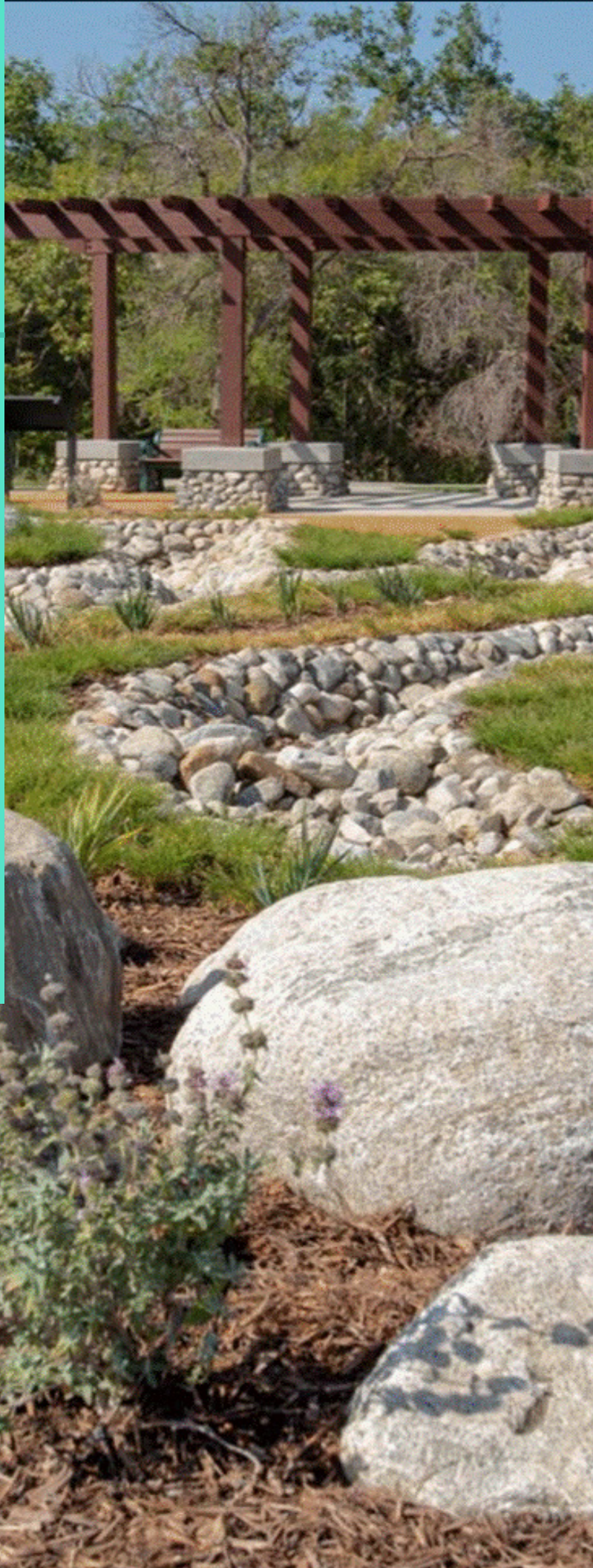# SAFE CLEAN WATER PROGRAM

Framework for Safe, Clean Water Program Watershed Planning

November 2024

Watershed Planning Framework Purpose

○   ·   ○

This Watershed Planning Framework (Framework) describes the key elements of the Safe, Clean Water Program (SCW Program) Watershed Plans and tools as well as the Watershed Planning process and serves as an early deliverable for communicating and receiving input from the governance committees and interested parties to inform development of the Initial Watershed Plans. The Framework outlines efforts to date and how the Watershed Planning process will seek to set visions for achieving SCW Program Goals and Countywide targets, as well as how progress will be quantified and tracked in the Initial and Adaptive Watershed Plans and tools. It also outlines how the planning process and its outcomes will adapt based on Watershed Area characteristics and input from interested parties to optimize planning efforts and maximize benefits within each Watershed Area.

While this Framework articulates Initial Watershed Plan outcomes and potential adaptations for Adaptive Plans, please note the illustrative examples in this Framework are provided to garner understanding of the proposed process and methods and any specifics shown are for illustration purposes only and do not represent actual proposed results or values. Carrying out the contents of this Framework will lead to the development of nine Initial Watershed Plans, one for each SCW Program Watershed Area, and an online Planning Tool that will be publicly available in mid-2025.

The outline of this Framework is closely tied to the proposed structure and content of the Initial Watershed Plans.

Framework for Safe, Clean Water Program Watershed Planning

Introduction

Safe, Clean Water Program Background

In November 2018, voters approved Measure W, a special parcel tax to fund the Safe, Clean Water Program (SCW Program) in Los Angeles County (LA County). The SCW Program has collected approximately $285 million per year in funding for use towards multi-benefit Projects and Programs that align with the SCW Program's 14 Goals (Goals; as defined in Chapter 18 of the Los Angeles County Flood Control District [LACFCD] Municipal Code) to improve water quality, increase local water supply, and provide community investment benefits (CIBs). SCW Program funding is divided across three sub-programs: Regional Program, Municipal Program, and District Program. Each sub-program and its funding allocation is detailed in Figure 1 below.

SCW Program Funding

10%

50%

40%

The **District Program receives 10%** to administer the SCW Program, provide technical assistance, plan, implement, and maintain District Projects, and implement educational Programs for the public, schools, and workforce job training.

The **Regional Program receives 50%** of all SCW Program funding, with the majority of that being spent on multi-benefit Projects, Concepts, and Scientific Studies across LA County.

The **Municipal Program receives 40%** and is designed to maximize the ability of local governments to address local stormwater and urban runoff challenges and opportunities. Funding is divided proportionately, based on how much tax is collected in each municipality.
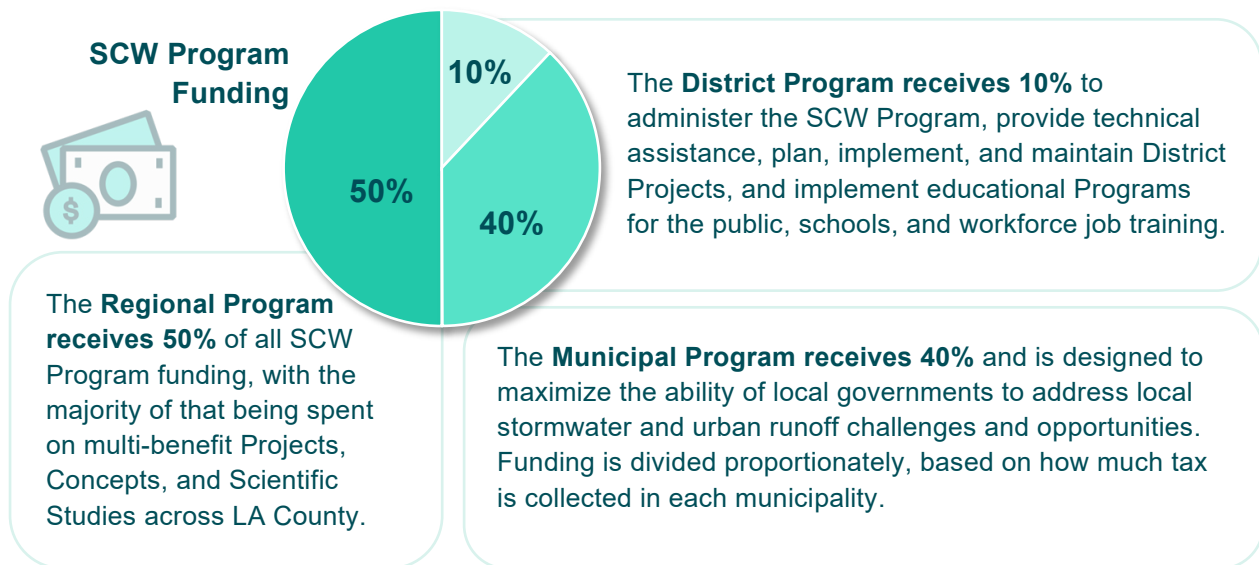
Figure 1. SCW Program funding allocations by Program

