

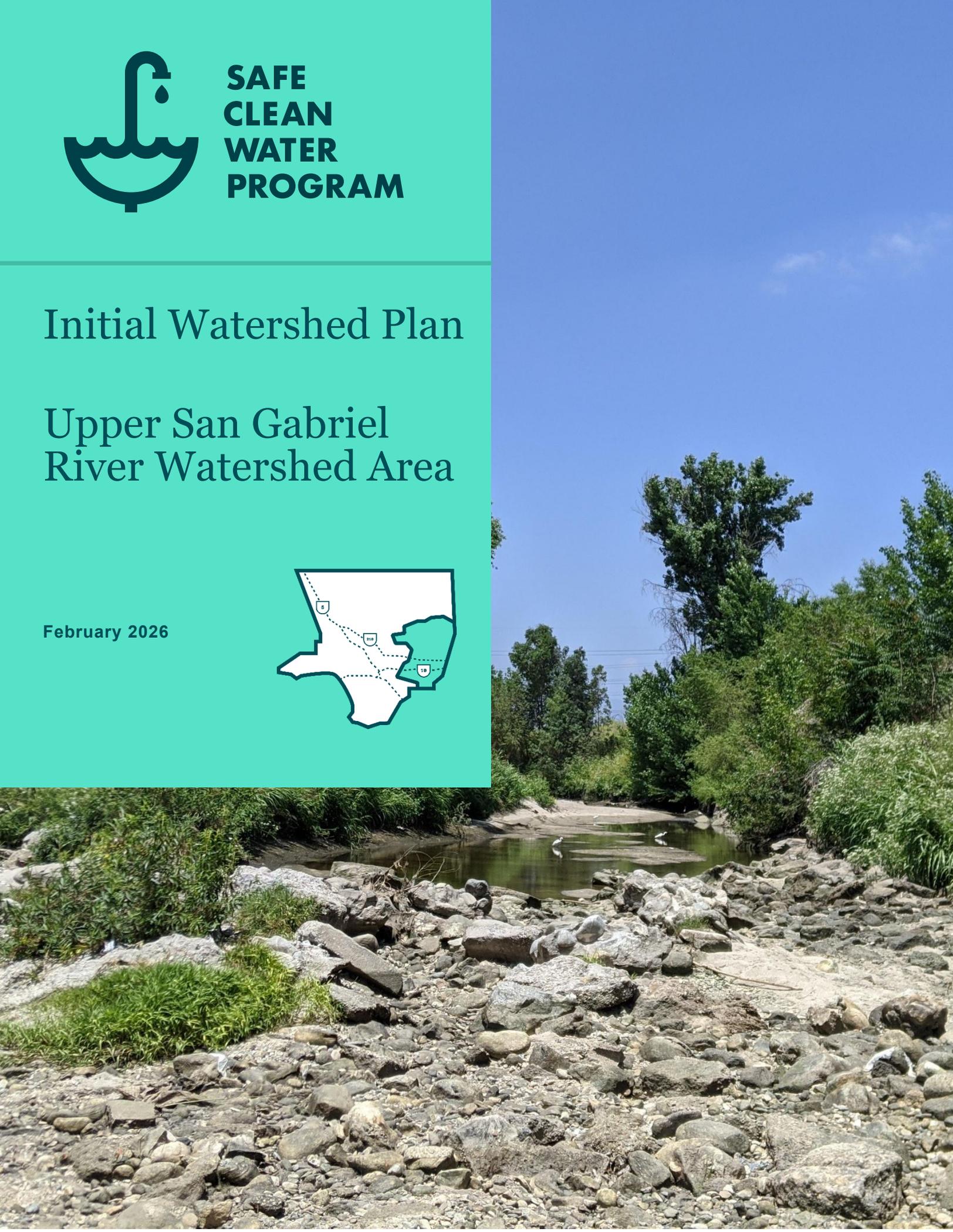
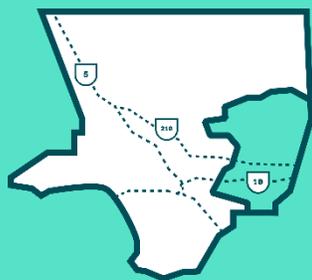


**SAFE
CLEAN
WATER
PROGRAM**

Initial Watershed Plan

Upper San Gabriel 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 San Gabriel River (USGR) 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 USGR 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 San Gabriel 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 USGR 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 USGR WA includes 20 Municipalities¹ and parts of Unincorporated Los Angeles County. The majority of the WA's footprint falls within Unincorporated Los Angeles County (68%). The WA covers approximately 313,900 acres in the San Gabriel Mountains, spanning through unincorporated and Mideastern portions of Los Angeles County to the river's outlet at the Pacific Ocean in Long Beach. Although impervious surfaces make up only 18% of the overall land cover, this relatively low percentage is largely due to extensive open space in the San Gabriel Mountains.

The high levels of urban development in the San Gabriel Valley results in substantial annual stormwater runoff of 180,000 acre-feet per year (ac-ft/yr), the largest volume of stormwater runoff of the nine SCW Program WAs. The WA's unique physical characteristics and diverse population demographics contribute to a substantial need for stormwater management Projects to address environmental and public health injustices.

¹ The following Municipalities are located within the USGR WA, with the Municipality covering the largest portion of the WA first: Unincorporated County, Pomona, Glendora, San Dimas, West Covina, Diamond Bar, Claremont, Industry, Azusa, Walnut, Irwindale, La Verne, Covina, Baldwin Park, Duarte, La Puente, El Monte, Bradbury, Monrovia, South El Monte, and Arcadia.

Other key USGR WA characteristics include:

- Zinc, total phosphorus, and bacteria are priority pollutants for Watershed Planning,
- 18% of land cover in the WA consists of impervious surfaces,
- 20% of the urban area in the WA is covered by tree canopy,
- 58% of the WA is parks and open space,
- The required disadvantaged community (DAC) benefit ratio for the WA is 22%², and
- Spans several managed, unconfined groundwater basins including the Main San Gabriel, Puente, and Spadra Basins.

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

² 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	
<p>Dense urbanization in the San Gabriel Valley produces runoff with high pollutant loads, but open space in unincorporated LA County offers opportunities for large, nature-based Projects that improve water quality by treating stormwater upstream before it reaches polluted southern urban areas.</p>	
POTENTIAL	CHALLENGES
<ul style="list-style-type: none"> The upper reaches of the San Gabriel River are soft bottom riverbed, which promotes natural infiltration, playing a vital role in maintaining and improving water quality through natural processes. Existing plans and efforts have identified many additional Project opportunities, both regional and small-scale distributed. 	<ul style="list-style-type: none"> The recreational use of the San Gabriel River has historically degraded water quality. Retrofitting the highly urbanized area involves complex infrastructure conflicts and high costs, favoring smaller-scale distributed approaches.
POTENTIAL & CHALLENGES FOR DELIVERING WATER SUPPLY BENEFITS	
<p>Impervious surfaces and engineered systems limit natural infiltration, but infiltration to groundwater via Nature-Based Solutions and existing spreading grounds offers potential to boost local water supply through stormwater capture and reuse.</p>	
POTENTIAL	CHALLENGES
<ul style="list-style-type: none"> Dense urbanization in the San Gabriel Valley produces a large volume of runoff for potential capture and reuse in the Watershed Area. Proximity to several spreading grounds and underlying unconfined aquifers present significant opportunity for groundwater recharge. 	<ul style="list-style-type: none"> Higher pollutant loading rates may require pre-treatment before conveyance to recoverable points, resulting in higher capital and O&M costs. Impervious surfaces and limited open space in urban areas constrain large-scale regional capture, reducing the cost-effectiveness of stormwater reuse implementation.
POTENTIAL & CHALLENGES FOR DELIVERING COMMUNITY INVESTMENT BENEFITS	
<p>Historically underserved neighborhoods with limited green space and high environmental burdens present a strong need and opportunity for equitable, multi-benefit community investments.</p>	
POTENTIAL	CHALLENGES
<ul style="list-style-type: none"> High park need and untreated areas present potential to deliver Projects that provide public health and Water Quality Benefits. Targeted investments can enhance vegetation, tree canopy, and environmental restoration—especially in Disadvantaged Communities, schools, and densely developed areas—advancing multi-benefit outcomes. 	<ul style="list-style-type: none"> Limited existing green space and available land within built-out communities makes developing new recreational areas challenging without property acquisition which can be cost-prohibitive. 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), \$88.6 million in SCW Program funds have been invested in 26 Regional and Municipal Program Projects in the USGR 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.

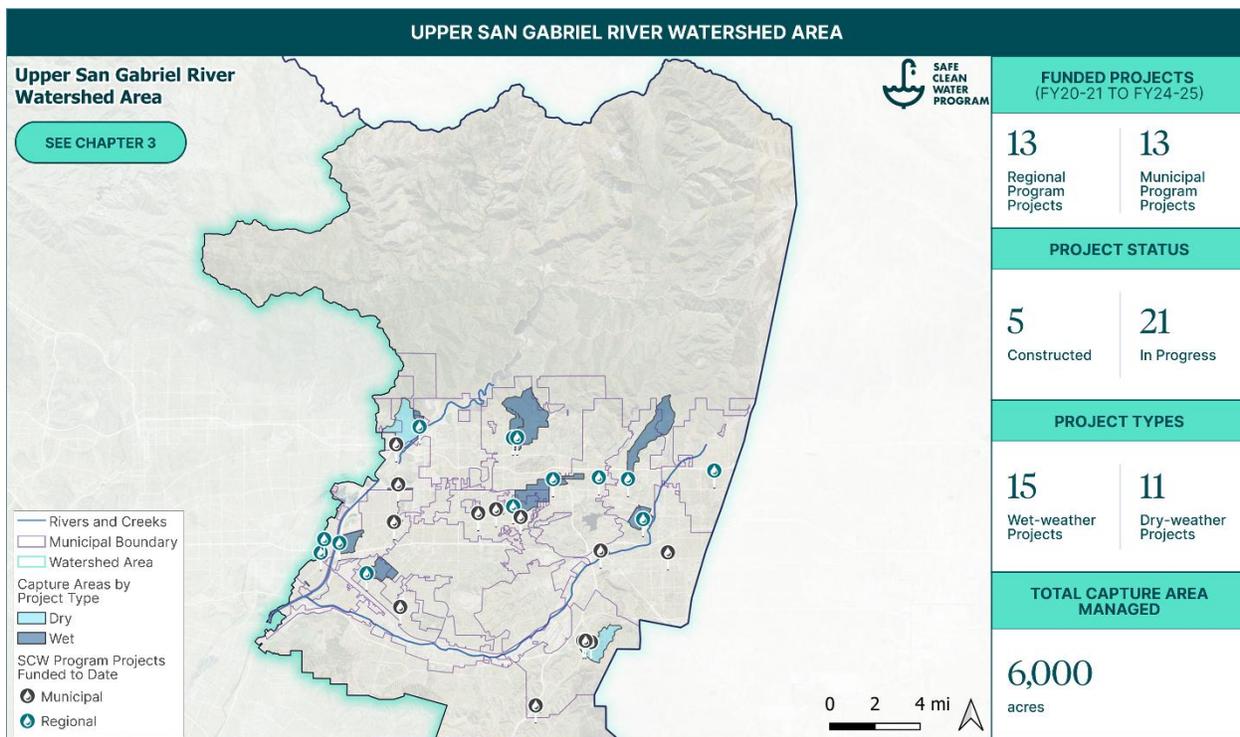


Figure ES-3.

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 USGR 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

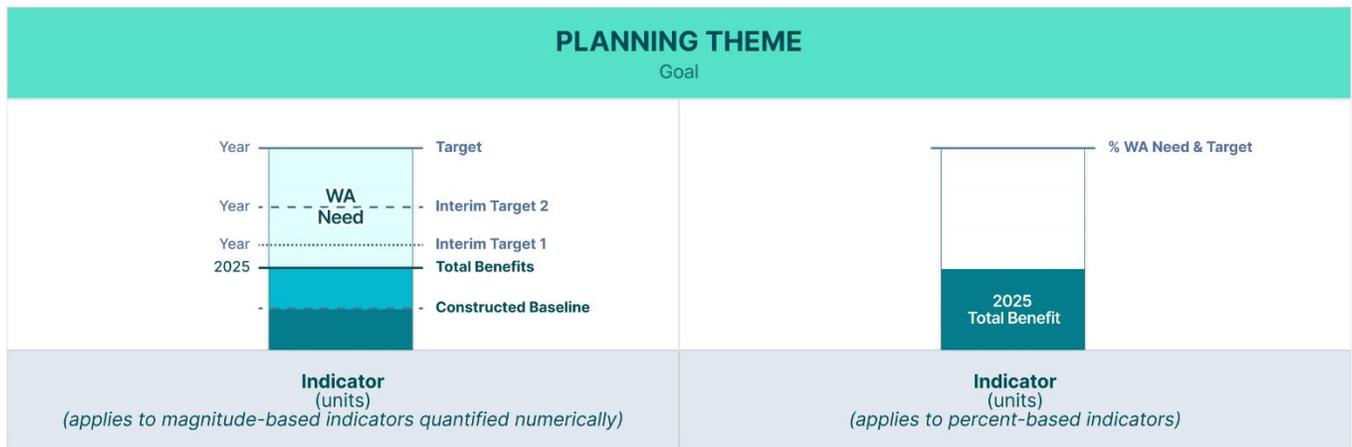
For each Indicator, its 2025 Total Benefits are summarized. WA Needs represent the progress that is needed to meet the Targets. WA Needs summarize why strategies are needed. Please see Chapter 5 to learn more about how WA Needs are determined.

Upper San Gabriel 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 USGR WA continues to make measurable progress toward SCW Program Goals.

USGR 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



**UPPER SAN GABRIEL RIVER WATERSHED AREA
BASELINES, BENEFITS, TARGETS, & WATERSHED AREA NEEDS (1 OF 2)**

SEE APPENDIX H

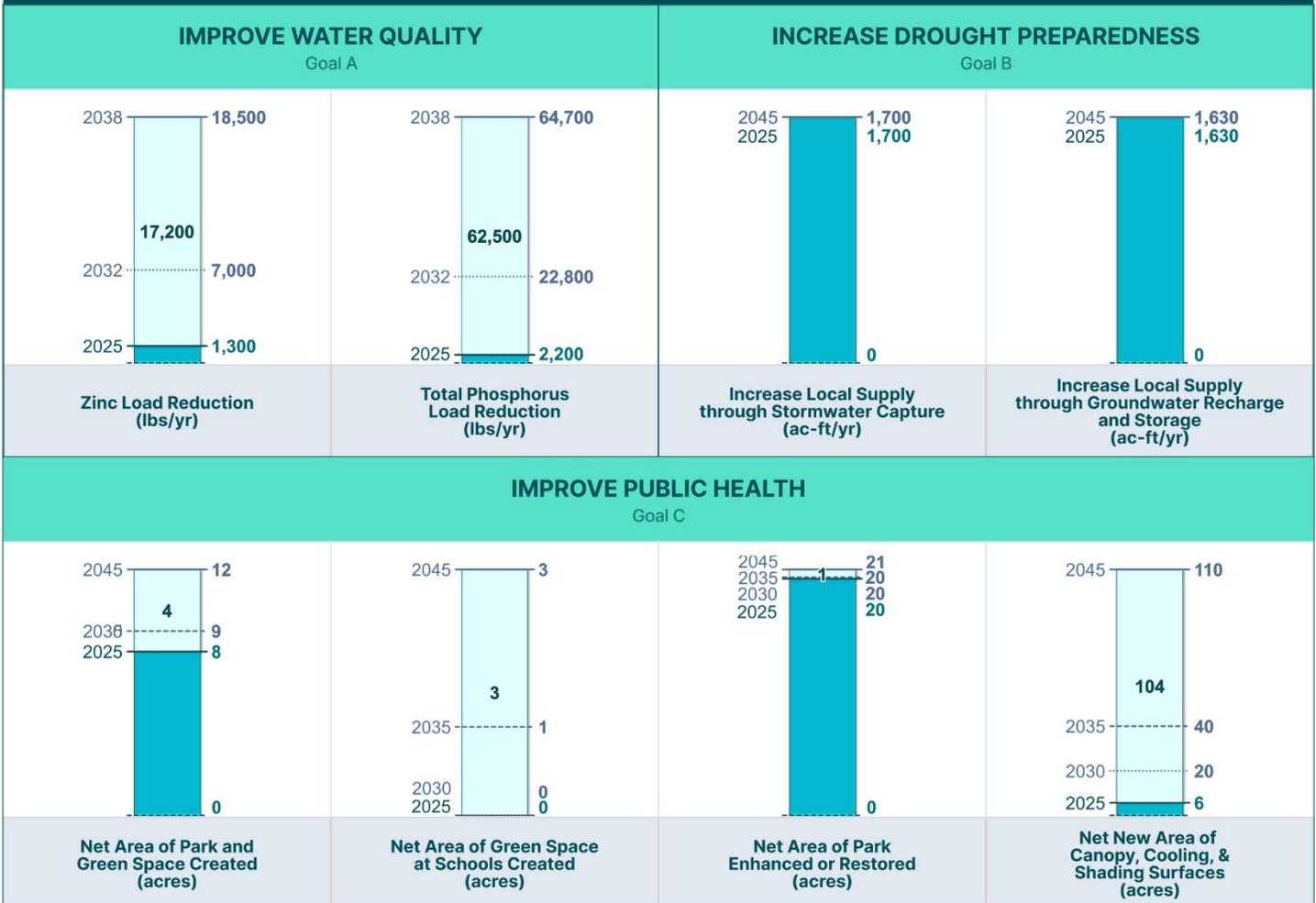


Figure ES-4.

**UPPER SAN GABRIEL RIVER WATERSHED AREA
BASELINES, BENEFITS, TARGETS, & WATERSHED AREA NEEDS (2 OF 2)**

SEE APPENDIX H



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 USGR 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. USGR 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 USGR 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 SAN GABRIEL 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 Identify and prioritize priority MS4 outfalls for Project and Program implementation**
- 1.3 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 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 Integrate transportation-related planning and implementation efforts with green street development**
- 3.3 Implement Projects located at school and in flood control channel right-of-ways**
- 3.4 Create, enhance, and restore park and green space, especially in high-need communities
- 3.5 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 Evaluate distributed BMPs that achieve cost-effectiveness thresholds of the SCW Program**
- 4.3 Deliver nature-based, multi-benefit Projects that improve water quality while addressing community priorities and concerns
- 4.4 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 San Gabriel River WASC Priority Strategy based on engagement

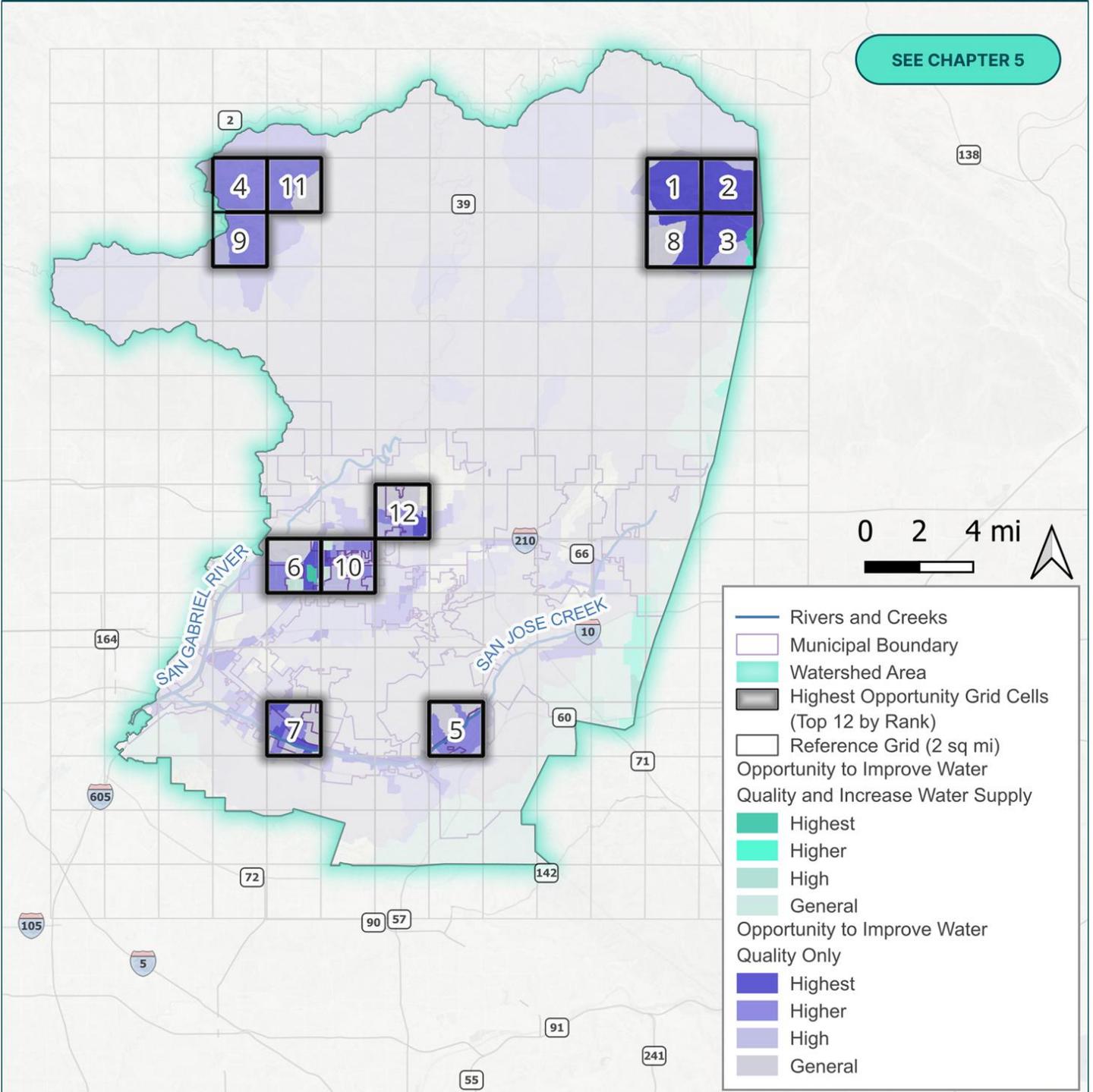
Note: While some strategies may not explicitly reference water quality, in accordance with the SCW Program Implementation Ordinance, all SCW Program Projects and Programs are required to include a Water Quality Benefit.

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



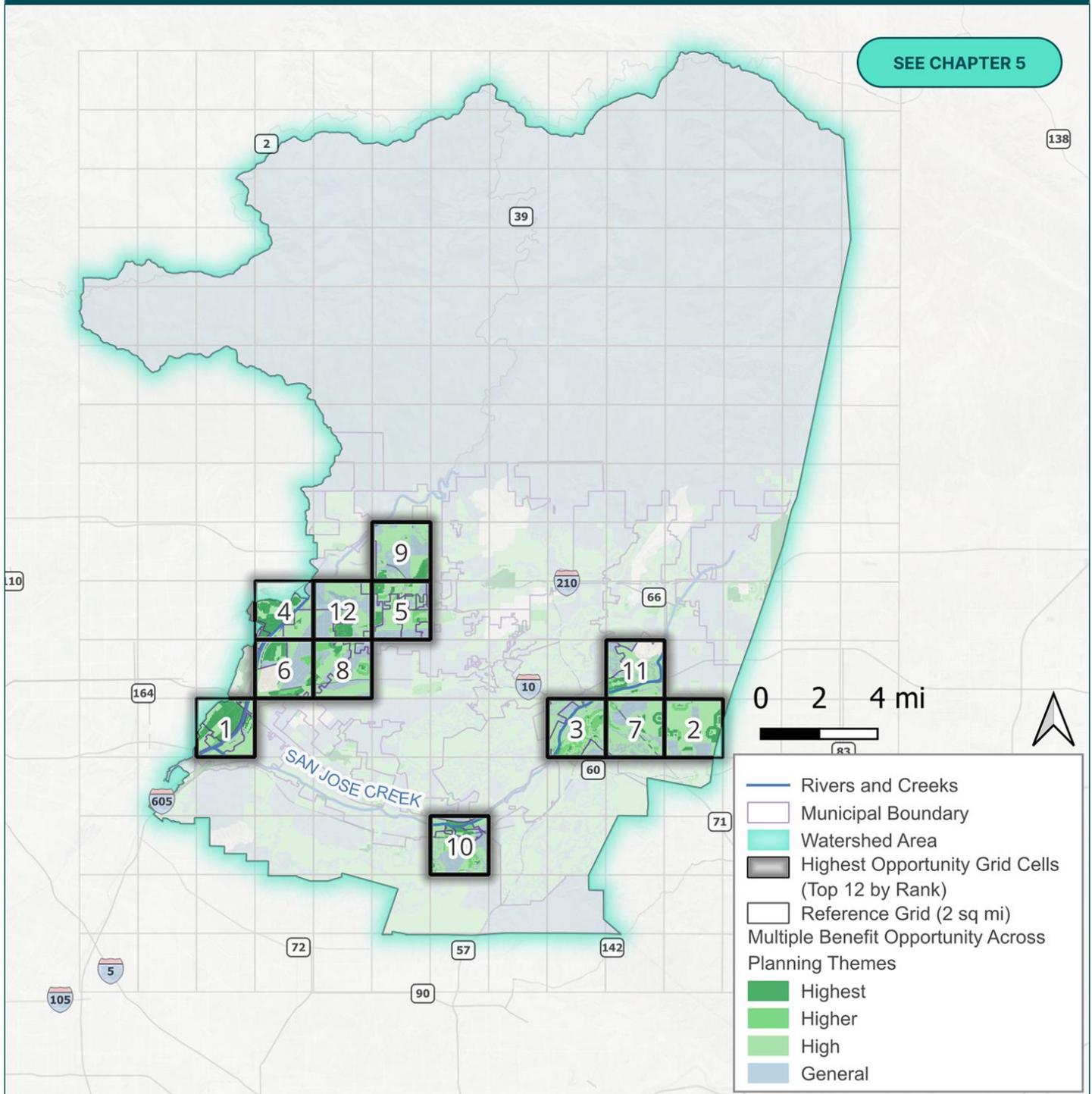
GUIDES STRATEGIES INTENDED TO SUPPORT THE ACHIEVEMENT OF THE FOLLOWING SCW PROGRAM GOALS

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.

Next Steps and Recommendations for Watershed Planning

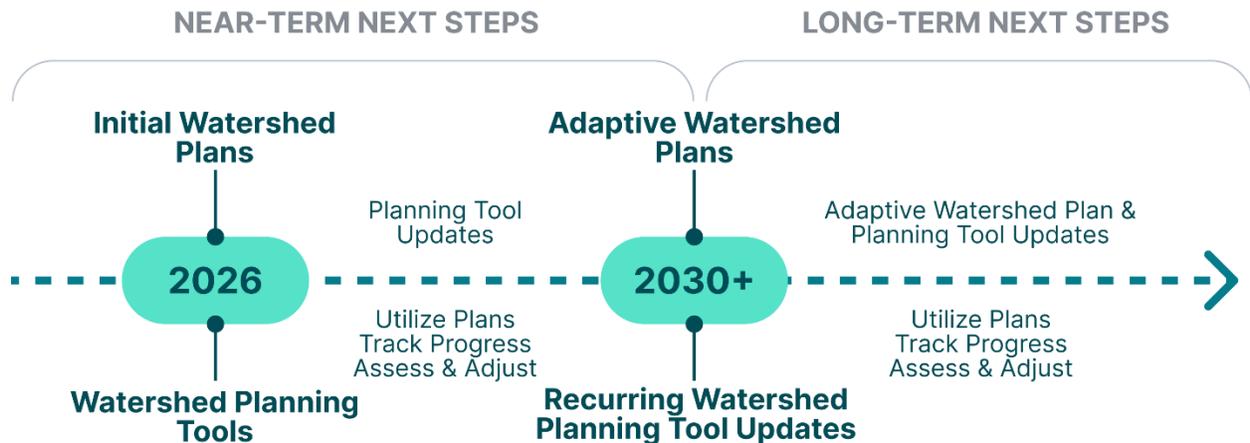


Figure ES-9.

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.



Initial Watershed Plan

Upper San Gabriel River Watershed Area

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Chapter 1. Introduction

The Upper San Gabriel River (USGR) 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 USGR Watershed Area (WA). The Initial Watershed Plans should be used to inform regional stormwater priorities to ensure that Project and Program¹ implementation aligns with both the SCW Program 14 Ordinance-established Goals² (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 USGR 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 USGR

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](#)).

WASC, 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 USGR WA. Initial Watershed Plan outputs draw on the USGR 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, USGR 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 Programmatic 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 Planning³ 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.

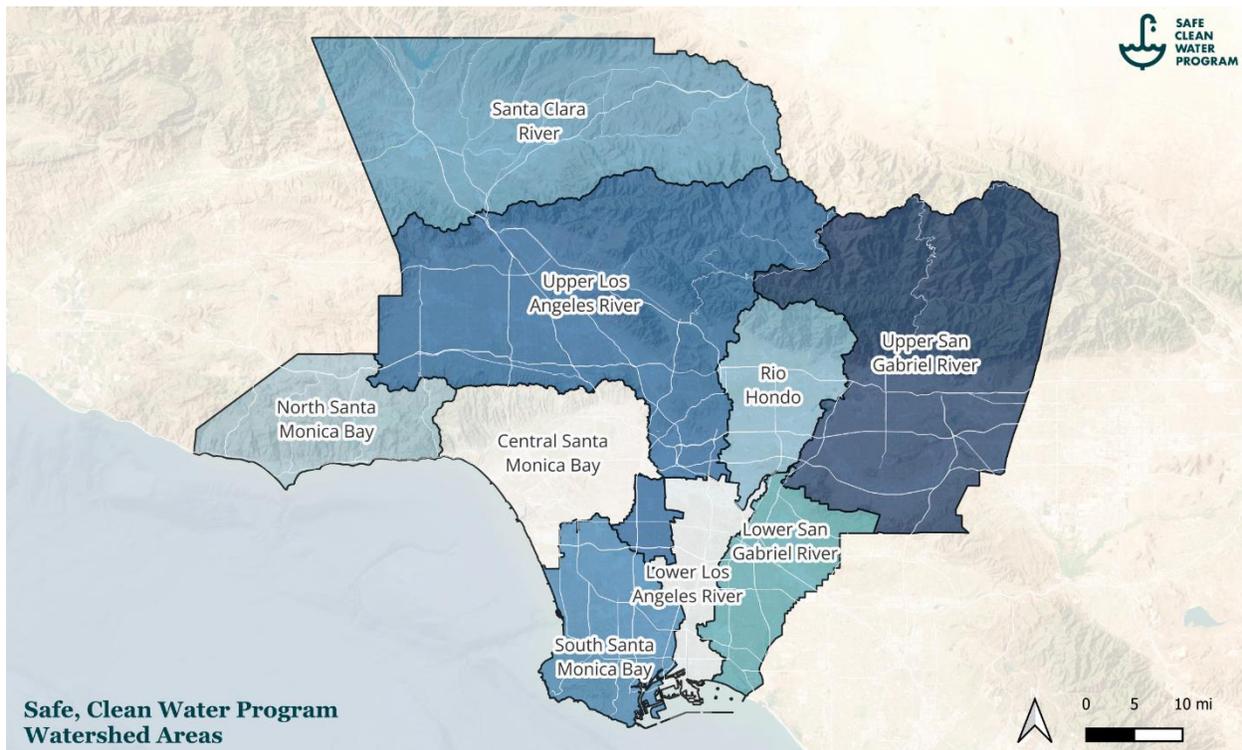


Figure 1-3. Nine SCW Program WAs

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 Studies⁴, 53 Technical Resources Program Project Concepts⁴, 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 approach⁵, 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 County of Los Angeles 2045 Climate Action Plan (2045 Climate Action Plan). 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.

<p>Planning Theme</p> <p>SCW Program Goal</p> <p>Goal Description</p> <p>[LEGEND]</p>	<p>Improve Water Quality</p> <p>A SCW Program Goal (18.04.A)</p> <p>Improve water quality and contribute to attainment of water-quality requirements.</p>	<p>Increase Drought Preparedness</p> <p>B SCW Program Goal (18.04.B)</p> <p>Increase drought preparedness by capturing more Stormwater and/or Urban Runoff to store, clean, reuse, and/or recharge groundwater basins.</p>	<p>Improve Public Health</p> <p>C SCW Program Goal (18.04.C)</p> <p>Improve public health by preventing and cleaning up contaminated water, increasing access to open space, providing additional recreational opportunities, and helping communities mitigate and adapt to the effects of climate change through activities such as increasing shade and green space.</p>
<p>Deliver Multi-Benefits with Nature-Based Solutions & Diverse Projects</p> <p>E SCW Program Goal (18.04.E)</p> <p>Invest in infrastructure that provides multiple benefits.</p> <p>F SCW Program Goal (18.04.F)</p> <p>Prioritize Nature-Based Solutions.</p> <p>G SCW Program Goal (18.04.G)</p> <p>Provide a spectrum of project sizes from neighborhood to regional scales.</p>	<p>Leverage Funding & Invest In Research & Development</p> <p>D SCW Program Goal (18.04.D)</p> <p>Leverage other funding sources to maximize SCW Program Goals.</p> <p>H SCW Program Goal (18.04.H)</p> <p>Encourage innovation and adoption of new technologies and practices.</p> <p>I SCW Program Goal (18.04.I)</p> <p>Invest in independent scientific research.</p>	<p>Equitably Distribute Benefits</p> <p>J SCW Program Goal (18.04.J)</p> <p>Provide Disadvantaged Community Benefits, including Regional Program infrastructure investments, that are not less than one hundred and ten percent (110%) of the ratio of the Disadvantaged Community population to the total population in each Watershed Area.</p> <p>K SCW Program Goal (18.04.K)</p> <p>Provide Regional Program infrastructure funds benefitting each Municipality in proportion to the funds generated within their jurisdiction, after accounting for allocation of the one hundred and ten percent (110%) return to DACs, to the extent feasible.</p>	
<p>L SCW Program Goal (18.04.L)*</p> <p>Implement an iterative planning and evaluation process to ensure adaptive management.</p>	<p>Promote Green Jobs & Career Pathways</p> <p>M SCW Program Goal (18.04.M)</p> <p>Promote green jobs and career pathways.</p>	<p>Ensure Ongoing Operations & Maintenance</p> <p>N SCW Program Goal (18.04.N)</p> <p>Ensure ongoing operations and maintenance for Projects.</p>	<p>Prioritize Meaningful Engagement</p> <p>Meaningful engagement is fundamental to the achievement of all Goals.</p>

* 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.

