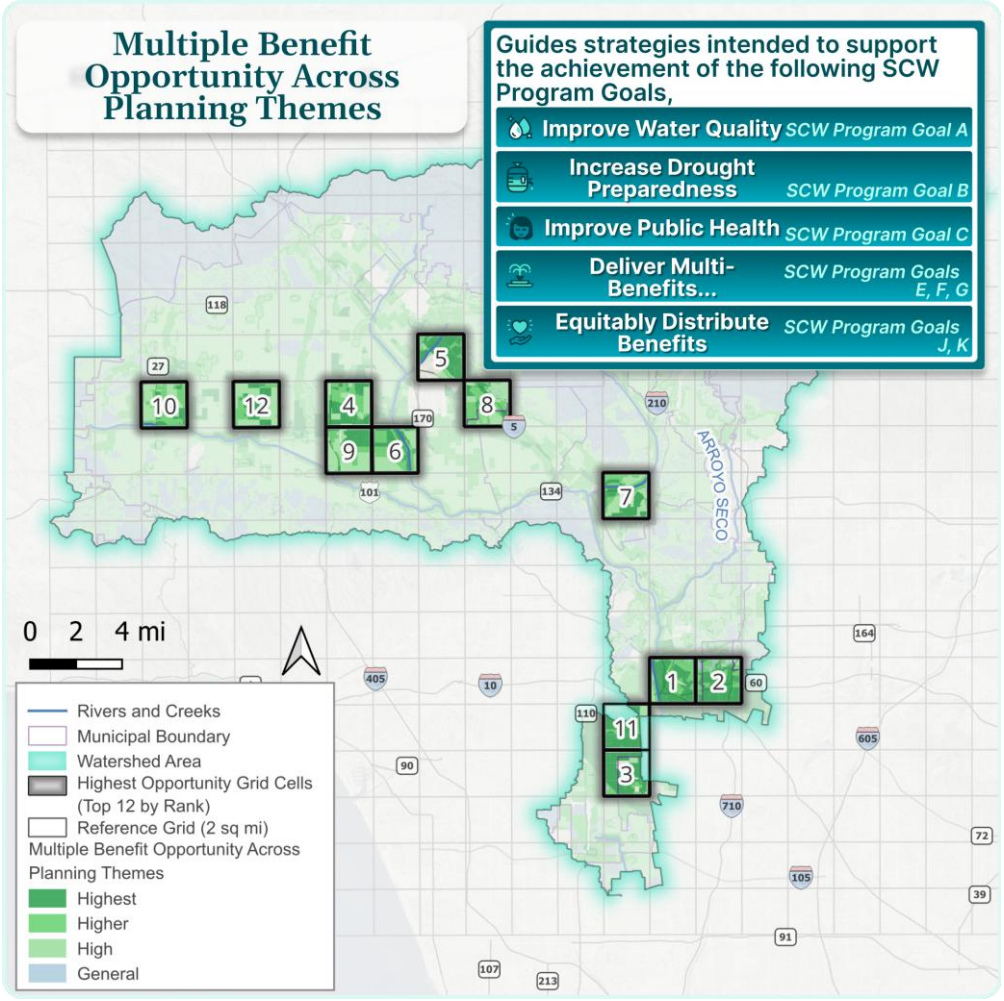


Figure 5-28. Multiple Benefit Opportunity Across Planning Themes

To clearly identify areas with the greatest potential, the ULAR WA was divided into 2-square-mile grid cells and ranked based on their capacity to address multiple WA Needs, improve water quality, and advance two or more other SCW Program Goals across Planning Themes. The top two grids in the ULAR WA for the Multiple Benefit Opportunity Across Planning Themes are shown in Figure 5-29 to highlight the highest-scoring areas in the ULAR WA and guide the ULAR WASC and Project and Program proponents toward locations with the most strategic and cumulative impact.

A detailed explanation of this analysis are shown in Appendix I, and full-page versions of the maps for the top twelve grids for this Opportunity within the ULAR WA are included in Appendix J. A layer with the top twelve grids for the ULAR WA for the Multiple Benefit Opportunity Across Planning Themes is also available for interactive exploration through the Planning Tool.

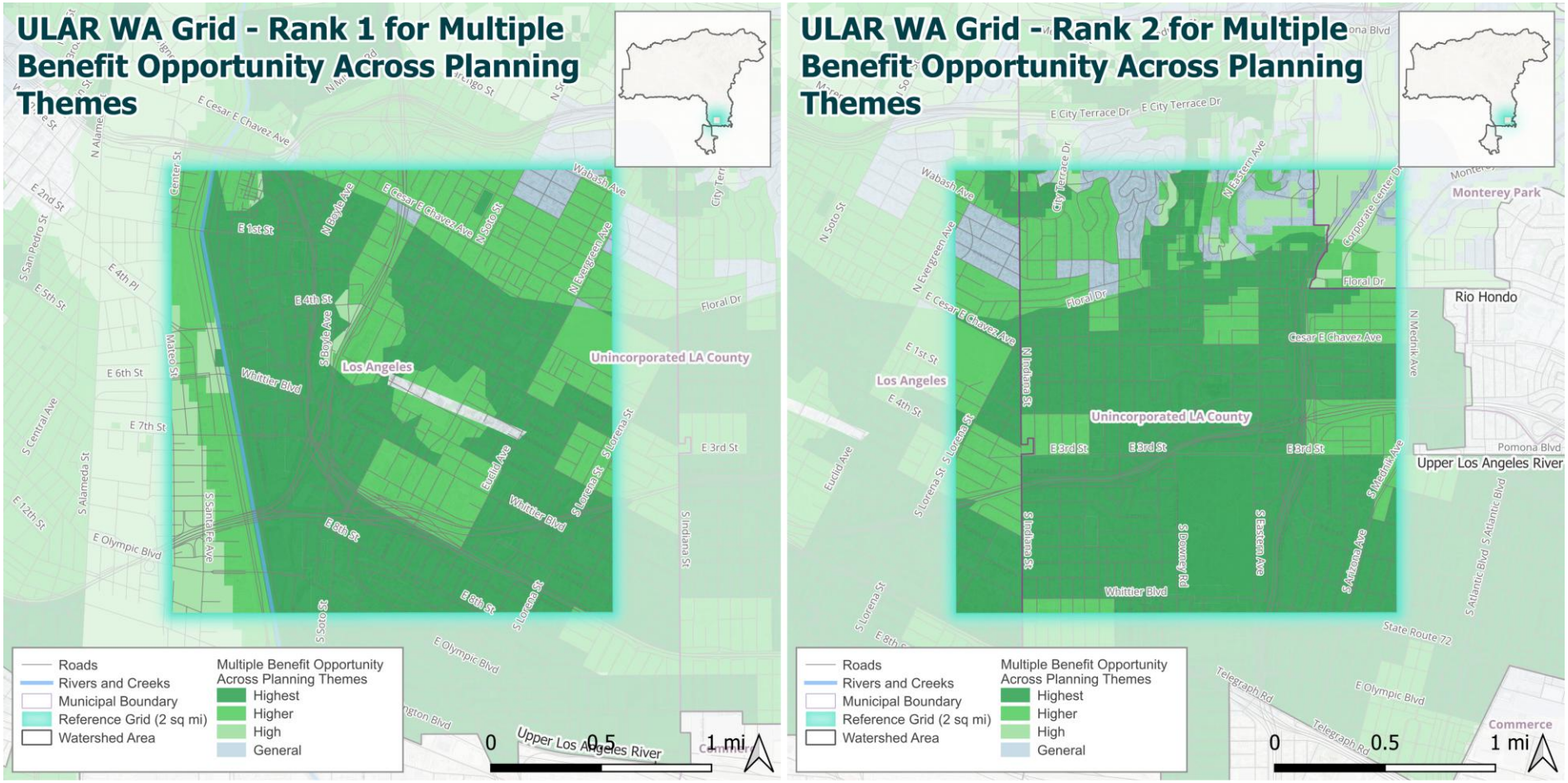
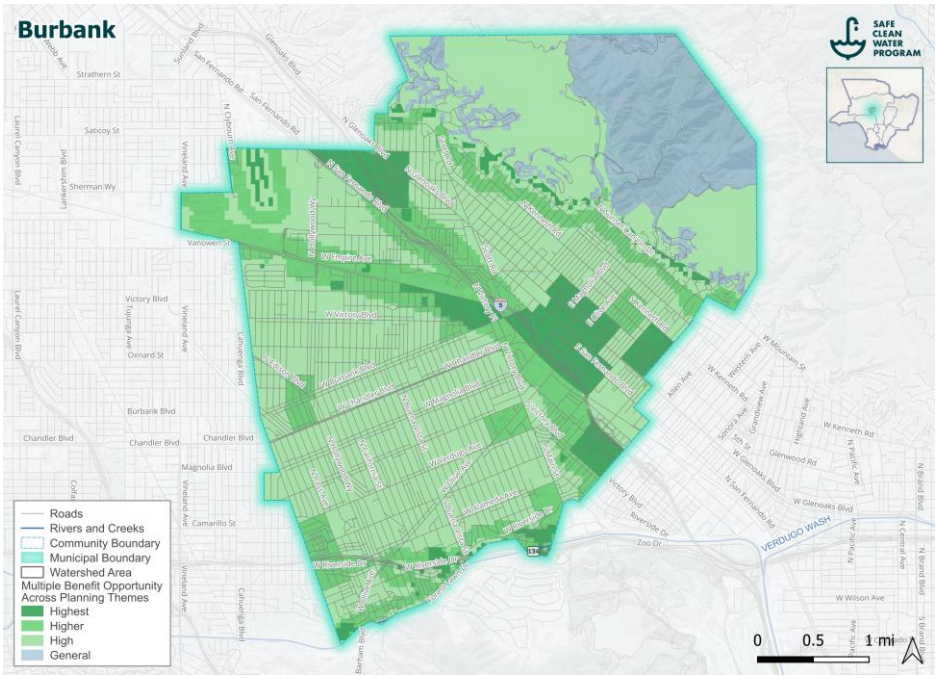
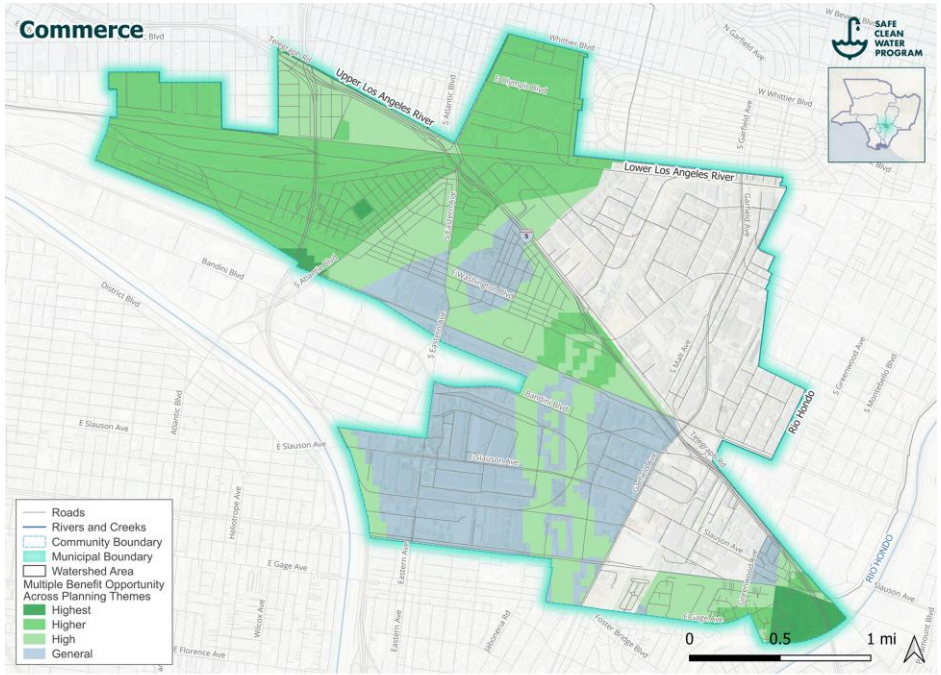


Figure 5-29. Multiple Benefit Opportunity Across Planning Themes: top two grid areas with the most opportunity

To support targeted implementation by Municipalities, the Multiple Benefit Opportunity Across Planning Themes was reindexed at the Municipal scale to highlight the relative opportunity levels (high, higher, and highest) within each Municipality. This localized scaling approach ensures that every Municipality, regardless of size or baseline conditions, can identify and prioritize areas with the greatest potential to deliver cumulative, cross-thematic benefits aligned with Goals. An example of the results of this spatial analysis for the Cities of Commerce, Burbank and, Huntington Park, which have varying opportunity levels and spatial distribution, are provided in Figure 5-30. A detailed explanation of the analysis is provided in Appendix I, and full-page versions of the maps shown here are included in Appendix J. This layer is also available for interactive exploration through the Planning Tool.