To ensure the unique circumstances and challenges of a watershed are considered when determining how to allocate SCW Program funds, the SCW Program is organized around nine Watershed Areas in LA County (Figure 2).
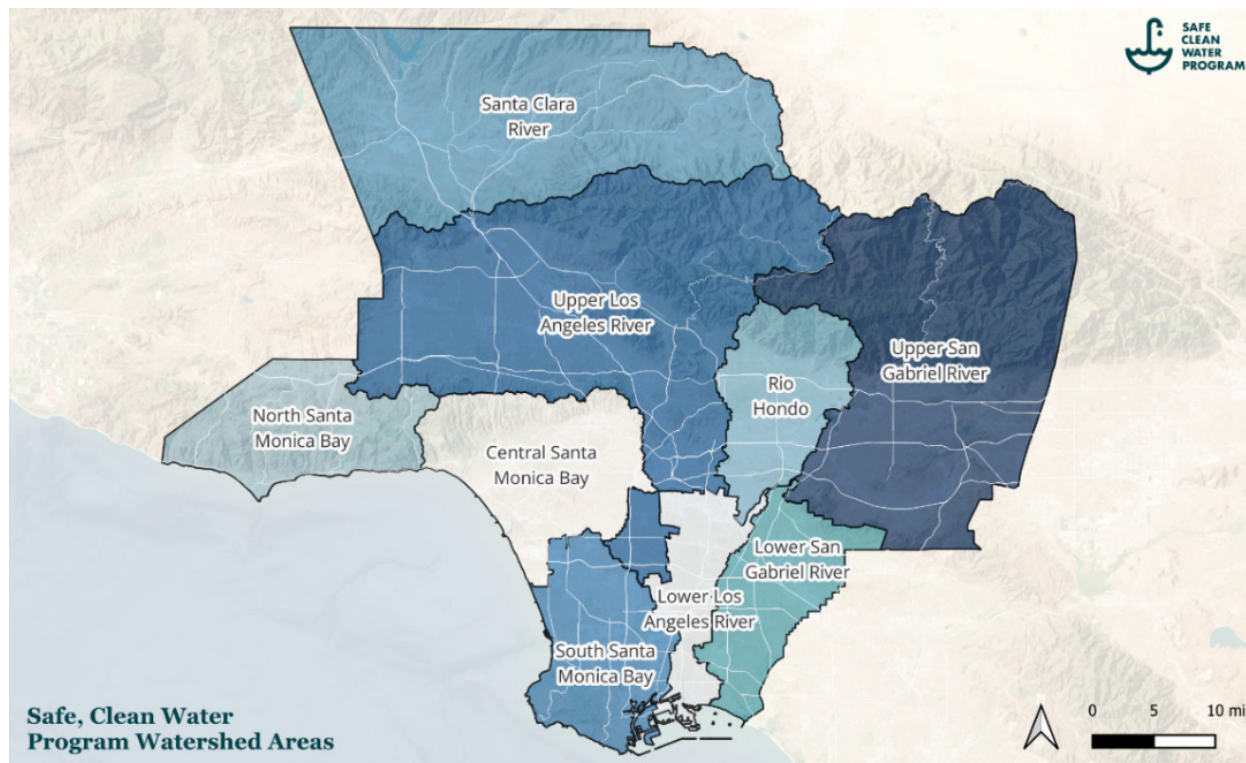
Figure 2. Nine SCW Program Watershed Areas

The eleven committees listed below oversee the effective operation of the SCW Program and they help ensure that the SCW Program and its funded activities are fulfilling its objectives and goals.

- The **Regional Oversight Committee (ROC)** is responsible, on a program-scale, for assessing whether Goals are being met. The ROC consists of nine subject matter experts with knowledge in water quality benefits, water supply benefits, Nature-Based Solutions (NBS) and CIBs, public health, sustainability, and other relevant issue areas. There are also two non-voting members representing the chair of the Regional Water Quality Control Board and the Los Angeles County Flood Control District (District).

- The **Scoring Committee** works with Los Angeles County Public Works (Public Works) to review and finalize scores for Projects being considered by each Watershed Area Steering Committee (WASC) for the Regional Program. The Scoring Committee is comprised of six subject matter experts in water quality benefits, water supply benefits, NBS, and CIBs.

- The nine **Watershed Area Steering Committees (WASCs)** are occupied by representatives from the following member types: municipal, agency, and community stakeholder. They review proposed Projects, Project concepts, and Scientific Studies and develop Stormwater Investment Plans (SIPs) for their respective Watershed Areas as part of the Regional Program. Each WASC is supported by at least one Watershed Coordinator (WC), who assists in guiding Projects from concept to implementation and promote community engagement throughout the process.
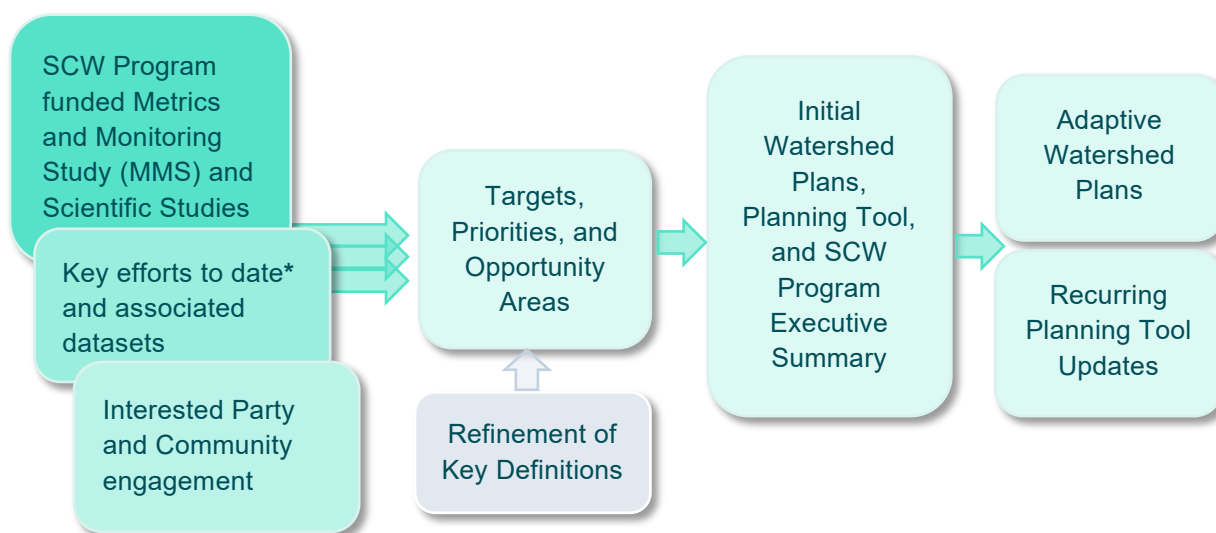
Why Watershed Planning?

The SCW Program is the largest program for delivery of stormwater capture Projects and Programs in the nation. The first five years of the program have been a tremendous success, projecting over $1.14 billion in funding allocations by 2030 for 300 Projects, 18 Scientific Studies, 53 Technical Resources Project concepts, and a spectrum of additional Programs for the 86 Municipalities across the LACFCD. In the first few years, the SCW Program funded a variety of multi-benefit Projects and Programs that provide an array of benefits to improve water quality, water supply, and public health in the region. Now, the SCW Program Watershed Planning (Watershed Planning) effort is looking to accelerate near- and long-term strategic investments that are built upon sound technical analysis and input gathered through a robust interested party engagement process.

Watershed Planning is providing a tailored set of Priority Goals and Priority Strategies for each of the nine SCW Program Watershed Areas, which are quite diverse in terms of population, demographics, and landscape. Watershed Planning serves as a dynamic process that adapts over time as the SCW Program and Watershed Area priorities evolve. Watershed Planning is establishing targets to quantify progress toward SCW Program Goals (Goals), identifying promising opportunities for high-impact multi-benefit Projects, Project concepts, and Scientific Studies, and initiating efforts to identify opportunities for non-structural activities (Programs). Through an assessment of other key planning efforts to date, best available data, interested party and community input, and identified targets and strategies, Watershed Planning will guide prospective applicants, Municipalities, and the District in developing Projects and Programmatic investments that will best serve the Watershed Areas. This effort will directly support SCW Program governance committees, Municipalities, and the District in considering Projects, fundable Programs, and evaluating SCW Program

progress. Additionally, it can support other planning initiatives beyond the SCW Program by providing a framework for decision-making, prioritization, and alignment with broader regional and community objectives. As seen in Figure 3 below, the first set of Watershed Planning outcomes will be the Initial Watershed Plans, which will be delivered for each of the nine Watershed Areas, as well as an Executive Summary for the SCW Program, in mid-2025. This Framework describes efforts to date, the vision for the Watershed Planning process, and illustrates the fundamental elements that are being developed to form the Initial Watershed Plans.