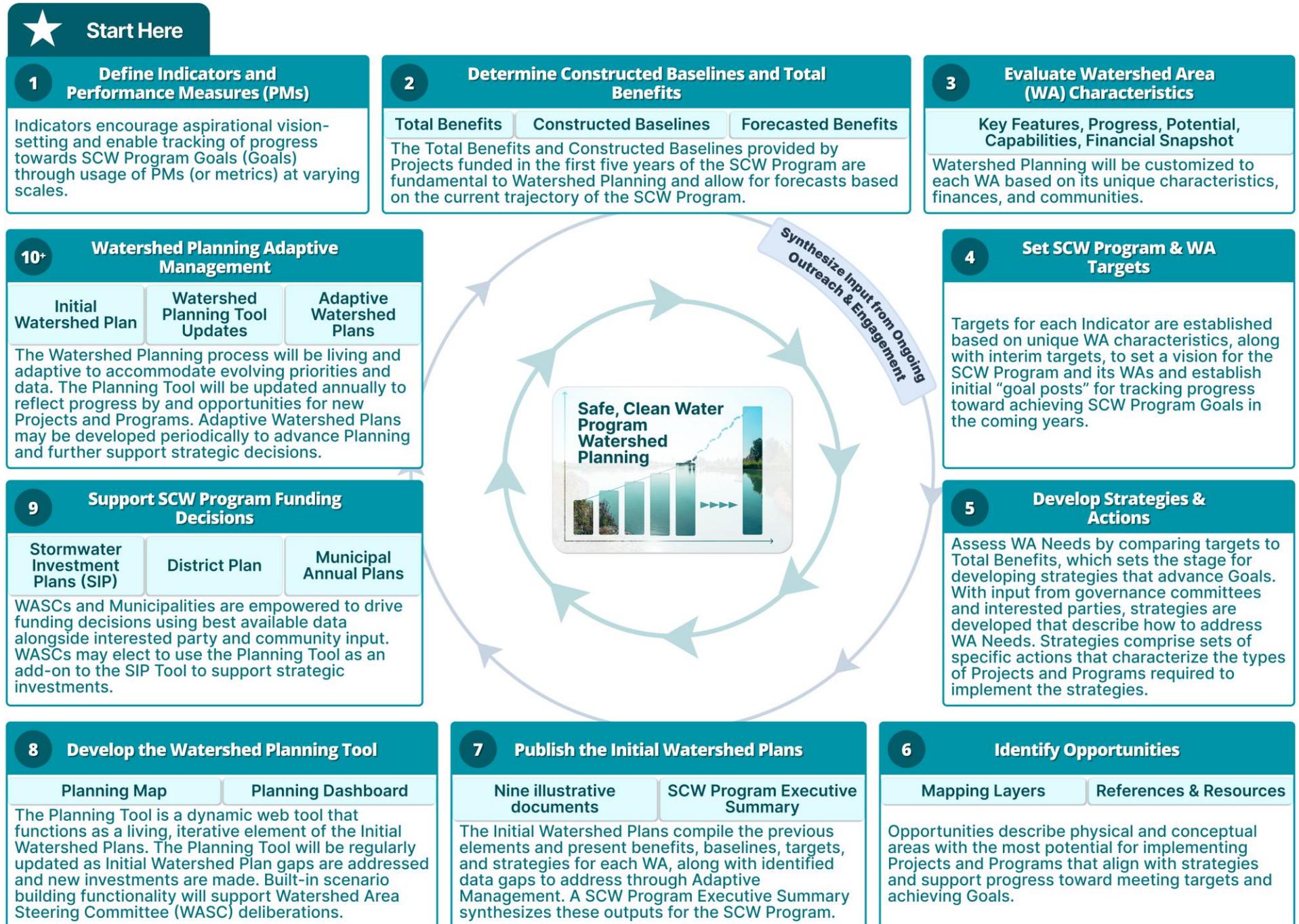


Figure 1-6. SCW Program Watershed Planning Elements

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 focus their efforts where they would be most impactful.
 - **Support Project ideation, alignment, and partnerships:** Identify and 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 (examples listed in 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.

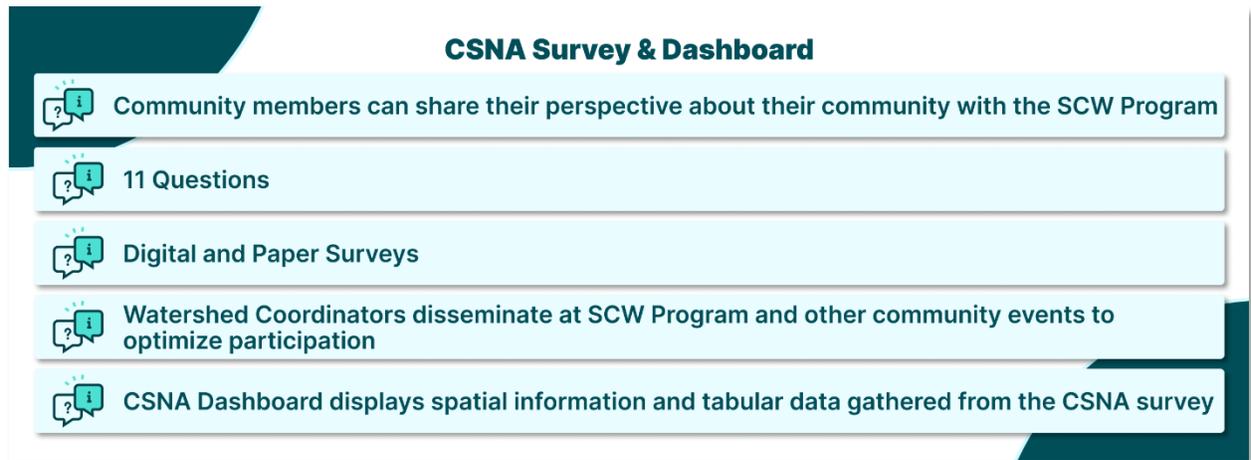


Figure 1-8. CSNA Survey and Dashboard Summary

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:

- [2024 Metrics and Monitoring Study](#) (2024; see also subsection 1.4.3.1 below for more information)
- [Equity in Stormwater Investments White Paper](#) (2022)
- [Regional Program Funding Process Handbook](#) (2022)
- [SCW Program Handbook for Municipalities](#) (2023)
- [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 Metrics and Monitoring Study (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 Management⁶ 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 include 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 USGR 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 USGR WA

Effort Category	Effort Name	Source/Agency	Related Planning Element(s)
Water Supply	Main San Gabriel Basin Watermaster	Main San Gabriel Basin Watermaster Board	Strategies
Water Quality	Enhanced Watershed Management Program Plan (WMP)	Upper San Gabriel River Watershed Management Group (WMG)	WA Characteristics, Targets, Strategies, Opportunities
Water Quality	Revised Coordinated Integrated Monitoring Program (CIMP)	Upper San Gabriel River WMG	WA Characteristics
Regional Plan	2021 LA County Climate Vulnerability Assessment	Los Angeles County Chief Sustainability Office	Targets, 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 (LACPW)	Targets, Strategies
Regional Plan	2019 OurCounty Sustainability Plan	Los Angeles County Chief Sustainability Office	Targets, Strategies, Opportunities
Regional Plan	The Los Angeles County Community Forest Management Plan (CFMP)	Los Angeles County Chief Sustainability Office	Targets, Strategies, Opportunities
Regional Plan	Using Watershed Science to Build Consensus and Maximize Benefits of L.A. County's Safe Clean Water Program	Accelerate LA	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	San Gabriel Valley Greenway Network Strategic Implementation Plan	Los Angeles County Public Works (LACPW)	Strategies, Opportunities
Local Plan	Upper San Gabriel River Watershed Strategic Outreach & Engagement Plan	Upper San Gabriel River Watershed Steering Committee	WA Characteristics

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 date⁷, the SCW Program has funded 23 unique Scientific Studies, including nine that have been funded in the USGR WA⁸. Outputs from completed Scientific Studies, such as the [San Gabriel Valley Regional Confirmation of Infiltration Rates](#), are incorporated into the strategies and opportunities in Chapter 5 to support the USGR WASC, Municipalities, and Project proponents in developing effective multi-benefit Projects. This completed Scientific Study provided site-specific data on infiltration rates across multiple locations in the San Gabriel Valley, helping to confirm and refine assumptions used in Project siting, design, and feasibility evaluations. Its findings serve as a critical reference for planning future stormwater capture and infiltration Projects within the USGR WA.

WASCs, Municipalities, and Project proponents are encouraged to apply insights from completed Scientific Studies to enhance the effectiveness, efficiency, and long-term impact of stormwater management efforts in the USGR WA. Appendix E details all Scientific Studies conducted in the nine WAs 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.

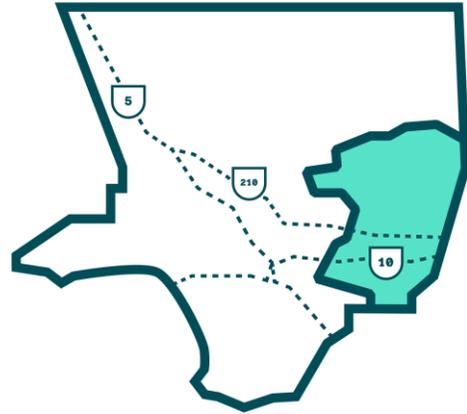
⁷ As of the FY25-26 SIP. Note that the Infrastructure Program did not accept applications for the FY25-26 Call for Projects.

⁸ Scientific Studies may receive funding from multiple WAs, meaning a given Study can be included in more than one WA's SIP.

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, USGR WA Strategic Outreach and Engagement Plans, 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 USGR WA spans approximately 313,900⁹ acres in the San Gabriel Mountains, extending through unincorporated and Mideastern portions of Los Angeles County, to the river's outlet at the Pacific Ocean in Long Beach (Figure 2-1). The USGR WA includes 20 Municipalities and parts of Unincorporated Los Angeles County, with much of the area falling within Unincorporated Los Angeles County (68%). This WA is among the largest in size in Southern California and second largest among the nine SCW Program WAs. Land development within the USGR is unique, with a wide diversity of land uses, from low development in the upper elevation of the WA in the San Gabriel Mountains, to the densely urbanized San Gabriel Valley. Although impervious surfaces make up only 18%¹⁰ of the overall land cover, this lower percentage is largely due to extensive open space in the San Gabriel Mountains. The high levels of urban development in the San Gabriel Valley results in substantial annual average stormwater runoff of 180,000 acre-feet per year (ac-ft/yr), the largest volume of stormwater runoff of the nine SCW Program WAs. The watershed's unique

⁹ Calculated using WA boundaries available through the [SCW Program Spatial Data Library](#); excludes ocean areas.

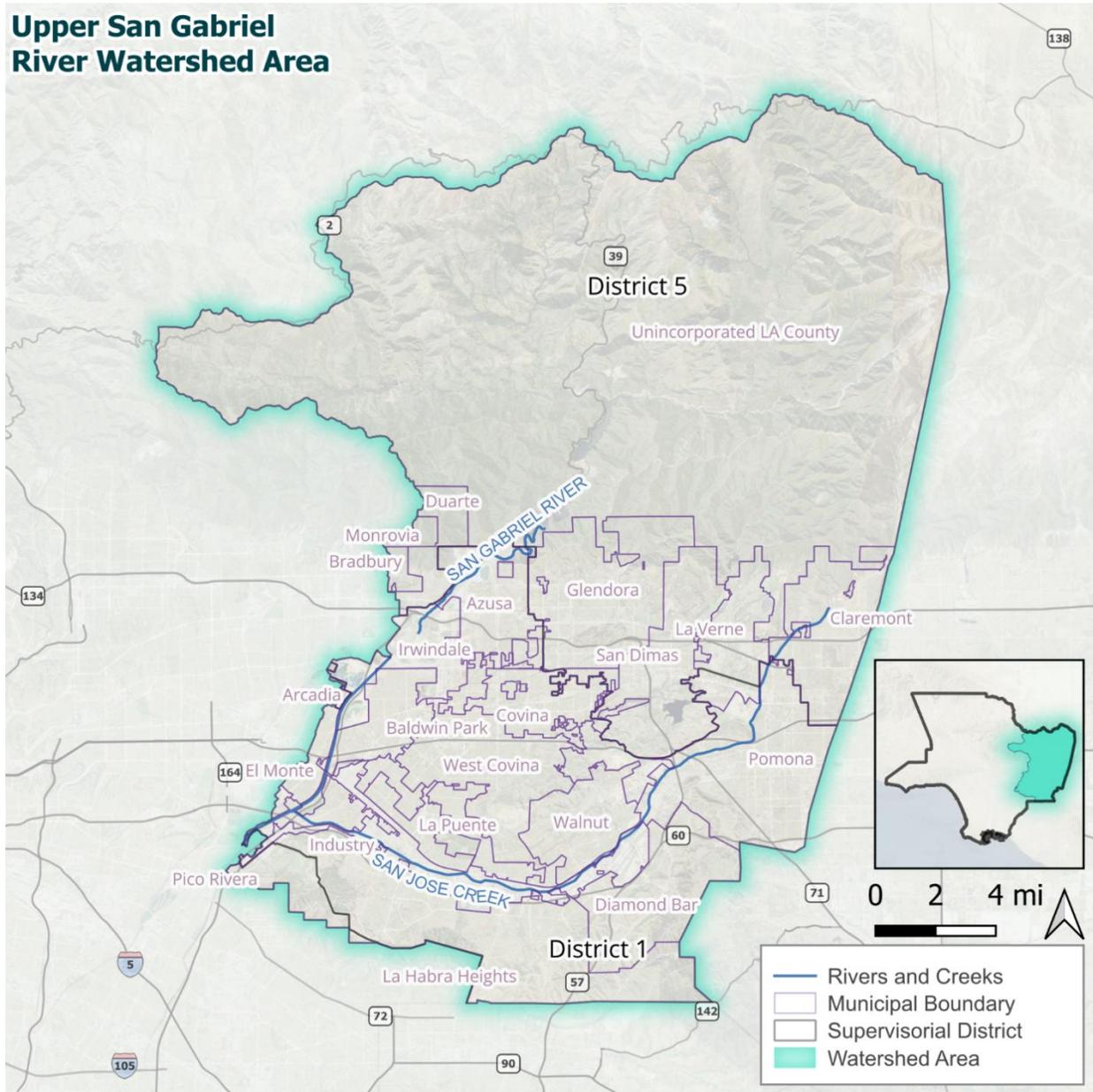
¹⁰ Land use data were provided by the Los Angeles County Office of the Assessor and is representative of conditions on the ground as of January 2019.

physical characteristics and diverse population demographics contribute to a substantial need for stormwater management projects to address water quality, manage runoff, and protect ecosystems to maintain the recreational opportunities of the San Gabriel Mountains.

In addition to the WA having one of the most extensive landscapes in terms of area in the SCW Program, a portion of the population is classified as historically underserved and/or disadvantaged communities (DACs) as defined in [California Water Code §79505.5](#). Based on the ratio of the DAC population to the total population in the USGR WA, the required DAC benefit ratio¹¹ for the USGR WA is 22%. This means that 22% of all SCW Project and Program benefits (e.g., Water Quality Benefits, Water Supply Benefits, CIBs) provided in the USGR WA are required 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.

Upper San Gabriel River Watershed Area



 The following Municipalities are located within the USGR WA, with the Municipality covering the largest portion of the WA listed first. Unincorporated County, Pomona, Glendora, San Dimas, West Covina, Diamond Bar, Claremont, Industry, Azusa, Walnut, Irwindale, La Verne, Covina, Baldwin Park, Duarte, La Puente, El Monte, Bradbury, Monrovia, South El Monte, Arcadia

Figure 2-1. USGR WA and its Municipalities

Table 2-1 below summarizes key WA statistics to highlight how the USGR WA compares to other WAs in the SCW Program. Figure 2-2 presents example characteristics of the USGR 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%

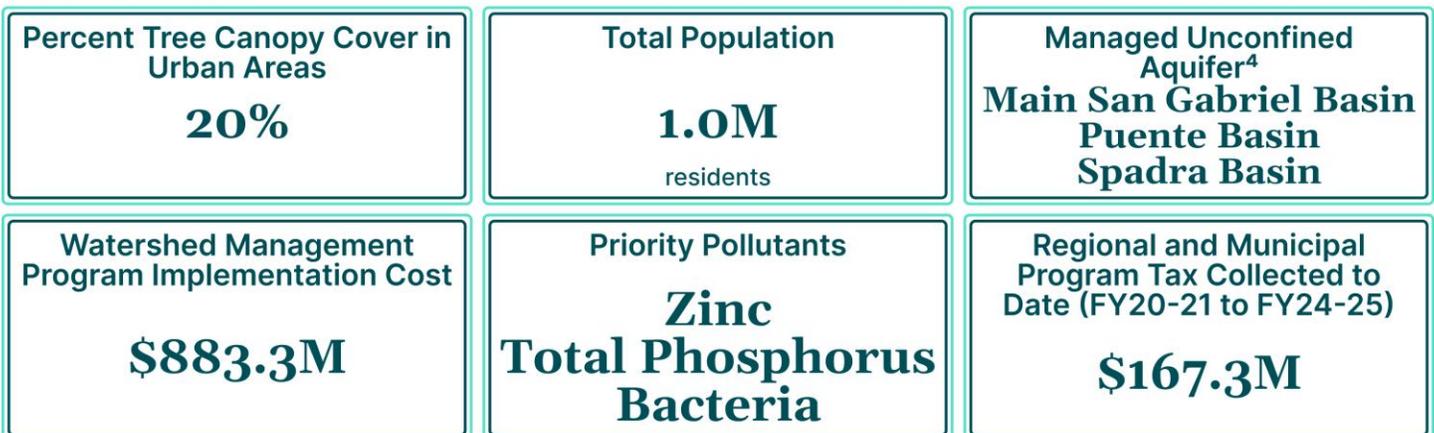
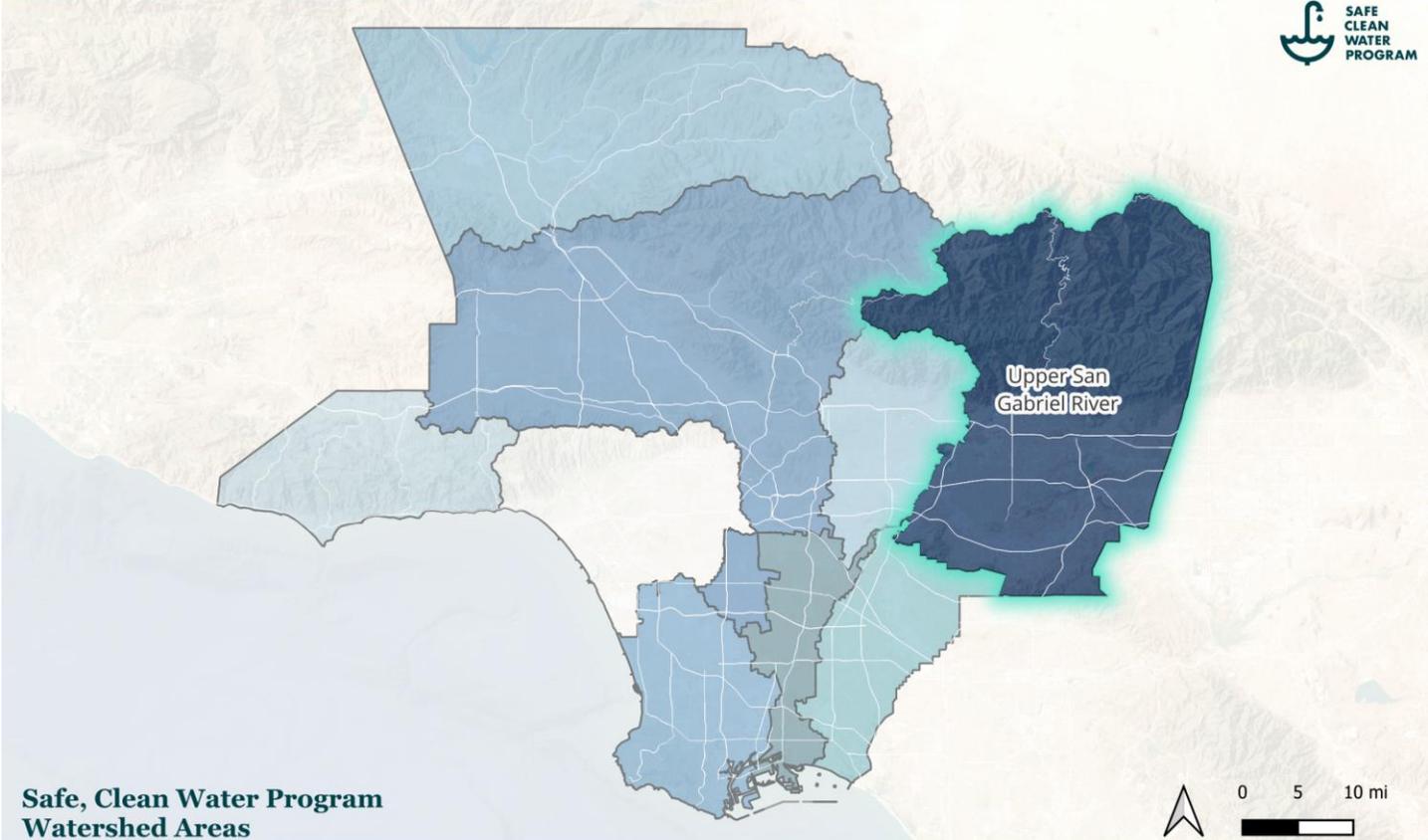
¹ Calculated using WA boundaries available through the [SCW Program Spatial Data Library](#); excludes ocean areas.

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.



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 USGR WA characteristics used for target setting

2.1.1 Physical and Natural Features

The physical and natural features of the USGR 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 USGR WA:

The Upper San Gabriel Watershed is among the largest in Southern California. The USGR WA contains a mix of urban areas in the southern section and more rural, mountainous areas in the northern section.



- The Upper San Gabriel River is a primarily natural river that meanders through canyons and controlled by dams downstream, including the Cogswell, San Gabriel, Morris, Santa Fe and Whitter Narrows dams. Unlike the lower reaches of the San Gabriel River that are channelized with concrete-lined flood control channels, the Upper San Gabriel River has natural features, too.
- The headwaters of the San Gabriel River originate in the San Gabriel Mountains, characterized by steep slopes of the USGR WA, and is formed by its East, West, and North forks which each have their own unique characteristics:
 - East Fork: Flows through a deep gorge, known as the Narrows, and is a popular recreation destination.
 - West Fork: Flows at lower elevations than the East Fork and supports a large forest of native trees like the big cone Douglas-fir and live oaks.
 - North Fork: Contains the only natural lake in the San Gabriel Mountains, Crystal Lake, and is the shortest and steepest of the three forks.
- The main tributaries of the San Gabriel River within the USGR WA include the Walnut Creek Wash and San Jose Creek. Additionally, there are unnamed tributaries draining unincorporated Los Angeles County areas that discharge into Puddingstone Reservoir.
- The upper reaches of the San Gabriel River contain extensive areas of undisturbed riparian and woodland habitats.
- Runoff from the steep slopes of the San Gabriel Mountains forms narrow valleys that contribute significant sediment loads to downstream areas. This unique topography (Figure 2-3) drives high-velocity flows and increases the potential for intense flooding during large storm events.
- The geologic makeup in the upper USGR WA generally includes impermeable igneous and metamorphic bedrock materials. While the lower portions include sedimentary materials originating from alluvial fans from the San Gabriel

Mountains. Marine sedimentary deposits within the San Jose and Puente Hills, resulting in varying natural infiltration potential throughout the WA.

- Overlays and recharges the Main San Gabriel Basin via several groundwater spreading grounds where water is allowed to pond and percolate into the underlying basin.
- During dry-weather, surface water from the San Gabriel Mountains infiltrates rapidly into the fluvial deposits of the lower reaches of the USGR WA, providing surface-level hydrologic separation of the between the Upper and Lower San Gabriel River WAs.

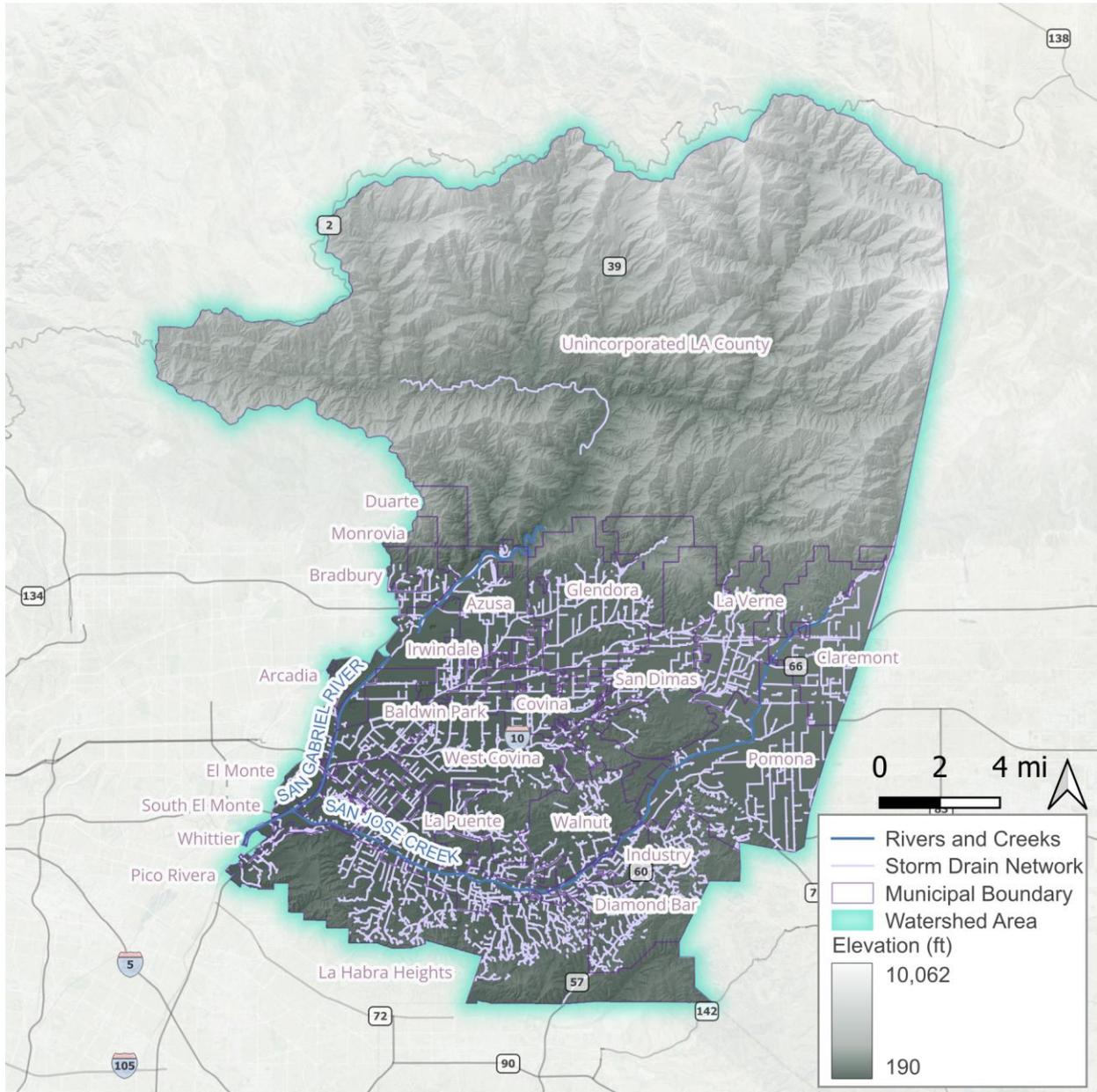


Figure 2-3. USGR WA elevation profile

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 USGR WA, with a focus on those that most strongly define its needs, potential, and challenges in supporting the achievement of Goals:

- Predominantly undeveloped natural areas including extensive riparian and woodland habitats in the northern USGR WA. However, these areas are subject to substantial recreational use that contributes to trash and debris buildup and habitat destruction.
- Predominantly residential, commercial and transportation (major freeways such as Interstates 10, 210, and State Route 60, along with a network of arterial roads and commercial corridors) and utilities land uses within the southern urbanized areas of the USGR WA.
- Extensive impervious surfaces and compacted and engineered soils in the urban clusters of the southern USGR WA contribute to rapid runoff generation, reducing infiltration and increasing pollutant transport.
- There is a significant need for green infrastructure¹² and NBS to enhance public health and community well-being.
- Targeted enhancement and restoration efforts are a priority to improve synchronicity between the natural and urbanized areas of the watershed. These efforts are particularly critical in historically underserved communities (Figure 2-4), where investments in green infrastructure can advance environmental justice by addressing disparities in access to quality open space, climate resilience, and public health outcomes.

¹² “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](#).

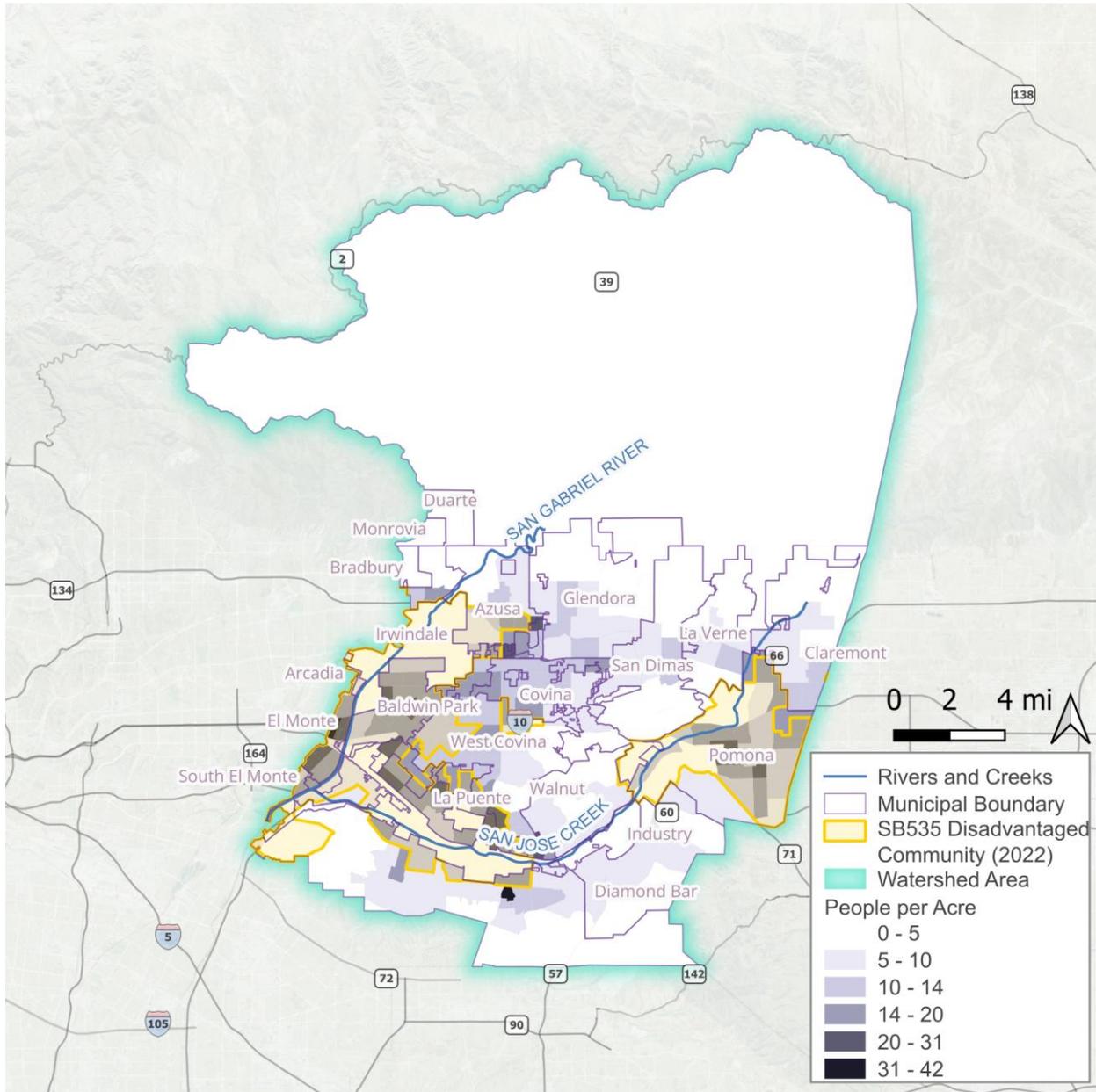


Figure 2-4. Population density and DACs in the USGR WA

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 USGR WA to pursue certain strategies over others to address the WA’s impairments more effectively. The following are general waterbody conditions for the USGR 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](#) (San Gabriel River and tributaries) with regulatory Total Maximum Daily Loads (TMDLs) for metals (lead, copper, zinc, selenium, and mercury), nutrients (total nitrogen and phosphorus), and legacy pollutants¹³ including polychlorinated biphenyls (PCBs), chlordane, dieldrin, and dichlorodiphenyltrichloroethane (DDT).
- Experiences high annual pollutant loads, especially metals such as zinc (Figure 2-5), copper, and lead.
- Water runoff from the steep San Gabriel Mountain slopes creates steep valleys that contribute to large volumes of downstream sediment loads.
- Pollutants stem from a combination of the USGR WA natural terrain, recreational activity, urban runoff from development adjacent and within the WA, and legacy contamination.
- The San Gabriel River is typically dry upstream of the confluence with San Jose Creek and downstream of Whittier Dam.
- Existing water quality Projects (trash capture, dry-weather diversions, green streets) partially address impairments, but significant opportunities for improvement remain.
- In January 2025, ten wildfires devastated parts of Los Angeles County, generating post-fire conditions with significantly elevated water quality risks that should be considered in the design of stormwater management Projects. While the USGR WA was not affected by these most recent fires, the WA has experienced major wildfires in the past¹⁴. Burned areas contribute high sediment loads, ash, nutrients, and fire-related contaminants (e.g., heavy metals, polycyclic aromatic hydrocarbons (PAHs)) to downstream flows. These

¹³ “Legacy Pollutants” are contaminants that were once widely used but have been banned or had their uses restricted yet remain in the environment and surrounding waterbodies (US EPA).

¹⁴ Refer to the California Department of Forestry and Fire Protection (CAL FIRE) [Historical Fire Perimeters map](#).

pollutants can impair receiving waters, reduce infiltration efficiency, and overload pretreatment systems in stormwater capture infrastructure.