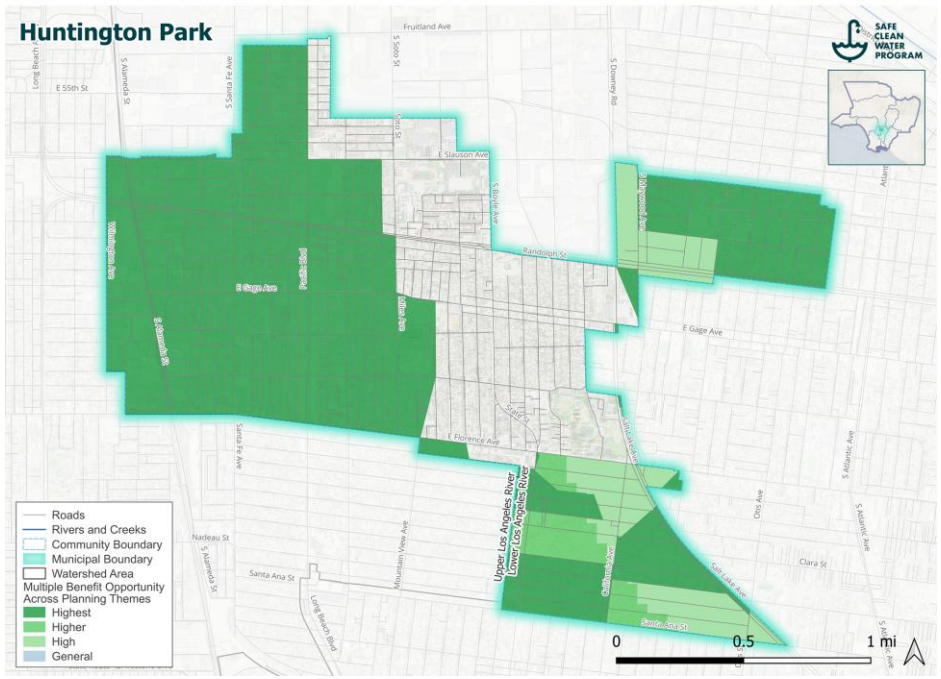


Figure 5-30. Multiple Benefit Opportunity Across Planning Themes: scaled by Municipality

Opportunity to Improve Water Quality and Increase Water Supply

This composite opportunity integrates the Opportunity to Improve Water Quality (Figure 5-10) and Opportunity to Increase Water Supply through Stormwater Capture (Figure 5-12) to identify unmanaged capture areas with the greatest potential to achieve both key objectives: reducing pollutant loads to improve water quality and enhancing local water supply through stormwater capture. Its purpose is to highlight areas within the ULAR WA, its communities, and its Municipalities that offer the highest potential for implementing high-impact Projects and Programs that support the following Goals and strategies:

- **Improve Water Quality *(Goal A)***
  - **1.1** Prioritize high performance Projects and Programs in areas with the highest pollutant loads
- **Increase Drought Preparedness *(Goal B)***
  - **2.1** Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply
  - **2.2** Maximize stormwater runoff capture and management for water supply

In Figure 5-31, teal areas indicate locations with dual-benefit potential, where Projects can simultaneously improve water quality and augment water supply. Areas that present only water quality opportunities, without corresponding water supply potential, are depicted in purple to distinguish them from dual-benefit zones.

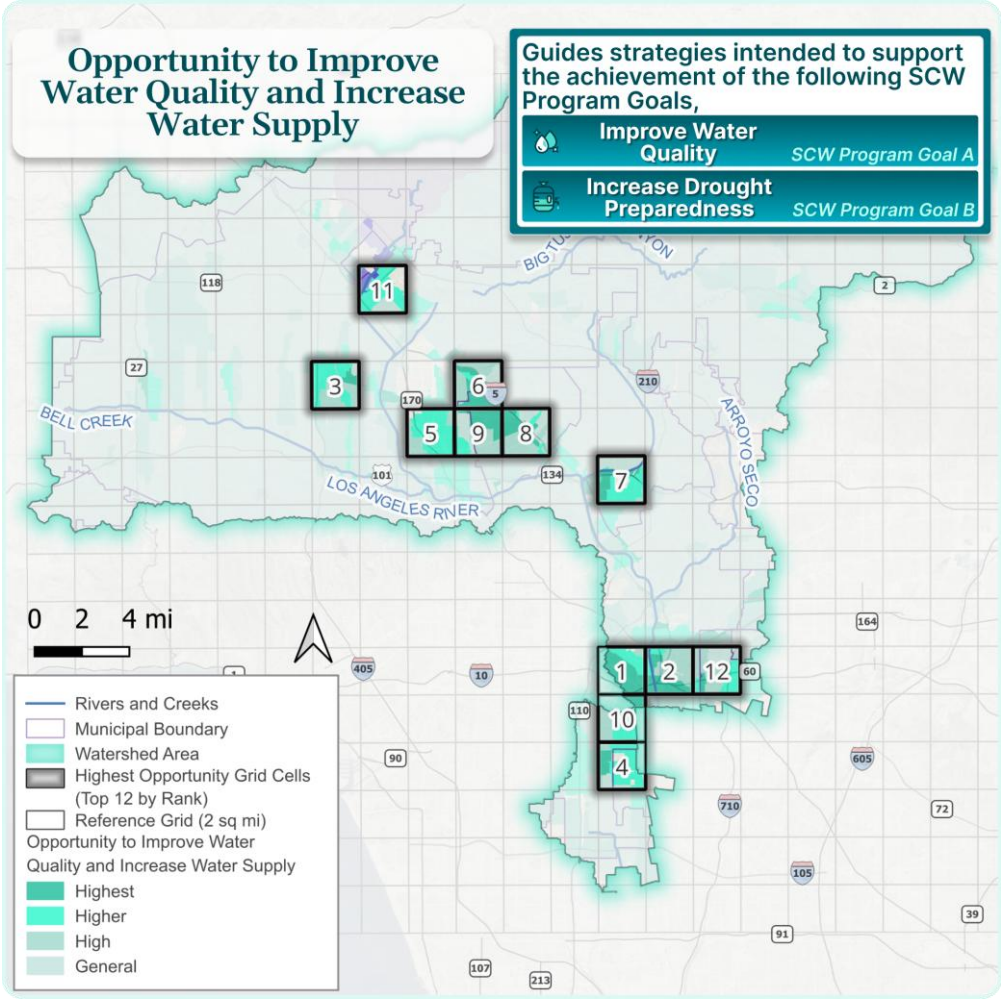


Figure 5-31. Opportunity to Improve Water Quality and Increase Water Supply

To clearly identify areas with the greatest potential, the ULAR WA was divided into 2-square-mile grid cells and ranked based on their capacity to both improve water quality and increase drought preparedness. The top two grids for the Opportunity to Improve Water Quality and Increase Water Supply in the ULAR WA are highlighted in Figure 5-32.

A detailed explanation of this analysis is provided in Appendix I, and full-page versions of the maps for the top twelve grids for this Opportunity within the ULAR WA are included in Appendix J. This layer is also available for interactive exploration through the Planning Tool.

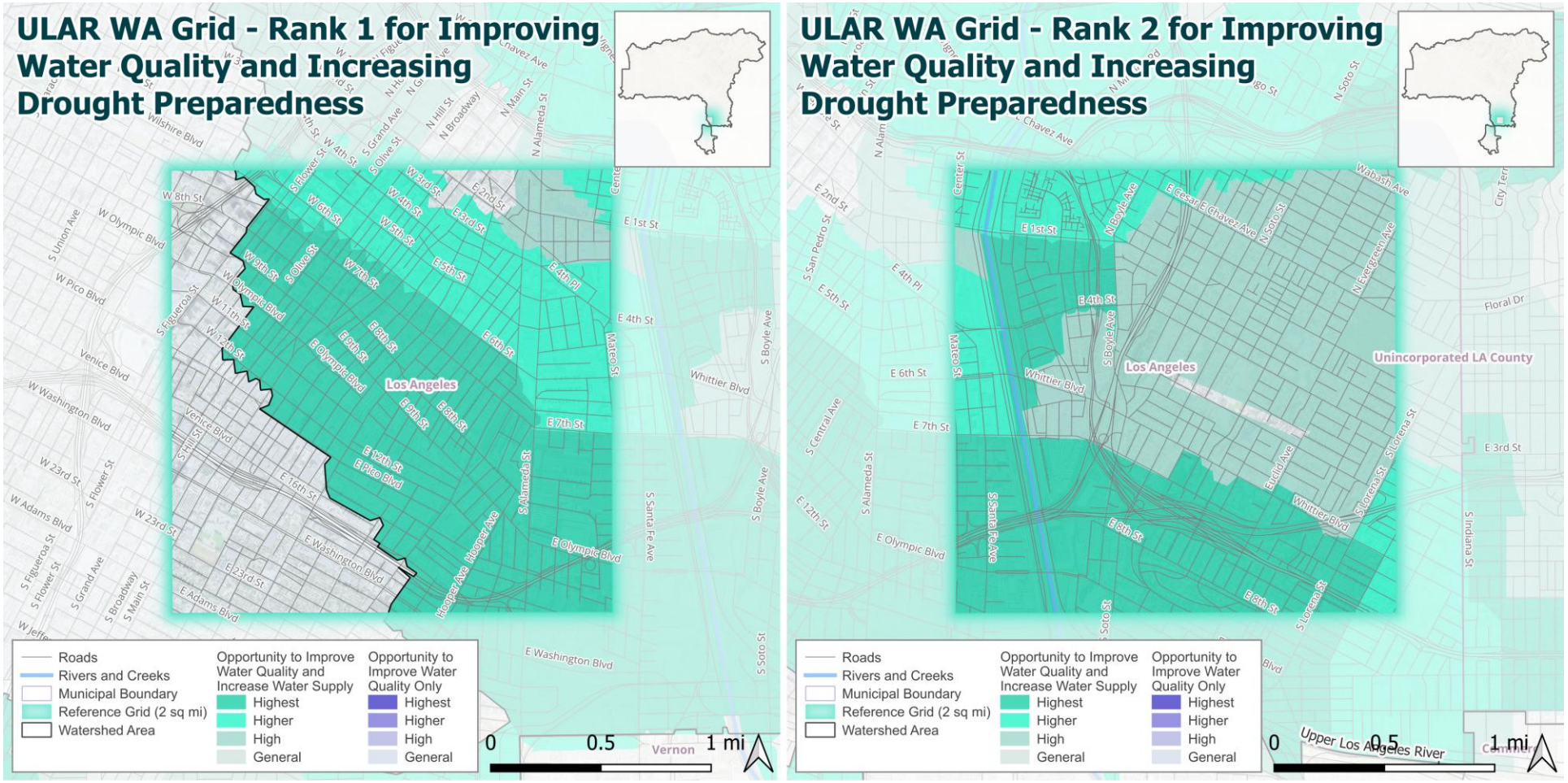
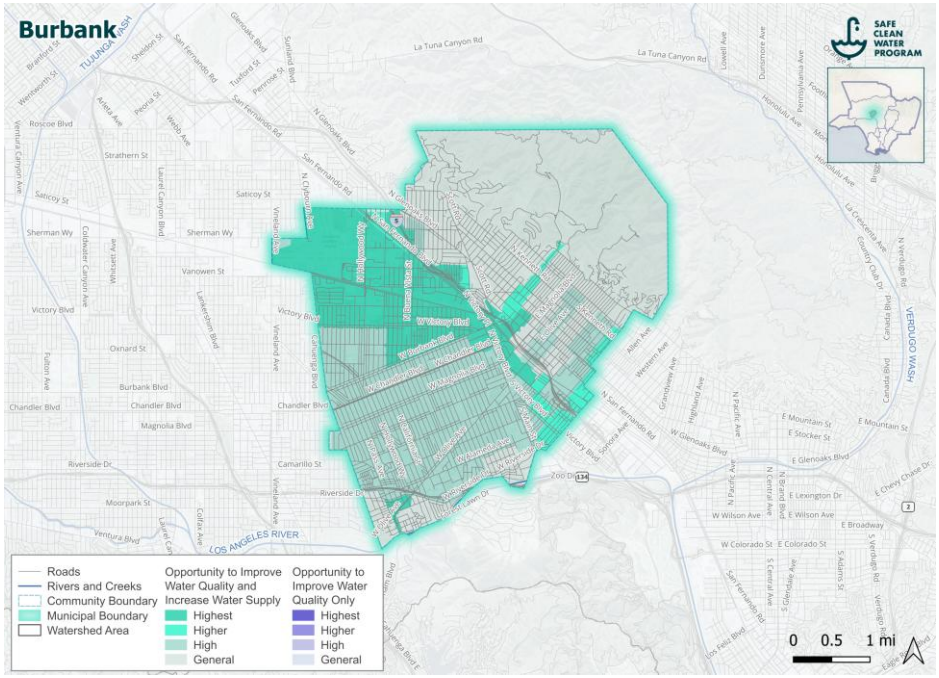
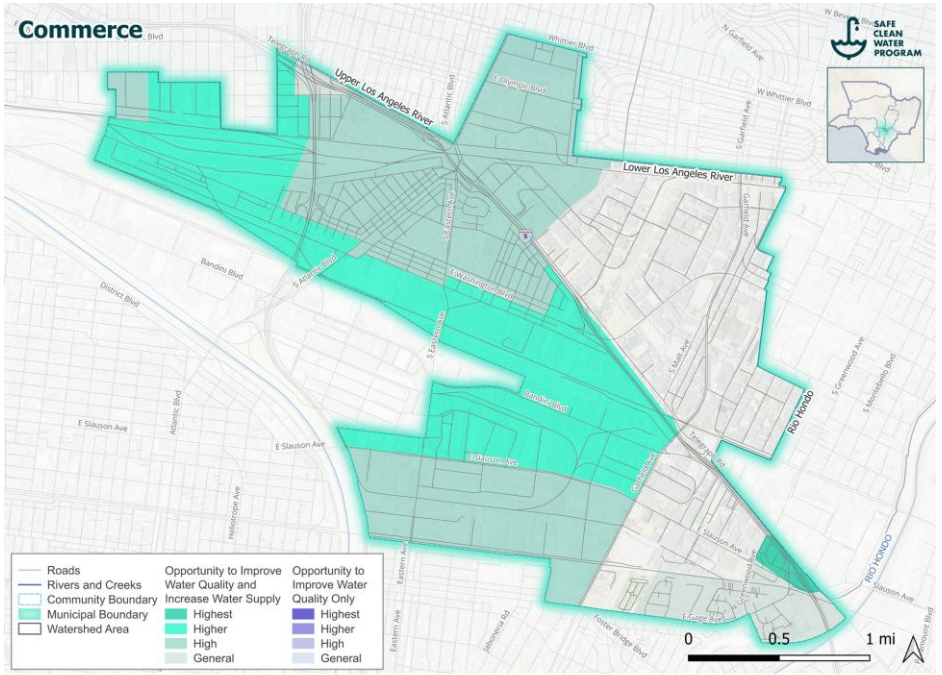