Note that key efforts to date include funded Projects and Programs, regional studies, local and Countywide plans, and more.

Figure 3. Major elements of SCW Program Watershed Planning

The Watershed Planning approach integrates and supports broader strategies and goals developed by local County, City, and environmental agencies and organizations' planning efforts, such as those in the OurCounty Sustainability Plan and County Water Plan (CWP) as well as funded Projects and Programs, regional studies, and local plans. This process includes the development of Initial Watershed Plans for each Watershed Area and an online Planning Tool to support strategic planning and tracking. The initial effort will be followed by Adaptive Watershed Plans that will refine and expand upon the Initial Watershed Planning efforts as described in *Next Steps for Watershed Planning*. Initial Watershed Plans will establish a shared language to promote a clear understanding of concepts and results. Key definitions and acronyms are presented in *Appendix A* and *Appendix B*, respectively.

By June 2025, Initial Watershed Plans and Planning Tools will be completed for each Watershed Area and the online Planning Tool will be launched, which will include best available data and community-based input as of March 2025. The following describes the purposes and outputs of the Initial Watershed Plans and Planning Tool.

Initial Watershed Plans

Illustrative documents that include:

- A summary of Watershed Area characteristics
- A snapshot of the baseline of Municipal and Regional Program funded Projects
- SCW Program-wide and Watershed Area-specific targets
- Watershed Area Needs
- Prioritized Goals and Priority Strategies
- Opportunity Areas
- Recommendations and findings
- Key data gaps and limitations

In addition, a SCW Program Executive Summary will roll-up and synthesize the above outcomes for the SCW Program

See Appendix C for the proposed Initial Watershed Plans Outline

Planning Tool

Living dynamic tools that include:

- Scenario functionality to support strategic investments
- Interactive maps to highlight Opportunity Areas and display Community Strengths and Needs Assessment (CSNA) outputs
- Dashboard to communicate Goals, priorities, and progress to date SCW Program-wide and by Watershed Area
- Automatic updates after each Call for Projects, Annual Plan submittals, and SIP approvals

Setting the Watershed Planning Vision

The Los Angeles County Board of Supervisors (Board) adopted a motion in July 2023 that initiated efforts to accelerate SCW Program implementation and established Public Works' SCW Program Watershed Planning Section to lead the Watershed Planning effort. Several Board motions related to SCW Program Watershed Planning followed and described the vision for the Initial Watershed Plans.

"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 SCWP 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 that the program needs to better quantify program success and progress towards goals" (2024-03-19)[3]

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

Watershed Planning Process & Structure

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* to develop Initial Watershed Plans, an online Planning Tool, and provide a foundation for Adaptive Watershed Plans.

Watershed Planning is considering input from interested parties and community members, local and regional requirements and plans, results of other key efforts to date, technical analysis, and progress by SCW Program funded Projects to establish Watershed Area-based targets and identification of Watershed Area Needs, Priority Goals and Strategies, and Opportunity Areas. The nine Initial Watershed Plans and Planning Tool will rely on these key planning elements to support strategic planning and tracking to guide implementation of the most impactful multi-benefit projects and programs. ***Note the outline of this Framework is closely tied to the proposed structure and content of the Initial Watershed Plans. The proposed outline for the Initial Watershed Plans is presented in Appendix C.*** Initial Watershed Planning will build out the sections of this Framework and tailor them to each of the nine Watershed Areas in their respective Plans.

> **Initial Watershed Plans will build from MMS outcomes by utilizing the datasets, analytical insights, metrics, and future needs that were developed to quantify progress toward Goals. Early Initial Watershed Planning evaluated and summarized MMS outcomes in the context of each Watershed Area to ensure key insights are incorporated into the Initial Watershed Plans and to begin filling identified data and definitional gaps. Initial Watershed Planning will amend this work with outcomes from other key planning efforts to advance Watershed Plans using the full breadth of watershed information developed to date.**

To communicate progress toward and strategies for achieving Goals, the Initial Watershed Plans will be organized around the 14 SCW Program Goals. The Goals are grouped into nine Planning Themes, illustrated in Figure 4, to describe the shared vision of capturing and cleaning stormwater, while also enhancing communities.

Improve Water Quality

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

Increase Drought Preparedness

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

Improve Public Health

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

Leverage Funding & Invest In Research & Development

D SCW Program Goal (18.04.D)
Leverage other funding sources to maximize SCW Program Goals.

H SCW Program Goal (18.04.H)
Encourage innovation and adoption of new technologies and practices.

I SCW Program Goal (18.04.I)
Invest in independent scientific research.

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

E SCW Program Goal (18.04.E)
Invest in infrastructure that provides multiple benefits.

F SCW Program Goal (18.04.F)
Prioritize Nature - Based Solutions.

G SCW Program Goal (18.04.G)
Provide a spectrum of project sizes from neighborhood to regional scales.

Equitably Distribute Benefits

J SCW Program Goal (18.04.J)
Provide DAC Benefits, including Regional Program infrastructure investments, that are not less than one hundred and ten percent (110%) of the ratio of the DAC population to the total population in each Watershed Area.

K SCW Program Goal (18.04.K)
Provide Regional Program infrastructure funds benefitting each Municipality in proportion to the funds generated within their jurisdiction, after accounting for allocation of the one hundred and ten percent (110%) return to DACs, to the extent feasible.

Watershed Planning

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

Promote Green Jobs & Career Pathways

M SCW Program Goal (18.04.M)
Promote green jobs and career pathways.

Ensure Ongoing Operations & Maintenance

N SCW Program Goal (18.04.N)
Ensure ongoing operations and maintenance for Projects.

Prioritize Meaningful Community & Tribal Engagement

Engagement is an implicit Theme fundamental to all Goals.

Figure 4. Planning Themes and SCW Program Goals (Section 18.02 of the LACFCD Municipal Code)