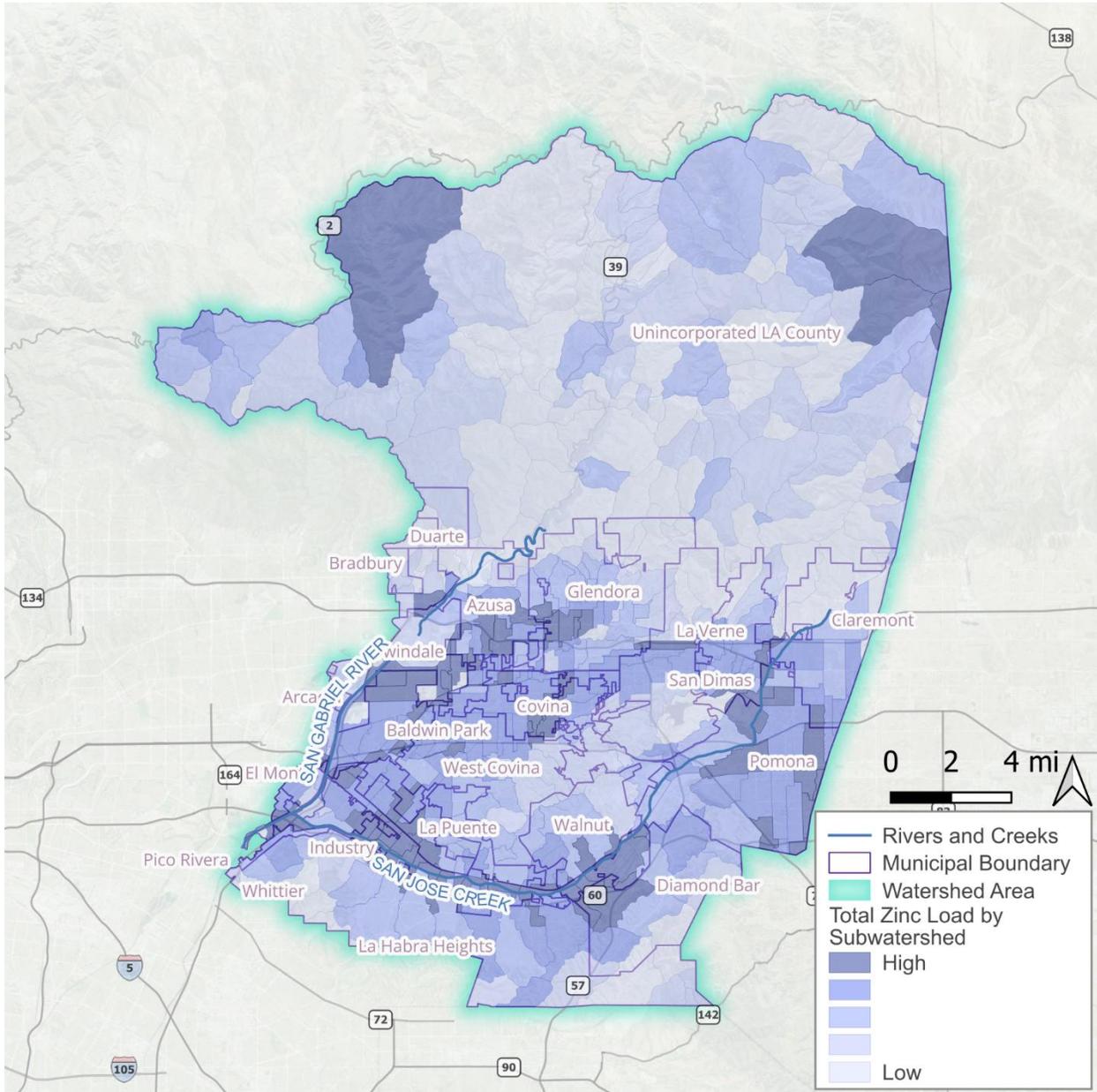


Figure 2-5. Total zinc load in stormwater runoff across the USGR WA

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 USGR WA. These may include Projects that have already been completed and operational or those that are planned for construction under other regional programs and efforts. Major efforts and infrastructure for the USGR 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	16	1,710
Integrated Regional Water Management Plan (IRWMP) ²	1	21,750
Major Capture Facilities ³	8	163,940
Total	25	187,400

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 USGR WA that were identified in the MMS as facilities to consider when assessing water supply contribution estimates and potential. 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 events¹⁵. These shifts are expected to increase the volume and velocity of runoff, elevate pollutant loads, and exacerbate flood risks. Together, 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 USGR WA presents a unique combination of potential and challenges in advancing the Goals of the SCW Program. Although the land use of the USGR WA is approximately only 18% impervious surfaces, the dense concentration of urbanization within the San Gabriel Valley (southern USGR WA) leads to the annual runoff production of 180,000 ac-ft/year, the highest of all nine SCW Program WAs. The upstream reaches of the watershed contain substantial open space to implement nature-based stormwater management solutions. The extensive urbanization in downstream areas of USGR WA limits the availability of pervious land for implementing similar solutions, which is also where the majority of water quality degradation occurs.

Therefore, the mixed levels of urbanization within the USGR WA offers both potential and challenges. To leverage the USGR WA's unique composition, the USGR WASC recommended prioritizing small footprint multi-benefit Projects both upstream and downstream to achieve stormwater management, environmental, and public health outcomes. In the near term, prioritizing distributed green infrastructure, in combination with enhanced operations and maintenance (O&M) (Section 5.2.1.8), is also recommended to maximize localized benefits.

This section highlights additional unique characteristics of the USGR WA, which provide essential context for setting targets and identifying effective, locally relevant

¹⁵ See the [Los Angeles Basin Study](#) for more information.

strategies. The summaries in the sections below are organized by Planning Themes, illustrate how the USGR WA's specific conditions influence its potential and challenges in supporting the following SCW 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 Regional and Municipal Program Projects and Programs. The USGR WA has high annual pollutant loads, especially metals (e.g., zinc, copper, lead), which is a result of its level of urbanization within its southernmost communities. For Watershed Planning purposes, priority pollutants in the USGR WA include zinc, total phosphorus, and bacteria. However, Municipalities should consider implementing Projects that address a broad range of pollutants that are prevalent within the WA, including trash, bacteria, legacy pollutants, and contaminants commonly found in urban runoff. In addition, Projects should, where feasible, be designed to support compliance with their TMDLs and other relevant regulatory water standards to ensure comprehensive watershed improvements. The USGR 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:

- Large areas of open space in the unincorporated areas of Los Angeles County provide opportunities for regional Projects or nature-based surface that require larger footprints. This also presents the potential for upstream stormwater management that will reduce runoff volumes that reach and are contaminated in southern urban areas.
- The upper reaches of the San Gabriel River are soft bottom riverbeds, which promote natural infiltration, playing a vital role in maintaining and improving water quality through natural processes.
- Existing plans and efforts, such as WMPs, 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 CIMP, 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.

Challenges and Constraints:

- Pockets of dense urbanization within the San Gabriel Valley may limit opportunities for large regional Projects and may require numerous Low Impact Development (LID)¹⁶ features.
- Complexity, infrastructure conflicts, and high costs may be associated with obtaining land within the unincorporated areas of the USGR WA that have the most potential for larger scale Projects.
- The River's use for recreational purposes has led to measurable degradation of water quality over time.
- The USGR WA is home to several dams that support watershed management, however, in general, dams tend to alter natural sediment transport and nutrient cycling processes, impacting water quality.

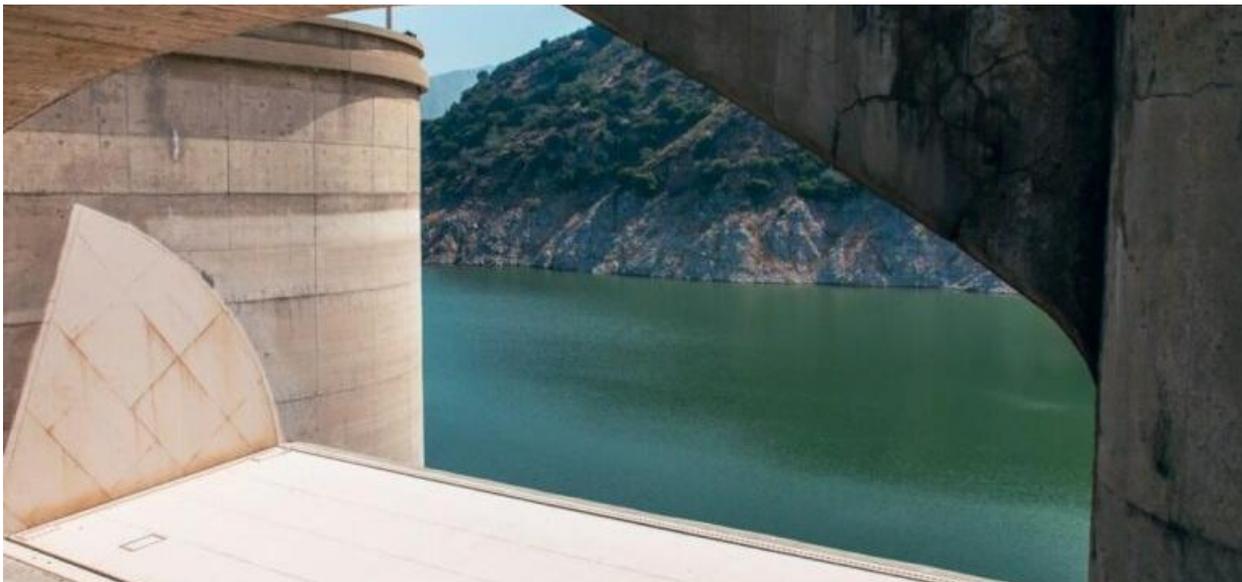


Figure 2-6. Morris Reservoir (courtesy of LA County Department of Public Works)

¹⁶ 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

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 USGR WA's capability to achieve this Goal can be summarized by highlighting opportunities and potential challenges and constraints identified in the USGR 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:

- Dense urbanization in the San Gabriel Valley produces a large volume of runoff for potential capture and reuse in the USGR WA.
- Three water reclamation plants (WRP) discharge into water bodies within the USGR WA that ultimately get discharged into the Pacific Ocean with no beneficial reuse. Thus, Projects in the USGR featuring diversions to sanitary sewers that produce recycled water represent an opportunity to augment water supply.
- 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 resources¹⁷. 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:

- Higher pollutant loading rates in stormwater in the USGR WA may also require pre-treatment before conveyance to recoverable points, resulting in higher capital and O&M costs.
- Sediment loads from the San Gabriel Mountains accumulate and are retained behind local dams, reducing effective storage capacity and constraining the system's ability to enhance drought resilience through water storage and capture. This emphasizes the importance of ongoing O&M.
- Impervious landscape and limited open space within urbanized areas of the USGR WA may limit the potential for large-scale regional capture that can make the expense of reuse implementation more cost-effective.
- 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

¹⁷ 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).

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.

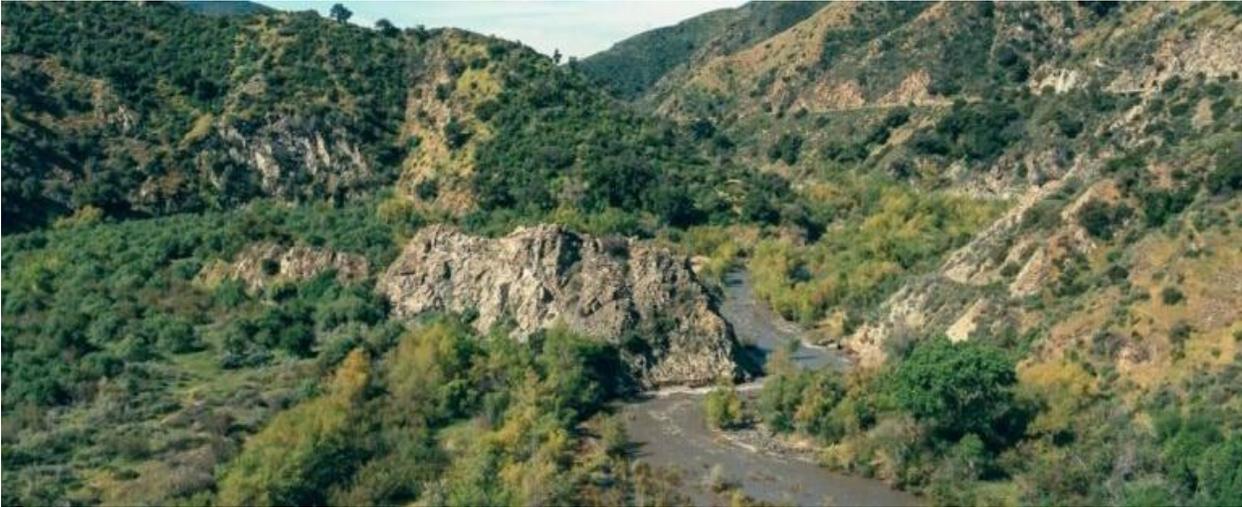


Figure 2-7. San Gabriel River Basin (courtesy of LA County Department of Public Works)

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 USGR WA to date. This will be further contextualized with quantitative Indicators and Targets in subsequent chapters.

Potential Opportunities:

- High Park Needs¹⁸ in the USGR WA (East San Gabriel Valley) could be addressed in conjunction with Projects that include a Water Quality Benefit, particularly those targeting unmanaged stormwater or urban runoff.

¹⁸ Informed by the [LA County Parks Needs Assessment](#).

- Projects in the USGR 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 can advance environmental justice by ensuring that communities disproportionately burdened by pollution 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.

Challenges and Constraints:

- Limited existing green space and available land within the built-out communities of the USGR WA make the development of new recreational areas particularly challenging. For traditional park development, property acquisition is required, which can be cost-prohibitive.
- Varying levels of development within the USGR (pristine undisturbed land upstream and urbanization in the southeastern San Gabriel Valley) will require creativity and nuance to harmonize Projects and Programs with existing industries.
- The USGR WA is subject to environmental burdens including pollutants and other stressors that accumulate over time and directly impact public health that may increase the scope and cost of effective Projects ([PNA+ Map Viewer](#)).
- Ensuring equitable distribution of resources and benefits requires careful, data-driven planning and robust engagement, adding complexity and sensitivity to Project outcomes.



Figure 2-8. Artist rendering of Glendora Avenue Green Streets Project, City of Glendora (USGR WA)

2.3 SCW Program Financial Snapshot

The following provides brief financial snapshots of both the Regional and Municipal Programs within the USGR WA. These summaries highlight SCW Program funding, allocations, and eligible expenditures¹⁹ 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 USGR WA by the Regional Program based on the last five Fiscal Years (FYs). The USGR WA receives approximately \$18.6M annually from Regional Program funds. The latest USGR WA SIP (FY25-26) shows that 32%²⁰ of the expected Regional Program funding from FY25-26 through FY29-30 is already allocated²¹ to previously funded Projects and Programs in the USGR WA. As more Projects progress to construction or completion,

¹⁹ 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.

²⁰ See the [SCW Program SIP Tool](#) for more information.

²¹ 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.

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)²² 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. 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.

²² Refer to the [Project Modification Guidelines](#) for additional background and detailed information on the PMR process.

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

Program	Regional Program Financial Snapshot for the USGR WA ¹							
	SCW Program Funding					Expenditures (FY20-25)		
	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	\$93.4 M	\$113.0M	\$86.3M	\$37.8M	13	\$13.2M ³	\$9.2M ³	\$22.4M
Scientific Study Program		\$4.8M	\$2.0M	\$109.8K	9	\$736.4K ³	\$0 ³	\$736.4K
Technical Resources Program		\$1.2M	\$1.2M	N/A	4	\$1.2M ⁴	N/A ⁴	N/A
Watershed Coordinators		\$2.0M	\$1.0M	N/A	1	\$1.0M ⁴	\$0 ⁴	\$1.0M
Total		\$121.0M	\$90.4M	\$37.9M	26 ⁵	\$16.1M	\$9.2M	\$25.3M

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. 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 Concepts²³ 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, four of five Project Concept applications submitted in the USGR WA have been funded and included in their respective SIPs. Of those, one has 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 USGR WA.

Table 2-4. Backlog of Regional Program Projects in the USGR 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
3	4	5	2	2	0

¹ Based on Project Concepts included in SIPs FY20-21 through FY25-26. Note that in the USGR WA, one Project Concept has since progressed and been approved for funding through the Infrastructure Program.

² Current phase is 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.

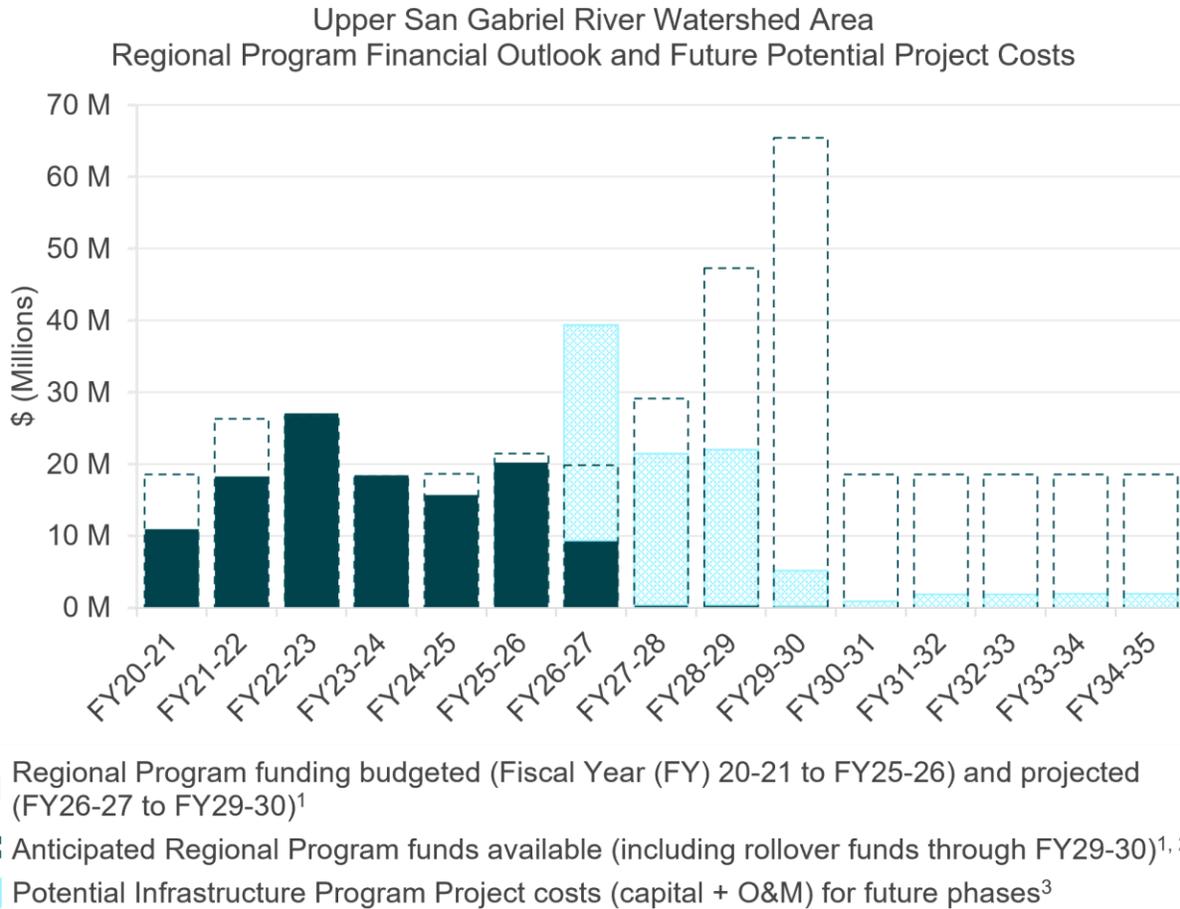
To explore how much leveraged funding may be needed to complete the pipeline of Projects already in the USGR WA SIP, a financial model was developed using data provided by Project proponents in applications and reporting. For each Project in the USGR WA SIP, the financial outlook models the future capital 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 USGR WA receives approximately \$18.6M 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

²³ 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 USGR WA's annual Regional Program budget. As shown in Figure 2-9, 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 2-9 shows 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 24% of the anticipated annual Regional Program funds collected for the USGR WA. O&M costs alone could amount to 8% of annual USGR 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 2-9. USGR WA Regional Program Infrastructure Program financial outlook

2.3.2 Municipal Program Financial Snapshot

Table 2-5 presents a summary of Municipal Program funding, expenditures, and allocated budget for the USGR WA. Since municipal boundaries do not align with WA boundaries (some Municipalities may straddle two WAs), Table 2-5 presents Municipal Program totals for the Municipalities in the USGR 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 boundaries²⁴.

²⁴ 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 USGR 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
Pomona	\$7.5M	\$0.3M	\$2.7M	\$5.1M	\$1.8M
Glendora	\$3.6M	\$18.3K	\$0.8M	\$2.8M	\$1.2M
San Dimas	\$2.4M	\$59.7K	\$0.9M	\$1.5M	\$0.7M
West Covina	\$5.4M	\$0.2M	\$1.0M	\$4.6M	\$4.7M
Diamond Bar	\$3.3M	\$0	\$1.4M	\$1.9M	\$1.8M
Claremont	\$2.3M	\$57.3K	\$1.2M	\$1.1M	\$0.6M
Industry	\$0	\$0	\$0	\$0	\$0
Azusa	\$2.4M	\$0	\$0.8M	\$1.7M	\$0.8M
Walnut	\$2.0M	\$9.1K	\$1.3M	\$0.7M	\$0.5M
Irwindale	\$1.7M	\$0	\$0.5M	\$1.2M	\$0.7M
La Verne	\$2.2M	\$25.4K	\$67.7K	\$2.2M	\$0
Covina	\$2.9M	\$0	\$1.4M	\$1.5M	\$0.8M
Baldwin Park	\$2.9M	\$0.4M	\$3.0M	\$0.3M	\$1.0M
Duarte	\$1.0M	\$15.2K	\$0.6M	\$0.4M	\$0.1M
La Puente	\$1.4M	\$10.1K	\$0.8M	\$0.6M	\$0.6M
El Monte	\$4.4M	\$0	\$2.3M	\$2.0M	\$1.1M
Bradbury	\$0.2M	\$0	\$0.1M	\$75.0K	\$50.0K
Monrovia	\$2.1M	\$11.9K	\$1.3M	\$0.8M	\$0.6M
South El Monte	\$1.8M	\$0	\$0.3M	\$1.5M	\$1.6M
Arcadia	\$4.1M	\$51.1K	\$1.7M	\$2.4M	\$1.2M
Total	\$98.4M	\$1.4M	\$67.4M	\$32.5M	\$30.9M

¹ Municipalities included in the USGR 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)²⁵ and summarizes their benefits and forecasted potential benefits to assist with target-setting. SCW Program Project benefits are categorized as follows²⁶:

- **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

²⁵ 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 Municipal Annual Reports and funding allocations in FY24-25 Municipal Annual Plans.

²⁶ 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 San Gabriel River Watershed Area

In the first five years, the SCW Program allocated \$88.6M in the USGR WA to fund 26 Projects (13 from the Infrastructure Program and 13 from the Municipal Program)²⁷, five of which have been constructed so far. Figure 3-2 summarizes SCW Program Projects funded to date in the USGR 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 capacity²⁸ of approximately 295 ac-ft, managing runoff from over 10,000 acres, and reflect a wide variety of Project types and configurations. See Figure 3-3 for a map of the USGR WA SCW Program Projects. See Table 3-1 and Table 3-2 for additional Project details for these SCW Program Regional and Municipal Projects in the USGR 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.

The Regional Program Infrastructure Program Scoring Criteria includes these two Project types, with separate Water Quality Benefit scoring sections for each. While the

²⁷ 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 list “14” “Projects” in the USGR WA, while the unique Project count is 13 (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.

²⁸ 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.

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. Table 3-1 identified each Project’s type (wet- or dry-weather). To date in the USGR WA, there are no Regional Program Projects flagged as dry-weather Projects that are also anticipated to deliver stormwater pollutant load reduction benefits.

Upper San Gabriel River Watershed Area Summary of Regional and Municipal Program Projects



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

13 Regional Program Projects

13 Municipal Program Projects



Project Status		Project Types		BMP Types*			
5 Constructed		15 Wet-weather Capture		11 Infiltration Facility	0 Diversion to Sanitary Sewer	0 Cistern	2 Bioretention
21 In Progress		11 Dry-weather Capture		0 Infiltration Well	2 Bioinfiltration	8 Treatment Facility	0 Permeable Pavement
3 Green Street							
Total Capture Area Managed		Capture Area Sizes		Total Project 24-hour Storage Capacity			
10,000 acres		19 < 0-200 acres		295 ac-ft			
		4 200 - 1,000 acres					
		3 >1,000 acres					
Total Cost Share Funding**		Budgeted and Projected to Date (FY20-21 to FY24-25)		Projects Benefiting DACs		Projects Implemented Across	
\$37.8 Million		\$88.6 Million		11 Projects		13 Municipalities	
Projects Addressing Given Pollutant				Projects Providing Water Supply Benefits			
9 Total Zinc		0 Total Phosphorus		11 Connected to Aquifer**			
0 Bacteria		17 Other***		1 Connected to Wastewater Treatment for Reuse			
0 Total Nitrogen				1 Uses Water Onsite			
Projects Providing Community Benefits							
16 Implement Natural Processes				2 Improve Access to Public Waterways			
13 Utilize Natural Materials				14 Provide Recreational Opportunities			
13 Has Local Support**				3 Increase Green Spaces at Schools			
16 Improve Flood Management				16 Reduce Heat Island Impacts			
15 Enhance Habitat or Park Space				16 Increase Shade and Trees			
6 Remove Impervious Area							

* 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 USGR WA



Upper San Gabriel River Watershed Area

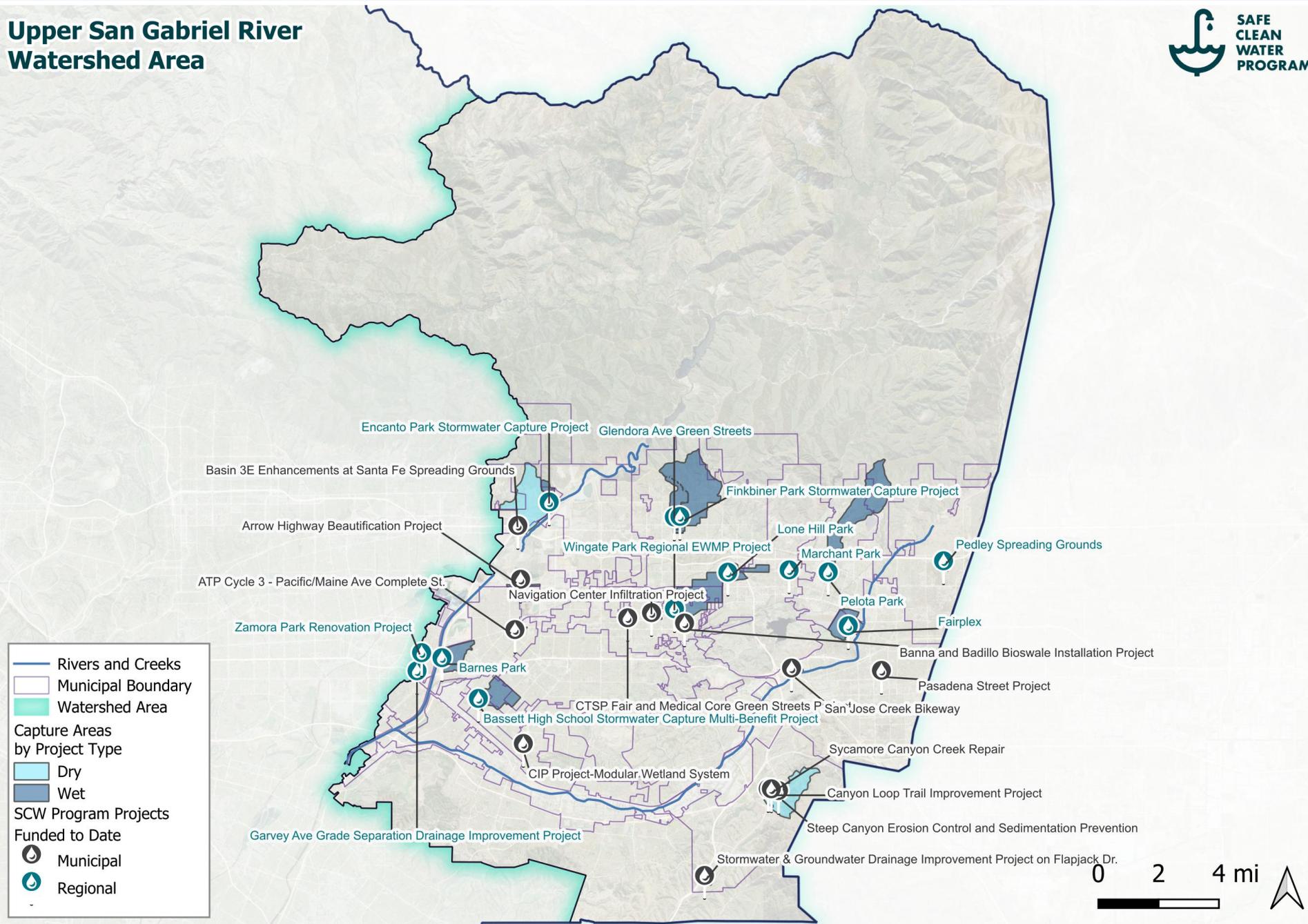


Figure 3-3. SCW Program Projects funded to date in the USGR WA

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

Regional Program Projects Funded to Date in the USGR WA				
Project Name	SIP Year(s) ¹	Project Type ²	Funded Phase(s)	Current Phase ³
Barnes Park	FY20-21	Wet	Design, Construction	Construction
Bassett High School Stormwater Capture Multi-Benefit Project	FY20-21	Wet	Design, Construction	Design
Encanto Park Stormwater Capture Project	FY20-21	Wet	Design, Construction	Design
Garvey Avenue Grade Separation Drainage Improvement Project	FY20-21	Wet	Design, Construction, O&M	Construction
Pedley Spreading Grounds	FY20-21	Wet	Design, Construction	Bid/Award
Wingate Park Regional EWMP Project	FY20-21	Wet	Design, Construction	Design
Fairplex	FY21-22	Wet	Construction, Design	Design
Lone Hill Park	FY21-22	Wet	Construction, Design	Planning
Zamora Park Renovation Project	FY21-22	Wet	Construction, O&M	Bid/Award
Finkbiner Park Stormwater Capture Project	FY21-22, FY24-25	Wet	Construction	Construction
Glendora Avenue Green Streets	FY22-23	Wet	Design, Planning	Planning
Marchant Park	FY22-23	Wet	Design	Planning
Pelota Park	FY22-23	Wet	Design	Planning

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

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

Municipal Program Projects Funded to Date in the USGR WA			
Project Name	Municipality	Project Type ¹	Status
Arrow Highway Beautification Project; P-1040	Irwindale	Dry	In Progress
ATP Cycle 3 - Pacific/Maine Avenue Complete Street	Baldwin Park	Dry	In Progress
Banna and Badillo Bioswale Installation Project	Covina	Wet	In Progress
Basin 3E Enhancements at Santa Fe Spreading Grounds	Sierra Madre	Dry	In Progress
Canyon Loop Trail Improvement Project (Construction)	Diamond Bar	Dry	Constructed
CIP Project-Modular Wetland System	La Puente	Dry	Constructed
CTSP – FAIR and Medical Core Green Streets Project	Covina	Dry	In Progress
Navigation Center Infiltration Project	Covina	Dry	In Progress
Pasadena Street Project	Pomona	Dry	Constructed
San Jose Creek Bikeway	Pomona	Wet	In Progress
Steep Canyon Erosion Control and Sedimentation Prevention (Design and Construction)	Diamond Bar	Dry	In Progress
Stormwater & Groundwater Drainage Improvement Project on Flapjack Drive (Design and Construction)	Diamond Bar	Dry	Constructed
Sycamore Canyon Creek Repair	Diamond Bar	Dry	Constructed

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 San Gabriel River Watershed Area

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

3.2.1 Baselines and Benefits for the Upper San Gabriel Watershed Area

The 26 SCW Program Projects in the USGR WA improve water quality while also delivering other co-benefits to communities including increased drought resiliency and improved public health. Figure 3-4 below summarizes the USGR WA 2025 Constructed Baselines and Total Benefits, which are organized by Planning Theme. SCW Program Projects funded to date in the USGR WA are estimated to capture 1,700 ac-ft of stormwater and urban runoff annually while also removing thousands of pounds of pollutants, such as 1,300 pounds of zinc and 2,200 pounds of total phosphorus per year. These Projects are anticipated to deliver 20 acres of enhanced or restored park space, six acres of new tree canopy, cooling and shading surfaces²⁹, and are expected to create an estimated 750 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, bacteria, and total phosphorus are priority pollutants for the USGR 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 USGR 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,

²⁹ These include initial results from Regional and Municipal Program reporting in early 2025 and are subject to additional review and revision.

including their high variability and site-specific behavior. As a result, quantification of 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 USGR 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 USGR 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 USGR 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.