Figure 5-32. Opportunity to Improve Water Quality and Increase Water Supply: top two grid areas with the most opportunity

To support targeted implementation by Municipalities, the Opportunity to Improve Water Quality and Increase Water Supply was reindexed at the Municipal scale to highlight the relative opportunity levels (high, higher, and highest) within each Municipality. This localized scaling approach ensures that every Municipality, regardless of size or baseline conditions, can identify and prioritize areas with the greatest potential to improve water quality and increase water supply. An example of the results of this spatial analysis for the Cities of Commerce, Burbank, and Huntington Park, which have varying levels and distribution of opportunity, are provided in Figure 5-33.

A detailed explanation of this analysis is provided in Appendix I, and full-page versions of the maps shown here are included in Appendix J. This layer is also available for interactive exploration through the Planning Tool.





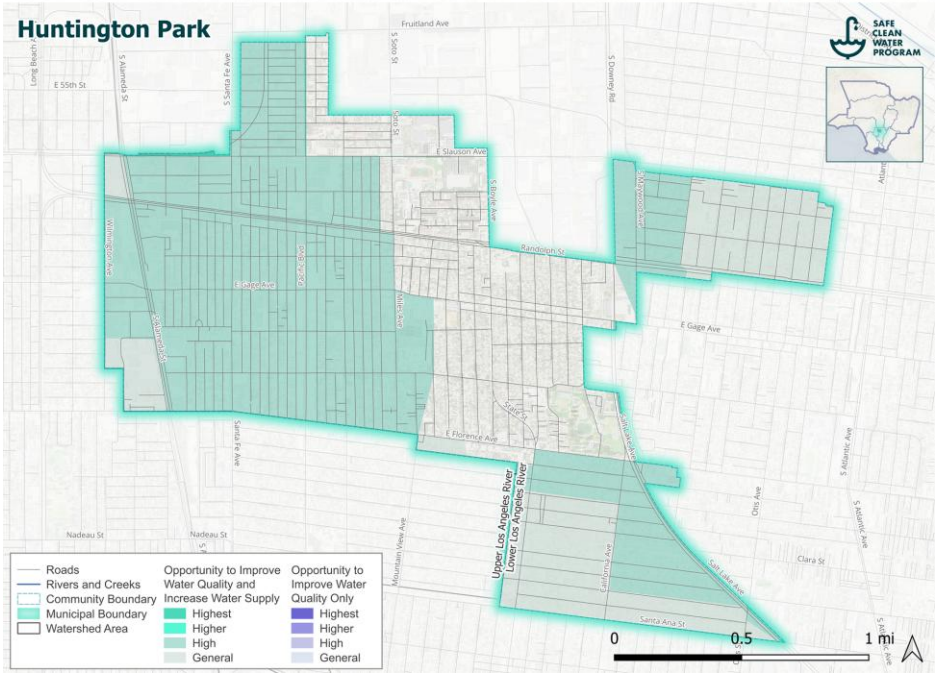


Figure 5-33. Opportunity to Improve Water Quality and Increase Water Supply: scaled by Municipality

5.2.1.11 Aligning Projects with Strategies, Actions, and Opportunities

The SCW Program-funded Rory M. Shaw Wetland Park Project (Rory Shaw Project) serves as an example to illustrate how Municipalities and Project proponents can intentionally select Project design features that align with the ULAR WA Needs and strategies identified in this Initial Watershed Plan. This Project demonstrates how integrated planning can deliver multiple benefits, including improvements to water quality, water supply, and community well-being, while supporting several WA Needs and Goals.

As shown in Figure 5-34, Project components similar to those of the Rory Shaw Project such as underground infiltration systems, constructed wetlands, and native landscaping can be selected not only for their stormwater management utility, but also for their ability to:

- Improve water quality by targeting pollutants such as zinc and total phosphorus,
- Enhance local water supply through infiltration to underlying groundwater basins,
- Increase urban greening and tree canopy to reduce heat island effects, and
- Provide recreational, ecological, and educational amenities.

Example features and benefits of the Rory Shaw Project that strategically align with the strategies and actions identified in the ULAR WA Initial Watershed Plan are outlined under the following four main Planning Themes:

- **Improve Water Quality *(Goal A)***
- **Increase Drought Preparedness *(Goal B)***
- **Improve Public Health *(Goal C)***
- **Deliver Multi-Benefits with Nature-Based Solutions & Diverse Projects *(Goal E, F, G)***

This example offers context for how other potential Projects can be designed to utilize a range of strategies to fulfill multiple WA Needs. While the Project benefits and strategies shown in this example are not exhaustive or prescriptive, Rory M. Shaw Wetlands Park Project.

- Demonstrates multi-strategy alignment through deliberate feature selection,
- Highlights the potential of integrated design to address community and environmental priorities simultaneously, and
- Serves as a demonstration for Municipalities and Project proponents to build on this example by tailoring innovations to the unique water quality and other needs of their own communities.

Municipalities and Project proponents are encouraged to use this example as a starting point which can be expanded creatively to support various Goals in addition to improving water quality and to develop customized, high-impact, multi-benefit solutions.

Upper Los Angeles River Watershed Area Aligning Projects with Initial Watershed Plan Strategies, Actions, and Opportunities

Rory M. Shaw Wetlands Park Project

Current Phase: Design

Project Description:

The Rory M. Shaw Wetlands Park Project aims to address flood risk, reduce stormwater pollution, and increase water conservation, recreational opportunities, and wildlife habitat. This will be achieved by converting a 46-acre engineered, inert landfill into a multi-purpose wetlands park. The park will feature a 21-acre detention pond with the capacity to hold runoff collected from the upstream tributary area. The captured stormwater in the detention pond will then enter a 10-acre wetland that will act as a natural water treatment system by removing pollutants from the stormwater runoff. In addition, the wetlands will form a sustainable habitat for various plant and animal species. Finally, the treated stormwater will be pumped to the existing Sun Valley Park infiltration basins for groundwater recharge.The Project will also **revitalize park facilities**—passive open space, and public park amenities such as trails, educational signage, and native landscaping. Nature-based features—like vegetated bioswales, constructed wetlands, and riparian buffers—will enhance biodiversity, support migratory bird species, and offer hands-on opportunities for environmental education and community engagement.

Example Project Benefits Organized by Alignment with Initial Watershed Plan Strategies

Improve Water Quality *(Goal A)*

1.1 **Prioritize high performance Projects and Programs in areas with the highest pollutant loads** *(e.g., action 1.1.1)*

Example Project Benefits:
- Total Zinc as the primary pollutant addressed
- ~1,900 ac-ft of 24-hour Project storage capacity
- 10-acre wetland natural water treatment

Increase Drought Preparedness *(Goal B)*

2.1 **Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply** *(e.g., actions 2.1.1, 2.1.2)*

2.2 **Maximize stormwater runoff capture and management for water supply** *(e.g., action 2.2.1)*

2.3 **Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse**

Example Project Benefits:
- Increase local supply by ~590 ac-ft/yr through infiltration to the underlying groundwater basin
- Increase local supply by ~1,880 ac-ft through storage in detention system

Improve Public Health *(Goal C)*

3.2 **Create, enhance, and restore park and green space, especially in high-need communities** *(e.g., action 3.3.1, 3.3.2)*

3.3 **Help communities most affected by extreme heat mitigate and adapt to the effects of climate change** *(e.g., actions 3.4.1, 3.4.2)*

Example Project Benefits:
- New recreational features (sports fields, playgrounds, passive open space)
- New Areas of Canopy, Cooling, and Shading Surfaces (vegetation and permeable pavement) to reduce urban heat island effect
- 15-acres of open space and community amenities created

Deliver Multi-Benefits with Nature-Based Solutions & Diverse Projects *(Goal E, F, G)*

4.2 **Deliver nature-based, multi-benefit Projects and Program that improve water quality while addressing community priorities and concerns** *(e.g., action 4.4.1)*

Example Project Benefits:
- Bioswales, constructed wetlands, riparian buffers

Note: Project descriptions and anticipated benefits shown in this figure reflect user-reported data from the Project's application or reports as of July 2025. Anticipated and reported benefits, as well as Project descriptions, are subject to change pending Project completion and/or future Project Modification Requests.

Figure 5-34. Example multi-benefit Project benefits, organized by alignment with Initial Watershed Plan strategies

Chapter 6. Watershed Planning Tool

The Planning Tool is a living, interactive version of the Initial Watershed Plans that communicates progress and strategies to support WASCs, Municipalities, Public Works, and Project and Program proponents in making strategic funding decisions.

The Planning Tool will live and evolve in the long term to reflect new and potential investments, best available data, and updates to the Initial Watershed Plans or Adaptive Watershed Plans (Chapter 7). The Planning Tool joins a variety of web-based tools that have been developed since the start of the SCW Program, which are currently used to support the administration and implementation of the SCW Program. These tools collectively comprise the SCW Program Portal, which promotes transparency, communicates progress through public-facing modules, and supports decision making by the SCW Program's governance committees, Municipalities, Public Works, and Project and Program proponents.

The Planning Tool integrates Initial Watershed Plan outputs throughout the SCW Program Portal, providing updates that are responsive to new Projects and Programs and status updates. For example, at the close of each Regional Program Call for Projects cycle, the Planning Tool will be updated with information from Projects and Programs that are under funding consideration, utilizing data submitted through the Projects Module.

To support WASC deliberations, the Planning Tool is integrated with the SIP Tool scenario-building functionality. This integration allows WASCs to use the Planning Tool to visualize and compare different combinations of Projects under funding consideration. As part of this process, WASCs can evaluate how each potential scenario aligns with their WA's targets, strategies, and priorities as outlined in this Initial Watershed Plan. The integration also enables assessment of each Project's anticipated benefits ensuring that funding decisions are guided by data and aligned targets and strategies.

Additionally, through its connection to the Reporting Module, the Planning Tool will automatically update Project and Program information in each Regional Program Mid-Year and Annual Report and Municipal Program Annual Plan and Report cycles, to reflect current benefit, status, and expenditure updates. Figure 6-1 provides a description of each SCW Program Portal page and Module, including the Planning Tool while Figure 6-2 through Figure 6-4 outline key Planning Tool functionality to showcase how it will support the uses outlined in Figure 6-1.

SCW Program Portal

The SCW Program Portal hosts several modules and tools that work together to promote transparency, quantify and communicate progress, support report generation, broadcast opportunities, and facilitate decision making.

Public-facing Portal Elements

The public-facing SCW Program Portal elements promote transparency and tracking of progress and expenditures.

Map

The Map allows users to view the locations and details of funded and under consideration Projects and Programs. The Map is interactive, and users can pan, zoom, and toggle mapping layers.

Dashboard

The Dashboard provides transparency to the Program and allows for filtering and visualization of program information in an intuitive manner.

Reporting Repository

This repository promotes program transparency by enabling users to quickly access all progress reports and expenditure plans that have been completed to date.

Bid and Project Schedules

This page compiles and publishes information on potential future bid opportunities and Project schedules to enable identification and tracking of upcoming job opportunities.

Watershed Planning Tool

The Planning Tool serves as a living, interactive version of the Initial Watershed Plans. The Planning Tool defines Indicators and Performance Measures (PMs), illustrates benefits expected and realized by Projects and Programs funded to date, supports progress tracking, and communicates priorities.

Planning Map

The Planning Map spatially illustrates Projects and Programs funded to date as well as those under consideration. Opportunity layers help users understand where in the Watershed Area (WA) Projects or Programs could align with strategies and contribute to SCW Program Goals.

Planning Dashboard

The Planning Dashboard provides details on Planning Themes, Indicators, and PMs as they relate to SCW Program Goals. The Planning Dashboard quantifies the cumulative benefits of Projects in terms of each Indicator and PM and provides illustrative visuals that communicate progress to date.