Figure 5 illustrates the Watershed Planning process and each of its key elements and outputs which are described in additional detail in subsequent sections of this Framework. Inspired by results-based accountability and USEPA concepts, Figure 5 highlights the iterative nature of planning and program implementation. Note that outreach and engagement will be an ongoing element that will influence and inform nearly all elements.
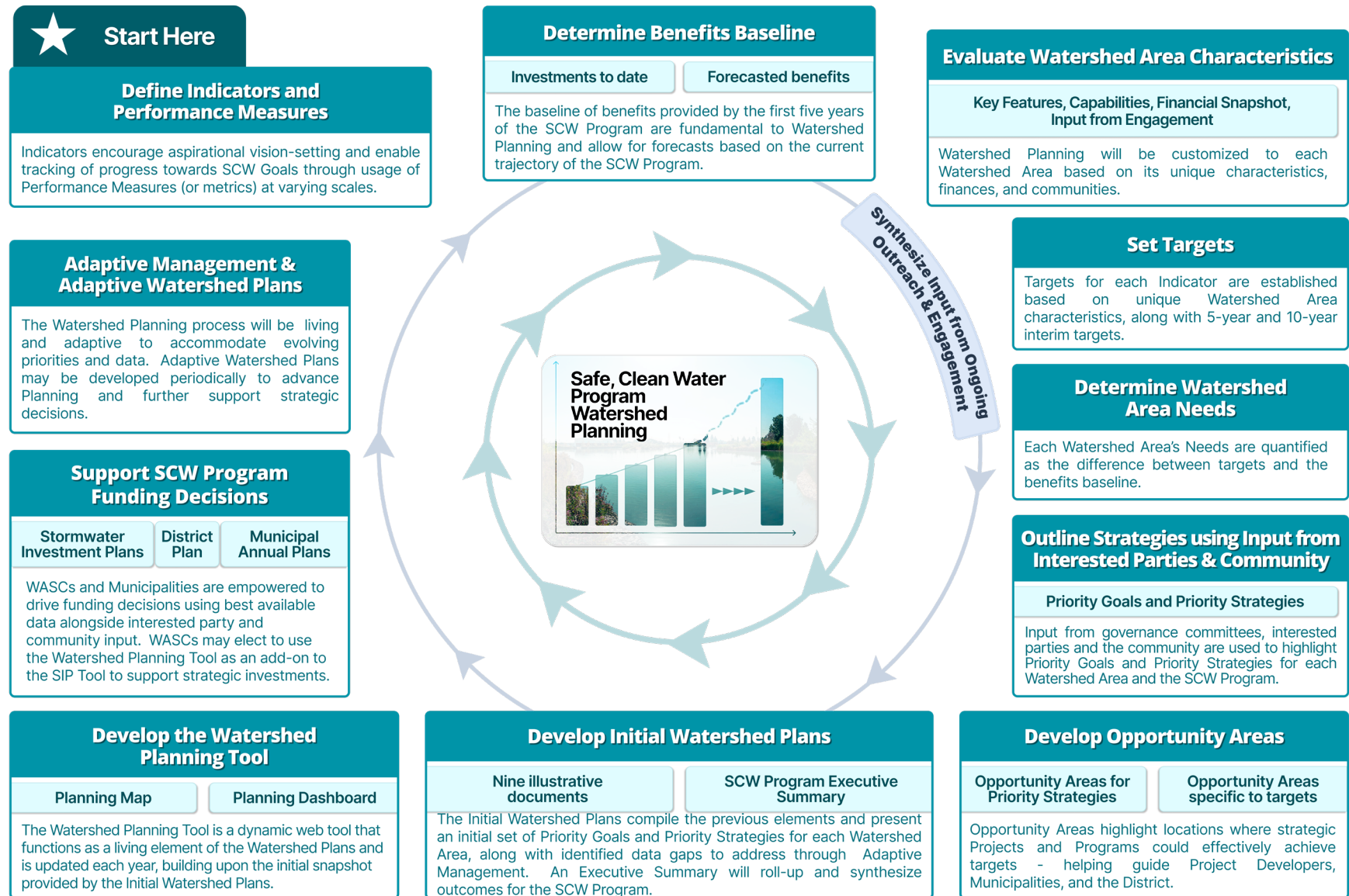
Start Here

Define Indicators and Performance Measures

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

Determine Benefits Baseline

Investments to date	Forecasted benefits

The baseline of benefits provided by the first five years of the SCW Program are fundamental to Watershed Planning and allow for forecasts based on the current trajectory of the SCW Program.

Evaluate Watershed Area Characteristics

Key Features, Capabilities, Financial Snapshot, Input from Engagement

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

Adaptive Management & Adaptive Watershed Plans

The Watershed Planning process will be living and adaptive to accommodate evolving priorities and data. Adaptive Watershed Plans may be developed periodically to advance Planning and further support strategic decisions.

Set Targets

Targets for each Indicator are established based on unique Watershed Area characteristics, along with 5-year and 10-year interim targets.

Determine Watershed Area Needs

Each Watershed Area's Needs are quantified as the difference between targets and the benefits baseline.

Support SCW Program Funding Decisions

Stormwater Investment Plans	District Plan	Municipal Annual Plans

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

Outline Strategies using Input from Interested Parties & Community

Priority Goals and Priority Strategies

Input from governance committees, interested parties and the community are used to highlight Priority Goals and Priority Strategies for each Watershed Area and the SCW Program.

Synthesize Input from Ongoing Outreach & Engagement

Safe, Clean Water Program Watershed Planning

Develop the Watershed Planning Tool

Planning Map	Planning Dashboard

The Watershed Planning Tool is a dynamic web tool that functions as a living element of the Watershed Plans and is updated each year, building upon the initial snapshot provided by the Initial Watershed Plans.

Develop Initial Watershed Plans

Nine illustrative documents	SCW Program Executive Summary

The Initial Watershed Plans compile the previous elements and present an initial set of Priority Goals and Priority Strategies for each Watershed Area, along with identified data gaps to address through Adaptive Management. An Executive Summary will roll-up and synthesize outcomes for the SCW Program.

Develop Opportunity Areas

Opportunity Areas for Priority Strategies	Opportunity Areas specific to targets

Opportunity Areas highlight locations where strategic Projects and Programs could effectively achieve targets - helping guide Project Developers, Municipalities, and the District.

Figure 5. SCW Program Watershed Planning Elements

Working Together

Building on efforts by the OurCounty Sustainability Plan and the CWP, the SCW Program Initial Watershed Plans are engaging with the SCW Program's interested parties outlined in Figure 6, among others. Engagement is occurring in a phased approach to center interested party participation throughout the development of the Initial Watershed Plans. The input provided through each step of the process will continue to support the identification of both Watershed Area-specific and SCW Program-wide priorities and concerns to inform the development of Priority Goals, and Priority Strategies (detailed in *Watershed Area Needs, Priority* Goals, & Strategies). *Appendix* D provides details on interested parties and Watershed Planning engagement.

The Initial Watershed Plans are also capitalizing on results from key planning efforts to date, such as the Los Angeles County Parks Needs Assessment (PNA), the Metrics and Monitoring Study (MMS), and Public Works' Equity in Infrastructure Initiative. The result is a living document of key efforts to date, informed by robust interested party engagement, which is being used to inform methods, identify data sources, ensure alignment with existing local and Countywide efforts, and contribute toward parallel Countywide targets (e.g., OurCounty Sustainability Plan, CWP) as applicable. Key efforts to date include local and Countywide plans, databases of funded Projects and Programs, regional studies, and more. This list will continue to be updated and evaluated as Watershed Planning progresses. A snapshot of this document is available in *Appendix E*.

The Initial Watershed Plans will synthesize engagement input and key efforts to date to identify Watershed Area characteristics, inform targets, and identify strategies to support strategic funding decisions and achievement of SCW Program Goals.

Figure 6. Initial Watershed Plan interested parties

Watershed Planning is also launching the Community Strengths and Needs Assessment (CSNA), which will gather community perspectives to strengthen the achievement of SCW Program Goals and beyond. The CSNA survey (Figure 7) is being launched for community members to provide input both digitally and on paper at community events, consisting of 11 questions allowing the community to identify their priority areas of concern for stormwater-related issues and potential improvements. A database of community responses will be aggregated and displayed on a GIS-powered online public dashboard that will identify community-specific priorities that could potentially be addressed by Projects and Programs seeking SCW Program funding. The public dashboard and GIS platform can also be utilized to support other planning initiatives beyond the SCW Program. A CSNA-driven spatial data layer will also be featured in the Watershed Planning Tool Map. A preview of the CSNA survey and a timeline of related efforts are available in *Appendix F*.

The results of the CSNA will be evaluated and factored into consideration when determining SCW Program Priority Goals for Watershed Areas and Priority Strategies. Additional information on the integration of CSNA-related outcomes is available in the *Watershed Area Needs, Priority* Goals, & Strategies section to follow.

Figure 7. CSNA Survey summary

Evaluating Watershed Area Characteristics

For each of the nine Watershed Areas, the Initial Watershed Plans will continue to utilize the following characteristics to inform multiple elements of the Watershed Planning process:

- **Key Features:**
  - Physical and natural features (geographic location, topography, watersheds, hydrology, hydraulics, water supply features),
  - Land use and population characteristics (land use, land cover, population demographics, historical disparities and community needs, native land acknowledgement), and
  - Waterbody conditions (water quality impairments).

  Note that many key feature datasets are publicly available in the SCW Spatial Data Library ([LINK](#))
- **Capabilities Summary:** Physical and economic opportunities and challenges based on the characteristics of each Watershed Area (informed by MMS).
- **Financial Snapshot:** SCW Program tax collection totals, and SIP and Annual Plan allocations based on the latest approved documents.
- **Interested Party and Community Input:** Narrative-based Watershed Area Characteristics, and Priority Goals and Strategies (described in *Identifying Strategies for Addressing Needs and Achieving* Goals).