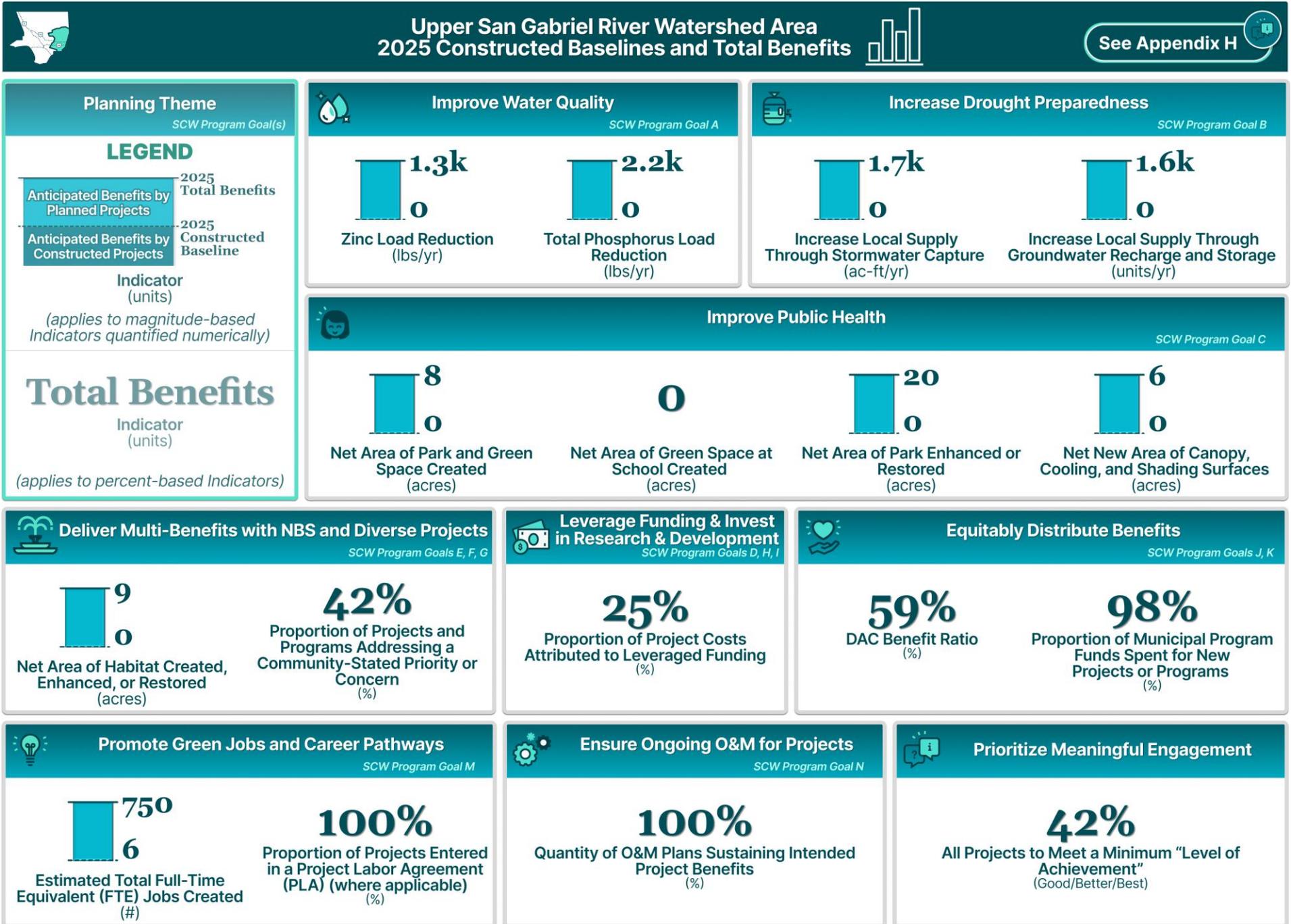


Figure 3-4. Summary of 2025 Constructed Baselines and Total Benefits provided by SCW Program Projects funded to date in the USGR WA

3.2.2 Benefit Forecasts for the Upper San Gabriel 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.

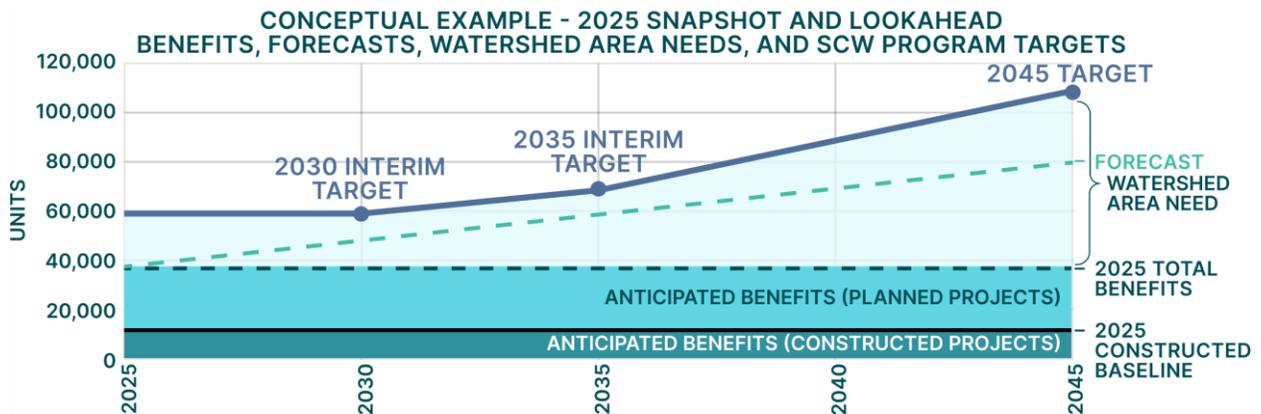


Figure 3-5. Conceptual example illustrating benefits, WA Needs, targets, and forecasts

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 USGR 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 Assessment³⁰, 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.

³⁰ 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 USGR WA, 11 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 Assessment³¹, 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:

$$\frac{11 \text{ Projects addressing a priority or concern}}{26 \text{ SCW Program Projects in the USGR WA}} = 42\% \text{ Proportion of Projects and Programs addressing a community-stated priority or concern in the USGR WA}$$

Thus, 42% of Projects in the USGR 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).

³¹ Refers to both the [2016 Parks Needs Assessment](#) and [2022 Parks Needs Assessment Plus](#).

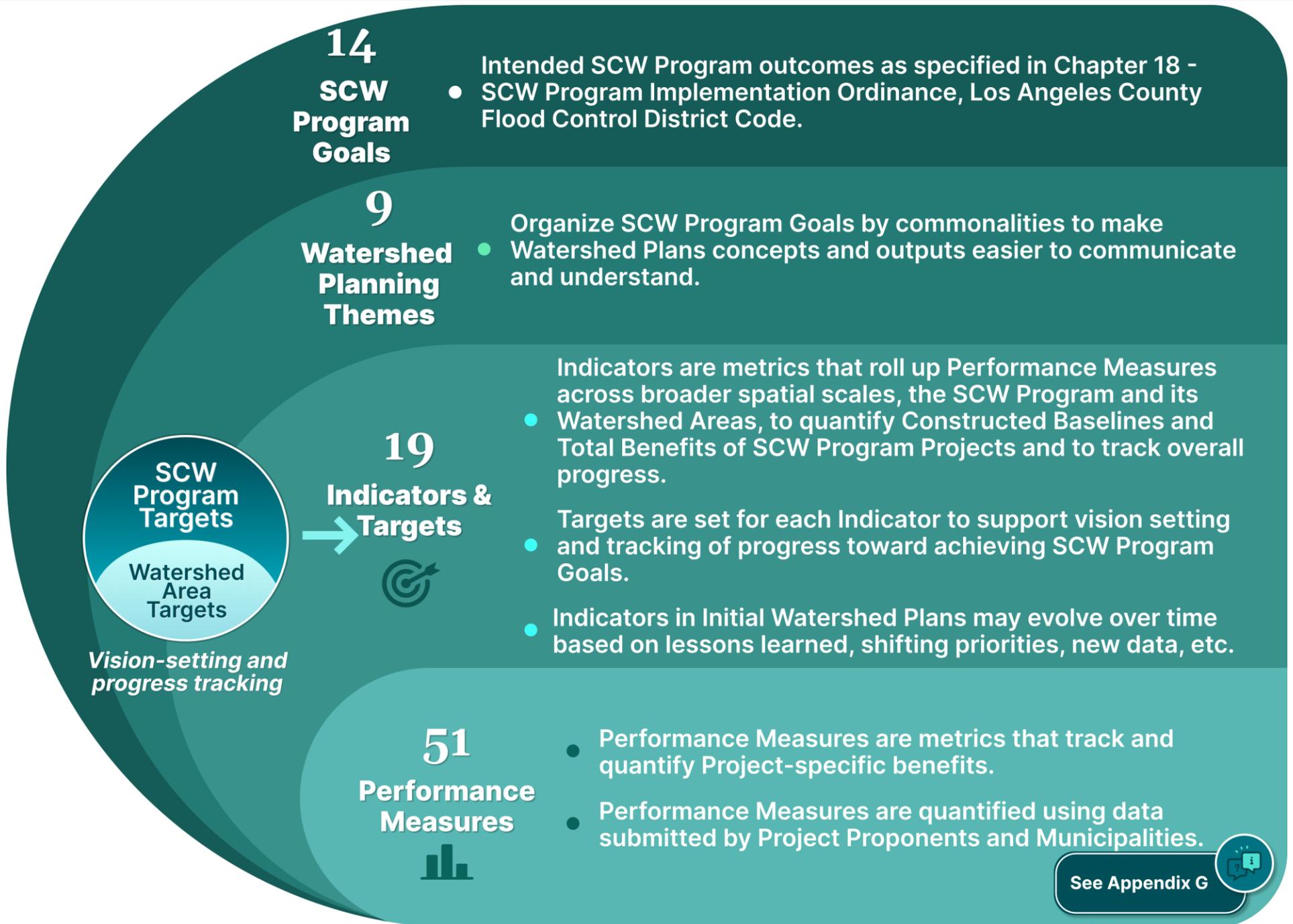


Figure 4-1. Indicators and PMs terminology

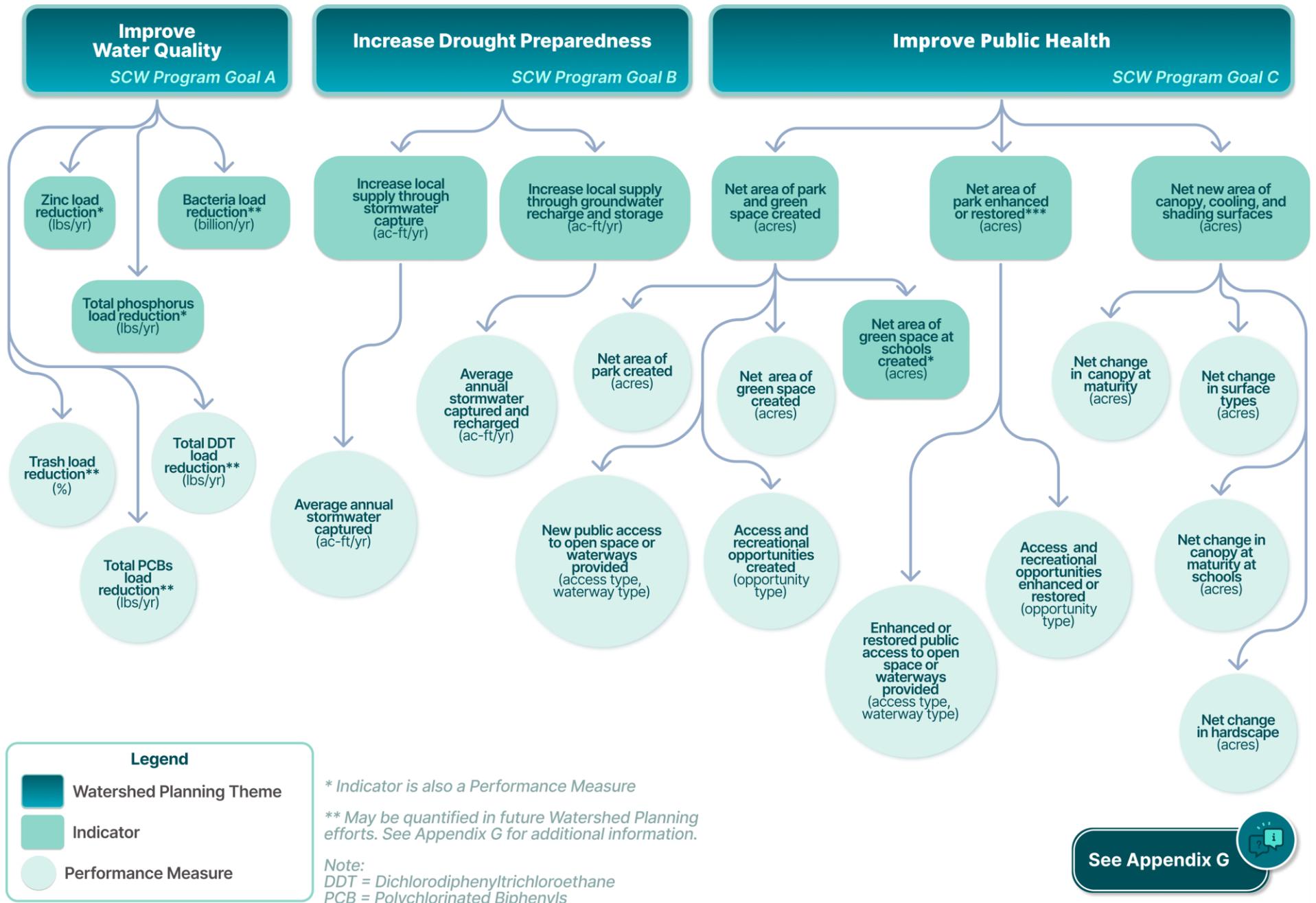


Figure 4-2. Indicators and PMs

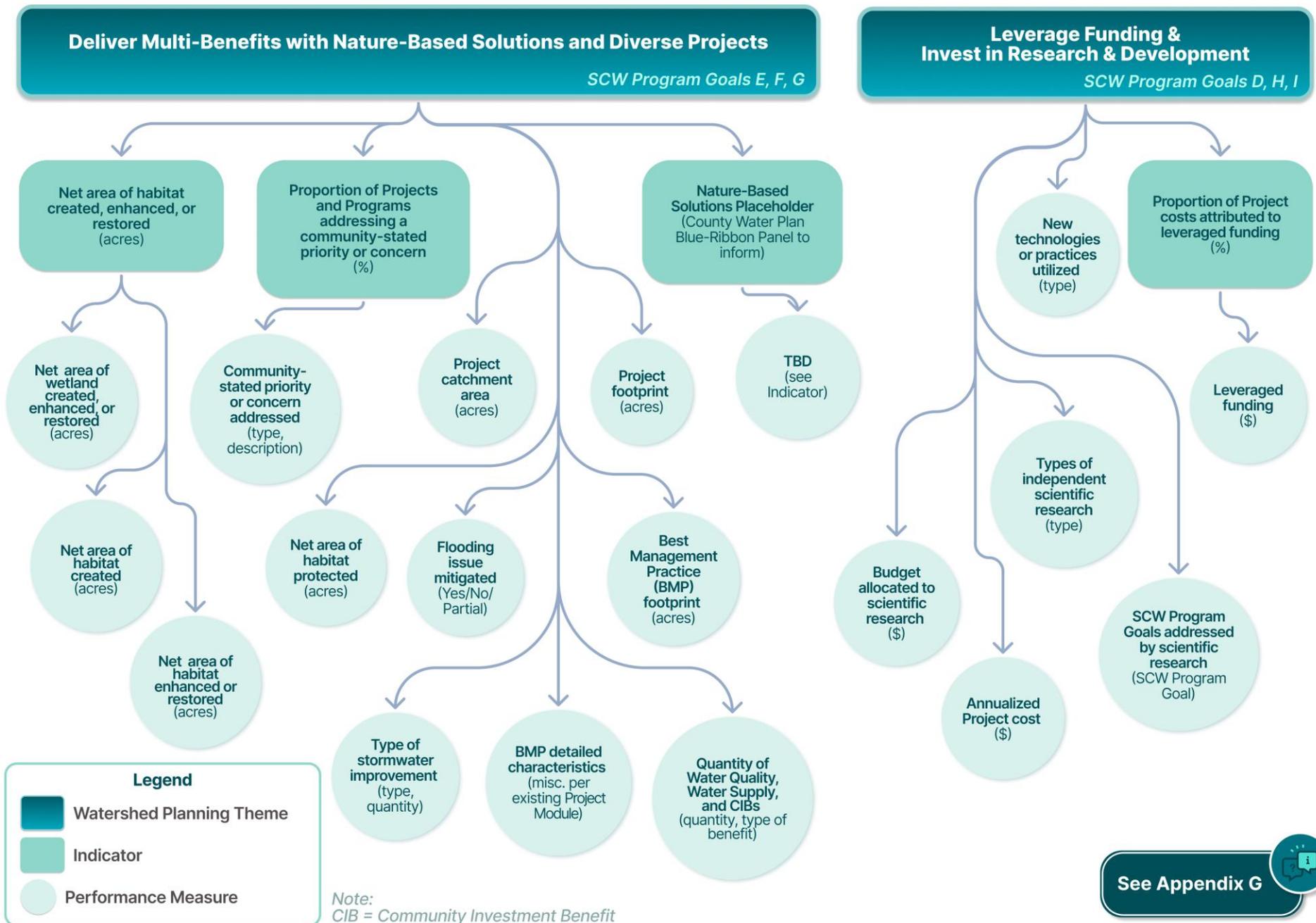


Figure 4-2. Indicators and PMs (continued)

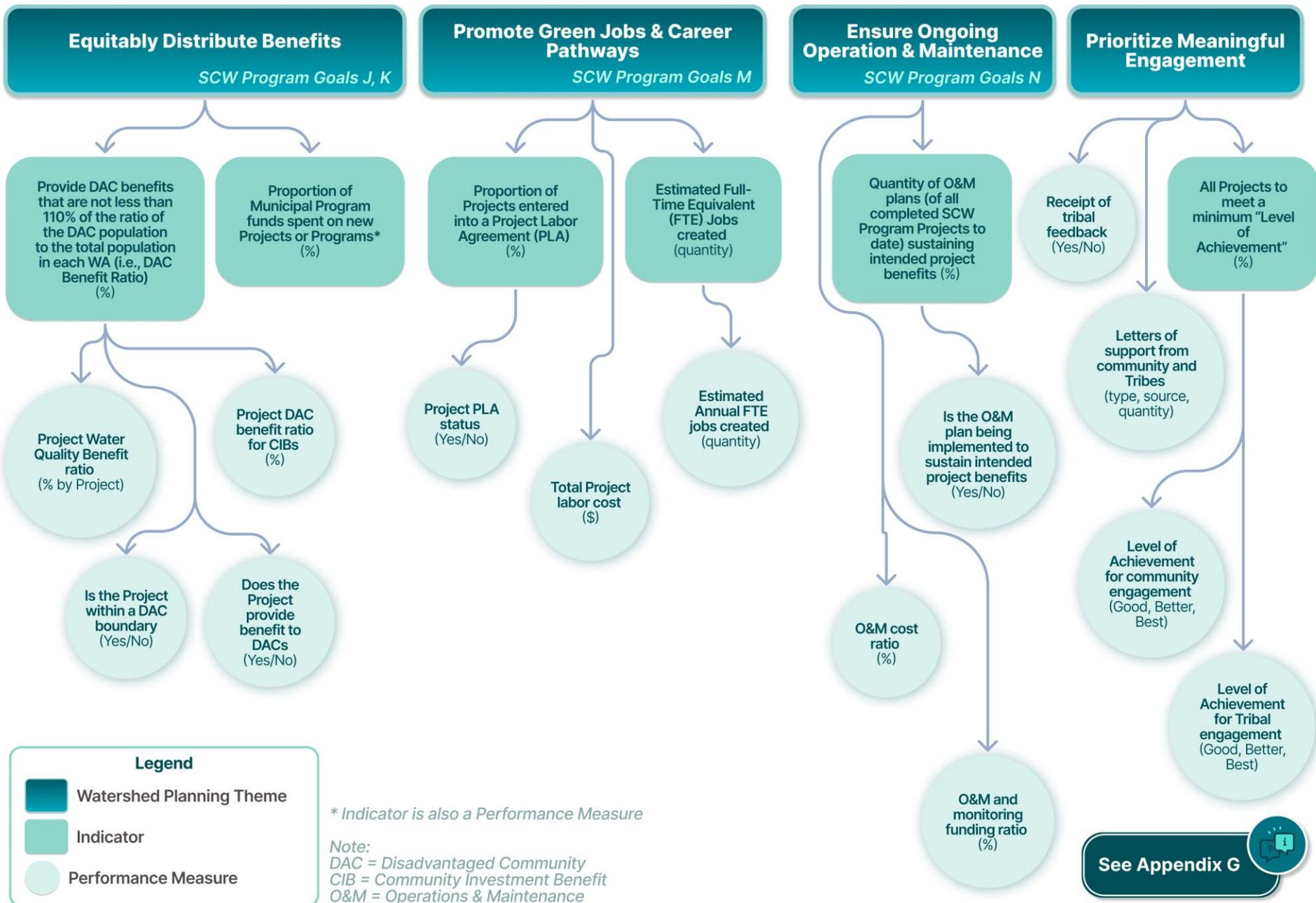


Figure 4-2. Indicators and PMs (continued)

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 contribution 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”.

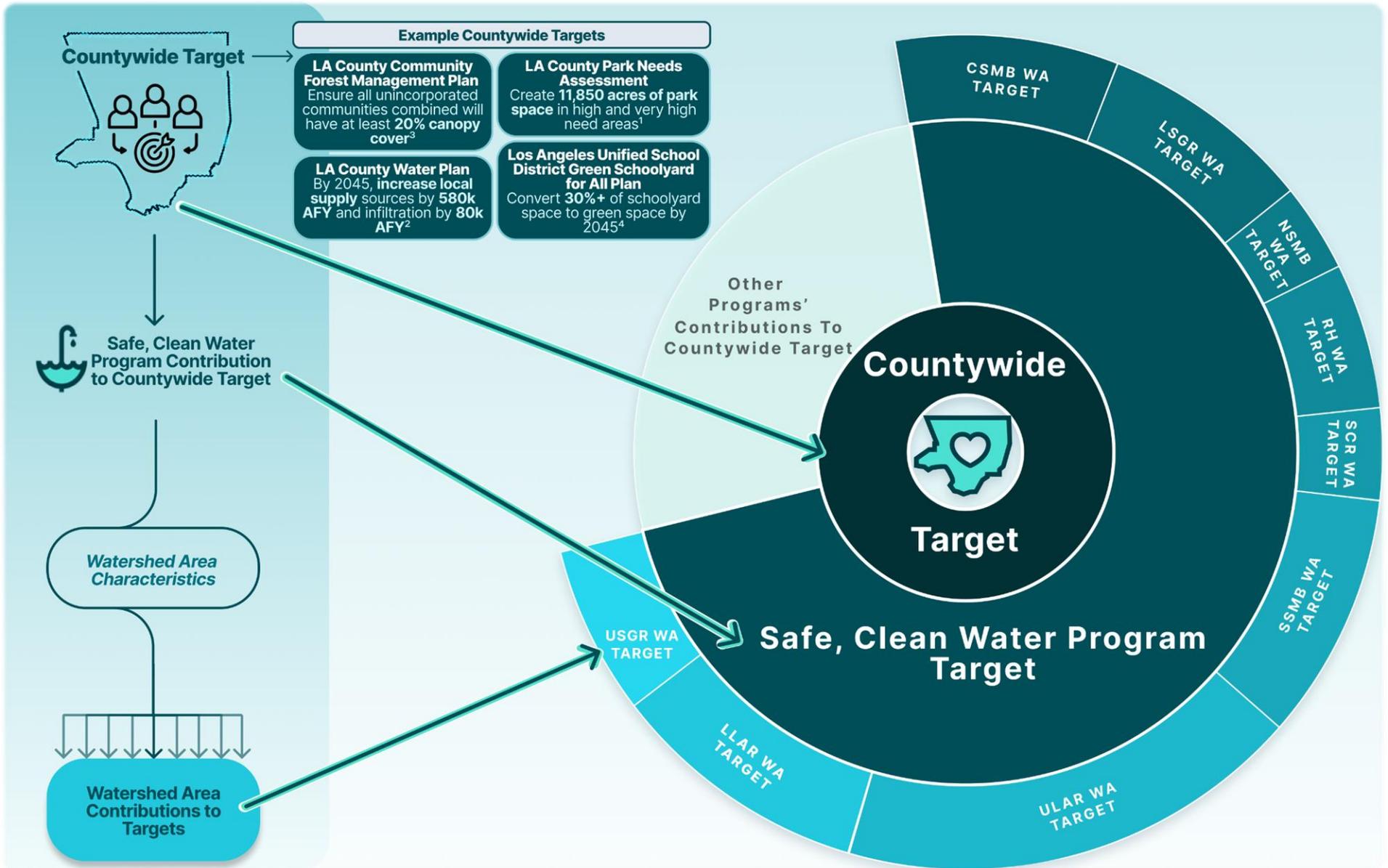
For Indicators whose targets are not predetermined by a SCW Program Implementation Ordinance requirement, targets are established using a combination of top-down and bottom-up approaches as described below:

- **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 aspirational 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.

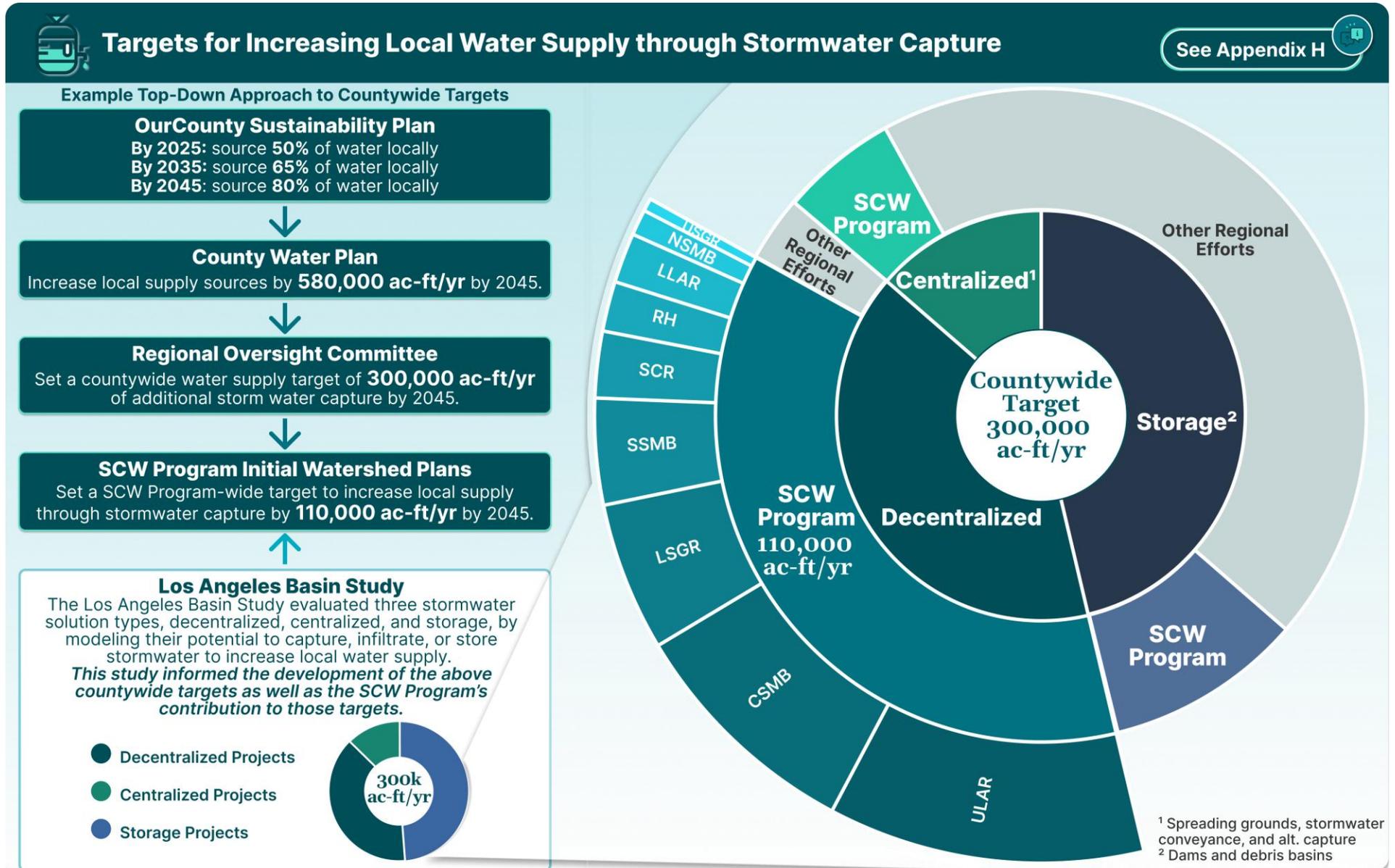


Figure 4-4. Example target setting top-down approach

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.

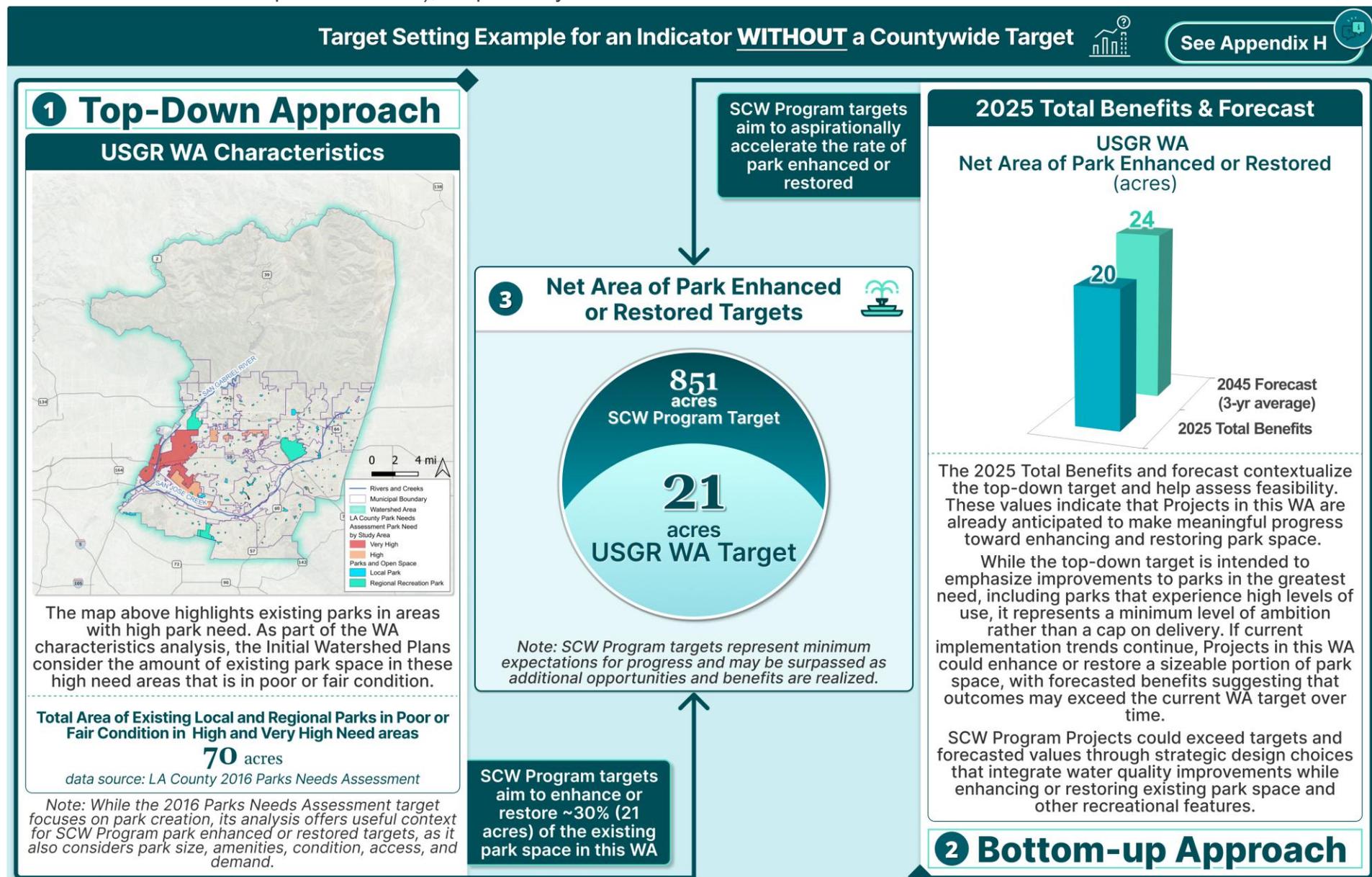


Figure 4-5. Example target setting for an Indicator without a countywide target

Target Setting Example for an Indicator WITH a Countywide Target

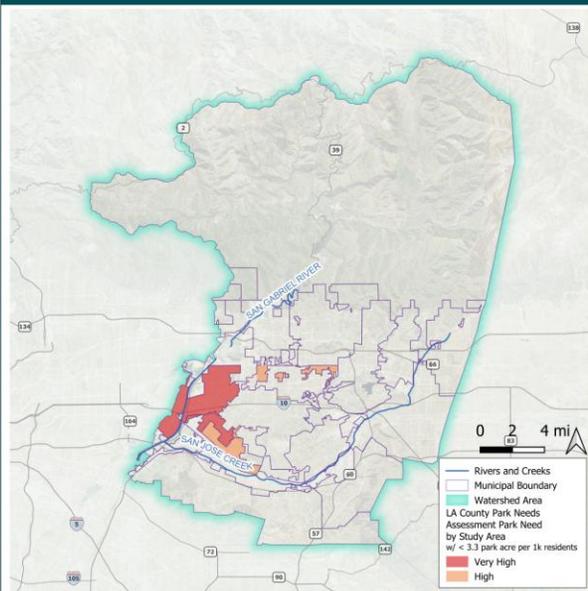
See Appendix H

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)

USGR 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

450 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

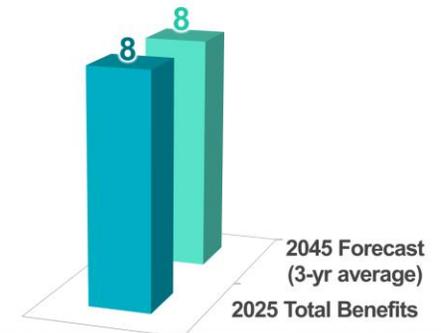


Note: SCW Program targets represent minimum expectations for progress and may be surpassed as additional opportunities and benefits are realized.

WA target aims to address ~3% (12 ac) of the identified need for park and green space.

2025 Total Benefits & Forecast

USGR 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 1.5x.