Stormwater Investment Plan (SIP) Tool

The SIP Tool is the centerpiece for facilitating funding decisions by the Watershed Area Steering Committees (WASCs) by enabling the WASCs to develop and compare funding scenarios. The SIP Tool summarizes Regional Program Projects, Project concepts, and Scientific Studies that were previously funded or are under consideration by the WASC and reports the projections of funding and estimated budgets remaining for each WASC.

Projects Module

The Projects Module provides key functionality for Regional Program funding applicants to submit Project, Project concept, and/or Scientific Study applications, streamlines scoring through automated calculations, and supports Watershed Planning through the collection of PM data.

Reporting Module

The SCW Program requires multiple levels of reporting across the Regional, Municipal and District Programs. The Reporting Module provides key functionality to Project Developers and Municipalities for generating reports and enables Public Works to promote transparency and consistency for expenditures and progress. The Reporting Module also supports Watershed Planning through the collection of PM data.

Watershed Coordinator Module

The Watershed Coordinator Module facilitates consistency and transparency with the Watershed Coordinator program while also providing technical tools to support Coordinators in tracking engagement and outreach meetings and events, funded and potential Project concepts, leveraged funding opportunities, interested parties, and more.

Figure 6-1. SCW Program Portal overview

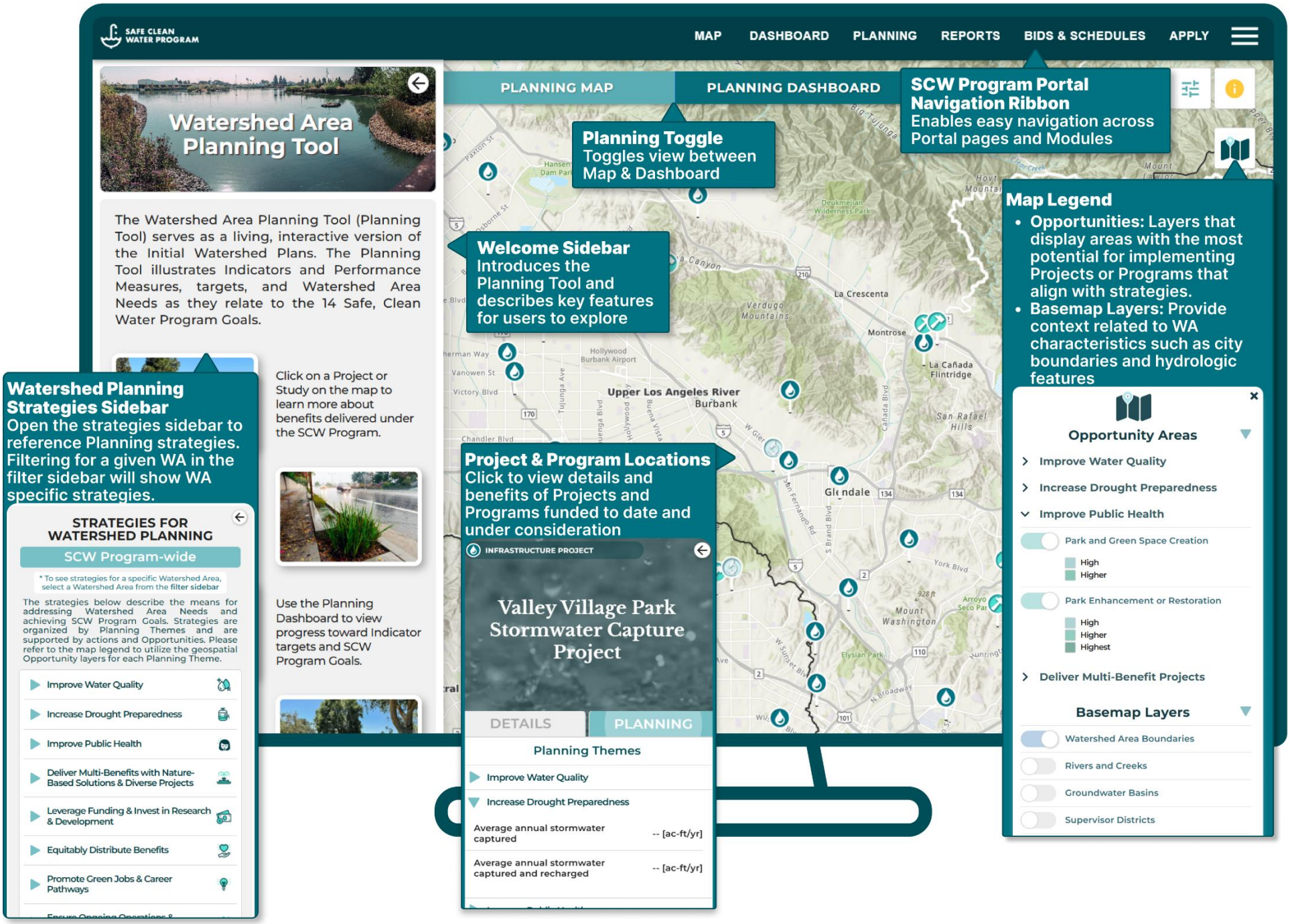


Figure 6-2. Planning Tool Map summary of functionality

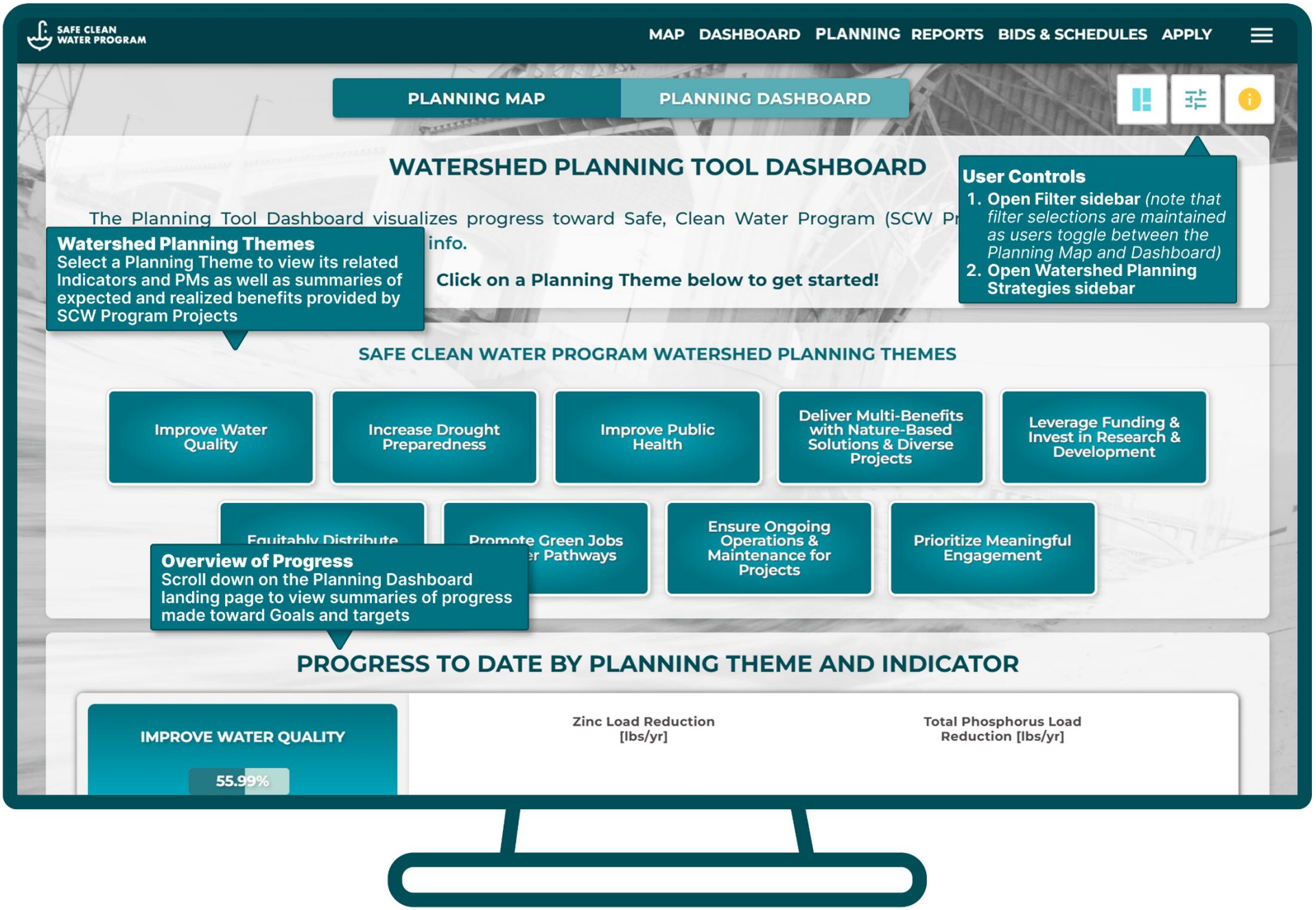


Figure 6-3. Planning Tool Dashboard landing page

Figure 6-4. Planning Tool Dashboard Indicators and PMs progress chart examples

Chapter 7. Next Steps and Recommendations

Watershed Planning is an adaptive, evolving process informed by lessons learned, best available data, evolving needs, next steps identified in this Initial Watershed Plan and continued interested party engagement. The delivery of the Initial Watershed Plans and Planning Tool marks a new phase in the SCW Program where these resources can support strategic decision-making, Project and Program planning, and progress tracking. Drawing from concepts in the USEPA's *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (2008), this chapter outlines how an Adaptive Management approach will be applied in both the near and long-term. Recommended next steps for advancing Watershed Planning, summarized in Figure 7-1, deliver incremental updates to the Initial Watershed Plans, and through the development of future Adaptive Watershed Plans that incorporate new planning elements as needs evolve.

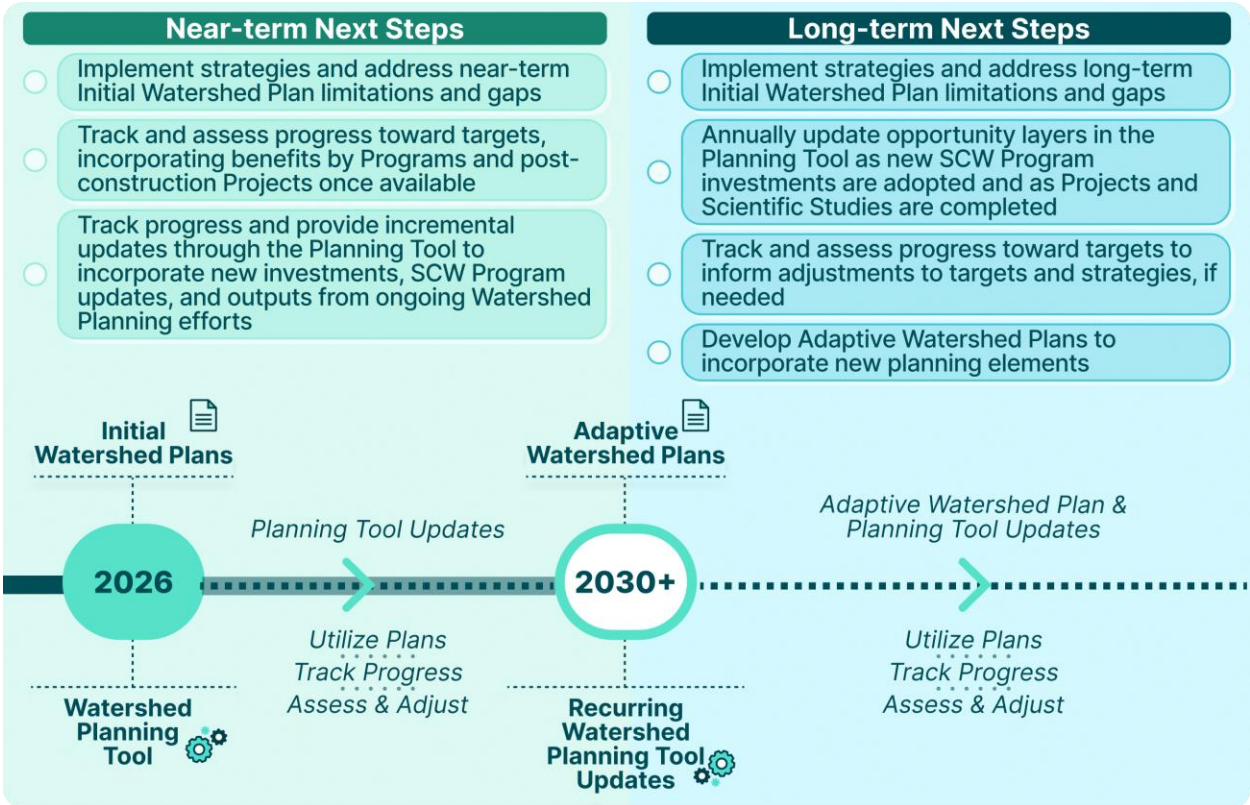


Figure 7-1. Watershed Planning near and long-term next steps

> **L** **SCW Program Goal (18.04.L)**
> Implement an iterative planning and evaluation process to ensure adaptive management.