Watershed Planning is building from the MMS and its preliminary summary of Watershed Area Characteristics (*Appendix G*). The MMS summarized each of the nine Watershed Areas in terms of their characteristics, opportunities, and challenges related to the development of Projects. This summary was grounded in the Goals of the SCW Program and provides a wealth of information, analysis, and datasets developed for MMS and key SCW Program Scientific Studies (i.e., Gateway Area Pathfinding Analysis, preSIP: A Platform for Watershed Science and Project Collaboration [preSIP]) focused on Watershed Planning and outcomes. This summary provides an early snapshot of Project realities and potential to contribute to Goals. Datasets and results from this effort are serving as a starting point for further planning analysis and adaptation and are being further informed by input from ongoing engagement, new data as it becomes available, and the Initial Watershed Planning Opportunity Area analysis.

Quantifying Progress Toward SCW Program Goals

Defining Indicators & Performance Measures

Watershed Planning is defining Performance Measures (PMs), or metrics, to quantify the benefits of individual SCW Program funded Projects and Programs. Additionally, Indicators, or high-level measures, are being established to aggregate PMs by Watershed Area and across the SCW Program to measure progress toward achieving Goals. For each Indicator, Watershed Planning is developing a target to support vision-setting and the tracking of progress toward and achievement of Goals. Interim targets are also being established to measure the rate of progress in implementing strategies and achieving Goals. Interim targets will support adaptive management by prompting a review of strategies if they are not met. Figure 8 on the next page summarizes these terms and illustrates how PMs are being mapped to Indicators and Goals, which are organized into nine Planning Themes.

To establish PMs and Indicators, Watershed Planning is building on Countywide planning efforts, such as the CWP and OurCounty Sustainability Plan, and recommendations by the ROC and MMS. Indicators and PMs related to NBS, water quality, and CIB are being defined and expanded through the ongoing CWP NBS Blue Ribbon Panel, and the Water Quality and CIB working groups. A detailed schematic and table of preliminary Watershed Planning Indicators and PMs, complete with their relationship to each Goal and Planning Theme, are available in *Appendix H.* Note that Indicators and PMs defined to date have largely focused on the quantification of Regional and Municipal Program Projects in planning, design, and/or construction phases, as described in *Appendix H*. Metrics for post-construction Projects and to quantify benefits by Programs will be incorporated as applicable through adaptive management.
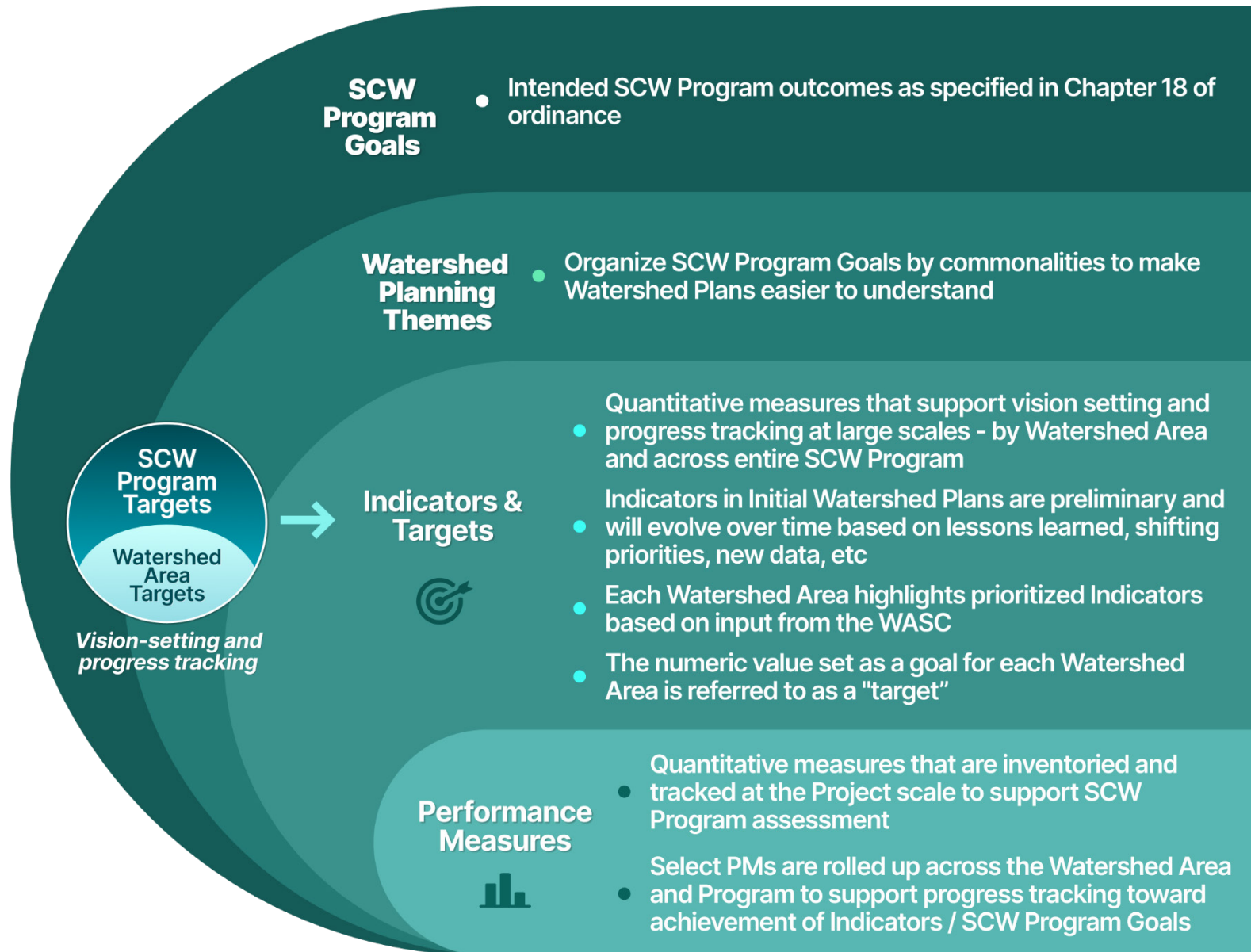
SCW Program Goals
- Intended SCW Program outcomes as specified in Chapter 18 of ordinance

Watershed Planning Themes
- Organize SCW Program Goals by commonalities to make Watershed Plans easier to understand

SCW Program Targets / Watershed Area Targets

Vision-setting and progress tracking

Indicators & Targets
- Quantitative measures that support vision setting and progress tracking at large scales - by Watershed Area and across entire SCW Program
- Indicators in Initial Watershed Plans are preliminary and will evolve over time based on lessons learned, shifting priorities, new data, etc
- Each Watershed Area highlights prioritized Indicators based on input from the WASC
- The numeric value set as a goal for each Watershed Area is referred to as a "target"

Performance Measures
- Quantitative measures that are inventoried and tracked at the Project scale to support SCW Program assessment
- Select PMs are rolled up across the Watershed Area and Program to support progress tracking toward achievement of Indicators / SCW Program Goals

Figure 8. Watershed Planning Themes, Goals, Indicators and PMs

Estimating the Baseline of Benefits Provided by Funding to Date

Watershed Planning is developing a baseline of benefits provided by SCW Program funded Projects and Programs and forecasting potential benefits assuming current efforts are continued. The cumulative benefits of Municipal Program and Regional Program funded Projects and Programs are being determined and forecasted in terms of PMs using language that is broadly congruent to key County-led efforts to date. Benefit baselines and forecasts support the development of SCW Program targets, identification of Watershed Area Needs, and communication of progress as described in subsequent sections of this Framework. Initial Watershed Planning will focus on developing baselines and forecasts for Regional and Municipal Program Projects, while Adaptive Plans baselines may include non-structural Programs and activities.