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 USGR 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
USGR WASC Items	Align with targets from San Gabriel Valley Greenway Plan.	➤ This plan and its numeric targets were reviewed for alignment with Initial Watershed Plan Indicators; while no direct alignment was identified, relevant strategies are considered within this Plan.
	Recognize that all stormwater runoff from urban surfaces is already managed for water supply.	➤ Water supply targets are based on Watershed Area characteristics. For USGR, limited remaining stormwater results in targets equal to 2025 Total Benefits.
	Evaluate how well operated and maintained Projects support balancing benefits with long-term costs.	➤ The Initial Watershed Plans include an Indicator—and corresponding target—focused on ensuring ongoing operations and maintenance for Projects. This priority is also strongly reflected in the Plan's strategies.
	Municipal Climate Action Plans could be source for target alignment.	➤ Local climate action plans are referenced to inform the identification of relevant strategies.
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 ** This SCW Program-wide item is also a priority for the USGR WASC

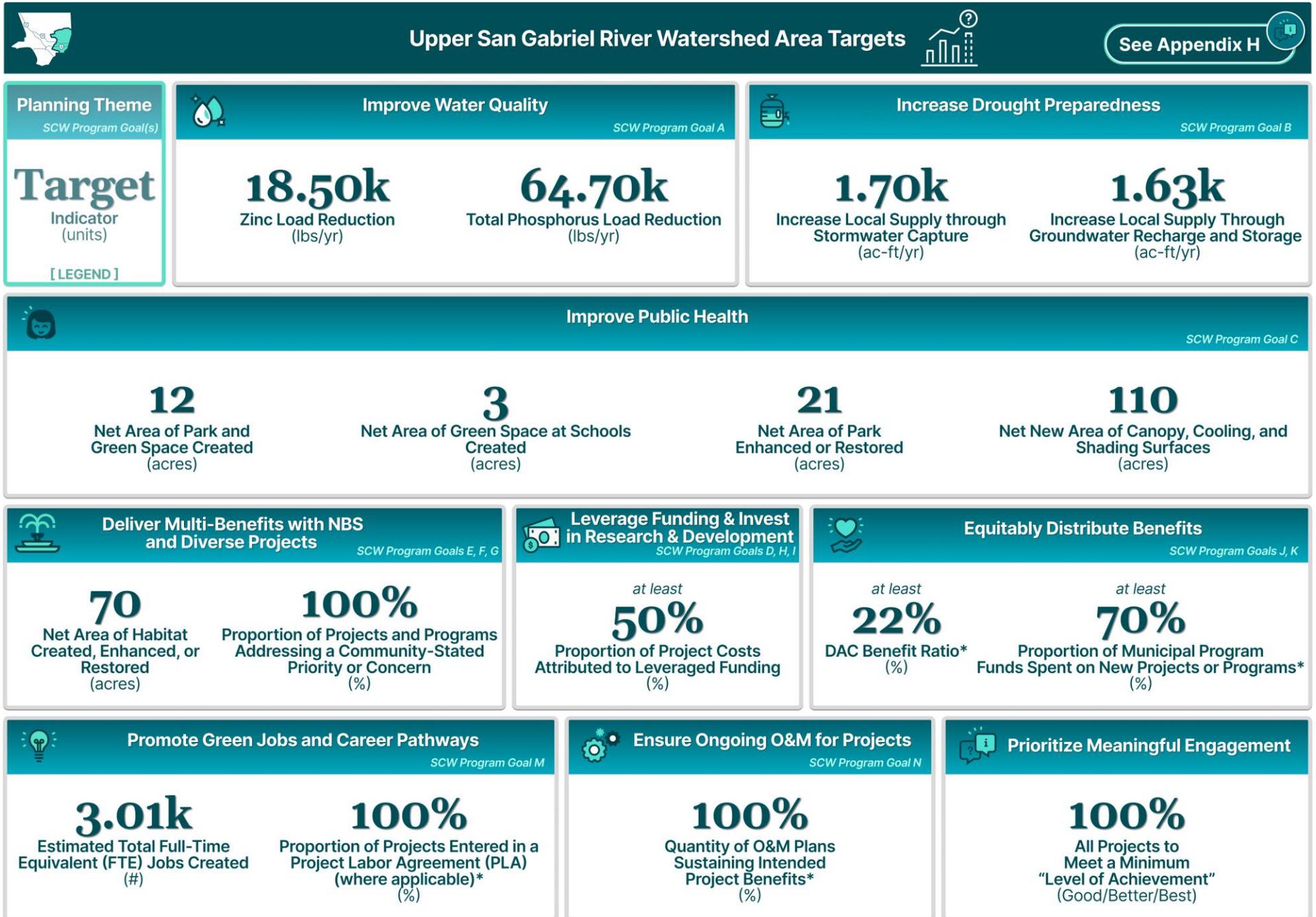
Figure 4-7. Regional Oversight Committee and WASC engagement summary of priorities for target setting

4.2.2 Targets for the Upper San Gabriel River Watershed Area

A comprehensive suite of WA targets is established for the USGR 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 USGR 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 USGR WA targets and those of the other eight WAs.

In addition to final targets, interim targets are set for the USGR 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, the 2045 Climate Action Plan, 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 USGR 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.

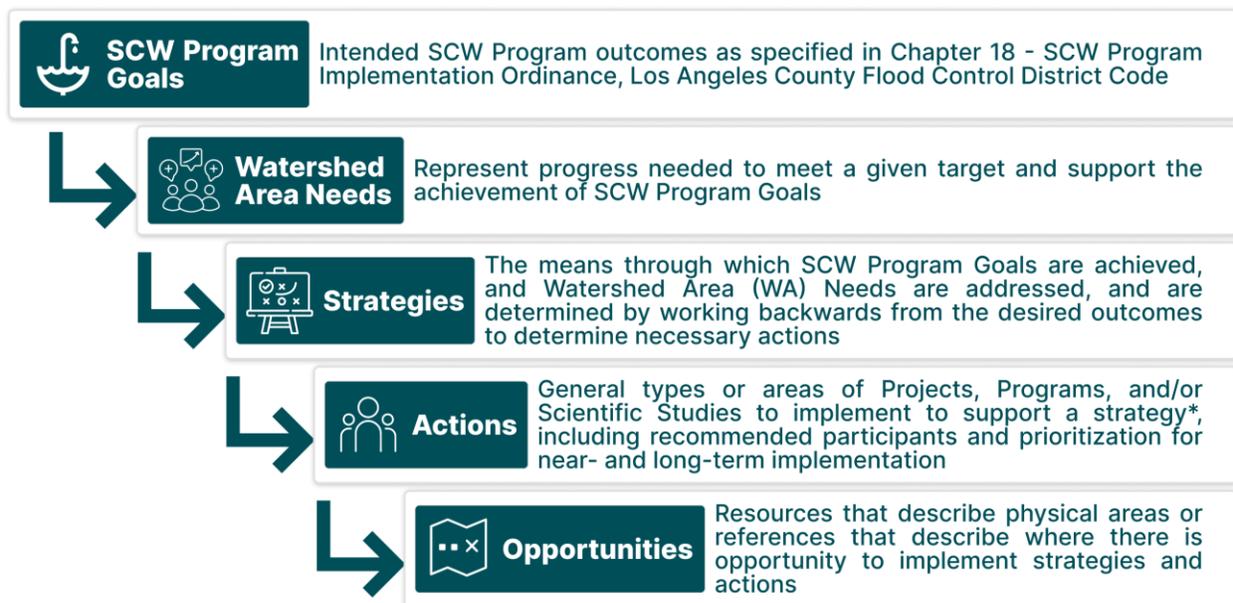


* As required by Chapter 18 of the Los Angeles County Flood Control District Code for the SCW Program Implementation Ordinance (LACFCD Code §18).

Figure 4-8. USGR 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 USGR 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 USGR WASC, the ROC, Municipalities, Public Works, and Project and Program proponents for addressing WA Needs and advancing the achievement of Goals. Figure 5-1 below defines WA Needs, strategies, actions, and opportunities and their relation to each other. The development of these elements for each WA is informed by a technical analysis of the USGR 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 Assessment³², 2045 Climate Action Plan, LAUSD Green Schoolyards for All Plan, County Water Plan, Vision 2045, 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.

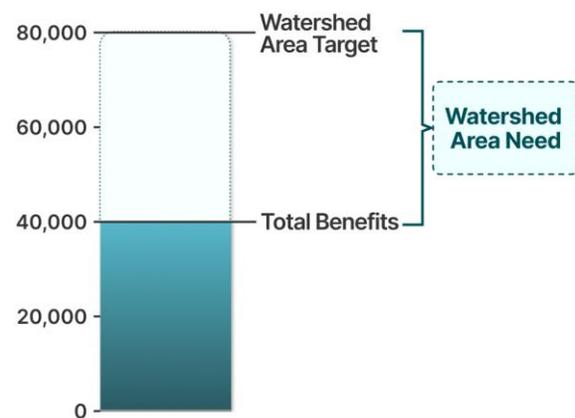


Figure 5-2. WA Need conceptual example for a magnitude-based Indicator

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.

³² 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 Assessment³³, 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 San Gabriel River Watershed Area

WA Needs are illustrated by bar charts for each Indicator. 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

³³ 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 32%³⁴ of USGR 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 2032³⁵.
 - 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 USGR WA are presented in Figure 5-3 for each Indicator and are organized by Planning Theme. Appendix H presents USGR 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.

³⁴ Per the FY25-26 SIP.

³⁵ 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 2045 Climate Action Plan, and the OurCounty Sustainability Plan.



Upper San Gabriel River Watershed Area Baselines, Benefits, Targets, & Watershed Area Needs (1 of 2)



See Appendix H



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

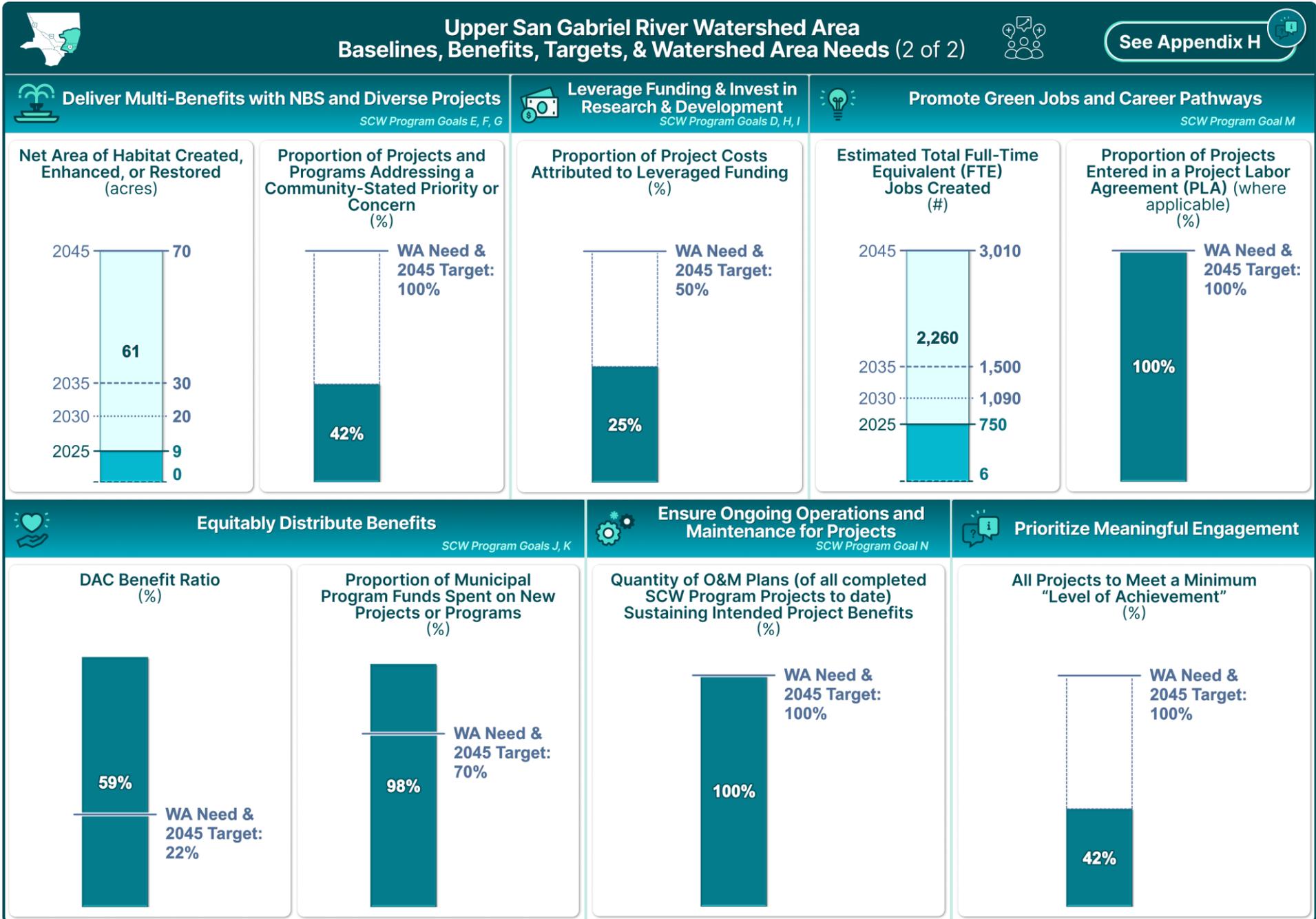


Figure 5-3. USGR WA 2025 Constructed Baselines, 2025 Total Benefits, targets, and WA Needs (continued)

5.2 Strategies to Address Needs and Achieve Goals

To support Project and Program proponents, the USGR WASC, the ROC, Municipalities, and Public Works in addressing USGR 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 USGR 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 USGR WASC, Municipalities, Public Works, and Project and Program proponents in identifying areas where Projects or Program implementation would have the greatest impact. 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 USGR

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 USGR WA. As such, Priority Strategies serve as an important component of Watershed Planning. The strategies presented in this Initial Watershed Plan include both USGR 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 San Gabriel 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

17,200

Zinc Load Reduction
(lbs/yr)

62,500

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

1,060[~]
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)

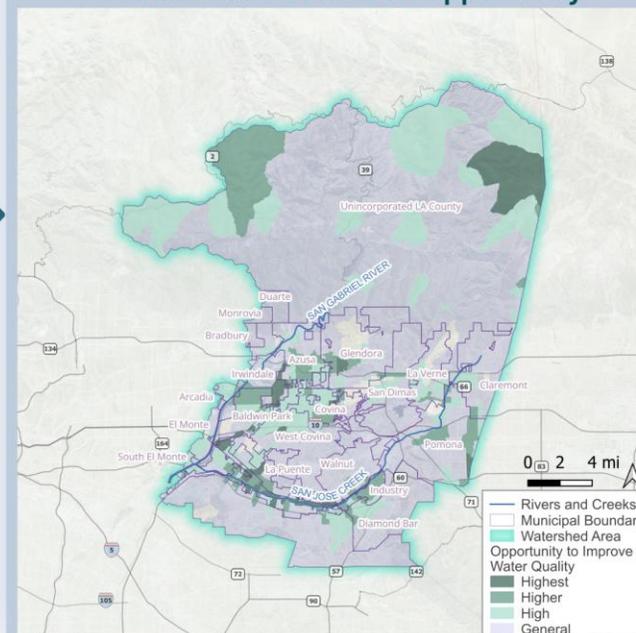


Where?

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 USGR 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 activities³⁶ (i.e., Projects, Programs, or Scientific Studies) or actions to implement that would best support the strategy. For example, 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 USGR 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 USGR 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.

³⁶ See Appendix A or the SCW Program Implementation Ordinance ([LACFCD Code §16](#)) for the complete list and definitions of eligible expenditures.

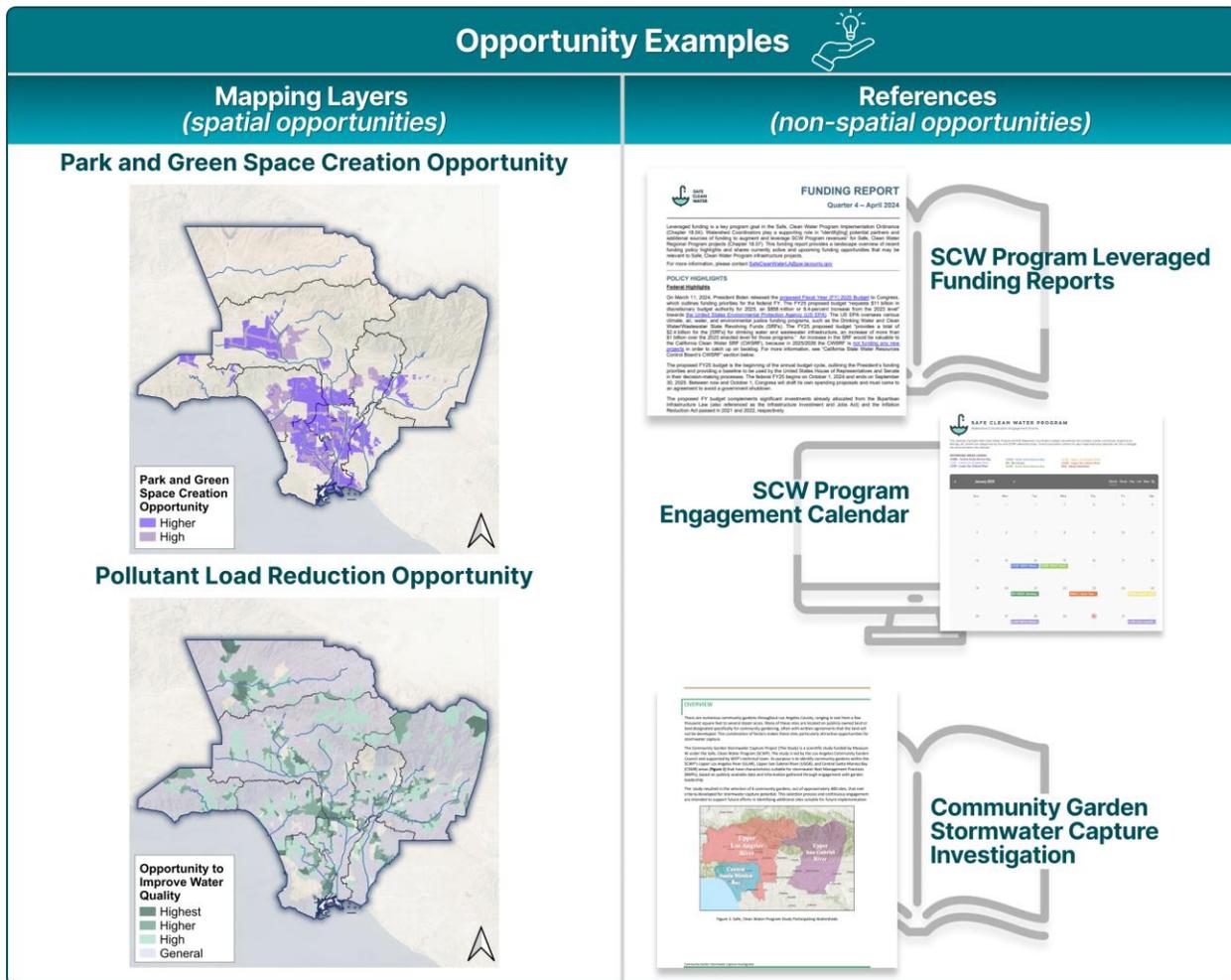


Figure 5-5. Opportunity examples (spatial and non-spatial)

Spatial opportunities are grounded in technical analyses designed to align regional and statewide data with the USGR 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 Assessment³⁷, the Los Angeles Community Forest Management Plan, and the Los Angeles River Master Plan³⁸. Each contributes spatial and thematic insight that informs the identification of opportunities.

³⁷ Refers to both the [2016 Parks Needs Assessment](#) and [2022 Parks Needs Assessment Plus](#).

³⁸ Note that the Los Angeles River Master Plan datasets referenced in this Initial Watershed Plan are based on regional analyses that included this WA.

Additionally, 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.

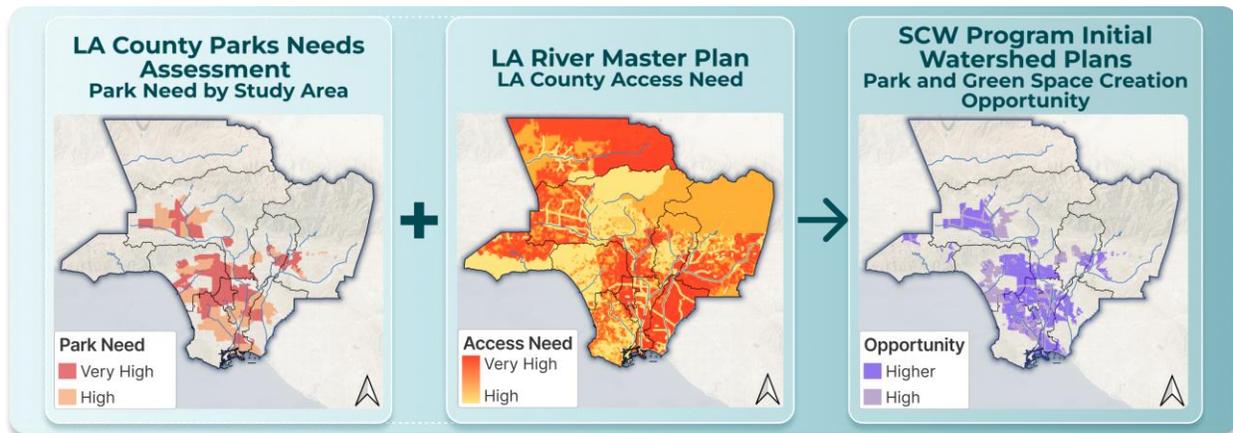


Figure 5-6. Example opportunity layer development

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 Assessment³⁹ 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.

³⁹ Refers to the [2016 Parks Needs Assessment](#).

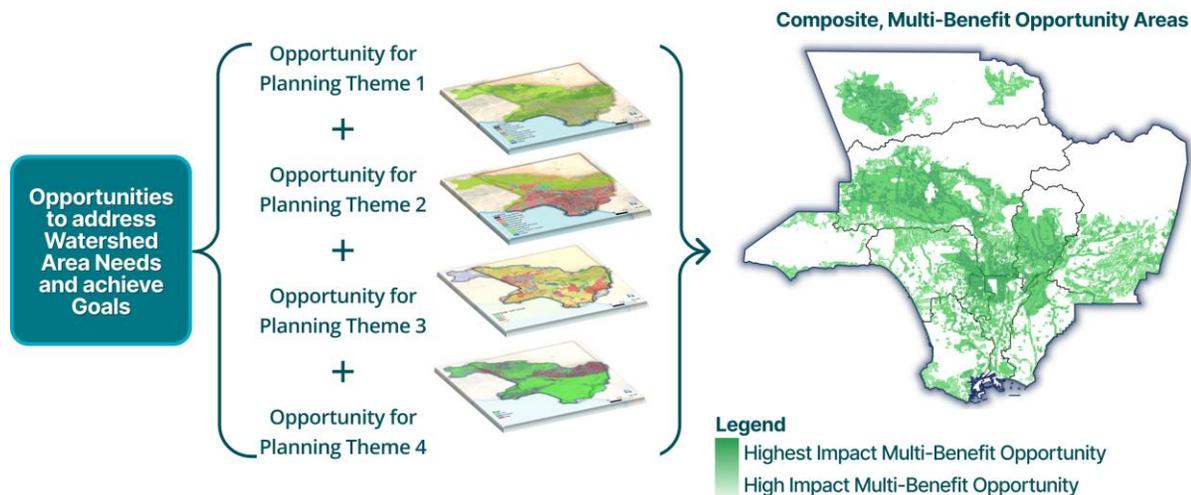


Figure 5-7. Conceptual example for identifying multi-benefit opportunities using “composite” layers

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 San Gabriel River Watershed Area

This section presents the strategies, actions, and opportunities⁴⁰ identified for the USGR 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 USGR WASC, Municipalities, Public Works, and Project and Program proponents in delivering effective, multi-benefit stormwater solutions.

⁴⁰ 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 capacities⁴¹ and areas that could address the WA Needs in the USGR WA for water quality, water supply, public health, and habitat are provided in Figure 5-8 and below:

- Approximately 1,060 ac-ft of 24-hour Project capacity to improve water quality.
- 1 acre of park enhanced or restored,
- 4 acres of park or green space created,
- 104 acres of canopy, cooling, and shading surfaces,
- 61 acres of habitat created, enhanced, or restored, and
- 3 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 initial strategies that encompass near-term actions, which can be implemented or prioritized immediately using existing resources and partnerships, and long-term

⁴¹ 24-hour Project storage capacity to meet the Water Quality and Water Supply WA Needs for the USGR 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.

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 USGR 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 USGR WASC and USGR 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 USGR WA.

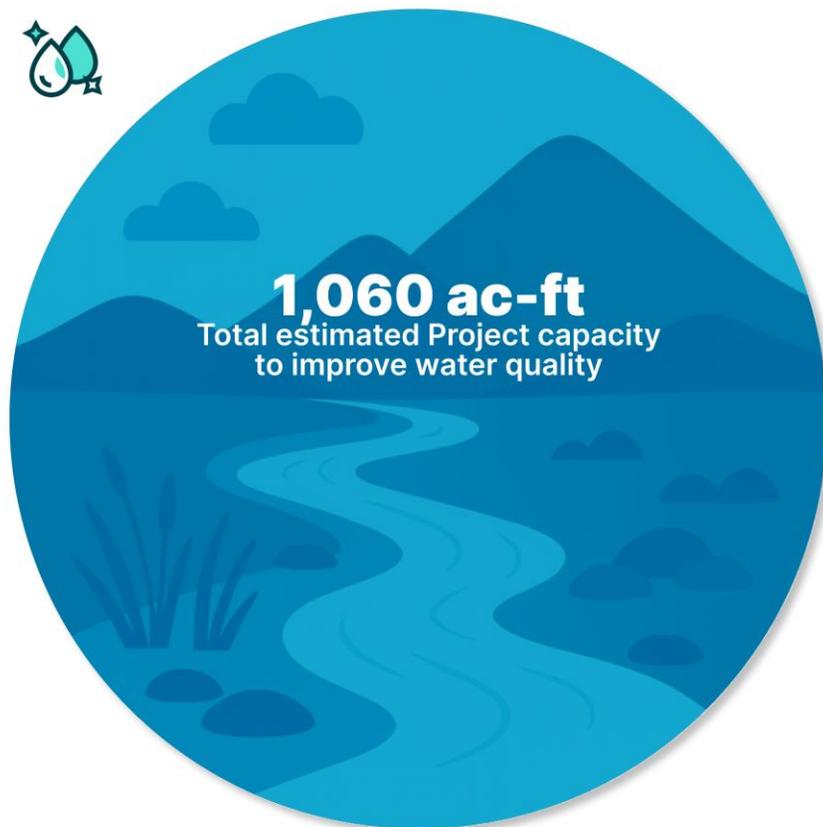


Upper San Gabriel River Watershed Area Strategies and Actions



Summary of Estimated Project Sizes to Meet Watershed Area Needs

Project Storage Capacity
to improve water quality by addressing water quality WA Needs*



Project Footprint
to address WA Needs under *Improve Public Health and Deliver Multi-Benefits with NBS & Diverse Projects*

New Benefits

Net Area of Park & Green Space Created

4 acres

Net Area of Green Space at Schools Created

3 acres

Net New Area of Canopy, Cooling & Shading Surfaces

104 acres



Net Area of Habitat Created, Enhanced, or Restored

61 acres

Enhanced or Restored Benefits

Net Area of Park Enhanced or Restored

1 acre



* 24-hour Project capacities are approximate estimates of pollutant load and capture that would be achieved, and will vary depending on Project features. 24-hour storage capacity to meet the Water Quality and Water Supply WA Needs for this 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.

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

5.2.1.1 Improve Water Quality: Strategies, Actions, and Opportunities



Upper San Gabriel River Watershed Area Strategies and Actions



Improve Water Quality

SCW Program Goal A

The USGR WA experiences persistent and complex water quality issues driven by its contrasting land uses ranging from expansive riparian and woodland habitats in the northern region to heavily urbanized areas in the San Gabriel Valley in the southern portion of the watershed. As the highest runoff-producing WA among the nine in the SCW Program, the USGR WA receives significant pollutant loads from urban runoff, including elevated concentrations of zinc, total phosphorus, and bacteria. These three pollutants are identified as the limiting pollutants for the WMPs in the USGR WA, as a result these pollutants are also recognized as the primary pollutants in this Initial Watershed Plan.

While the SCW Program alone cannot fully achieve regional water quality goals, it plays a critical role in supporting progress toward them. The WASCs and 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, 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 USGR 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 USGR WA have focused on priority pollutants such as zinc, total phosphorus, and bacteria, often achieving above-average pollutant removal efficiencies (i.e., >80%). Given the presence of several large-scale stormwater capture facilities within the USGR WA, much of the watershed's runoff is already effectively managed and is contributing to water supply augmentation. However, despite these major facilities capturing substantial runoff volumes, portions of receiving waters within the USGR WA remain impaired. Implementing distributed Projects that treat and release runoff before it enters waterways can help improve water quality while allowing existing large-scale facilities to continue maximizing groundwater recharge and water supply benefits. The USGR WASC shared a desire to implement an interconnected series of multi-benefit Projects that further improve water quality through decentralized treatment, targeted pollutant load reductions (particularly for zinc, total phosphorus, and bacteria) and the integration of nature-based solutions. These Projects are intended to complement existing infrastructure, address remaining water quality impairments, and provide added hydrologic, ecological, and community benefits.

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, maximize localized benefits, and desired by the USGR WASC. Over time, larger regional Projects can be more feasibly pursued downstream of existing SCW Program investments.

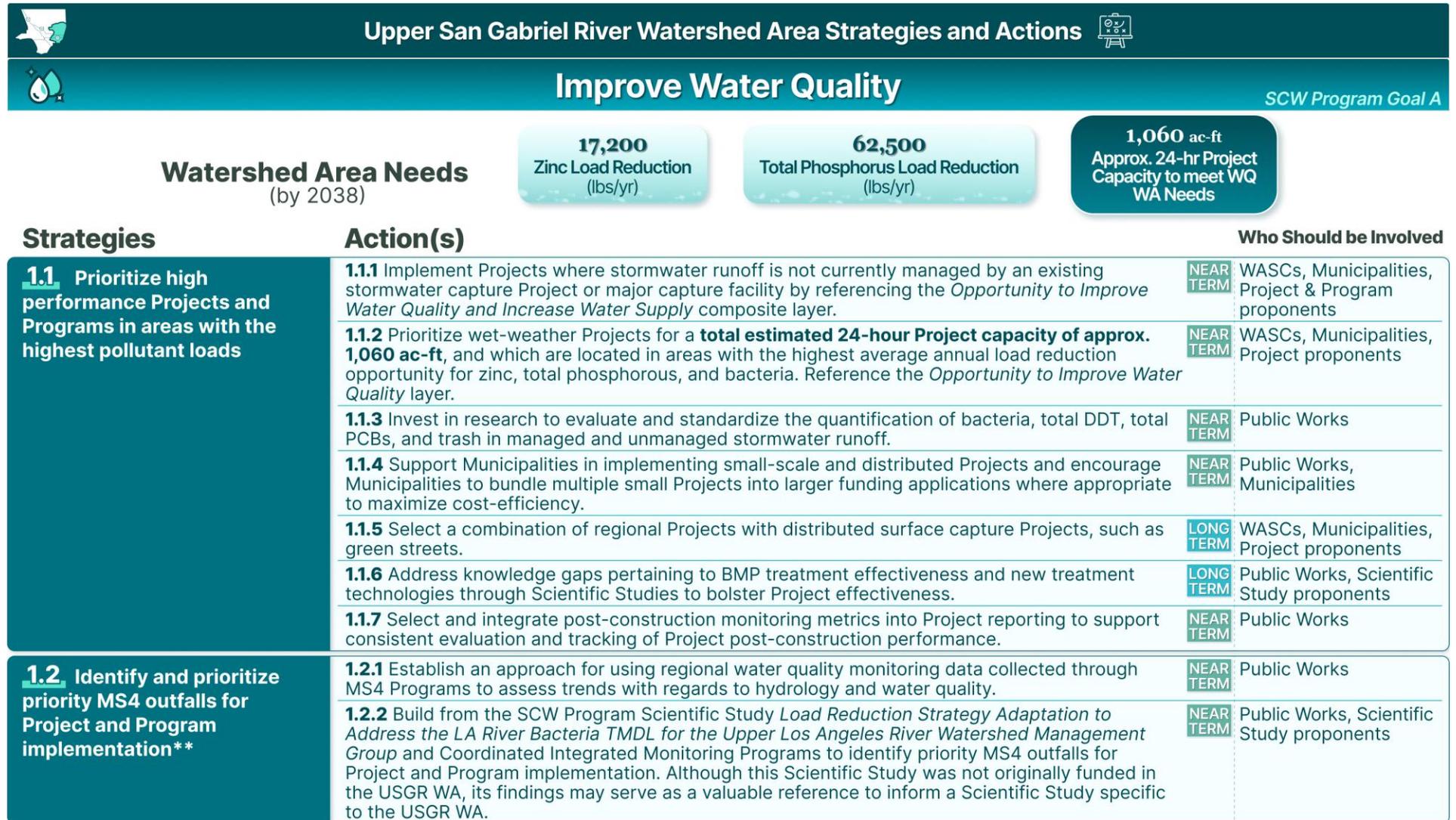


Figure 5-9. Improve Water Quality: strategies and actions to address USGR WA Needs and achieve Goals



Upper San Gabriel River Watershed Area Strategies and Actions



Improve Water Quality

SCW Program Goal A

Strategies	Action(s)	NEAR TERM	Who Should be Involved
1.3 Improve water quality and mitigate post-fire runoff through targeted Nature-Based Solutions	1.3.1 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
	1.3.2 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
	1.3.3 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 USGR WA Needs and achieve Goals (continued)



Improve Water Quality

SCW Program Goal A

Opportunity to Improve Water Quality

(Figure 5-10)

This opportunity highlights areas of the USGR WA with the most potential for new Projects to reduce bacteria, zinc and total phosphorus loads and improve overall water quality. These areas represent where stormwater runoff is not managed by a SCW Program wet-weather capture Project and where runoff volumes (used as a proxy for bacteria loads), zinc loads and total phosphorus 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.

SCW Program wet-weather capture 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 upstream areas is effectively captured and detained during such events, reducing opportunities for additional pollutant load reduction upstream. As a result, capture areas already managed by these Projects are excluded from this opportunity analysis.

Supports strategies:

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

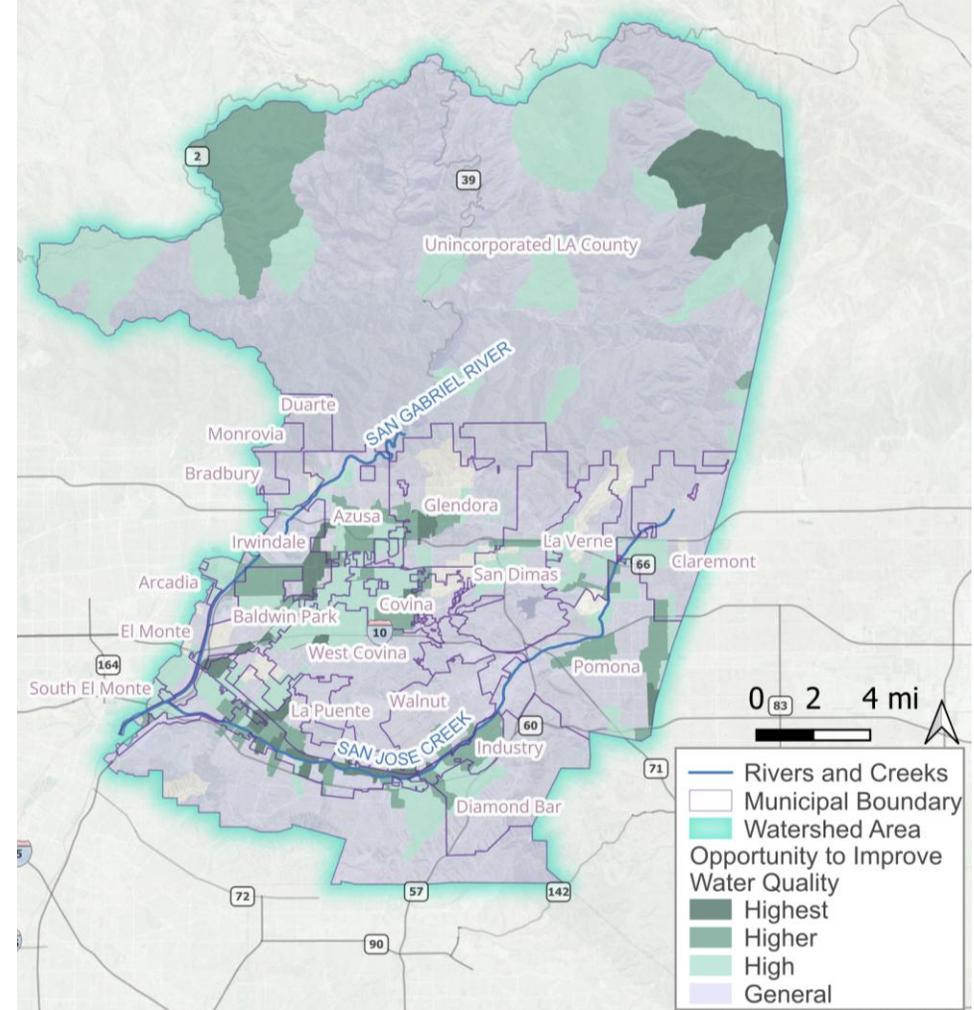


Figure 5-10. Opportunity to Improve Water Quality



Upper San Gabriel River Watershed Area Opportunities



Improve Water Quality

SCW Program Goal A

Table 5-1. Improve Water Quality: other opportunities to address USGR 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 GLAC 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

5.2.1.2 Increase Drought Preparedness: Strategies, Actions, and Opportunities



Upper San Gabriel River Watershed Area Strategies and Actions



Increase Drought Preparedness

SCW Program Goal B

The USGR WA consists of dense urban and residential areas in the San Gabriel Valley and extensive riparian and woodland habitats in the north, generating the highest runoff volume of the nine SCW Program WAs. While its natural and physical features create favorable conditions for groundwater recharge, existing engineered infrastructure, such as multiple spreading grounds, has already maximized much of this potential. As a result, there is limited remaining opportunity for SCW Program Projects to capture additional runoff to create new, locally available water supply.