Adaptive Management is an integral component of the SCW Program (Goal L) and is an iterative, incremental approach that is defined by continuous enhancements and adjustments to SCW Program planning, implementation, and progress tracking and assessment. This process allows the SCW Program to evolve over time through the application of lessons learned, the incorporation of new data from SCW Program Projects, Programs, and Scientific Studies as well as outputs from other countywide and local efforts as they become available. Figure 7-2 illustrates SCW Program's Adaptive Management approach highlighting where the Initial and Adaptive Watershed Plans fit into this cycle of planning, implementing, tracking, and assessing that will continually improve the SCW Program to reflect ongoing developments and efforts.

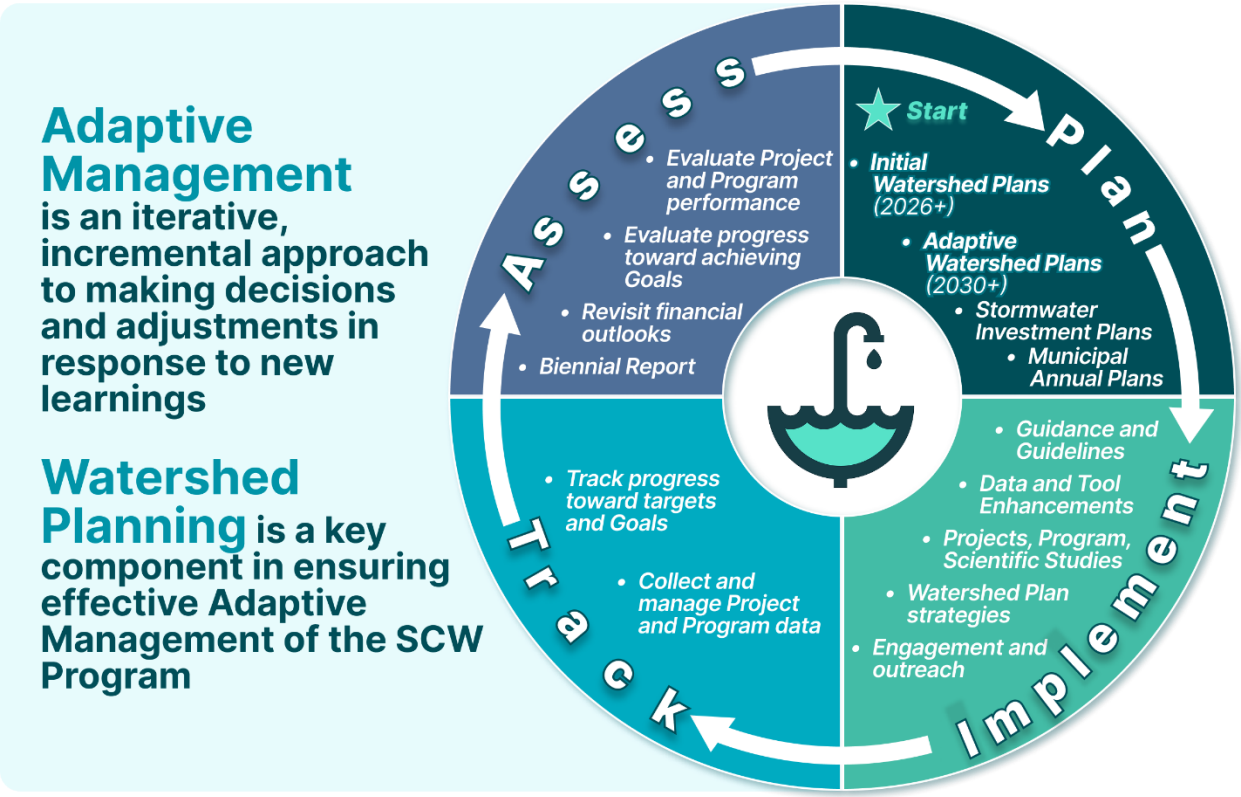


Figure 7-2. SCW Program Adaptive Management conceptual process

To date the following Adaptive Management efforts have been completed as part of SCW Program development (Figure 7-3):

- Development and adoption of Program guidelines,
- Interactive Programming and mapping tools,
- Launch of an online application Portal,
- Data solicitation and tracking enhancements, and
- WA-specific and regional studies (Appendix E).

Recent SCW Program Adaptive Management Efforts	
2023	**Transfer Agreements Update** New SCW Tools Module
2024	**Ordinance Revision Update** Revised Regional Program reporting and Call for Projects frequencies
	Metrics and Monitoring Study (MMS) Indicators, Performance Measures, recommendations for SCW Program Adaptive Management
	Early Performance Measures for Further Incorporation/Evaluation Regional Oversight Committee (ROC) strategy session on MMS outputs
	Technical Resources Program Update $300k to $400k allocation for developing a Feasibility Study
	Project Modification Guidelines Update Clarification and examples of modifications
	Public Education & Community Engagement Grants Program Program launch and subsequent/ongoing collection of proposals
	RFSQ 2.0 Watershed Coordinators (WCs) New proposals being evaluated; new WCs to start in 2026 (post-Stormwater Investment Plan (SIP) approval)
	Municipal Program New Administration New Public Works team to administer and lead new collaborations
	Watershed Planning Framework Process, progress, and Initial Watershed Plans and online Planning Tool key elements
	Community Strengths and Needs Assessment (CSNA) Launch Collect responses from communities served by the SCW Program
2025	**Regional Program Reporting Module Update** New Mid-Year Reports, Metrics & Measures section, new Performance Measure guidance
	Municipal Program Reporting Module Update New Metrics & Measures section
	WASC SIP Programming Guidelines Enhanced financial oversight, prioritization, considerations
	Default Provisions and Lapsed Funding Guidelines Default vs good standing, lapsed funding, repayment of SCW Program funds
	Reporting Module Guidance – New Regional Program Performance Measures Key definitions and guidance for quantifying and providing Performance Measure data
	Scoring Criteria Pilot Adaptations Water Quality Benefit pilot scoring, Water Supply Benefit pilot scoring, Project phases, future considerations
	Interim Guidance Update Pilot scoring with phased revisions to 2022 Interim Guidance, to align with Watershed Planning
	Supplemental Guidance to Support Feasibility Study Guidelines Scoring Criteria pilot adaptations, Feasibility Study requirements
	Regional Program Reporting & Projects Module Updates Projects Module QA/QC, updated Annual Reports
2026	**Initial Watershed Plans & Planning Tool** Nine Initial Watershed Plans and a Watershed Planning Tool
	Post-Construction Monitoring Guidance *(coming soon)*

Watershed Planning related effort

Figure 7-3. Recent SCW Program Adaptive Management

Watershed Planning efforts are informed through the assessment of progress toward Goals and input from SCW Program implementers (e.g., Public Works, Municipalities, Project and Program proponents), governance committees (e.g., ROC, Scoring Committee, WASCs), and interested parties (regional partners, community groups, and the public).

The following sections outline how Watershed Planning will adapt over time through similar Adaptive Management efforts that aim to address key gaps and Initial Watershed Plan limitations (gaps; Section 7.1). It will also reflect new investments and evolving priorities, both in the near term through Initial Watershed Plans and in the long term through Planning Tool updates and Adaptive Watershed Plans.

7.1 Key Gaps and Limitations

Watershed Planning efforts to date have identified several data gaps and limitations that would strengthen the SCW Program's ability to refine implementation efforts, track progress, and assess achievement of Goals. Watershed Planning defines a gap as a lack of information that is definitionally, temporally, or spatially needed to create or refine a benefit estimate, target, or opportunity, or to assess progress towards achieving a Goal. The gaps identified to date fall within five categories:

- Definitional Gaps
- Community Data Gaps
- SCW Program Project & Program Data Gaps
- Knowledge & Spatial Data Gaps
- Other non-SCW Program Activity Data Gaps

Identifying and addressing near-term gaps is the first and most critical step in advancing Watershed Planning. Continuous engagement, intensive data collection, updated guidance and guidelines, and/or Scientific Studies that aim to formulate and understand evolving topics will be vital in addressing long-term gaps as the Program progresses. Figure 7-4 to Figure 7-8 on the following pages describe the near and long-term gaps identified within each of the five categories above as well as the recommended approaches or efforts to address them.

Definitional Gaps

Establishing a shared language and gaining clarity on policy language and metric definitions is needed to appropriately quantify metrics and develop clear and concise Adaptive Watershed Plans. Addressing the following definitional gaps through engagement with SCW Program governance committees and other interested parties in the near term will support effective communication and watershed planning assessments as the Initial Watershed Plans are advanced to Adaptive Watershed Plans.

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Nature-Based Solutions	Create definitions, standards, and criteria - including potential Indicator and/or PMs based on pending panel discussion in mid-2025. County Water Plan (CWP) Nature-Based Solutions (NBS) Task Force is slated to provide insight and support.	Engagement, Technical Workshops, Regional Coordination	Near-term	Public Works, CWP NBS Task Force
Habitat	Confirm definition and needs related to habitat creation, enhancement, and restoration through engagement with non-governmental organizations (NGOs), academic experts, and coordination with regional planning efforts like the Los Angeles River Master Plan.	Engagement, Technical Workshops, Regional Coordination	Near-term	Public Works, WASC, WMGs
Tree canopy	Confirm definition and needs related to mature tree canopy and guidance for developers to estimate it through engagement with state agencies like CAL FIRE, county departments like Parks and Recreation, and regional planning efforts like the County Community Forests Management Plan (CFMP).	Engagement, Technical Workshops, Regional Coordination	Near-term	Public Works, OWLA
Green jobs	Ensure Performance Measures (PMs) and Indicators reflect career quality, advancement opportunities, various job classification/ labor distributions, and other input from the Regional Oversight Committee (ROC) and Accelerate Resilience Los Angeles (ARLA).	Engagement, Technical Workshops	Near-term	Public Works, ROC, ARLA
Other activity Indicators and Performance Measures	Define guidance for estimating Performance Measures for SCW Program funded non-structural Activities, and engage with Scoring Committee to determine how funded activities impact co-located Projects. The "Maximizing Impact of Minimum Control Measures" Scientific Study explores the improvement of tracking and optimization of stormwater management to align more efficiently with Watershed Area Goals, increasing their impact and cost-effectiveness, and may be referenced to address this gap.	Engagement, Technical Workshops	Near-term	Public Works, Scoring Committee
Environmental Water Benefits	Refine definition of Environmental Water Benefits in terms of Community Investment Benefits (CIBs) and Water Quality Benefits to support this gap, as Environmental Water Benefits do not count towards Water Supply Benefits.	Engagement, Technical Workshops	Near-term	Public Works, WASC, WMGs, Environmental NGOs, The California Environmental Flows Framework

Note: OWLA = OurWaterLA; WASC = Watershed Area Steering Committee; WMG = Watershed Management Group

Figure 7-4. Summary of and recommendations for addressing definitional gaps

Community Data Gaps

Community-based perspectives are needed to understand community strengths to reinforce and needs to address. The following community data gaps aim to recognize that community-based perspectives and engagement efforts continuously react and evolve with recent events. These gaps represent long-term considerations for Watershed Planning and Adaptive Management and aim to emphasize the importance of ongoing engagement and thoughtful guidelines.

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Compilation of existing community data	Outcomes of past and ongoing countywide and local engagement efforts are widespread, but identifying and aggregating these efforts and their outcomes is difficult. The compilation of engagement outcomes to date is critical to understanding community needs and avoiding redundancy. A central site that streamlines outcomes and/or resources would help to close this gap and support Project and Program implementation that is in alignment with their communities.	Data collection, Tool updates, Regional Coordination, Guidance & Guidelines	Long-term	Public Works, Watershed Coordinators
Continuously evolving community perspectives	Community-based perspectives may adapt over time based on changing conditions and other events, while engagement effort outcomes inherently represent snapshots in time. Revised and expanded SCW Program engagement guidance that recognizes the adaptive nature of community-based perspectives would support this gap. Recommended guidance may set standards for repeated engagement efforts, and assessments for how to engage community members who have not participated previously, to capture evolving strengths and needs while avoiding redundancy. Revised guidance should integrate considerations from watershed planning efforts, metrics, past engagement, and the Community Strengths and Needs Assessment (CSNA).	Engagement, revised Guidance & Guidelines	Long-term	Public Works, Watershed Coordinators
Inherent bias in engagement efforts	Inherent bias in engagement efforts is critical to recognize and address in every engagement effort. Outcomes drawn from engagement inherently favor the opinions of community members who both have access to the engagement effort and have the resources to engage with the proprietors of it, while the needs of those that do not participate are no less critical to the engagement process. Revised and expanded SCW Program engagement guidance and resources would support this gap in the long-term by integrating considerations from watershed planning efforts, metrics, past engagement, and the CSNA that are centered around minimizing bias in engagement efforts.	Revised Guidance & Guidelines	Long-term	Public Works, Watershed Coordinators
Reconciliation of general input vs. Project-specific data	CSNA results provide general perspective on community priorities, but in order to more accurately understand community needs and provide support, Project-specific engagement data will also need to be collected. Findings will support Project and Program-specific outreach strategies to reflect and acknowledge community-identified priorities and concerns to foster trust and ensure that engagement efforts are both responsive and relevant to the communities they aim to serve.	Engagement, Data collection, Tool updates, Regional Coordination	Long-term	Public Works, Watershed Coordinators

Figure 7-5. Summary of and recommendations for addressing community data gaps

Community Data Gaps *(continued)*

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Public Education and Community Engagement Grants Program data collection	Through a partnership with the Water Foundation, the SCW Public Education and Community Engagement Grants Program will provide funding to support education and community engagement efforts related to stormwater and urban runoff capture within the Los Angeles County Flood Control District (LACFCD). Data collected by this Program should also be considered to support community data gaps.	Data collection, Tool updates, Regional Coordination	Long-term	Public Works, Water Foundation

Figure 7-5. Summary of and recommendations for addressing community data gaps (continued)

SCW Program Project & Program Data Gaps

While many Project metrics were collected for the Initial Watershed Plans, there are a few outstanding gaps surrounding quantification methods that need to be addressed to enable effective tracking and assessment of progress.