Watershed Planning is building from MMS and SCW Program Regional and Municipal Program Project reporting, to preform advanced modeling using Public Works' Watershed Management Modeling System 2.0 (WMMS2) to forecast the cumulative water quality and water supply benefits of funded Projects. The model configuration is considering the spatial relationship between Projects, accounting for nesting of Projects and their drainage areas to avoid double counting of Water Quality and Water Supply Benefits. In addition to Water Quality and Water Supply Benefits, a baseline for all other PMs (e.g., CIB, NBS, job creation) is being established using data submitted by project proponents and Municipalities through the Projects and Reporting Modules and analyzed with methods established in MMS. To fill data gaps related to these benefits and estimate their baselines, Initial Watershed Planning is administering a data request through the Reporting Module to project proponents and Municipalities in early 2025. This process is illustrated in Figure 9 on the next page. As part of adaptive management, engagement with Municipalities (via WASCs and other interested parties) and an additional data request may be undertaken to augment available Municipal Program data and further represent Municipal Program activities as part of the Adaptive Plans.
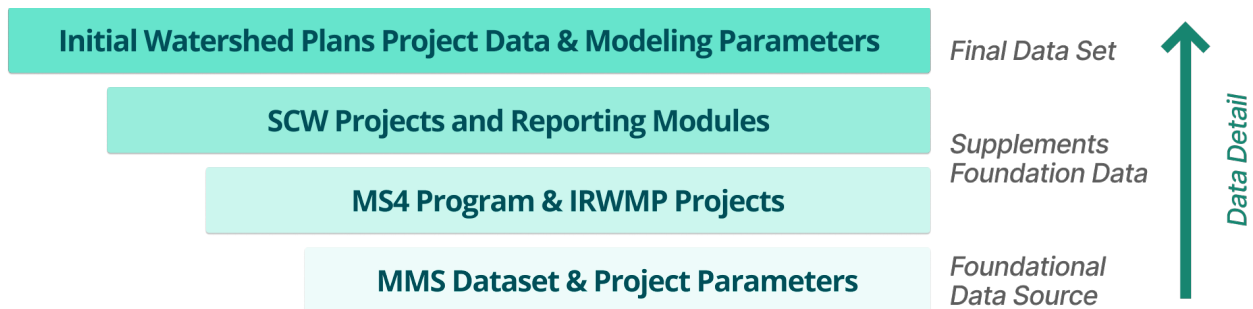
Figure 9. Development process for baseline estimates

To account for the above average number of Projects funded in the first years of the SCW Program, which stemmed from a backlog of Project concepts and a budget that could be allocated exclusively to new Projects, Initial Watershed Plan is developing benefit forecasts using Projects and Reporting Module data from Regional Program Projects funded in the last 5 years (FY20-21 – FY24-25) and in the last 3 years (FY22-23 – FY24-25); where the 5-year benefit forecast is typically higher than the 3-year. While Municipal Program Project data is limited, it is being incorporated in benefit baseline and forecasts when available. *Addressing Key Gaps and Limitations* provides additional detail on project data gaps identified to date and how Watershed Planning will address them. Figure 10 provides a summary of the baseline of Projects funded by the Regional Program and Municipal Program through the first five funding rounds.

Through the first five rounds, the
Regional Program has committed funds to

137

Infrastructure Program multi-benefit Projects across 50 municipalities
that capture stormwater from over 276,000 acres
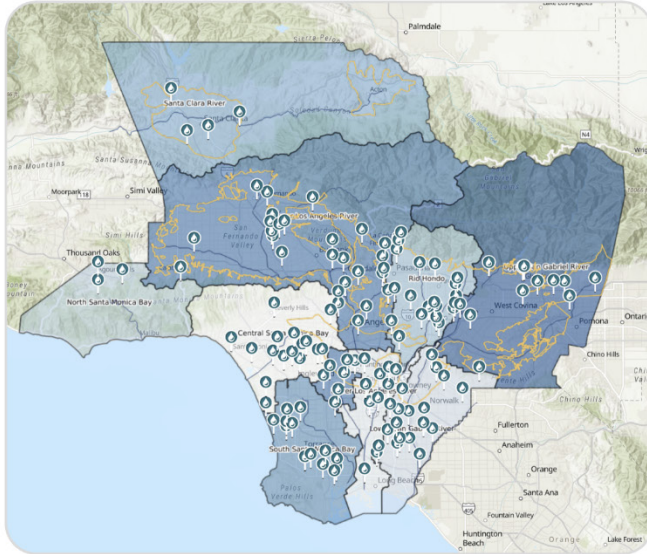
Representing regional
investments totaling

$1.6
MILLION

Benefiting disadvantaged
communities totaling

$755
MILLION

Increasing annual average
stormwater capture by

60,364
ACRE-FEET

Leveraging other funds
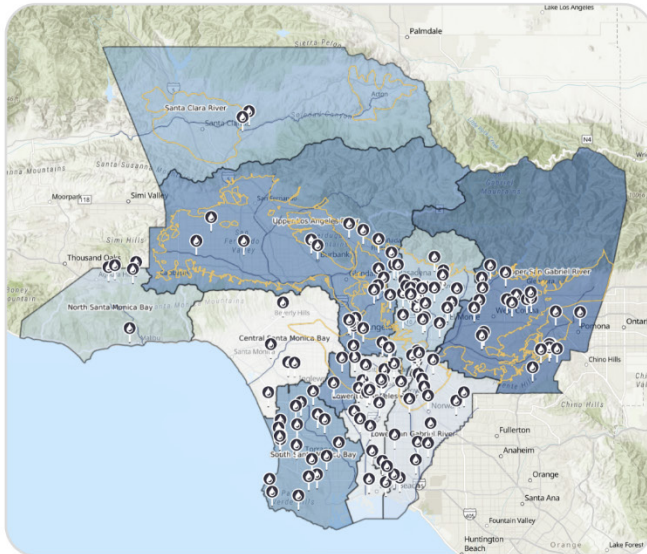totaling over

$622
MILLION

Through the first three years, the
Municipal Program has committed funds to

571

Project and Program activities
for the Municipal Program

$168.1M

Municipal Program expenditures
in first 3 years toward Projects

Number of
Projects
constructed

Cost share towards
Regional Program
Infrastructure
Program Projects

12
PROJECTS

20
PROJECTS

$30.4
MILLION

Projects are being
implemented
across

Total Municipal
Program Projects
being
implemented

61
MUNICIPALITIES

160
ACTIVITIES

Municipal Program
activities are being
implemented across

Total reported
expenditures on
all activity types

83
MUNICIPALITIES

$83.9
MILLION

Figure 10. Baseline of Regional and Municipal Program Projects and Program Activities funded to date

Establishing Targets and Progress Tracking

Watershed Planning is developing 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 SCW Program Goals. The target setting process also recognizes that the SCW Program is a key contributor in the effort to achieve regional goals essential to the County's long-term vision for sustainability and resiliency. For many Indicators, there are local and Countywide targets that will be achieved via a variety of programs, including the SCW Program. For example, the OurCounty Sustainability Plan, CWP, and PNA contain their own Countywide targets, which are being referenced during target setting such that the SCW Program contribution is maximized and is a major contributor to achieving those Countywide targets (Figure 11). When a Countywide target is not identified for a given Indicator, local targets, outcomes of key efforts to date, and Watershed Area characteristics, are being used to determine a SCW Program target. For all Indicators, Watershed Planning is establishing targets using a combination of top-down and bottom-up approaches as described on the panel accompanying Figure 12.