To date, SCW Program funds allocated in the USGR WA have delivered multi-benefit Projects that are implemented across parklands, schools, public rights-of-way, and open spaces. These Projects commonly incorporate infiltration systems, bioretention areas, green streets, and diversion infrastructure to manage stormwater at both regional and local scales. Combined with major capture facilities and contributions from other programs, existing infrastructure already intercepts most of the watershed's runoff, significantly contributing to local water supply and reducing both the need and the capacity for new Projects to provide additional Water Supply Benefits without detracting from existing facilities.

The SCW Program's water supply targets, aligned with the County Water Plan countywide target of increasing local supply by 300,000 ac-ft/yr by 2045, face inherent constraints in the USGR WA due to this high existing level of runoff capture. 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). While decentralized solutions may be less feasible in the USGR WA, the Los Angeles Basin Study highlights opportunities to increase supply through rehabilitation, expansion, or operational improvements of centralized and storage facilities. This suggests that Public Works and Municipalities could enhance existing infrastructure, including the WA's seven spreading grounds, five dams and reservoirs, and seven debris basins, to further boost local water supply, support the countywide target, and strengthen regional drought resilience.



Upper San Gabriel River Watershed Area Strategies and Actions



Increase Drought Preparedness

SCW Program Goal B

Watershed Area Needs
 (by 2045)

 0
 Increase Local Supply through
 Stormwater Capture
 (ac-ft/yr)

 0
 Increase Local Supply through
 Groundwater Recharge and Storage
 (ac-ft/yr)

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 and water reclamation planning by prioritizing Projects that align with strategies 1.1, 2.3, and action 2.1.2 and by referencing the <i>Opportunity to Improve Water Quality and Increase Water Supply</i> 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
	2.1.3 Incorporate infiltration or onsite reuse into Project design when treat-and-release approaches are not feasible or cost-efficient, or when implementing firewise strategies such as 1.3 and 4.4. Ensure coordination with other non-SCW Program existing and planned water supply Projects to avoid redundant capture and optimize overall watershed benefits by referencing the <i>Opportunity to co-locate or coordinate investments with non-SCW Program existing and ongoing stormwater capture efforts</i> (see Section 5.2.1.1).	NEAR TERM	Public Works
2.2 Enhance local water supply through enhancements to existing LACFCD major capture facilities	2.2.1 Invest in rehabilitation, expansion, and O&M enhancements for spreading grounds, dams, and debris basins to yield approx. 133,090 ac-ft of additional annual water supply per the Los Angeles Basin Study.	NEAR TERM	Public Works

*** SCW Program-wide 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 5-11. Increase Drought Preparedness: strategies and actions to address USGR WA Needs and achieve Goals



Increase Drought Preparedness

SCW Program Goal B

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

This opportunity highlights areas in the USGR 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.

Note that additional capture potential for new decentralized Projects to increase local water supply is limited in the USGR WA. Future Projects should coordinate with other programs (e.g., IRWMP) to avoid redundancy, prioritize advancing other Goals, and only consider delivering Water Supply Benefits Projects when cost-effective for improving water quality.

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** Enhance local water supply through enhancements to existing LACFCD major capture facilities

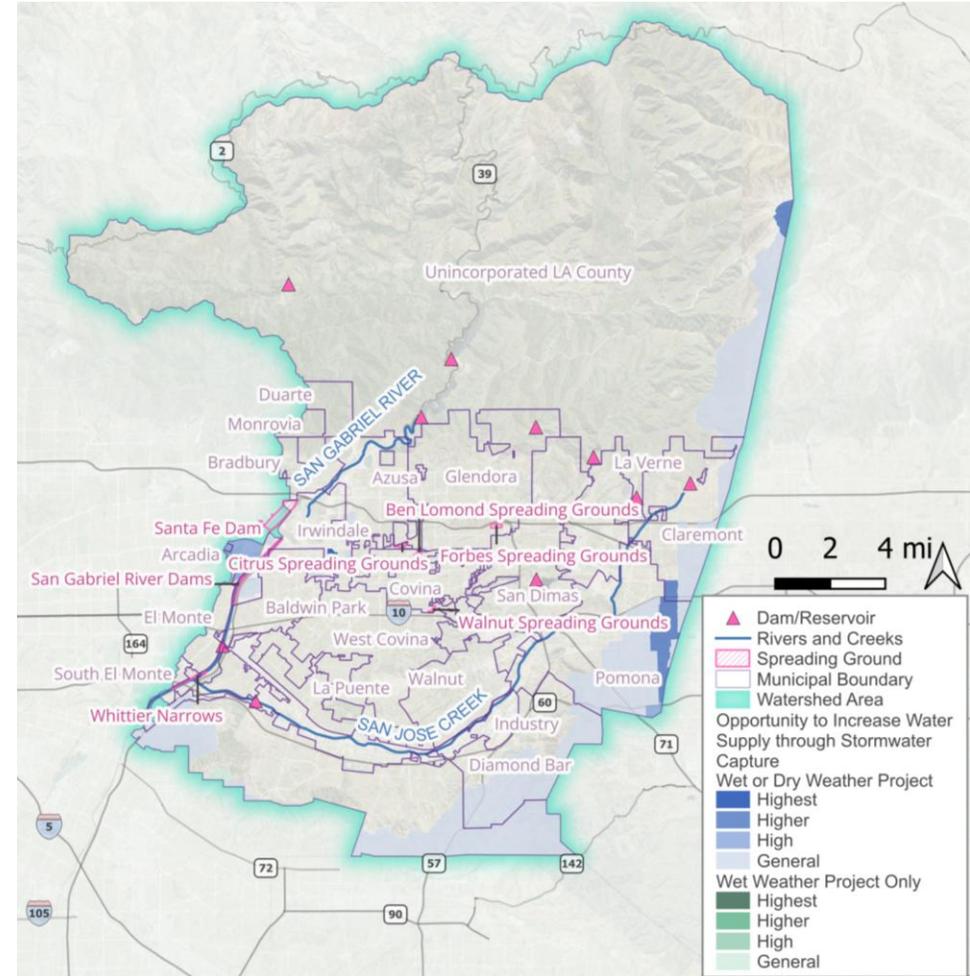


Figure 5-12. Opportunity to Increase Water Supply Through Stormwater Capture



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.

Note that additional capture potential for new decentralized Projects to increase local water supply is limited in the USGR WA. Future Projects should coordinate with other programs (e.g., IRWMP) to avoid redundancy, prioritize advancing other Goals, and only consider delivering Water Supply Benefits Projects when cost-effective for improving water quality.

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

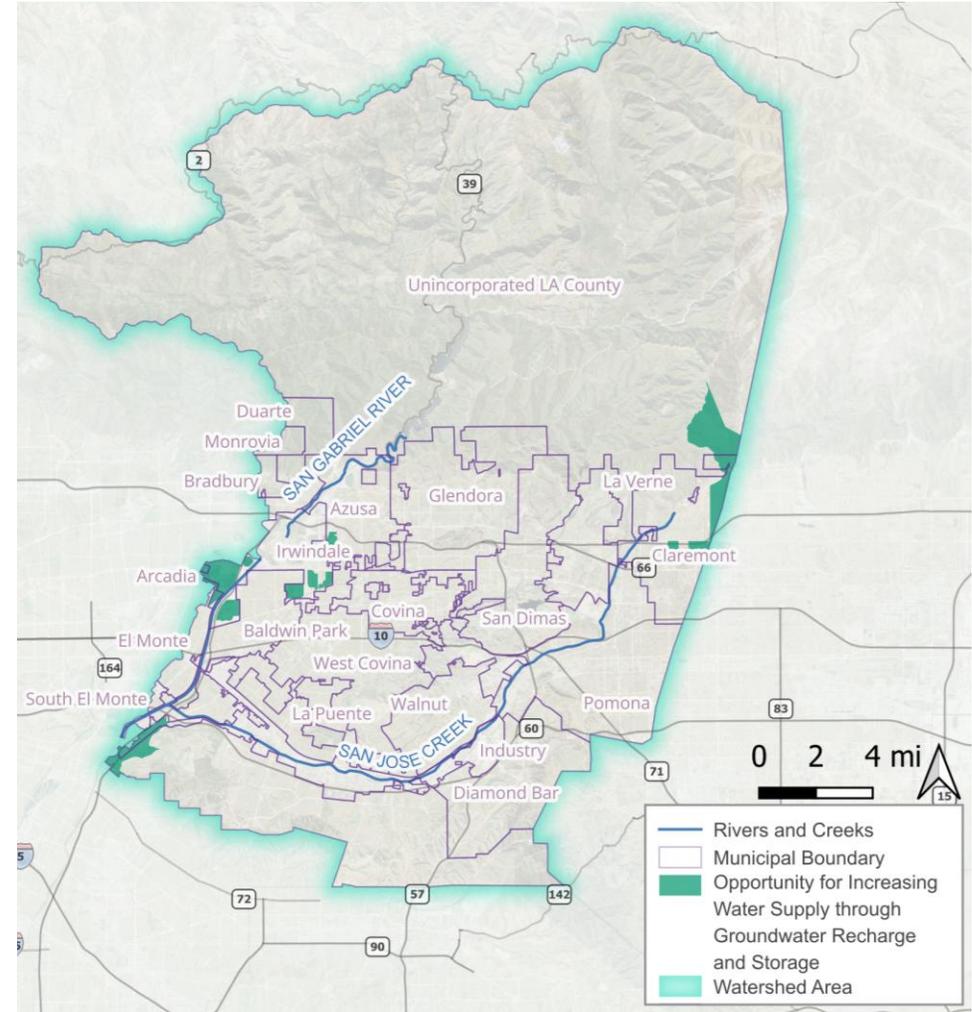


Figure 5-13. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage



Upper San Gabriel River Watershed Area Opportunities



Increase Drought Preparedness

SCW Program Goal B

Table 5-2. Increase Drought Preparedness: other opportunities to address USGR 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	2.1	The LA County Sanitation District Facilities Map provides detailed, location-specific information about water reclamation facilities and their service areas and fate of treated water. 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 County Sanitation Districts	LA County Sanitation District Facilities

Note that additional capture potential for new decentralized Projects to increase local water supply is limited in the USGR WA. Future Projects should coordinate with other programs (e.g., IRWMP) to avoid redundancy, prioritize advancing other Goals, and only consider delivering Water Supply Benefits Projects when cost-effective for improving water quality.

5.2.1.3 Improve Public Health: Strategies, Actions, and Opportunities



Upper San Gabriel River Watershed Area Strategies and Actions



Improve Public Health

SCW Program Goal C

The lower USGR WA, primarily the San Gabriel Valley, is characterized by extensive impervious surfaces and a significant shortage of high-quality parks, green spaces, and recreational amenities. These conditions have contributed to multiple environmental and public health challenges, including limited access to green spaces, urban heat island effects, and reduced air quality.

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 Assessment⁴², Community Forest Management Plan, County of Los Angeles 2045 Climate Action Plan, and the LAUSD "Green Schoolyards for All" initiative. These strategies seek to provide meaningful CIBs through SCW Program Projects while directly addressing identified WA Needs.

Acknowledging the significant urban development and associated challenges in the USGR WA, which limits the availability of land for new parks and related public benefits, the USGR WASC has emphasized that community greening and transforming underused or degraded land into vibrant, multi-benefit green spaces should remain a defining feature of future Projects, with a strong focus on advancing public health alongside water quality improvements. Other interested parties voiced support for co-benefits such as safer, walkable green streets, more diverse recreational amenities in parks (like games and sensory playgrounds), better lighting, cleaner restrooms, and enhanced park maintenance. Equity remained a central theme during USGR WASC engagement, with calls for ensuring that resource distribution prioritizes park-poor communities.

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 nature-based solutions 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

⁴² Refers to both the [2016 Parks Needs Assessment](#) and [2022 Parks Needs Assessment Plus](#).

several Goals simultaneously. Nature-based approaches are inherently multi-benefit, allowing Projects to deliver Water Quality 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.

In the USGR WA, where the majority of stormwater is already captured for water supply through existing major capture facilities, future Projects should prioritize surface-based BMPs and NBS, such as bioswales, rain gardens, and green streets that improve water quality and provide visible, accessible, and meaningful benefits to the community. These features offer greater opportunities for enhancing public spaces and advancing public health, which aligns with the USGR WASC's primary focus on community benefit and water quality improvement, rather than increasing stormwater capture alone. Where feasible, surface BMPs should be prioritized or paired with community amenities to enhance the multi-benefit emphasis of the SCW Program. Findings from the SCW Program Scientific Studies *Community Garden Stormwater Investigation*, may serve as a valuable resource for identifying effective distributed infiltration BMPs that can be integrated into community parks and green spaces.



Upper San Gabriel River Watershed Area Strategies and Actions



Improve Public Health

SCW Program Goal C

Watershed Area Needs
(by 2045)

4
Net Area of Park and
Green Space Created
(acres)

3
Net Area of Green Space at
Schools Created
(acres)

1
Net Area of Park
Enhanced or Restored
(acres)

104
Net New Area of Canopy, Cooling,
and Shading Surfaces
(acres)

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

* SCW Program-wide Priority Strategy based on engagement

** USGR WASC Priority Strategy based on engagement

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



Upper San Gabriel River Watershed Area Strategies and Actions



Improve Public Health

SCW Program Goal C

Strategies	Action(s)	Who Should be Involved
3.5 Help communities most affected by extreme heat mitigate and adapt to the effects of climate change	3.5.1 Utilize green infrastructure that reduces hardscape and optimizes Project footprints to maximize tree canopy, urban cooling, and shaded surfaces, thereby enhancing climate resilience. Project types may include green streets, tree wells, and other surface-based stormwater capture features, such as vegetated areas designed with integrated water storage capacity.	NEAR TERM WASCs, Municipalities, Project proponents
	3.5.2 Implement multi-benefit Projects that prioritize expanding tree canopy, enhancing urban cooling, and increasing shaded surfaces in communities most vulnerable to climate change by referencing the <i>Multiple Benefit Opportunity Across Planning Themes</i> layer.	NEAR TERM WASCs, Municipalities, Project proponents
	3.5.3 Select tree species based on drought tolerance, community preferences, shade provision capacity, and contributions to local biodiversity. Prioritize the planting, establishment, and maintenance of trees according to industry best management practices, as outlined in the <i>Recommended Tree Species for Los Angeles County and Best Management Practices for Tree Care</i> guidelines.	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 5-14. Improve Public Health: strategies and actions to address USGR WA Needs and achieve Goals (continued)



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, including the USGR WA, 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 the MMS, park creation includes amenities like walking paths or exercise equipment, while green space refers to vegetation such as habitat or lawn.

In urbanized areas of USGR WA, developing large parks may be impractical. Instead, smaller-scale interventions, such as pocket parks, green corridors, or integrated green infrastructure, can still deliver recreational and climate resilience benefits to communities. Projects here 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.

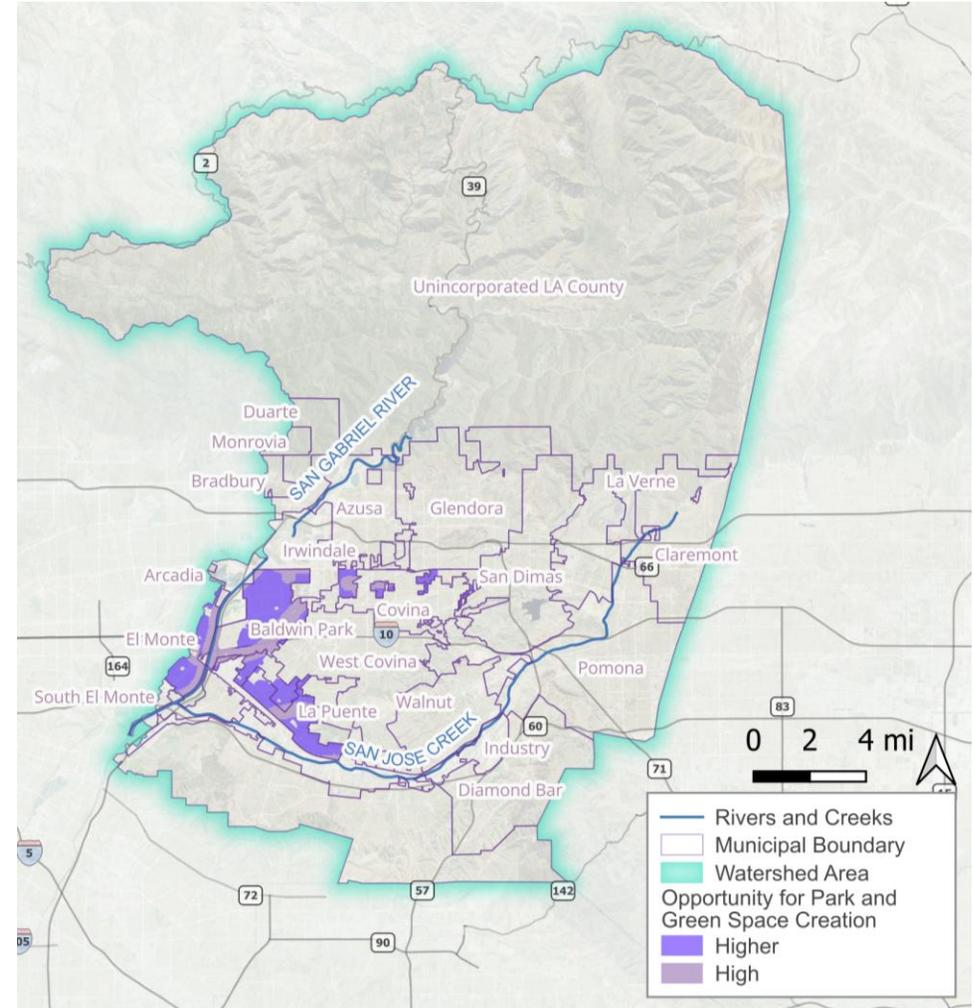


Figure 5-15. Opportunity for Park and Green Space Creation

Supports strategies:

- **3.4** Create, enhance, and restore park and green space, especially in high-need communities
- **3.5** 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



Improve Public Health

SCW Program Goal C

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

This opportunity builds from the Parks Needs Assessment Park Need results, Los Angeles River Master Plan regional access need analysis, and the LA County Department of Parks and Recreation's existing parks and open space locations and conditions database to highlight where Projects that enhance or restore parks 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 context for identifying enhancement and restoration opportunities, because the Park Need analysis considered a broad set of factors, 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:

- **3.4** Create, enhance, and restore park and green space, especially in high-need communities
- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area

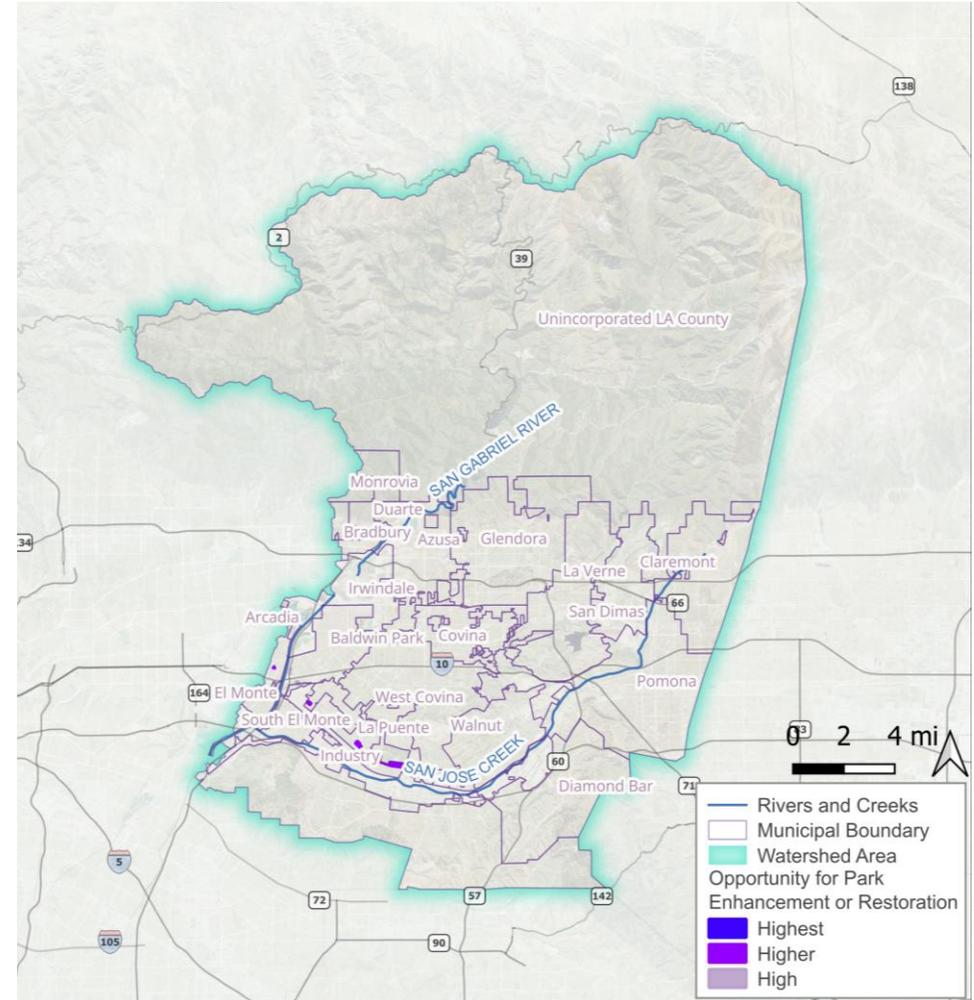


Figure 5-16. Opportunity for Park Enhancement or Restoration



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:

- **3.2** Integrate transportation-related planning and implementation efforts with green street development**
- **3.3** Implement Projects located at school and in flood control channel right of ways
- **3.5** 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

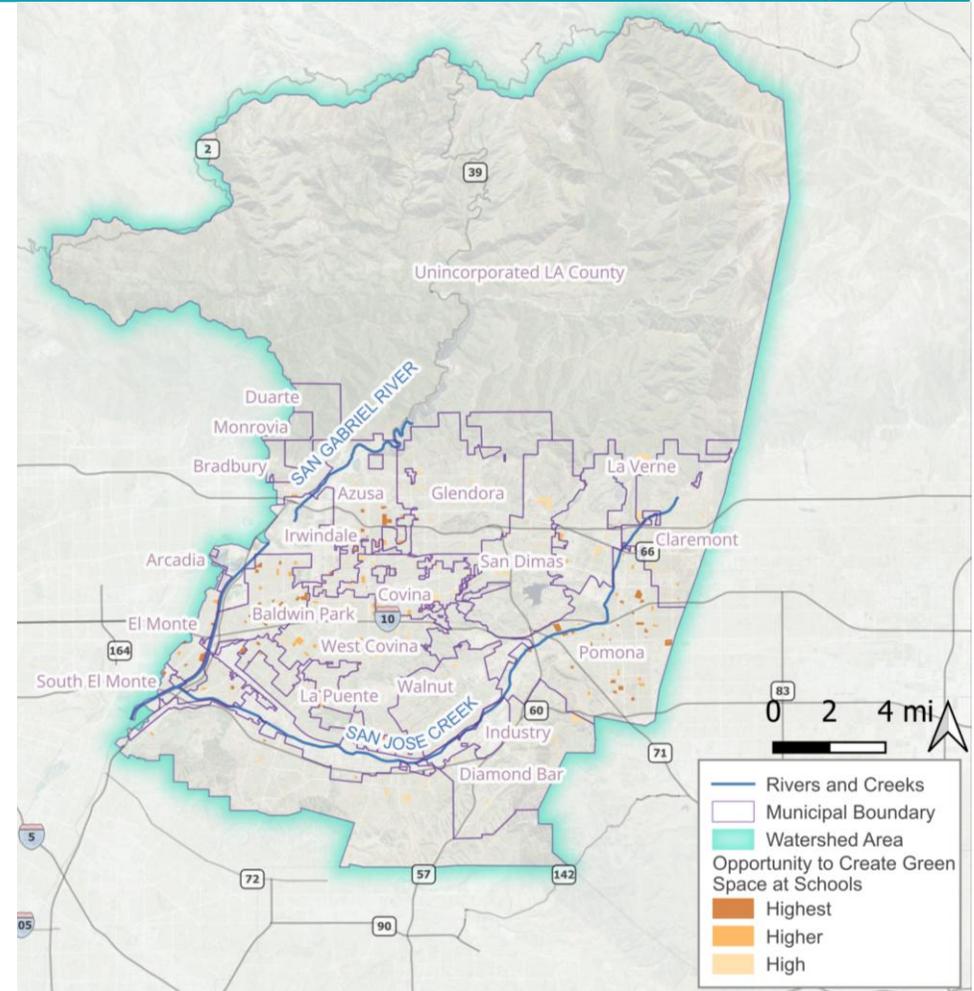


Figure 5-17. Opportunity to Create Green Space at Schools



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:

- **3.4** Create, enhance, and restore park and green space, especially in high need communities
- **3.5** 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

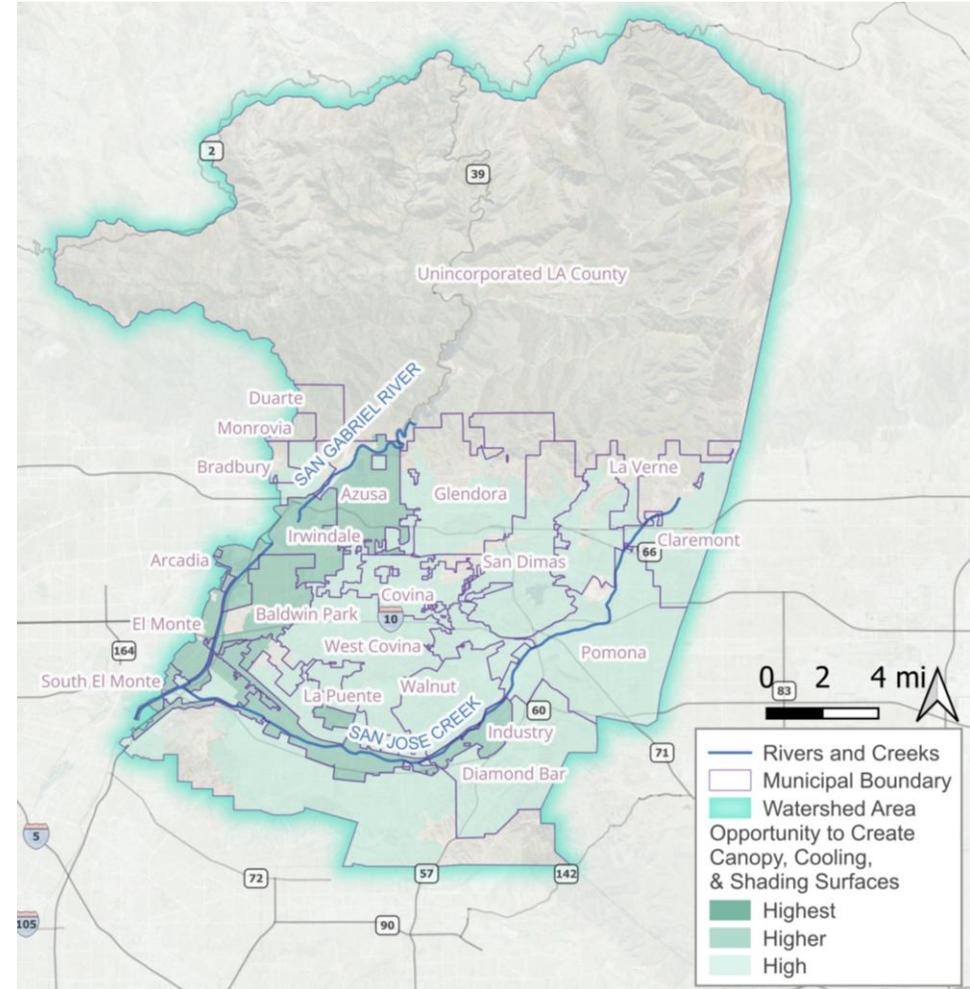


Figure 5-18. Opportunity to Create Canopy, Cooling, and Shading Surfaces



Upper San Gabriel River Watershed Area Opportunities



Improve Public Health

SCW Program Goal C

Table 5-3. Improve Public Health: other opportunities to address USGR 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	3.4, 3.5, 4.4	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	3.4, 3.5, 4.3	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: <ul style="list-style-type: none"> 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
Opportunity to align Projects with the San Gabriel Valley Greenway Network Plan	3.2, 3.3, 3.4, 3.5, 4.3	The San Gabriel Valley Greenway Network Plan is intended to represent a collaboratively developed common vision among local public agencies and community stakeholders and to serve as resource and guide for project proponents, The plan shows tributary narratives, opportunities, and constraints.	San Gabriel Valley Greenway Network Plan	San Gabriel Valley Greenway Network Plan
Opportunity to coordinate with existing and planned Measure A efforts	3.4, 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



Upper San Gabriel River Watershed Area Strategies and Actions



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

SCW Program
Goals E, F, G

The USGR WA is an urbanized and diverse region that faces an array of challenges ranging from water quality and supply issues to urban heat, flooding, limited green space, and habitat degradation. Addressing these overlapping issues requires NBS that are tailored to the specific needs of local communities, especially those most vulnerable to climate and environmental stressors.

To date, SCW Program Projects in the USGR WA have consistently integrated NBS across a range of scales and settings including park retrofits and green street corridors and enhancements to spreading grounds and storm drain systems. While many of these projects include stormwater capture and treatment elements, the primary emphasis has been on delivering visible, surface-based improvements that respond to community-identified needs. These include increasing shade and green space, improving walkability and public safety, expanding recreational access, reducing heat and localized flooding, enhancing water quality, and promoting beautification in historically underserved neighborhoods. The USGR WASC would like to continue to implement a series of interconnected small-scale Projects that are centered on community green spaces as a water quality strategy and public health strategy. Findings from the MMS may further support such outcomes by providing clear guidance and definitions around creating, enhancing, and restoring habitat and green space. The USGR WASC also reflected that the connection between Projects, which to-date has mostly been a discussion about water quantity and treatment capacity, should also include habitat and recreation linkages in how they are designed and evaluated.

Strategies to guide the design and delivery of future Projects and Programs are informed by the USGR WASC and broader interested party engagement, as well as alignment with regional and local planning efforts, including the Parks Needs Assessment⁴³, County of Los Angeles 2045 Climate Action Plan, 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 USGR WA.

Ultimately, nature-based, multi-benefit Projects in the USGR 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.

⁴³ Refers to both the [2016 Parks Needs Assessment](#) and [2022 Parks Needs Assessment Plus](#).