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Load and load reduction quantification for bacteria, DDT, and PCBs	Adoption and use of additional hydrologic simulation criteria for bacteria, dichlorodiphenyltrichloroethane (DDT), and Polychlorinated Biphenyls (PCBs) load generation in stormwater runoff and the load reduction by Projects. Engage with Scoring Committee to assess the impact of new criteria on Project scoring. The "LRS Adaptation to Address the LA River Bacteria TMDL for the ULAR Watershed Management Group" Scientific Study explores hydrologic simulation of bacteria levels in the Los Angeles River, and may be employed as a resource for addressing this gap.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC, WMGs, Scoring Committee
Load and load reduction quantification for trash	Standardization of the methods for quantifying trash generation in stormwater runoff and trash reduction by Projects. Developing a standardized approach for quantifying trash captured and removed by SCW Program Projects will enable comparisons and consistent progress tracking with the program. Added technical workshops with the Watershed Area Steering Committees (WASCs), Watershed Management Groups (WMGs), and Scoring Committee to agree upon an approach and develop corresponding guidance that may be used by the SCW Program Tools and Adaptive Watershed Plans is recommended.	Guidance & Guidelines, Tool Updates, Technical Workshops	Near-term	Public Works, WASC, WMGs, Scoring Committee
Water Supply fate quantification via simulation	Simulated BMP performance that specifically parses water supply fate; that is, Projects that offer multiple Water Supply Benefits should be accurately simulated to ensure consistent quantification and efficient progress tracking of benefits across SCW Program Tools and Adaptive Watershed Plans.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC
Project monitoring data and post-performance metrics	Selection and integration of post-construction monitoring and performance metrics developed by the Metrics and Monitoring Study (MMS) are not yet confirmed. Establishing a standardized set of metrics and incorporating them into the Reporting Module and Planning Tool will support consistent evaluation and tracking of Project post-construction monitoring and performance. Integration of these metrics and results into future Adaptive Watershed Plans is recommended to ensure alignment across SCW Program tools and planning efforts.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC

Note: BMP = Best Management Practice; LRS = Load Reduction Strategy; TMDL = Total Daily Maximum Load; ULAR = Upper Los Angeles River

Figure 7-6. Summary of and recommendations for addressing SCW Project & Program data gaps

SCW Program Project & Program Data Gaps *(continued)*

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Methods and data to quantify benefits provided by non-structural activities	While the Initial Watershed Plans define Indicators and Performance Measures (PMs) for Projects, to fully understand the benefits provided by the SCW Program and progress toward Goals, other non-structural Activity metrics and benefits need to be defined and quantified.	Guidance & Guidelines, Data Collection, Tool Updates	Near-term	Public Works, WASC, Municipalities
DAC CIB ratio user-defined service areas	Support for user-defined Disadvantaged Community (DAC) and Community Investment Benefit (CIB) ratio service areas is currently not available within the Planning Tool. At present, the Planning Tool assigns default service areas to Projects based on the benefits they provide, which may not reflect locally defined priorities or service area boundaries. Addressing this gap through the development of clear guidance and guidelines, along with updates to the Planning Tool to accommodate user-defined service areas, is recommended to enhance flexibility.	Guidance & Guidelines, Tool Updates	Near-term	Public Works
Pollutant reductions by dry-weather Projects	Dry-weather Projects are not currently modeled or scored for pollutant load reduction in the SCW Program Portal. Pollutant load reduction performance of dry-weather Projects is not well characterized or standardized, as these reductions are highly site-specific and depend on localized conditions such as flow volumes, pollutant concentrations, and treatment system design. At present, estimating pollutant load reductions for dry-weather Projects relies primarily on site-specific monitoring data rather than predictive modeling, which is not currently available or integrated into the SCW Program Portal. Addressing this gap would improve the ability to quantify and compare pollutant load reductions of dry-weather Projects and more fully capture their potential contributions to watershed pollutant reduction.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC, Scoring Committee

Note: WASC = Watershed Area Steering Committee

Figure 7-6. Summary of and recommendations for addressing SCW Project & Program data gaps (continued)

Knowledge & Spatial Data Gaps

To support future Adaptive Watershed Planning, the Initial Watershed Planning process identified critical gaps in the spatial coverage of key data layers and research areas where improved understanding would directly advance progress toward SCW Program Goals. Addressing these gaps will require comprehensive data collection efforts and targeted research initiatives.

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Sewer system capacity for diversion for reuse BMPs	Assess, through engagement with local sanitation district staff, sewer system and reclamation plant capacities for additional stormwater diversions.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC, Sanitation Districts
Aquifer and groundwater recharge locations	The Los Angeles County Flood Control District (LACFCD) and the United States Geological Survey (USGS) is initiating a collaborative study, "Stormwater Recharge Efficiency in the Greater Los Angeles Region", focused on this topic. Its primary purpose is to enhance the understanding and management of stormwater capture and infiltration for groundwater recharge across the Los Angeles region. The study is expected to span four years and will provide enhanced planning resources such as models and tools that identify effective stormwater recharge opportunities. Once available, Watershed Planning can address this gap and enhance related strategies using this study's outputs.	Guidance & Guidelines, Tool Updates	Near-term	Public Works, WASC, Water Masters
Leveraged funding sources	The identification of leveraged funding sources and grant opportunities has been a long standing knowledge gap which is frequently echoed by engagement input. While the SCW Program published a Leveraged Funding Report once a quarter, this resource should be enhanced through SCW Program Portal updates and a public-facing page which continuously updates as sources are identified or expire.	Data Collection, Tool Updates	Near-term	Public Works, WASCs, State Agencies, Federal Agencies, NGOs
Wildfires' impacts on major capture facility and Project performance and O&M	While it is understood that wildfires have both immediate and long-term impacts on infrastructure and water quality, specific implications and remedial actions for stormwater facilities and Projects are not well defined. Regionally coordinated post-fire monitoring data collection and research is recommended to support implementation of post-fire O&M practices and Watershed Planning in the long-term. The "Fire Effects Study in the ULAR Watershed Management Area" seeks to evaluate the downstream pollutant loading impacts of wildfires and create BMP models to support water quality objectives, and elements may be used to support this gap; however, Study reviewers report that the Study may lack some key details on objectives and clarity about which contaminants will be measured and how. This Study may be referenced, but additional research may be required.	Guidance & Guidelines, Data Collection	Long-term	Public Works, WASC, SWRCB, CAL FIRE

Note: BMP = Best Management Practice; NGO = Non-governmental Organization; O&M = Operations & Maintenance; SWRCB = California State Water Resources Control Board; ULAR = Upper Los Angeles River; WASC = Watershed Area Steering Committee

Figure 7-7. Summary of and recommendations for addressing knowledge and spatial data gaps

Knowledge & Spatial Data Gaps *(continued)*

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Geotechnical and soil infiltration rate spatial data	As acknowledged by the SCW Program funded Scientific Study, the Gateway Area Pathfinding Analysis, soil infiltration rates at Project sites are highly uncertain, not well predicted by available datasets, and require geotechnical investigation to accurately estimate. Aggregating site-specific geotechnical estimations from funded Projects would offer added context for Watershed Area Steering Committees (WASCs) and Project developers who have yet to conduct investigations themselves, enabling more informed Project planning and prioritization that maximizes Water Supply Benefits. "Ground truth: guiding a soils-based strategy for impactful nature-based solutions" is a Scientific Study that primarily explores soil capacity in the Lower Los Angeles River (LLAR) Watershed Area (WA), but its methods may be applicable across other Watershed Areas as well. The 2024 Scientific Study, "Evaluation of infiltration testing methods for design of stormwater drywell systems," may also be helpful in evaluating infiltration test methods and understanding how drywells can be utilized to manage stormwater and improve water quality.	Data Collection, Tool Updates	Long-term	Public Works, WASC, WMGs
Site-specific Project opportunities and prioritization information	While the Initial Watershed Plans identify areas of opportunity for Project and Program implementation, Adaptive Watershed Plans may identify and prioritize site-specific Project opportunities. To date there have been several SCW and non-SCW Program key efforts, such as Scientific Studies (e.g., Gateway Area Pathfinding Analysis) or other countywide and local planning efforts, that have identified site-specific Project opportunities. These datasets should be compiled and made available within the SCW Program Portal to support WASCs, Municipalities, and Project and Program proponents in the near-term, and the development of Adaptive Watershed Plans in the long-term.	Data Collection, Tool Updates, Adaptive Watershed Plans	Long-term	Public Works, WASC, WMGs
Regional water quality monitoring data tracking and assessment	The SCW Program currently lacks a unified, long-term approach for tracking, integrating, and assessing regional water quality monitoring data, such as receiving water and outfall monitoring required by MS4 permits, across all WAs. Without consistent evaluation of this data, it's challenging to track hydrologic trends, assess water quality improvements, and inform long-term planning for SCW Program funded Projects. To address this, the Program could establish a long-term framework for tracking, analyzing, and utilizing regional monitoring data to support strategic decision-making and Adaptive Management.	Data Collection, Tool Updates	Long-term	Public Works, WASC, WMGs, Municipalities, SWRCB
Environmental flows	Compile resources on environmental flows like the California Environmental Flows Framework (CEFF; https://ceff.ucdavis.edu) and consider possible benefits Projects and Programs can lend to improvement of environmental flows.	Guidance & Guidelines	Long-term	Public Works, WASC, SWRCB

Note: BMP = Best Management Practice; MS4 = Municipal Separate Storm Sewer System; SWRCB = California State Water Resources Control Board; WMG = Watershed Management Group

Figure 7-7. Summary of and recommendations for addressing knowledge and spatial data gaps (continued)

Other non-SCW Program Activity Data Gaps

The following gaps describe the data needed to quantify benefits provided by other non-SCW Program Projects and other activities.

Gap	Summary & Recommendations	Effort to Address	Timeline	Who Should Be Involved
Non-SCW Program funded Projects and their benefits	The SCW Program's current Watershed Planning framework does not yet account for non-SCW Program funded Projects that contribute to Water Quality and Water Supply Benefits. While target setting has considered some efforts, such as the Greater Los Angeles County (GLAC) Integrated Regional Water Management Plan (IRWMP) and MS4 Program Projects, many other significant stormwater capture initiatives (e.g., Prop O, and local agency investments) are not currently integrated into SCW Program performance assessments or opportunities. *(Note that major centralized capture facilities such as dams, spreading grounds, reservoirs, and low flow diversions are already accounted for in baseline and opportunity analyses; this gap is specific to decentralized Projects.)* The omission of these Projects from the total benefits, constructed baselines, and opportunity analyses limits the ability to fully understand cumulative watershed-scale outcomes, such as the total volume of stormwater captured and treated. This can affect how accurately SCW Program targets are evaluated and how future investments are prioritized, especially in areas where non-SCW Program Projects are delivering substantial benefits. To address this gap, future updates to the SCW Planning Tool may include non-SCW Program Projects from other major funding programs to provide a more comprehensive picture of regional stormwater management efforts. In the near term, narrative data and Project-level details gathered directly from Project proponents can help inform assessments of non-SCW Program contributions and interactions, enhancing the understanding of upstream/downstream interactions and refining Project selections and programmatic evaluations.	Regional Coordination, Data Collection, Tool Updates	Long-term	Public Works

Note: MS4 = Municipal Separate Storm Sewer System

Figure 7-8. Summary of and recommendations for addressing other Activity data gaps

7.2 Next Steps and Recommendations for Watershed Planning

As SCW Program implementation progresses, it is essential to continuously refine and enhance Initial Watershed Plan outputs to ensure they remain effective and relevant. This section outlines the recommended next steps for advancing Watershed Planning (Figure 7-9).

In the near term, the nine Initial Watershed Plans, adopted in 2026 by the LACFCD Chief Engineer, will serve as SCW Program guidance documents and support future decision-making by the Regional, Municipal and District Programs. The Planning Tool will also be used to communicate progress and implementation updates in the near term. Long-term Watershed Planning includes the development of Adaptive Watershed Plans that will integrate updates and new planning elements based on an assessment of progress, emerging priorities, and evolving watershed dynamics. Adaptive Watershed Plans will be considered on five-year intervals and will be developed on an as-needed basis. The assessment criteria for progressing the Initial Watershed Plans to Adaptive Watershed Plans are outlined in Section 7.2.3.