Each of the nine Watershed Areas will contribute to SCW Program targets through individual Watershed Area-specific targets. The relative contribution toward SCW Program targets by each Watershed Area is largely based on its characteristics (see *Watershed Area Characteristics*), such as unconfined aquifer availability for recharge or the available park space for enhancement.
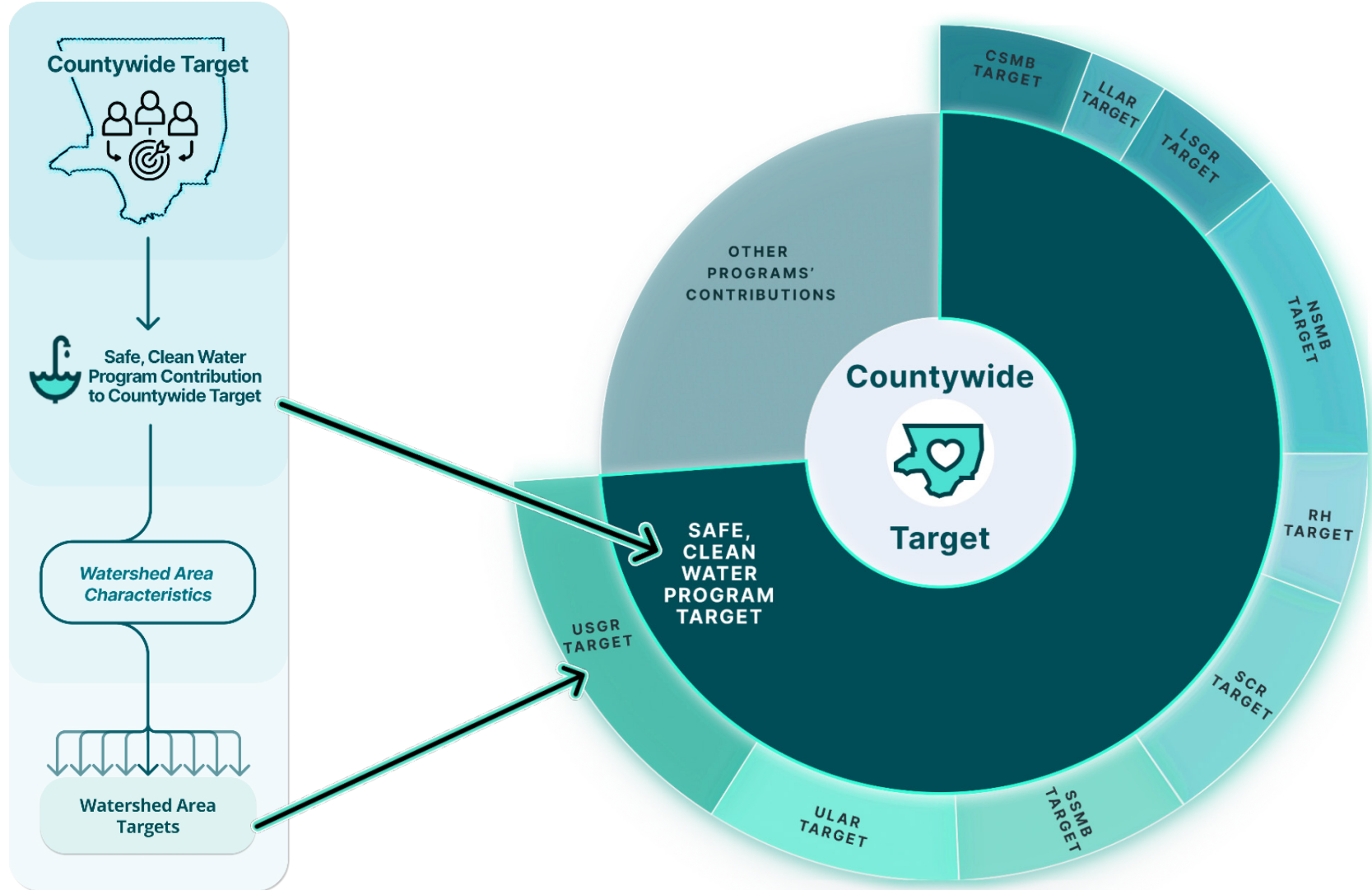
Note: this figure represents the conceptual process for an Indicator with a corresponding Countywide target and does not apply to every Indicator

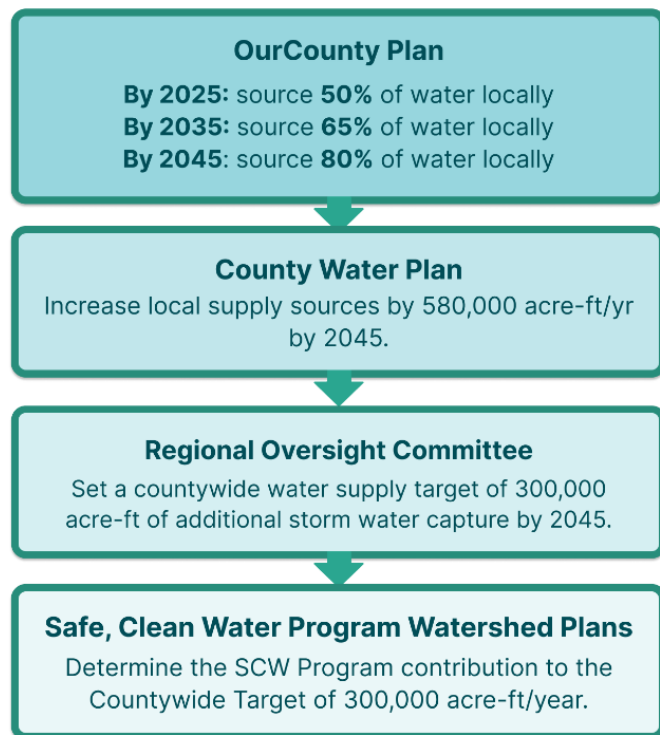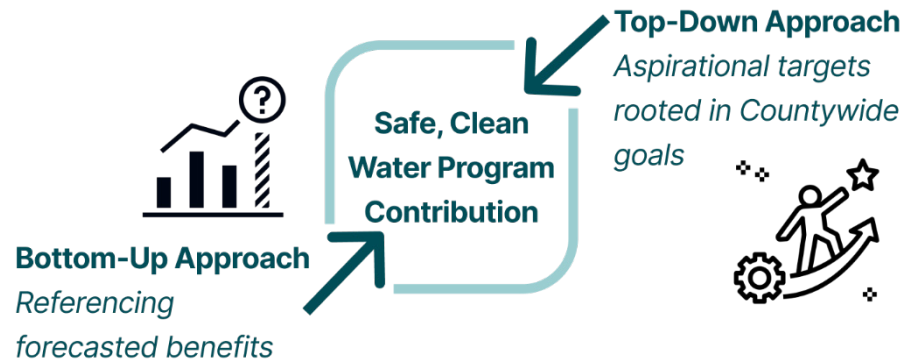**Figure 11. Countywide and SCW Program target contributions**

OurCounty Plan

By 2025: source **50%** of water locally
By 2035: source **65%** of water locally
By 2045: source **80%** of water locally

County Water Plan
Increase local supply sources by 580,000 acre-ft/yr by 2045.

Regional Oversight Committee
Set a countywide water supply target of 300,000 acre-ft of additional storm water capture by 2045.

Safe, Clean Water Program Watershed Plans
Determine the SCW Program contribution to the Countywide Target of 300,000 acre-ft/year.

Figure 12. Local Water Supply Countywide targets

Top-Down Approach
The Top-Down approach uses a holistic viewpoint by referencing Countywide targets developed in Countywide planning efforts to set targets for the SCW Program that maximize contributions by the SCW Program, while also estimating contributions from other programs such as Integrated Regional Watershed Management Plans (IRWMPs), Watershed Management Plans (WMPs) and Measures H, A, and M. For example, Figure 12 demonstrates how the Top-Down Approach is being applied to Water Supply targets. If a Countywide target is not identified, local targets, key efforts to date, and Watershed Area characteristics are being used to develop a SCW Program target.

Top-Down Approach
Aspirational targets rooted in Countywide goals

Safe, Clean Water Program Contribution

Bottom-Up Approach
Referencing forecasted benefits

Bottom-Up Approach
The Bottom-Up approach analyzes SCW Program Regional and Municipal Program funded Projects and assesses their forecasted benefits to understand what is presently achievable and forecasted to be achieved by the SCW Program under its current trajectory. Baselines and forecasts are being used, along with the Top-Down approach, to determine the SCW Program's contribution to the Countywide targets. Watershed Planning acknowledges that future benefit delivery will likely be less than that forecasted based on Projects funded to date, as its expected Project implementation rates will taper over time as funding is directed toward operations and maintenance (O&M). On the other hand, new technologies and efficiencies may allow the SCW Program to achieve more with its annual funding than currently forecasted.