Upper San Gabriel 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)

61
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 <i>section 1.4 Working Together</i> as well as <i>Appendix E. Key Efforts to Date</i> to identify and collaborate with other efforts contributing to benefits and outcomes in this WA.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
4.2 Evaluate distributed BMPs that achieve cost-effectiveness thresholds of the SCW Program**	4.2.1 Initiate a Scientific Study to evaluate the ability for distributed BMPs to collectively achieve cost-effectiveness in the USGR WA.	NEAR TERM	Public Works, Scientific Study proponents
4.3 Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns	4.3.1 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 <i>Multiple Benefit Opportunity Across Planning Themes</i> composite layer for Project siting.	NEAR TERM	WASCs, Municipalities, Project proponents
	4.3.2 Develop Projects and Programs that will serve their communities by aligning their implementation to address community-stated priorities or concerns highlighted by the <i>Opportunities to Address Community-stated Priorities and Concerns</i> layer, which incorporates CSNA survey responses.	NEAR TERM	Public Works, Project & Program proponents, CBOs & NGOs
	4.3.3 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 <i>Opportunity for Habitat Creation, Restoration, or Enhancement</i> .	NEAR TERM	WASCs, Municipalities, Project & Program proponents, Conservancies
	4.3.4 Leverage pre-screened sites, conceptual Project designs, engagement, and feasibility findings by the SCW Program Scientific Study <i>Community Garden Stormwater Capture Investigation</i> 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

* SCW Program-wide Priority Strategy based on engagement

** USGR WASC Priority Strategy based on engagement

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



Upper San Gabriel 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)	NEAR TERM	Who Should be Involved
4.4. Advance fire-adapted communities by implementing multi-benefit Projects that employ NBS to reduce wildfire risk and enhance ecosystem resilience	4.4.1 Implement green infrastructure Projects that, <ul style="list-style-type: none"> • 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
	4.4.2 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 <i>Opportunity to Create Canopy, Cooling, and Shading Surfaces</i> 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 USGR WA Needs and achieve Goals (continued)



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 USGR 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:

- **4.3** Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns
- **4.4** Advance fire-adapted communities by implementing multi-benefit Projects that employ NBS to reduce wildfire risk and enhance ecosystem resilience

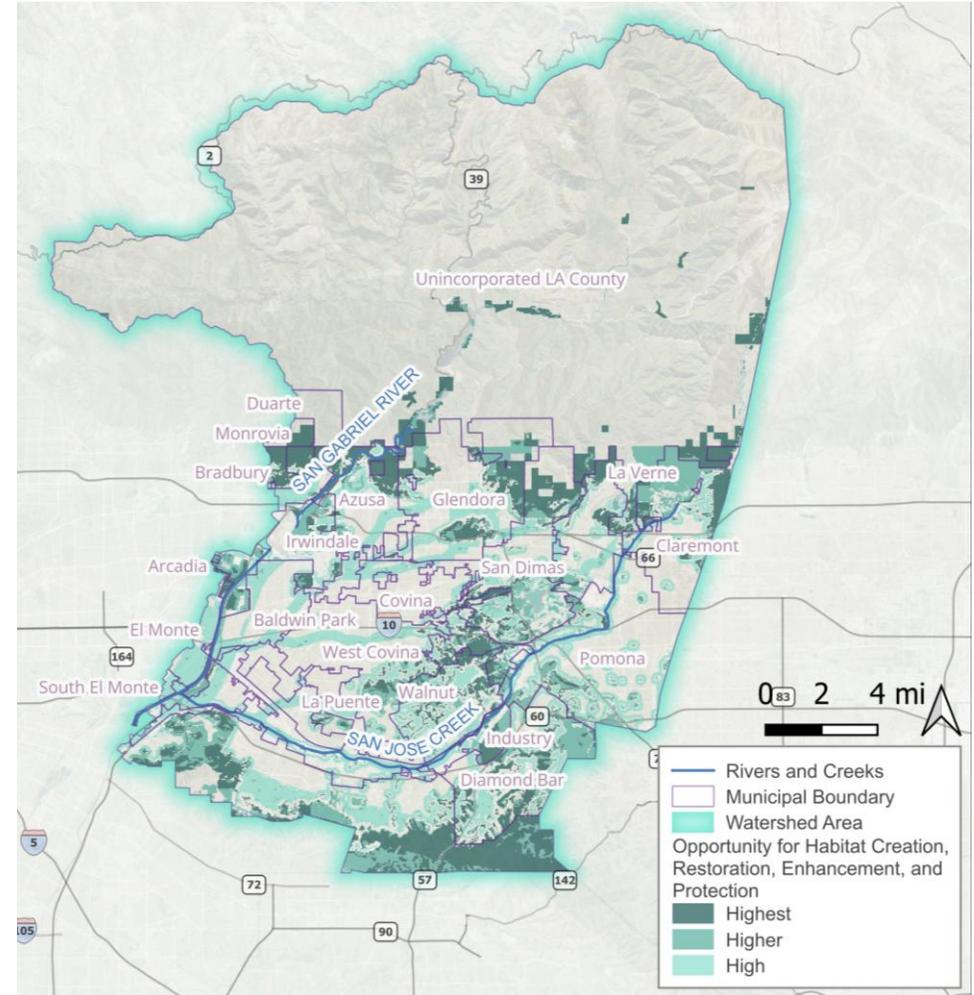


Figure 5-20. Opportunity for Habitat Creation, Restoration, or Enhancement



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.

Supports strategies:

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

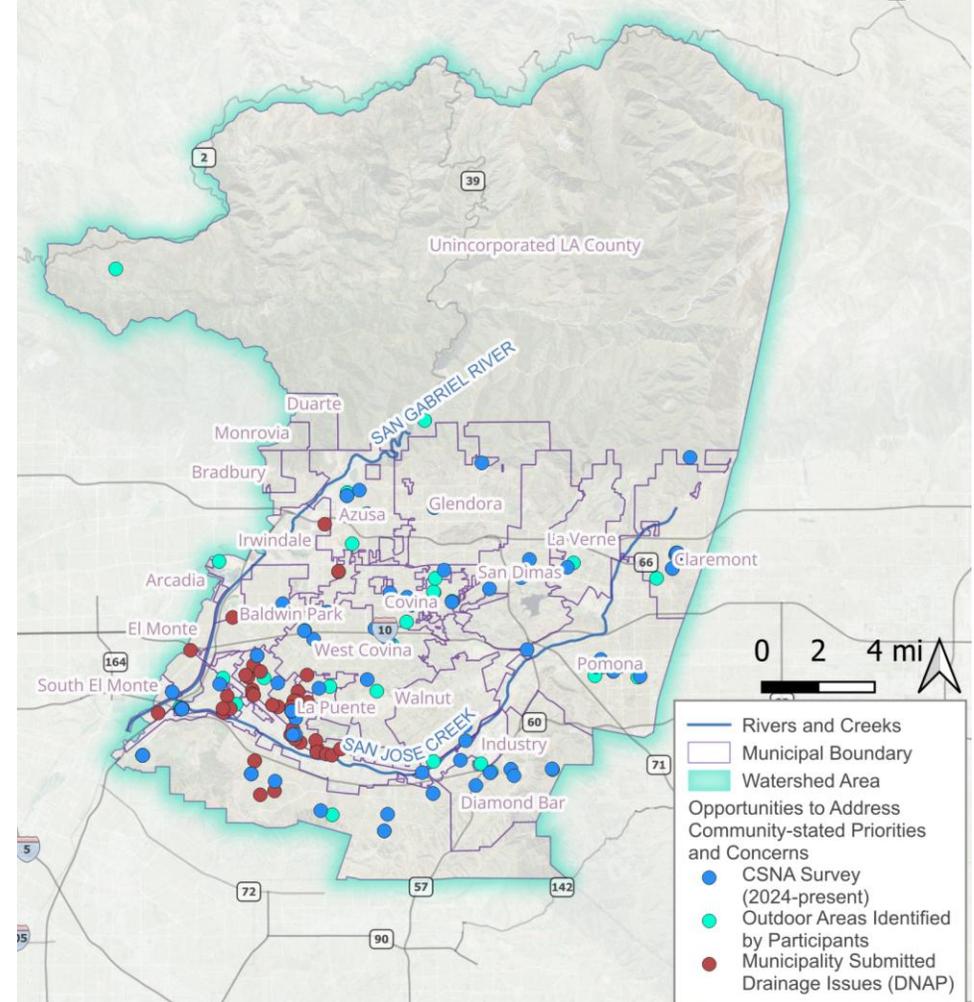


Figure 5-21. Opportunities to Address Community-Stated Priorities and Concerns



Upper San Gabriel 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 USGR WA Needs and achieve Goals

Other Opportunities for Delivering Multi-Benefits with Nature-Based Solutions and 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, 4.4	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	3.4, 3.5, 4.4	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 and Diverse Projects				
Opportunity	Strategies	Description & Purpose	Source	LINK
Opportunity to enhance ecosystem resilience and biodiversity	3.4, 3.5, 4.3, 4.4	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, 4.3, 4.4	This SCW Program Scientific Study provides six suitable community gardens that meet the criteria for effective stormwater capture. These locations are ideal for the integration of distributed BMPs such as rainwater harvesting cisterns, bioretention cells, green roofs, vegetated swales, etc.	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



Upper San Gabriel River Watershed Area Strategies and Actions



Leverage Funding & Invest in Research & Development

SCW Program Goals D, H, I

The USGR WA has a range of needs, including the need to improve water quality, increase maintenance and enhancement of regional facilities, expand access to green space and recreational corridors along the San Gabriel River and park-poor communities, and continue investments in community-driven benefits, particularly within underserved communities.

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. Leveraged funding sources can help offset capital and operational costs, enabling the development of more ambitious, cost-effective, and equitable multi-benefit Projects and Programs.

To date, USGR WA Regional Program Projects have secured approximately 25% of their funding from leveraged sources, including grant funds from the California Natural Resources Agency via the Urban Greening Grant Program. 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. These projections suggest that future Projects may need to secure more than 50% of Project costs from leveraged sources. 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 nine Scientific Studies funded to date in the USGR 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 USGR 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 San Gabriel 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 <i>SCW Program Leveraged Funding Reports</i> , 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 (<i>as suggested in the 2026 SCW Program Biennial Progress Report</i>).	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. <i>Note that outcomes from Scientific Studies completed to date have been incorporated throughout this Initial Watershed Plan, where applicable.</i>	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 (LACFCO Code §16), all SCW Program funded Projects and Programs are required to include a Water Quality Benefit.

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



Upper San Gabriel 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 USGR 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 proponents 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



Upper San Gabriel River Watershed Area Strategies and Actions



Equitably Distribute Benefits

SCW Program Goals J, K

Advancing equity within the USGR WA requires a deliberate and sustained focus on investing in Projects and Programs that directly benefit DACs and park-poor communities. To date, 11 of the 26 SCW Program Projects funded in the USGR WA are providing benefits to DACs such as improved water quality, nearly 20 acres of new or enhanced park space, and over 40 new trees. These Projects are currently estimated to deliver approximately estimated 53%⁴⁴ of the benefits provided by all SCW Program Projects in the USGR WA, demonstrating that a substantial share of Program benefits is reaching DACs and exceeding the WA's Required DAC Benefit Ratio (22%). Note that the DAC population that is anticipated to receive 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 benefits such as increasing shade or 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 community engagement, the USGR WASC expressed interest in assessing large public parcels as opportunity areas to address environmental injustices and reduce disparities in access to parks and green space. The USGR WASC would also like to focus on implementing multi-benefit Projects within communities near freeways to offset their exposure to environmental stressors.

In response, the following strategies and opportunities recommend prioritizing underserved 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-engaged 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 place-based disparities and strengths. These strategies, when implemented alongside those under the other Planning Themes, can support the USGR WA in meeting its technical goals, while also advancing environmental justice, inclusion, and well-being for all its communities.

⁴⁴ 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 San Gabriel River Watershed Area Strategies and Actions



Equitably Distribute Benefits

SCW Program Goals J, K

Watershed Area Needs
(by 2045)

at least 22%
DAC Benefit Ratio
(%)

at least 70%
Proportion of Municipal Funds
Spent on New Projects or Programs
(%)

Strategies	Action(s)		Who Should be Involved
6.2. Advance equity and prioritize new investments particularly in communities not currently served by a SCW Program Project or Program	6.1.1 Prioritize Projects and Programs in historically underserved communities and those with heightened vulnerability to climate hazards. Use the <i>Opportunity to Provide Benefits to DACs</i> and <i>Multiple Benefit Opportunity Across Planning Themes</i> layers to guide equitable Project and Program planning and implementation.	NEAR TERM	Public Works, WASCs, Municipalities, Project & Program proponents
	6.2.1 Prioritize implementation of high-impact water quality Projects and Programs (see strategy 1.1), especially in areas identified by the <i>DAC Benefit Opportunity</i> 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 <i>DAC Benefit Opportunity</i> 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 <i>Multiple Benefit Opportunity Across Planning Themes</i> layer. <i>Recall that all SCW Program Projects and Programs must provide Water Quality Benefits.</i>	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 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 USGR WA Needs and achieve Goals



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 USGR 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

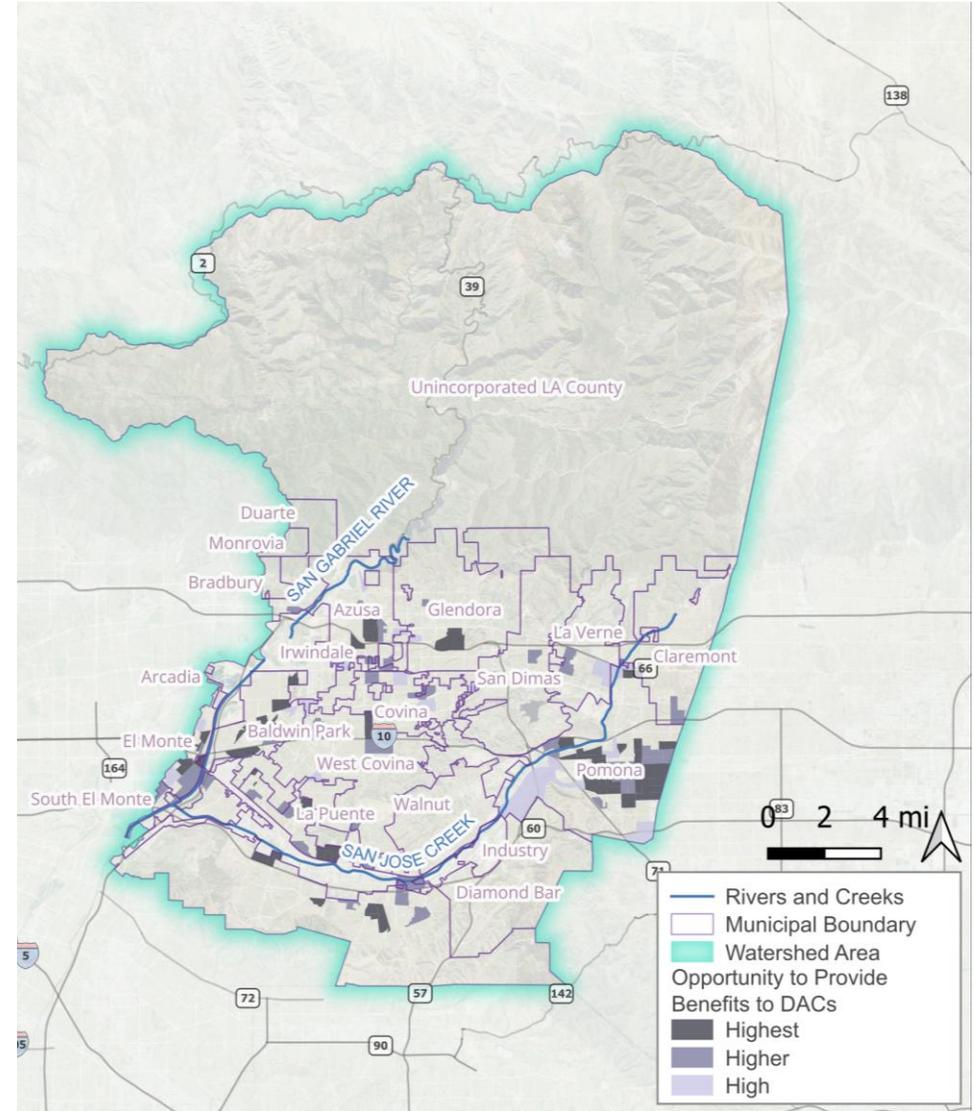


Figure 5-24 Opportunity to Provide Benefits to DACs



Upper San Gabriel River Watershed Area Opportunities



Equitably Distribute Benefits

SCW Program Goals J, K

Table 5-6. Equitably Distribute Benefits: other opportunities to address USGR 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. <i>Note that recommendations have been incorporated in this Initial Watershed Plan, where applicable.</i>	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



Upper San Gabriel River Watershed Area Strategies and Actions



Promote Green Jobs and Career Pathways

SCW Program Goal M

The USGR WA presents significant opportunities for strategic investment in the local workforce to support SCW Program Projects and Programs. 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 USGR 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 in the USGR WA should be coordinated with regional partners such as the San Gabriel Valley Council of Governments, local workforce development boards, and the Los Angeles County Department of Economic Opportunity (DEO), which are focused on expanding access to job training and employment opportunities. Collaboration with community-based organizations and agencies that serve underrepresented communities, such as the Tribal Conservation Corps, and those engaged in environmental stewardship and have interest in watershed planning, such as Amigos de los Rios, TreePeople, the Los Angeles Conservation Corps and the Council for Watershed Health (CWH), can help create accessible green job pathways in stormwater BMP maintenance, habitat restoration, and water quality monitoring, particularly for underrepresented communities. 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 USGR WA. The USGR WASC, advocates, and ROC Working Group expressed interest in linking O&M spending with workforce development.



Upper San Gabriel River Watershed Area Strategies and Actions



Promote Green Jobs and Career Pathways

SCW Program Goal M

Watershed Area Needs
(by 2045)

2,260
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 <i>SCW Program Portal Bid and Project Schedules</i> page and related <i>Reporting Module</i> 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 (LACFCO 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 USGR WA Needs and achieve Goals



Upper San Gabriel 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 USGR 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



Upper San Gabriel River Watershed Area Strategies and Actions



Ensure Ongoing Operations & Maintenance for Projects

SCW Program Goal N

The long-term viability, performance, and community value of Projects funded through the SCW Program in the USGR 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. 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, two Projects in the USGR WA have received SCW Program funding for O&M which requires a formal O&M plan with application submittal to ensure ongoing and long-term 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 Theme, 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 San Gabriel River Watershed Area Strategies and Actions 		
Ensure Ongoing Operations & Maintenance for Projects SCW Program Goal N		
	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 USGR WA Needs and achieve Goals

5.2.1.9 Prioritize Meaningful Engagement: Strategies, Actions, and Opportunities



Upper San Gabriel River Watershed Area Strategies and Actions



Prioritize Meaningful Engagement

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” (%)”⁴⁵ measures the proportion of SCW Program Projects achieving ‘Good’, ‘Better’, or ‘Best’ community engagement, which includes tribal engagement⁴⁶. To date, 42%⁴⁷ of SCW Program Projects funded in the USGR WA have reported ‘Good’, ‘Better’, or ‘Best’ levels of overall community engagement, and 46% have reported ‘Good’, ‘Better’, or ‘Best’ levels of engagement specifically with tribes⁴⁸. These Projects have collectively received 7 letters of support and conducted almost 75 different engagement activities including fact sheets, social media posts, and surveys.

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 USGR 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.

⁴⁵ “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](#).

⁴⁶ 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.

⁴⁷ 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.

⁴⁸ Tribal engagement is tracked and quantified through the PM “Level of Achievement for tribal engagement”.



Upper San Gabriel 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 (<i>as suggested in the 2024 SCW Program Biennial Progress Report</i>).	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 USGR WA Needs and achieve Goals



Upper San Gabriel River Watershed Area Strategies and Actions



Prioritize Meaningful Engagement

Strategies	Action(s)	TERM	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: <ul style="list-style-type: none"> 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 training 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	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	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	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	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 USGR WA Needs and achieve Goals (continued)



Upper San Gabriel River Watershed Area Opportunities



Prioritize Meaningful Engagement

Table 5-8. Prioritize Meaningful Engagement: other opportunities to address USGR 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 <i>Equity in Stormwater Investments White Paper</i> provides critical context and recommendations for strengthening equity outcomes for SCW Program Projects including advice for engagement. <i>Note that recommendations have been incorporated in this Initial Watershed Plan, where applicable.</i>	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)
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

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 OurCounty Sustainability Plan.	LA County Chief Sustainability Office (via the OurCounty Sustainability Plan)	OurCounty Stakeholder Engagement Summary Report
Fire Hazard Reduction Opportunity	3.5, 4.4, 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

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 another⁴⁹.

Consider the following example: creating, enhancing, and restoring park and green space in high-need communities (strategy 3.4) through the delivery of nature-based, multi-benefit Projects and Programs (strategy 4.4) also helps communities most affected by extreme heat (strategy 3.5). 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 3.4 by mitigating 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 USGR WASC, Municipalities, and Project and Program proponents by highlighting areas within the USGR WA and each Municipality with the most potential to align strategies, deliver multiple benefits, and support multiple Goals.

⁴⁹ 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 USGR WASC, Municipalities, and Project and Program proponents. Its purpose is to highlight areas within the USGR 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)**
 - **2.2** Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse
- **Improve Public Health (Goal C)**
 - **3.4** Create, enhance, and restore park and green space, especially in high-need communities
 - **3.5** Help communities most affected by extreme heat mitigate and adapt to the effects of climate change
- **Deliver Multi-Benefits (Goal F)**
 - **4.3** 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

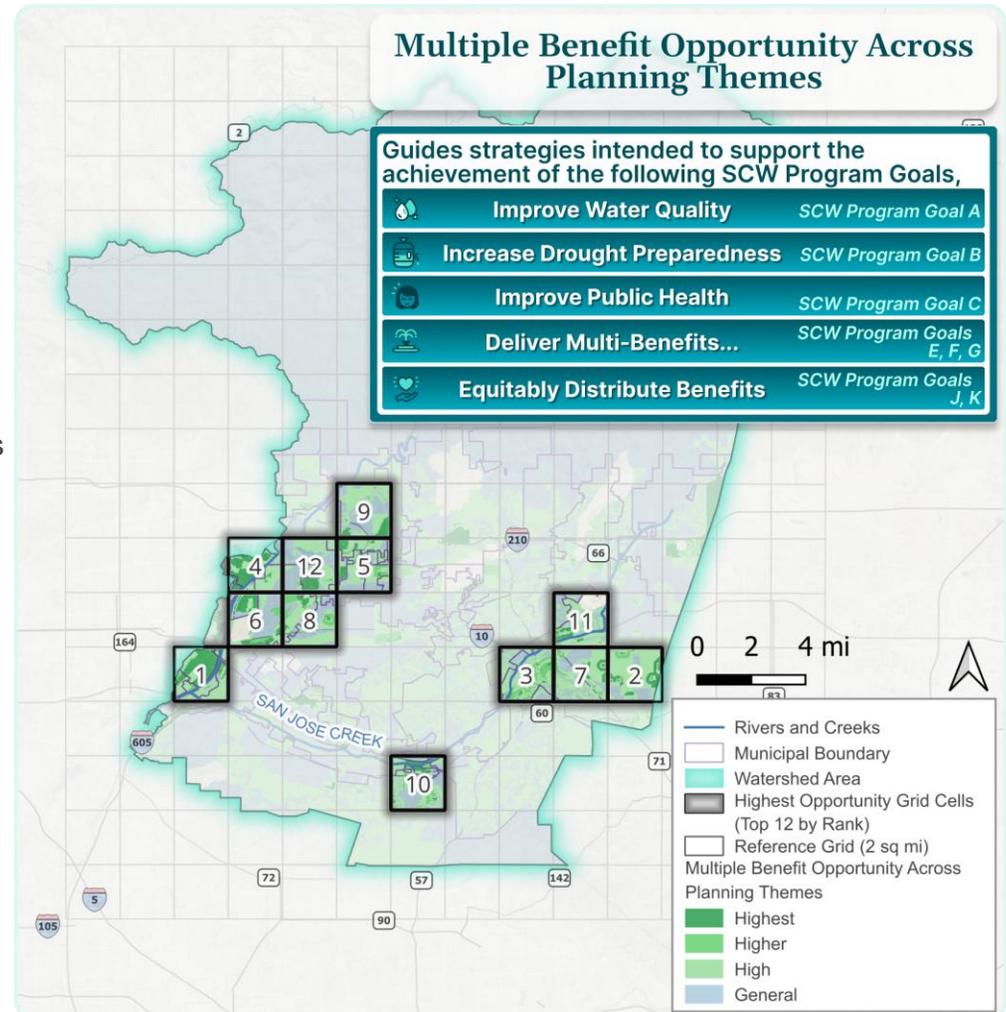


Figure 5-28. Multiple Benefit Opportunity Across Planning Themes

To clearly identify areas with the greatest potential, the USGR 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 USGR WA for the Multiple Benefit Opportunity Across Planning Themes are shown in Figure 5-29 to highlight the highest-scoring areas in the USGR WA and guide the USGR WASC and Project and Program proponents toward locations with the most strategic and cumulative impact.

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 USGR WA are included in Appendix J. A layer with the top twelve grids for the USGR WA for the Multiple Benefit Opportunity Across Planning Themes is also available for interactive exploration through the [Planning Tool](#).

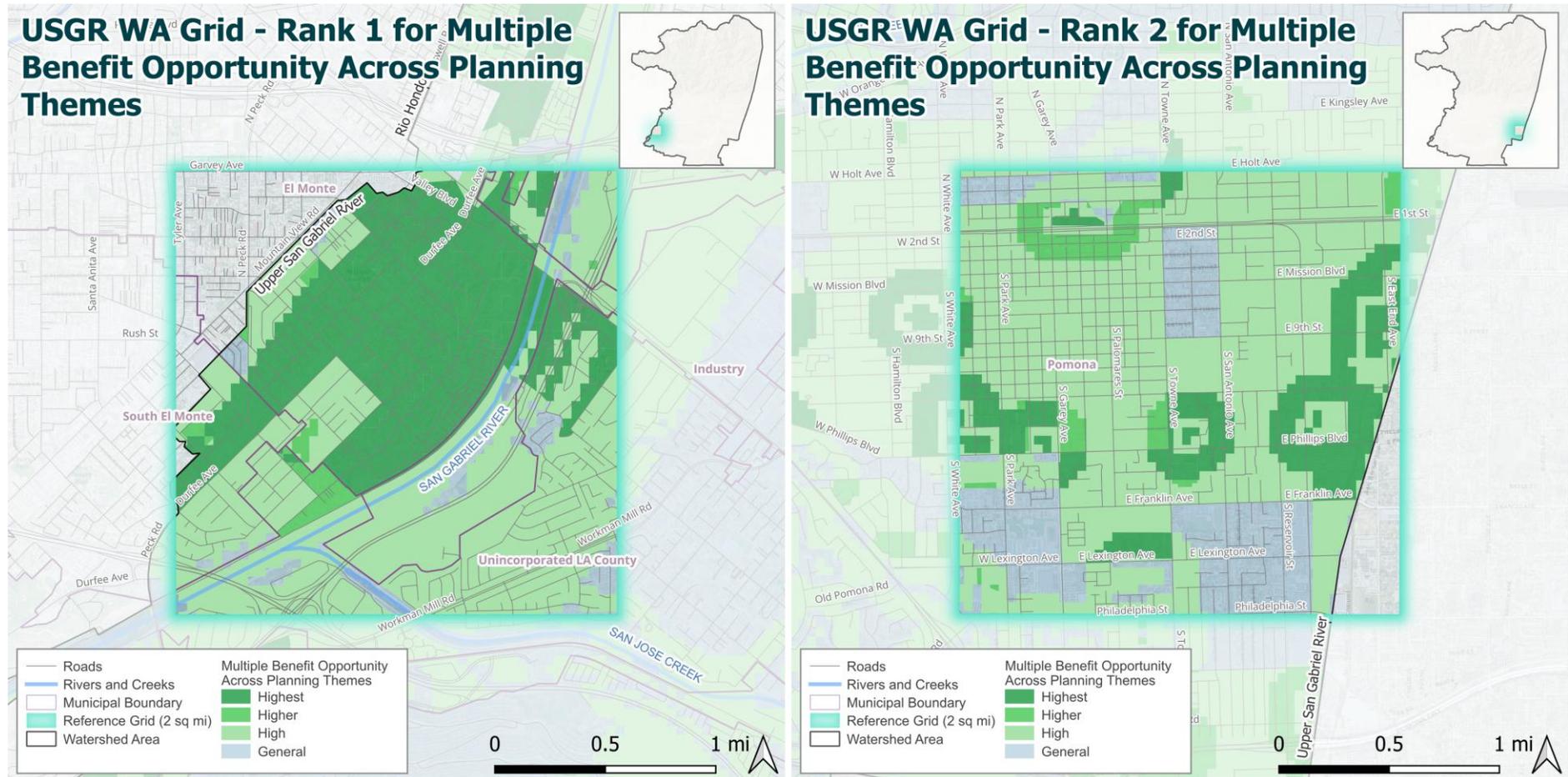


Figure 5-29. Multiple Benefit Opportunity Across Planning Themes: top two grid areas with the most opportunity

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 is provided in Figure 5-30 for the Cities of La Puente, South El Monte, and West Covina, which have varying opportunity levels and spatial distribution. Appendix I provides a detailed explanation of the analysis, 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](#).

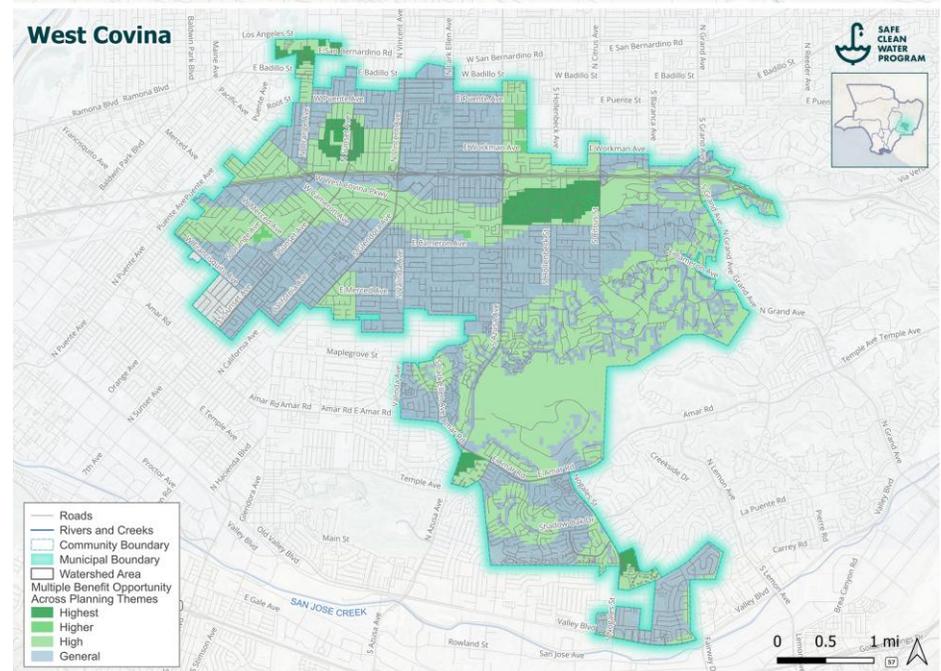
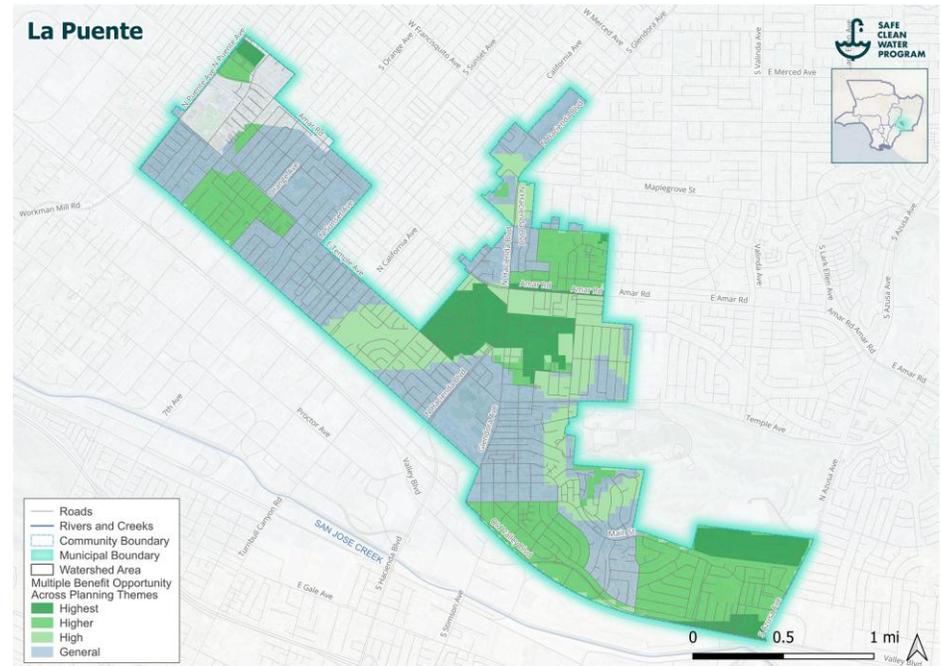
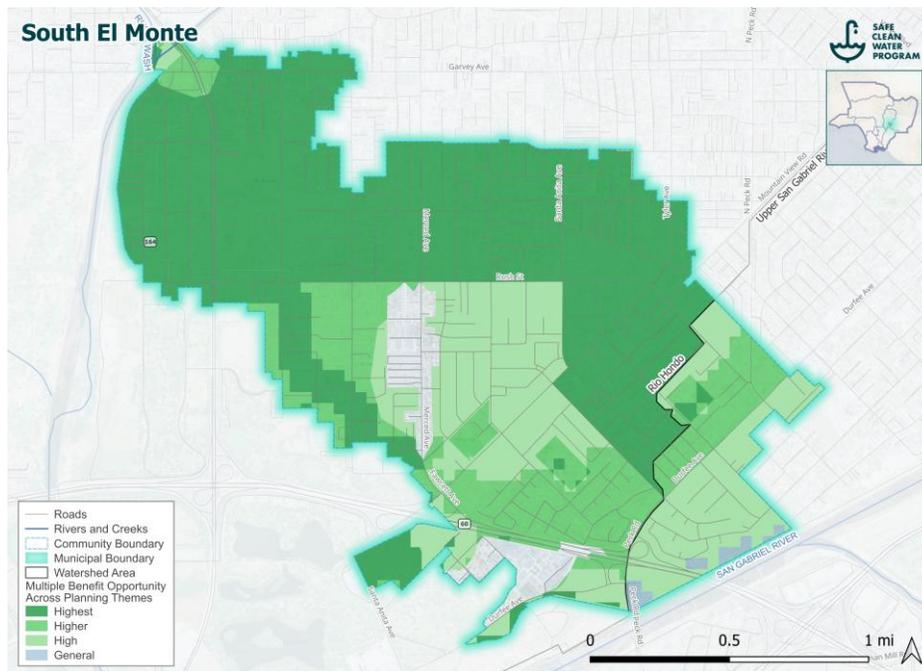


Figure 5-30. Multiple Benefit Opportunity Across Planning Themes: scaled by Municipality

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 USGR 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** Enhance local water supply through enhancements to existing LACFCD major capture facilities

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.

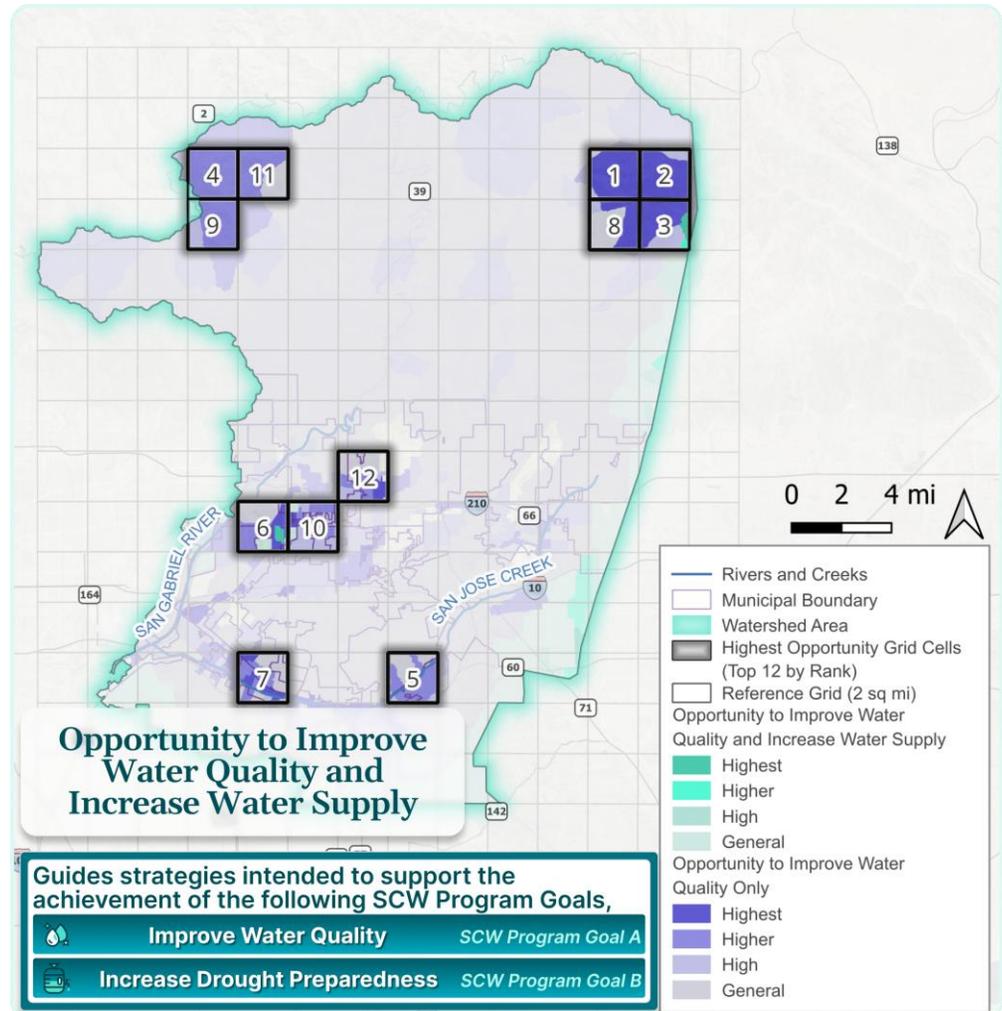


Figure 5-31. Opportunity to Improve Water Quality and Increase Water Supply

To clearly identify areas with the greatest potential, the USGR 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 USGR 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 USGR WA are included in Appendix J. This layer is also available for interactive exploration through the [Planning Tool](#).