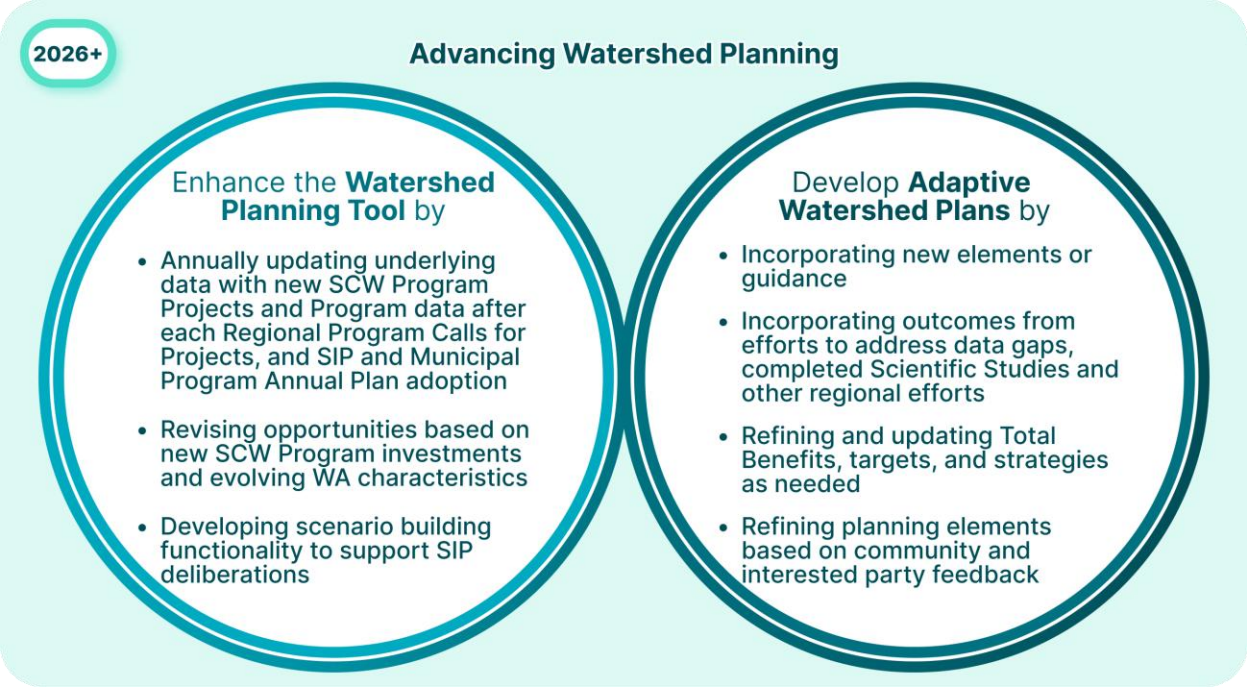


Figure 7-9. Next steps for Watershed Planning

Through an Adaptive Management approach, Watershed Planning will seek to address gaps, assess progress, and adjust targets and strategies in five-year intervals. The following recommendations (Figure 7-10) for the Adaptive Management of Watershed Planning provide near-term and long-term direction for implementation, tracking, and assessment to inform future Watershed Planning efforts.

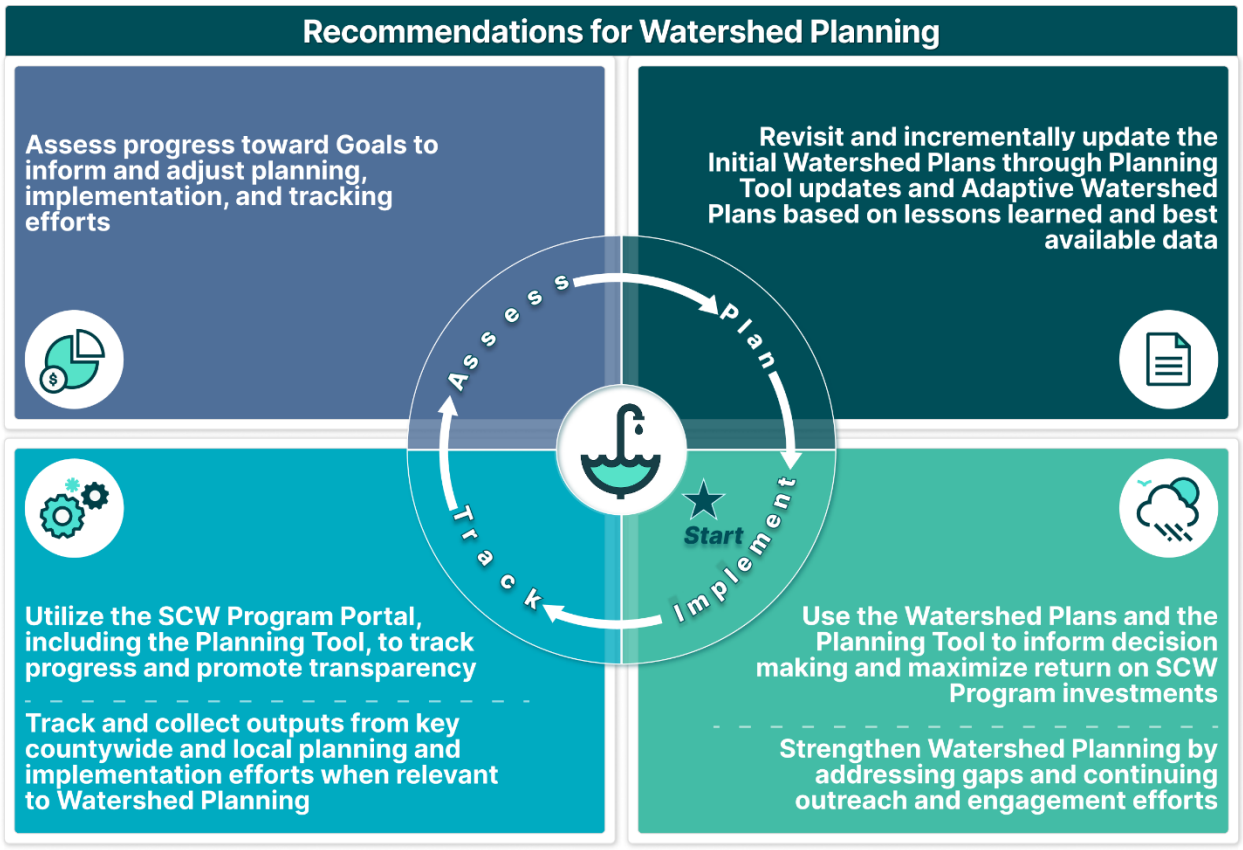


Figure 7-10. Long-term recommendations for Watershed Planning

7.2.1 Implement Strategies

Implement

This subsection provides recommendations to execute strategies to make informed funding decisions and direct funding toward the highest value multi-benefit Projects and Programs

Use the Watershed Plans and the Planning Tool to inform decision making and maximize return on SCW Program investments, including the following:

- WASCs, Municipalities, Public Works, and Project and Program proponents should use the Initial Watershed Plans and Planning Tool to inform funding and implementation decisions ***(near-term)***: As described in Section 1.3, the Initial Watershed Plans should be used to understand WA Needs and strategies to address them. The Planning Tool serves as a living version of the Plans and is a great resource to evaluate progress, understand priorities, and interact with composite opportunities to clearly identify areas with the most potential for delivering multiple benefits across Planning Themes and Goals. In combination with the Initial Watershed Plans, the Planning Tool can be referenced to inform Project and Program funding and implementation decisions. This guidance is further strengthened by the integration of the Planning Tool with the SIP Tool (described in Figure 6-1), which enables WASCs to gain a better understanding of potential funding scenarios and the cumulative impacts of Project selections.

- Implement Projects, Programs, and Studies that align with strategies and that address gaps (as described under the following recommendation) ***(near-term/long-term)***: To address WA Needs and make progress toward targets, WASCs and Municipalities should prioritize Projects and Programs that align with Watershed Planning strategies, especially those that are situated where there is the most opportunity to provide multiple benefits across Planning Themes and Goals, to provide the greatest cumulative benefits.

  In addition, Public Works and the WASCs may prioritize Scientific Studies and other activities such as, but not limited to, technical studies, monitoring, modeling, and other similar activities to help address gaps outlined in Section 7.1.

  This recommendation is a requirement for Regional Program Infrastructure Program applicants. The SCW Program Feasibility Study Guidelines were updated in November 2025 to include a new 20th requirement requiring

applicants to demonstrate alignment between proposed Projects and the Initial Watershed Plans in their application. This requirement is meant to strengthen coordination between proposed Projects and WA-specific strategies, supporting more effective and regionally consistent stormwater investments. Feasibility Studies must meet all established requirements, including this proposed alignment criterion, to be eligible for consideration and scoring under the SCW Program. Projects failing to meet these requirements will not advance for further evaluation or funding consideration.

- Convene a Public Works led Scientific Advisory Panel to consider studies that support planning, as below ***(near-term)***: There have been 23 unique Scientific Studies funded by the SCW Program to date from FY20-21 to FY25-26. It is recommended that Watershed Planning be strengthened by the incorporation of standardized periodic review of Scientific Study outputs by a Public Works led panel as an element of Adaptive Management. As funded Scientific Studies reach completion, it is recommended that their findings be tracked and assessed for integration into the Initial Watershed Plans or Adaptive Watershed Plans.

Strengthen Watershed Planning by addressing gaps and continuing outreach and engagement efforts, including the following:

- Address gaps through new guidance and guidelines, SCW Program Portal updates, outreach and engagement, research, and data collection ***(near-term/long-term)***: Gaps identified in the Initial Watershed Plans should be addressed per Section 7.1. Addressing these gaps will likely result in the publication of new guidance and guidelines, SCW Program Portal enhancements, SCW Program Spatial Data Library updates, outreach and engagement events or meetings, research, data collection, technical working group sessions, etc. Gaps flagged as near-term items, particularly those that are essential for quantifying benefits and refining strategies, should be prioritized and incorporated as part of Initial Watershed Plans and corresponding Planning Tool updates.
- Continue outreach and engagement efforts to capture shifting priorities ***(near-term/long-term)***: As described in Figure 7-5, continued, long-term engagement is critical to Watershed Planning such that evolving community and SCW Program governance committee perspectives and priorities are captured by strategies and reflect ongoing developments in the WAs and Los Angeles region. Watershed Coordinators will take the lead in facilitating engagement to

build trust and bridge communication gaps between Project and Program proponents and interested parties. Targeted outreach through the CSNA Survey by Watershed Coordinators will be conducted to continue gathering community input, which will be translated into actionable insights to inform Project development, WASC priorities, and future outreach. The CSNA Survey and Dashboard will continue to support ongoing engagement by enabling systematic tracking of community input and associated trends.

7.2.2 Track Data

Track

This subsection provides recommendations to collect data and track progress by efforts to date to provide the data necessary for assessing past implementation and for driving future decision making

Utilize the SCW Program Portal, including the Planning Tool, to update benefits, track progress, and promote transparency, including the following:

- Utilize the Planning Tool to track progress toward meeting targets and achieving Goals ***(near-term/long-term)***: Annually update progress to reflect the benefits realized by completed Projects and Programs, as well as benefits anticipated by new SCW Program Projects and Program that are under consideration by or funded through SIPs and Municipal Annual Plans and Reports.

- Support Municipalities and Project proponents and bolster data consistency with enhanced SCW Program Portal Tools ***(near-term)***: Enhance the SCW Program Portal—including the Planning Tool—to improve the tracking of Projects and Programs benefits. Portal enhancements should integrate Indicators and PMs, streamline data collection and summaries, and facilitate data validation. For example, improved water quality and water supply modeling capabilities would enable more consistent and reliable benefit estimates while simplifying data entry and reporting for Municipalities and Project proponents.

  To promote transparency and support comprehensive progress tracking, the Portal should also be enhanced to better reflect the contributions and funding allocations of non-structural Programs, such as Municipal Program Activities (e.g., O&M, outreach and engagement, and post-construction monitoring) and Regional Program Scientific Studies.

Integrating Indicators and PMs throughout the SCW Program Portal and across all SCW Program components—including Municipal, Regional, and District Program data inputs, reporting outputs, and public-facing summaries—will improve coordination and consistency, and enable robust, SCW Program-wide tracking of progress and outcomes.

- Streamline progress tracking and reporting through the SCW Program Portal ***(near-term)***: Update reporting outputs, such as the Regional Program Mid-Year and Annual Reports, the Watershed Area Regional Program Progress (WARPP) Report, and Municipal Program Annual Plans and Reports, to incorporate Indicators and PMs and promote consistency across the SCW Program.

Track and collect outputs from key countywide and local planning and implementation efforts when relevant to Watershed Planning, including the following:

- Bolster regional coordination by tracking and compiling outputs by countywide and local planning and implementation efforts that are relevant to Watershed Planning ***(near-term/long-term)***: The Initial Watershed Plans identified several countywide and local planning and implementation efforts whose goals align with those of the SCW Program. While many of the outputs from these efforts were considered and incorporated into Initial Watershed Plan outputs, several efforts are still ongoing but are expected to produce outputs relevant to the SCW Program. For example, the LA County CFMP includes action items to identify opportunities for depaving and priority tree planting projects which could serve as opportunities for meeting the target for the Indicator *Net New Area of Canopy, Cooling, and Shading Surfaces*. Additionally, water quality monitoring performed and reported by Municipalities and local regulatory updates related to environmental flows from California SWRCB Department of Water Rights will be tracked for impacts to regulated waterbodies with habitat beneficial uses. The development of an approach for compiling and assessing this data will be developed in the long term.