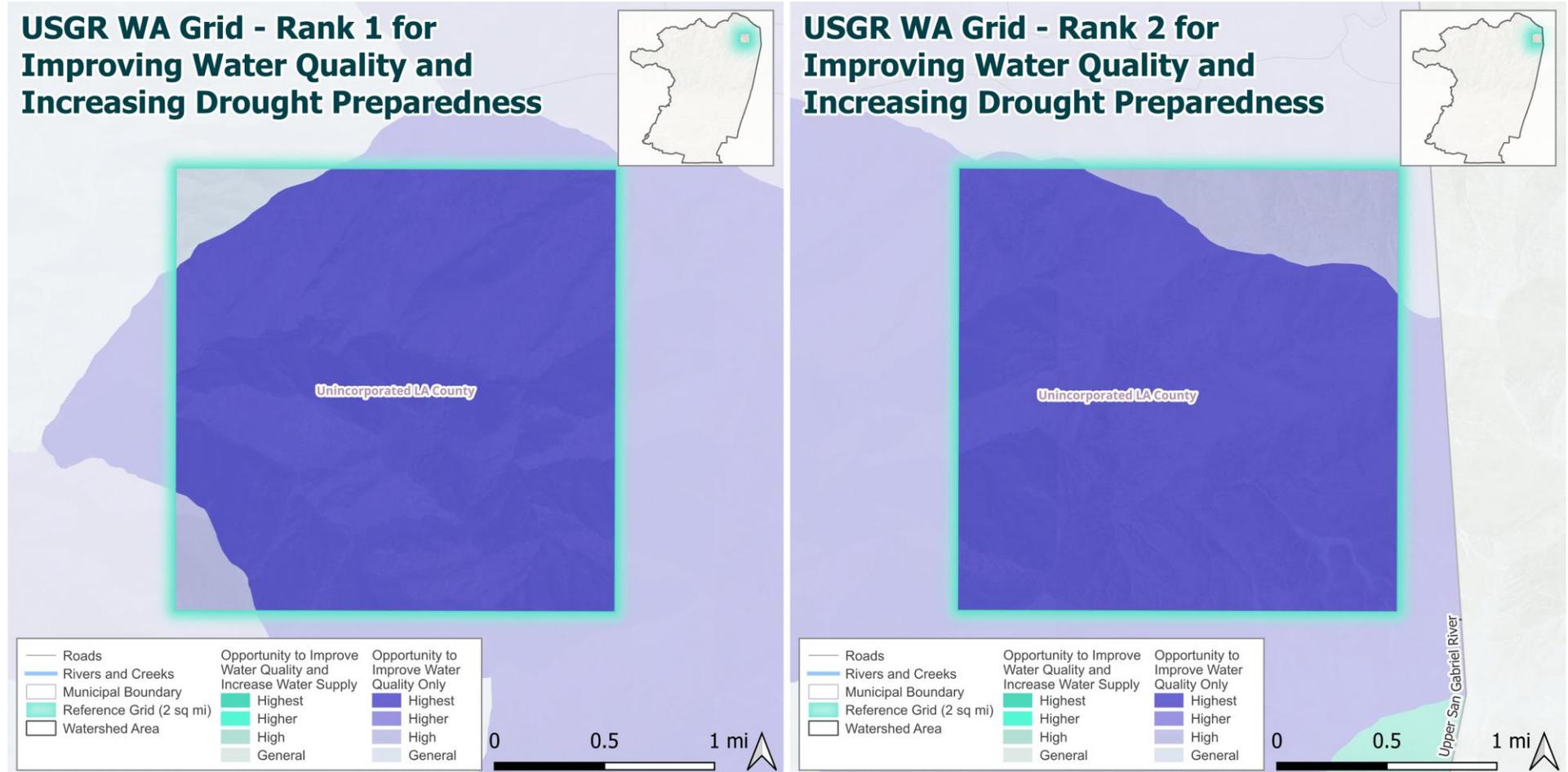


Figure 5-32. Opportunity to Improve Water Quality and Increase Water Supply: top two grid areas with the most opportunity

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. Figure 5-33 provides an example of the results of this spatial analysis for the Cities of La Puente, South El Monte, and West Covina, which have varying levels and distribution of opportunity.

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](#).

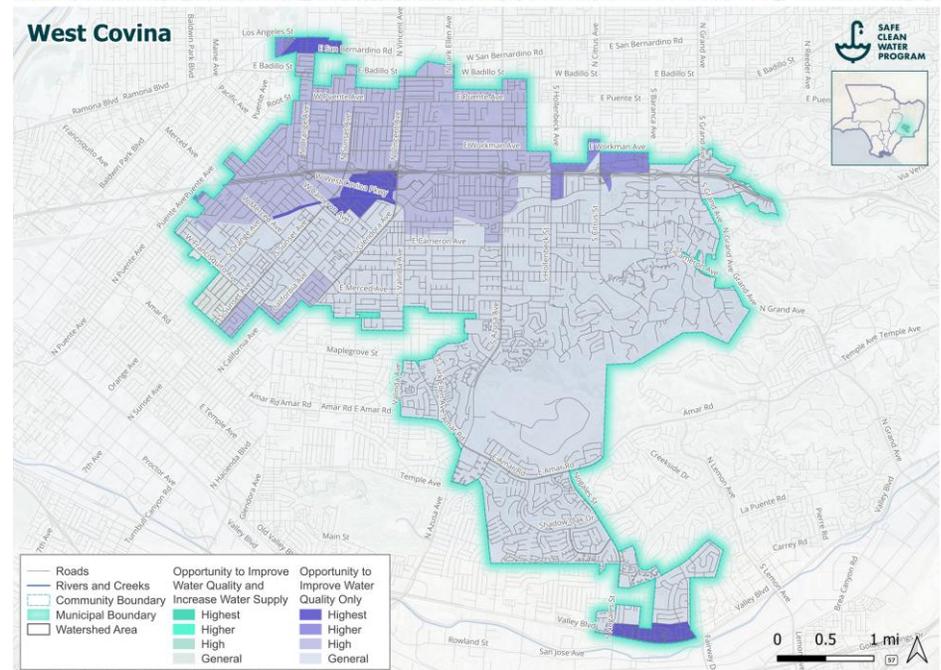
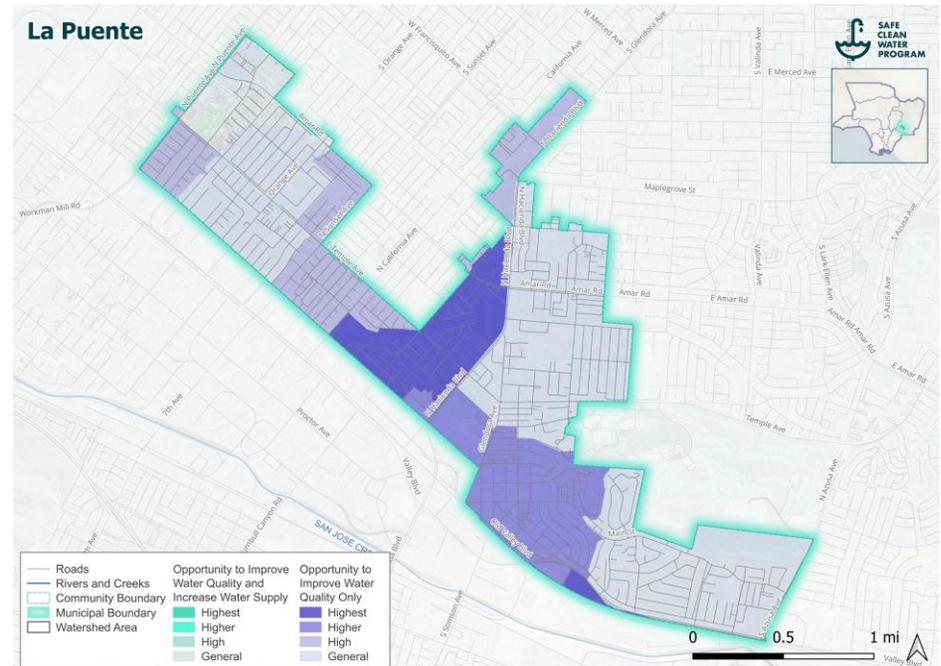
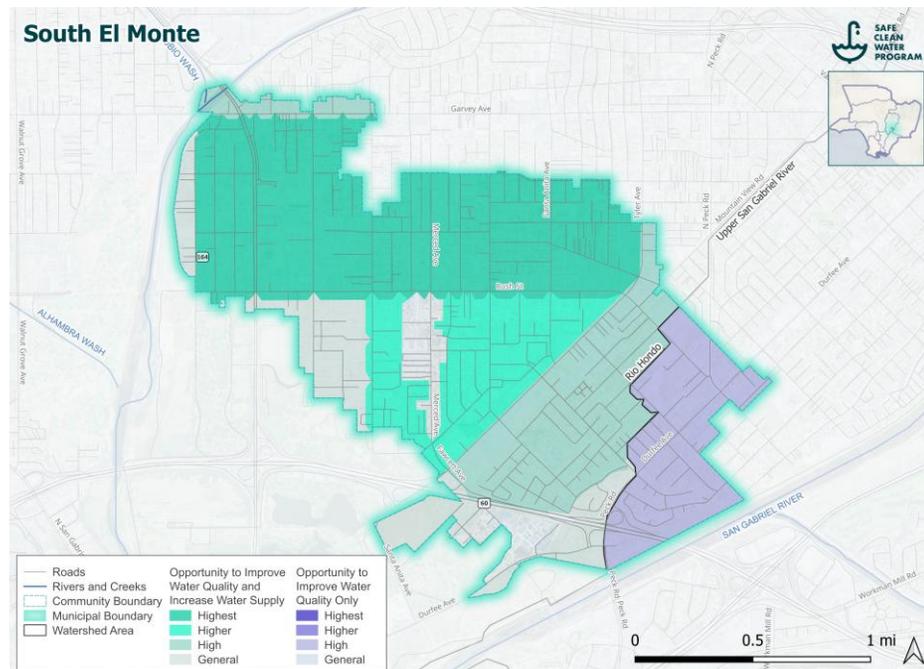


Figure 5-33. Opportunity to Improve Water Quality and Increase Water Supply: scaled by Municipality

5.2.1.11 Aligning Projects with Strategies, Actions, and Opportunities

The SCW Program-funded Bassett High School Stormwater Capture Multi-Benefit Project serves as an example to illustrate how Municipalities and Project proponents can intentionally select Project design features that align with the USGR 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 the Figure 5-34, Project elements such as infiltration systems through native soils, permeable pavement, green street bio-cells, 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, total phosphorus, and bacteria,
- 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.

These example features and benefits could be strategically aligned with the Initial Watershed Plan strategies and actions to address WA Needs and support Goals across 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)**

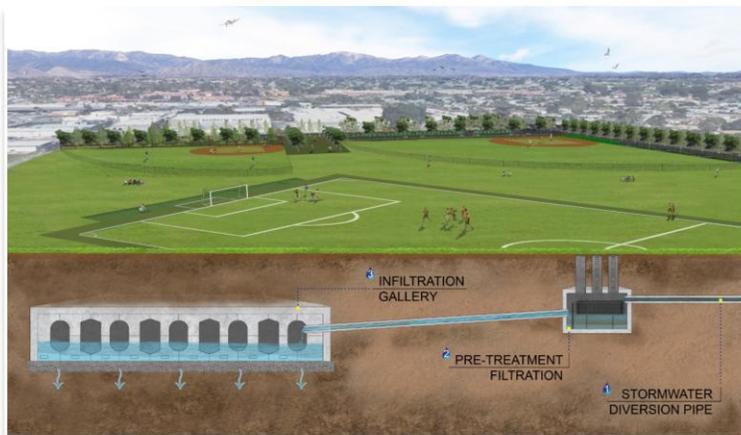
This example offers context for how Projects can be designed to utilize a range of strategies to fulfill multiple WA Needs. While the Project benefits and strategies shown in this example are not exhaustive or prescriptive, the Bassett High School Stormwater Capture Multi-Benefit Project:

- 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 San Gabriel River Watershed Area Aligning Projects with Initial Watershed Plan Strategies, Actions, and Opportunities



Bassett High School Stormwater Capture Multi-Benefit Project

Current Phase: Planning

Project Description:

The Bassett High School Stormwater Capture Multi-Benefit Project will deliver a range of benefits to the local community and environment. This Project includes both **underground and above-ground improvements to improve water quality, augment groundwater storage, and provide community benefits**. The main Project component is the construction of new drainage infrastructure to capture and treat stormwater that will be diverted into an infiltration gallery beneath an open field, where it will percolate and recharge the groundwater aquifer. The Project will also **revitalize green and open space at a school**—such as enhanced athletic fields, shade trees, and a pocket park. Furthermore, the Project will **utilize nature-based features** by planting of new drought-resistant plants and trees in educational gardens creating micro-habitats, enhancing biodiversity, and providing shade, which fosters outdoor learning.

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
 - ~82 ac-ft of 24-hour Project storage capacity

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)

- Example Project Benefits:**
- Increase local supply through infiltration to the underlying Main San Gabriel Basin
 - Project opportunity identified by the Lower Los Angeles River Watershed Management Program

Improve Public Health (Goal C)

3.3 Implement Projects located at school and in flood control channel right of ways (e.g., action 3.3.1)

3.4 Create, enhance, and restore park and green space, especially in high-need communities (e.g., action 3.4.1, 3.4.2)

3.5 Help communities most affected by extreme heat mitigate and adapt to the effects of climate change (e.g., actions 3.5.1, 3.452)

- Example Project Benefits:**
- Enhanced recreational features at existing school (pocket park, educational gardens, athletic fields)
 - New Areas of Canopy, Cooling, and Shading Surfaces (vegetation and permeable pavement) to reduce urban heat island effect
 - Environmental education and stewardship

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

4.3 Deliver nature-based, multi-benefit Projects and Program that improve water quality while addressing community priorities and concerns (e.g., action 4.3.1)

- Example Project Benefits:**
- Nature-based landscaping in and around bioretention areas

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

The screenshot shows the SCW Program Portal interface. At the top, there is a navigation bar with links for MAP, DASHBOARD, PLANNING, REPORTS, BIDS & SCHEDULES, and APPLY. The main content area is a map of the Upper San Gabriel River watershed area, with various callouts and overlays.

Watershed Area Planning Tool
 The Watershed Area Planning Tool (Planning Tool) serves as a living, interactive version of the Initial Watershed Plans. The Planning Tool illustrates Indicators and Performance Measures, targets, and Watershed Area Needs as they relate to the 14 Safe, Clean Water Program Goals.

Planning Toggle
 Toggles view between Map & Dashboard

SCW Program Portal Navigation Ribbon
 Enables easy navigation across Portal pages and Modules

Welcome Sidebar
 Introduces the Planning Tool and describes key features for users to explore

Watershed Planning Strategies Sidebar
 Open the strategies sidebar to reference Planning strategies. Filtering for a given WA in the filter sidebar will show WA specific strategies.

Project & Program Locations
 Click to view details and benefits of Projects and Programs funded to date and under consideration

Map Legend

- **Opportunities:** Layers that display areas with the most potential for implementing Projects or Programs that align with strategies.
- **Basemap Layers:** Provide context related to WA characteristics such as city boundaries and hydrologic features

STRATEGIES FOR WATERSHED PLANNING
 SCW Program-wide

* To see strategies for a specific Watershed Area, select a Watershed Area from the filter sidebar

The strategies below describe the means for addressing Watershed Area Needs and achieving SCW Program Goals. Strategies are organized by Planning Themes and are supported by actions and Opportunities. Please refer to the map legend to utilize the geospatial Opportunity layers for each Planning Theme.

- ▶ Improve Water Quality
- ▶ Increase Drought Preparedness
- ▶ Improve Public Health
- ▶ Deliver Multi-Benefits with Nature-Based Solutions & Diverse Projects
- ▶ Leverage Funding & Invest in Research & Development
- ▶ Equitably Distribute Benefits
- ▶ Promote Green Jobs & Career Pathways

Encanto Park Stormwater Capture Project

DETAILS | **PLANNING**

Planning Themes

- ▶ Improve Water Quality
- ▼ Increase Drought Preparedness

Average annual stormwater captured -- [ac-ft/yr]

Average annual stormwater captured and recharged -- [ac-ft/yr]

Opportunity Areas

- > Improve Water Quality
- > Increase Drought Preparedness
- ▼ Improve Public Health
 - Park and Green Space Creation
 - High
 - Higher
 - Park Enhancement or Restoration
 - High
 - Higher
 - Highest
- > Deliver Multi-Benefit Projects

Basemap Layers

- Watershed Area Boundaries
- Rivers and Creeks
- Groundwater Basins
- Supervisor Districts

Figure 6-2. Planning Tool Map summary of functionality

Initial Watershed Plan: Upper San Gabriel River Watershed Area



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.

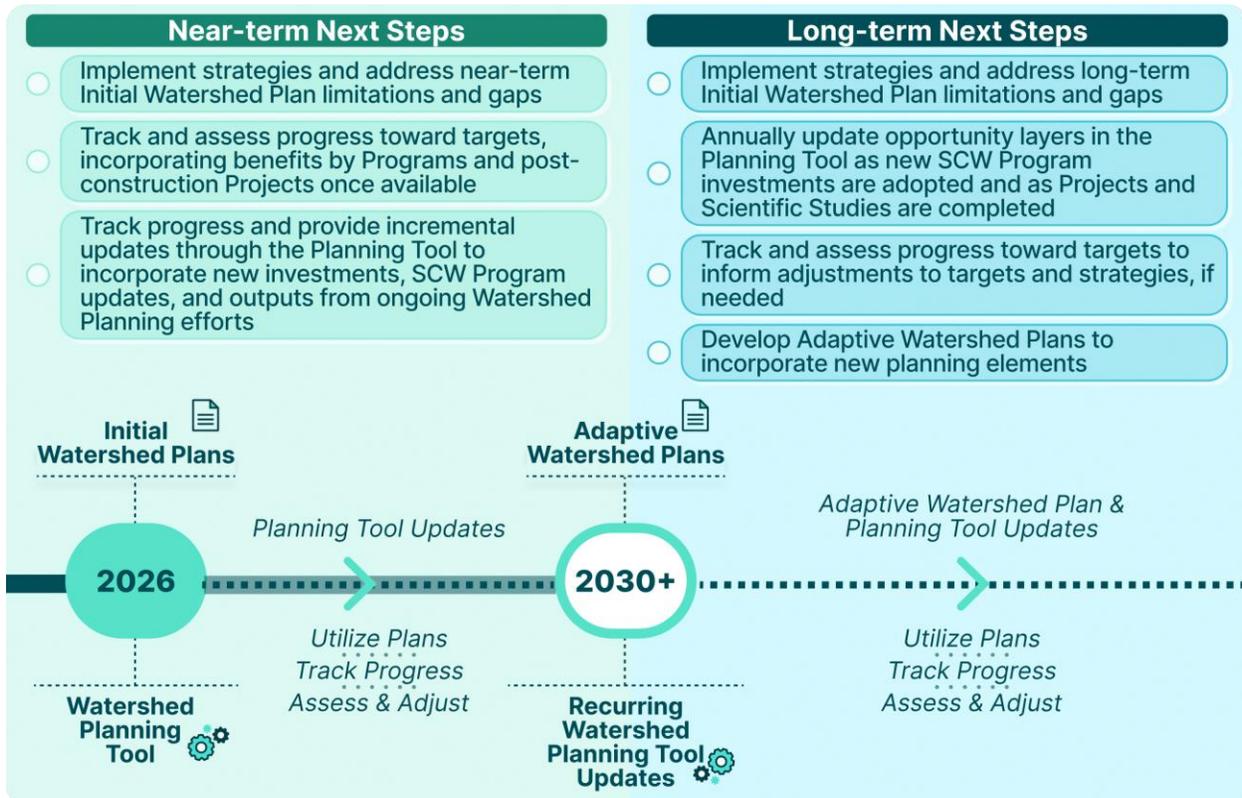


Figure 7-1. Watershed Planning near and long-term next steps

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,

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

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.

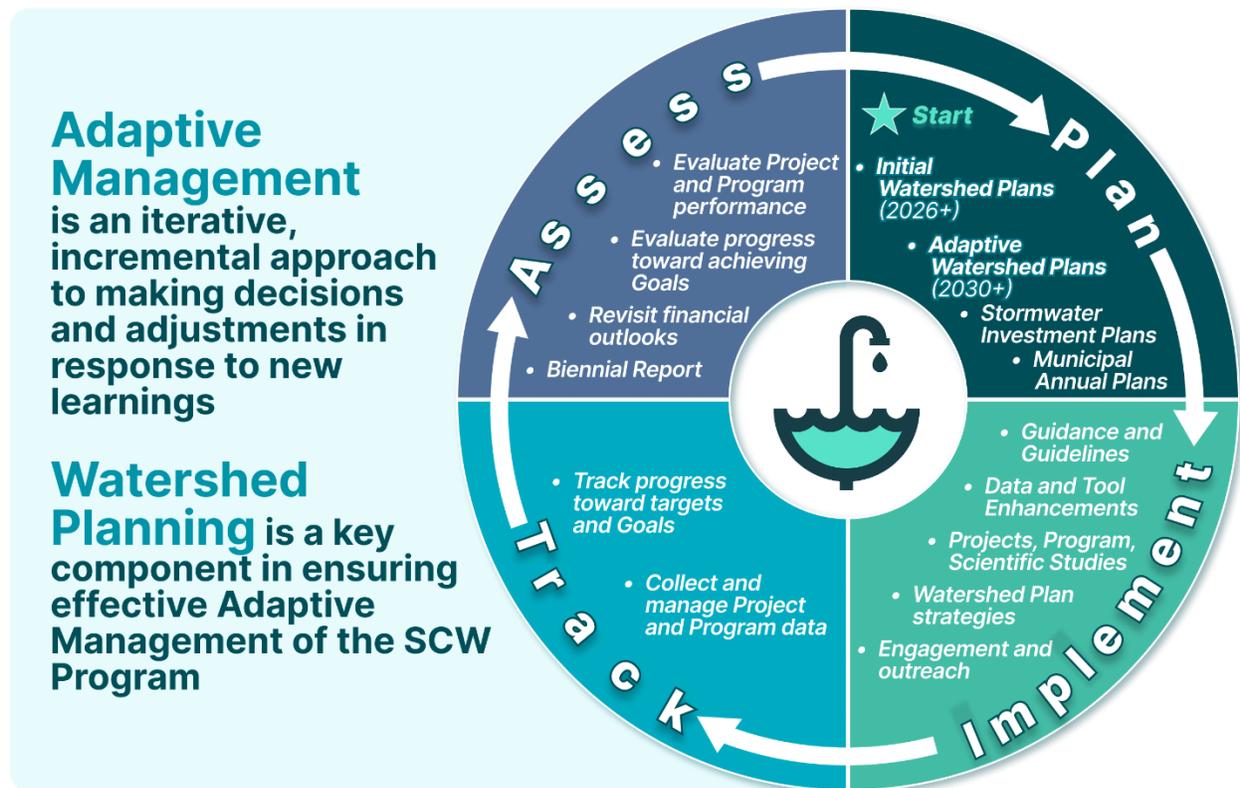


Figure 7-2. SCW Program Adaptive Management conceptual process

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

Figure 7-3. Recent SCW Program Adaptive Management

Watershed Planning efforts are informed through the assessment of progress towards 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 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 through 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	<p>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.</p> <p><i>(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.)</i></p> <p>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.</p> <p>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.</p>	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.

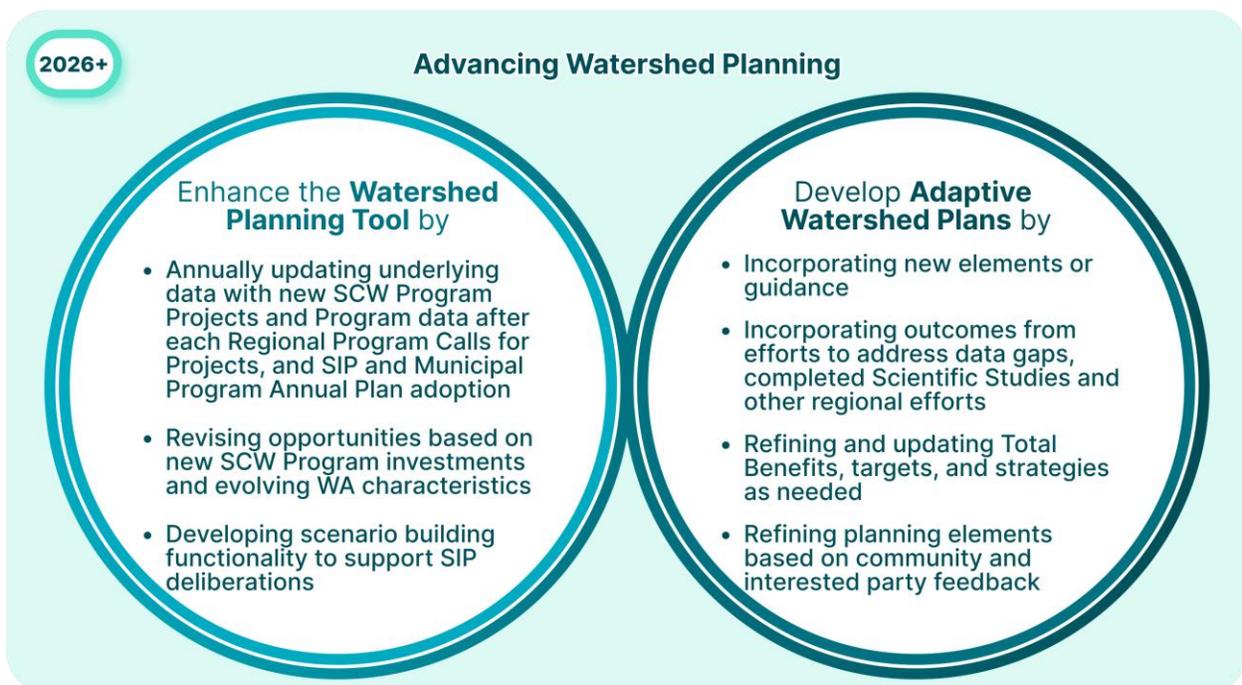


Figure 7-9. Next steps for Watershed Planning

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.

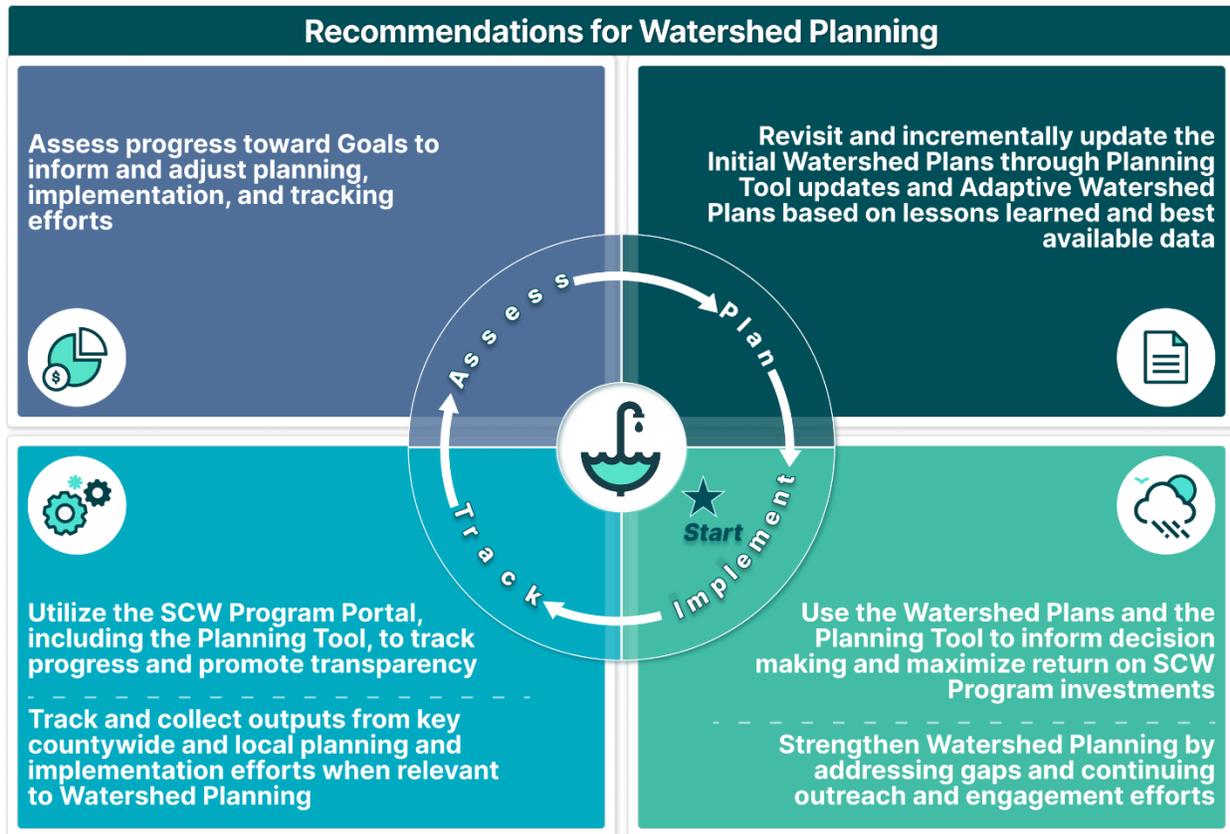


Figure 7-10. Long-term recommendations for Watershed Planning

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.

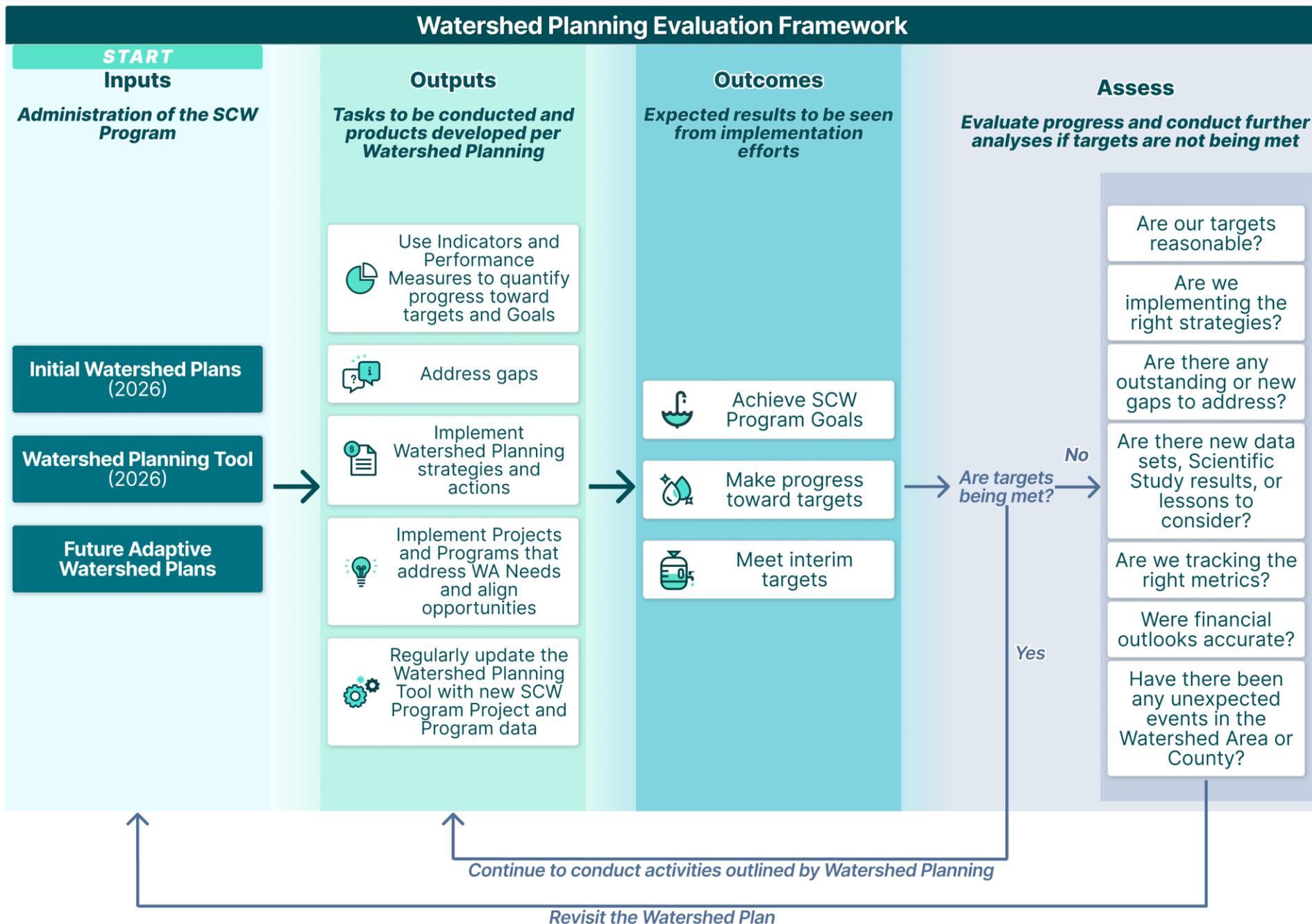


Figure 7-11. Watershed Planning evaluation framework

- 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 towards 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, PCBs and 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 proponents 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 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.