  Tracking and compiling these efforts facilitates the SCW Program's commitment to regional partnerships and bolsters the shared vision of achieving countywide targets. Tracking this information will support progress assessment and corresponding adjustments to targets and strategies such that the best available data is iteratively incorporated.

  - Track non-SCW Program contribution to countywide targets ***(near-term)***: Watershed Planning will consider tracking and updating estimates of contributions to countywide targets made by non-SCW Program stormwater capture programs such as MS4 programs and Integrated Regional Water Management Plans (IRWMPs). This data will support assessments of SCW Program targets and strategies and inform adjustments if needed.
  - Compile results and key findings from Scientific Studies and other relevant research efforts ***(near-term)***: In addition to SCW Program-funded Scientific Studies, there are several studies underway that may have impacts for SCW Program strategies and WA characteristics. Watershed Planning will compile key findings from SCW Program-funded Scientific Studies and consider those of other relevant research efforts.

- Enhance the SCW Program Portal to track and summarize leveraged funding sources and opportunities ***(near-term)***: The need for leveraged funding opportunities is voiced regularly by Project and Program proponents and reiterated in SCW Program governance committee meetings. The importance of leveraged funding opportunities is emphasized by financial outlooks (Appendix F), which show that as Projects are completed, an increasing share of Regional Program funding may be allocated toward O&M to ensure the long-term effectiveness of these Projects and achievement of SCW Program Goal N.

  With support from the Watershed Coordinators, the SCW Program has published quarterly Leveraged Funding Reports which provide an overview of recent funding policy highlights and shares active and upcoming funding opportunities that may be relevant to SCW Program Projects. Tracking of these funding opportunities should be enhanced through updates to the SCW Program Portal such as a new element on the public-facing Portal which displays funding opportunities and is automatically updated as new opportunities are identified or as deadlines pass. This page could directly pull from the Watershed Coordinator Module, through which Watershed Coordinators can maintain a list of known and upcoming funding opportunities.

7.2.3 Assess Progress

Assess

This subsection provides recommendations to analyze, synthesize, and evaluate data collected to assess progress and adjust planning, implementation, and tracking

Assess progress toward Goals to inform and adjust planning, implementation, and tracking efforts, including the following:

- Compare benefits with their targets and evaluate progress toward achieving Goals ***(near-term/long-term)***: Watershed Planning will continuously assess Total Benefits, including both anticipated and reported benefits, by SCW Program Projects and Programs to assess progress toward meeting targets and achieving Goals. To support this process and ensure effective implementation of Watershed Planning efforts, this recommendation incorporates the *USEPA's Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (2008) concept of an evaluation framework. Evaluation frameworks are important tools in the Adaptive Management process that support the documentation of outcomes, evaluation of what works and why, and inform continual changes to plans and efforts. Evaluation frameworks consider three components (inputs, outputs, and outcomes) to demonstrate progress and inform improvements.

  The inputs represent the processes needed to implement Watershed Planning (e.g., Initial Watershed Plans), the expected Initial Watershed Plan outputs to be performed (e.g., strategies), and the anticipated outcomes from implementing those activities (e.g., meeting targets and achieving Goals). Figure 7-11 outlines an evaluation framework for Watershed Planning to illustrate how Watershed Planning will live and evolve in the long-term through regular progress assessments which inform adjustments to targets, strategies, and the Planning Tool to reflect ongoing developments in the region.

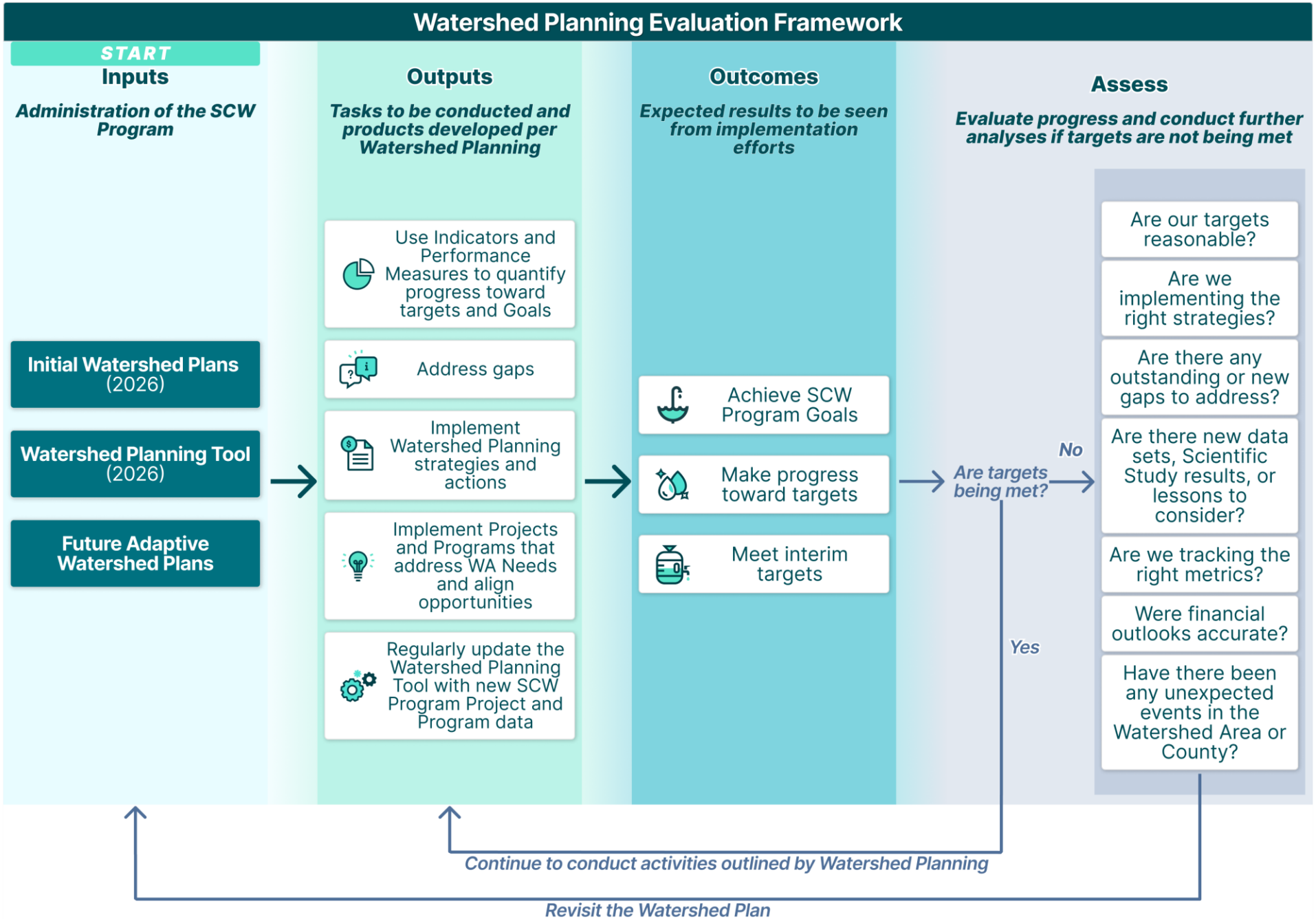


Figure 7-11. Watershed Planning evaluation framework

- Compare benefits to their targets and evaluate progress toward achieving Goals (continued) ***(near-term/long-term)***: Referencing the evaluation framework outlined by Figure 7-11, in the event that interim targets are not being met or progress is otherwise not as expected, there are several assessment questions that can be used to determine how best to adjust planning, implementation, and tracking to accelerate progress. Before adjusting planning, implementation, or tracking efforts, the following questions should be asked and assessed:
    - Are our targets reasonable? Targets may be revisited and adjusted to reflect ongoing developments in the WAs and region. Target timelines and interim target values can also be evaluated alongside financial outlooks to determine if more time is needed before we can reasonably expect to meet targets. A more robust integration of the Regional Program Project financial models with target-setting may also be considered to determine if targets remain realistic and achievable.
    - Are we implementing the right strategies? If strategies are being implemented as expected but progress toward addressing needs and meeting goals is limited or absent, the strategies and their identified opportunities should be adjusted. There may have been gaps addressed, or new data and resources made available that warrant revisions to strategies.
    - Are there new data sets, Scientific Study results, or lessons to consider? As more Projects and Programs are funded and completed, Projects and their realized benefits will evolve, and strategies may need to be adjusted to better direct future investments toward the most effective opportunities based on ongoing developments in the WAs. Results from Scientific Studies should similarly be continuously evaluated for incorporation in underlying data and strategies.
    - Are we tracking the right metrics? Consider reviewing Indicators and PMs and their quantification to ensure that they are accurately capturing progress to date. For example, the methods for quantifying proportionality of benefits accruing to DACs may need to be reevaluated and adjusted if progress is less than expected. Additional or revised metrics may need to be considered to ensure a comprehensive summary of progress.
    - Were financial outlooks accurate? Funding budgets and allocations are published annually via the Regional Program SIPs and Municipal Annual Plans are developed annually. The Projects and Programs reflected in these plans contribute to an assessment of expected progress. If there is

a shortfall in anticipated funding or unforeseen expenses, benefits may not be realized as quickly as expected. An assessment of financial outlooks will provide insight on why progress is less than expected and inform how targets or strategies may need to be adjusted to reflect current conditions and realities of the WAs and SCW Program.

  - Have there been any unexpected or recent events in the WA or Los Angeles region? Before revising targets and strategies, unexpected or recent events will be considered to determine if they contributed to a lack of progress. Unusual weather, climate disasters, or shifting regulatory or funding conditions for example may impact implementation of strategies and the SCW Program's ability to make progress as expected.

- Evaluate reported benefits provided by completed Projects and compare to their anticipated benefits ***(near-term/long-term)***: Prior to completion, Project proponents predict anticipated benefits to be achieved; at post-construction, the realized benefits will be reported through the Reporting Module. A critical part of assessment will be comparing anticipated benefits to reported benefits to evaluate differences and reasons for them. Progress may be updated and assessed using Project post-construction monitoring metrics and data reported via Annual Reports.

- Establish an approach for assessing monitoring data ***(near-term)***: As recommended under 'Track', water quality monitoring data will be tracked in the long-term to support an assessment of trends with regards to hydrology and water quality across the SCW Program and its WAs. An approach for how water quality monitoring data will be assessed to inform SCW Program progress and associated strategies will be developed in the long term.

7.2.4 Revisit the Watershed Plans

Plan

This subsection provides recommendations to revisit Watershed Plans and reexamine earlier assessments to apply lessons learned and update outputs through Planning Tool updates and Adaptive Watershed Plans

Revisit and incrementally update the Initial Watershed Plans, Planning Tool, and Adaptive Watershed Plans based on lessons learned and best available data, including the following:

- Refine targets and strategies based on findings from ongoing Adaptive Management and other non-SCW Program planning efforts ***(near-term)***: As needed, the Watershed Planning team will provide incremental updates to targets and strategies. There are several ongoing Adaptive Management and non-SCW Program planning efforts whose goals and outputs align with those of the SCW Program and Watershed Planning. While the timing of these efforts did not align with the Initial Watershed Plans, the incorporation of their outputs would strengthen Watershed Planning by addressing key near-term gaps, improving progress tracking, and refining strategies. Identified topics of interest for Watershed Planning include:
    - County Water Plan Blue-Ribbon Panel outputs
    - Post-fire relief and water quality monitoring
    - Enhanced water quality modeling and pollutant time series for bacteria, polychlorinated biphenyls (PCBs), and Dichlorodiphenyltrichloroethane (DDT) and quantification of trash
    - Quantification of benefits provided by SCW Program investments other than Projects (e.g., Municipal Activities, Regional Program Scientific Studies)
    - Stormwater Recharge Efficiency in the Greater Los Angeles Region
    - Public Works O&M working group
- Adjust targets and strategies based on lessons learned and assessment results ***near-term/long-term)***: As new resources become available, Projects, Programs, and Scientific Studies are completed, priorities shift, and progress toward achieving Goals is continuously tracked and assessed, incrementally adjust targets and strategies through Adaptive Watershed Plans. This recommendation incorporates earlier assessment findings to ensure that targets and strategies are adjusted accordingly and that the Plans as well as

the Planning Tool continue to serve WASCs, Municipalities, and Project and Program developers in making strategic funding and implementation decisions that maximize SCW Program return on investment.

- Consider the development of Adaptive Watershed Plans based on tracking and assessment results ***(long-term)***: Based on assessment results and shifting priorities, the development of Adaptive Watershed Plans may be considered every five years in collaboration with each WASC and the ROC. Adaptive Watershed Plans would support the integration of new elements or guidance such as site-specific opportunities and prioritization and will be developed on an as-needed basis.

This Initial Watershed Plan marks a historic milestone in the timeline of the SCW Program. Over time, the planning, tracking and assessment data and methodologies can be refined and improved to incorporate learnings, leverage the best available science, and adjust to reflect evolving community priorities. The key to success will be the adoption of the Watershed Planning framework including the Planning Tool to maximize the benefits delivered through the Regional and Municipal programs by bringing forward and funding Projects and programs that are strategic, efficient, multiple-benefit and community-supported. During SCW Program implementation, Public Works is committed to supporting adoption of the Watershed Planning framework through continued engagement and facilitation across all facets of the SCW Program, thereby ensuring continuous incremental improvement over the coming years.