Identifying Strategies for Addressing Needs and Achieving Goals

Watershed Area Needs, Priority Goals, & Strategies

Watershed Area Needs represent progress needed to achieve a given target and are determined by the difference between a target and its baseline of cumulative benefits (Figure 13). To add specificity to Watershed Area Needs, Watershed Planning is synthesizing interested party and community priorities and concerns, collected through engagement and the CSNA (see *Working Together*), to

Figure 13. Watershed Area Need Conceptual Example

identify Priority Goals for Watershed Areas. Priority Goals for Watershed Areas elevate specific Goals to emphasize interested party and community identified priorities and concerns for each Watershed Area.
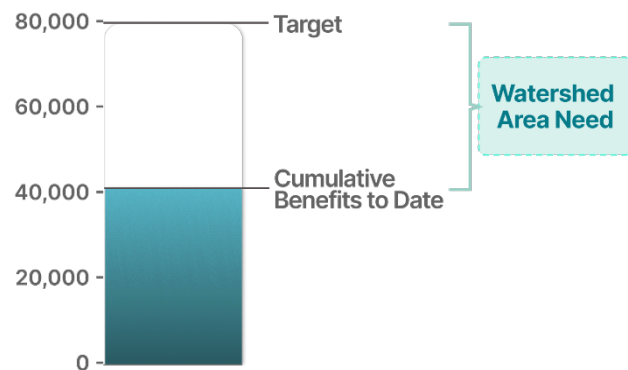
To address Watershed Area Needs and achieve Goals, Watershed Planning is developing SCW Program-wide strategies, which describe the means through which Watershed Area Needs are to be addressed and Goals achieved. Strategies are determined by working backwards from the desired outcomes to identify necessary actions. The Initial Watershed Plan is developing an initial set of strategies to guide project proponents and support strategic funding decisions by WASCs, Municipalities, and the District. In general, strategies describe actions for making progress toward targets and achieving Goals through implementation of,

- Projects with desirable:
    - Attributes (e.g., wet or dry-weather capture, Project type, size, cost effectiveness) and/or
    - Location (e.g., sites where there is need and opportunity to address needs and provide benefits to Disadvantaged Communities [DACs], etc.)
- Programs that address Watershed Area Needs and/or Priority Goals, including Scientific Studies and activities such as monitoring programs, street sweeping, trash capture programs, and community outreach and education efforts

- Data collection efforts, such as Scientific Studies, that address key data gaps identified for Adaptive Management (see *Addressing Key Gaps and Limitations*) *Note that while Initial Watershed Plans are including qualitative strategies related to non-structural Programs and efforts, tracking of their effectiveness will be initiated by Adaptive Watershed Planning which will quantify benefits provided by Programs.*

Interested parties are also supporting identification of Priority Strategies, which describe the preferred actions for each Watershed Area. Commonalities across Watershed Areas are being considered SCW Program-wide Priority Strategies. Figure 14 below provides initial examples of SCW Program-wide Priority Strategies identified through WASC engagement. SCW Program-wide and Watershed Area-specific Priority Strategies will continue to evolve with Initial Watershed Planning engagement and technical analyses. Examples of strategies employed by the SCW Program to date as well as details on the identification of Priority Strategies are presented in *Appendix I*. The engagement process to identify Priority Goals and Priority Strategies includes a wide range of interested parties and governance committees as illustrated in Figure 15.

Link MS4 compliance, groundwater recharge, and water reclamation planning to maximize stormwater capture for water quality and water supply

Evaluate open space and large lot potential, particularly on school campuses

Consider historic land use disparities and environmental justice metrics across the Program area

Acknowledge, where feasible, other capital improvement programs that can contribute to regional outcomes

Figure 14. Initial examples of SCW Program-wide Priority Strategies through WASC engagement
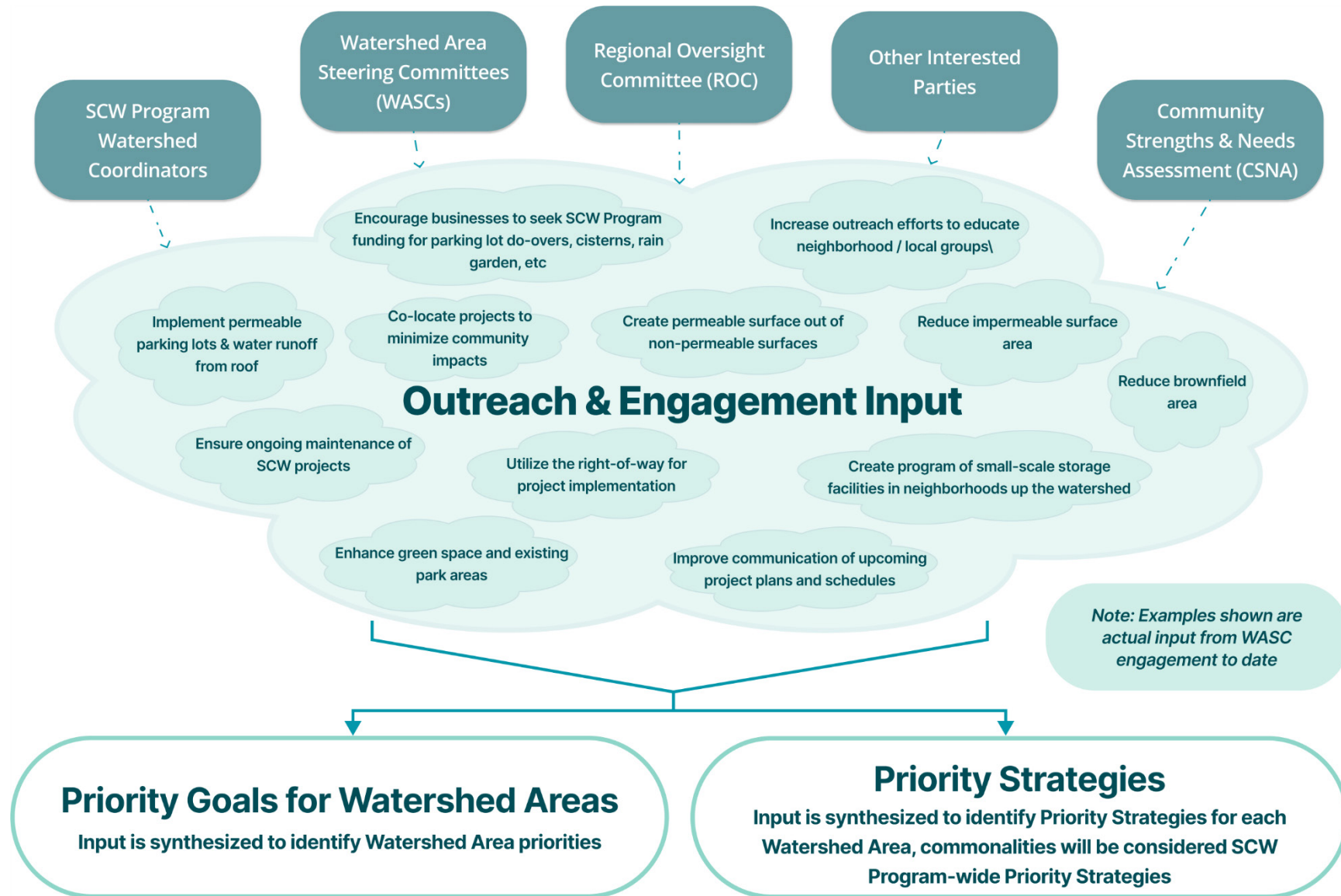
Figure 15. Conceptual process to identify Priority Goals and Priority Strategies for Initial Watershed Plans

Identifying Opportunity Areas

To support the implementation of strategies, Watershed Planning is developing Opportunity Areas that geospatially illustrate where strategic Projects and Programs could effectively support progress toward Goals and align with Priority Strategies. Opportunity Areas are being developed through the identification of areas where,

1. Strategic Projects and Programs could directly support progress toward a given Goal,
2. Stormwater runoff is not currently being managed by an existing SCW Program funded Project, and
3. Strategic Projects and Programs would align with SCW Program-wide and/or Watershed Area-specific Priority Strategies.

Figure 16 below demonstrates the conceptual process for developing Opportunity Areas, where areas of overlap represent areas where Project or Program implementation could address one or more target or Priority Strategy. Opportunity Area identification is placing emphasis on areas with the most need (as identified by key regional and local planning efforts to date) and are being developed using the best available geospatial data from regional datasets and key efforts to date outcomes. Opportunity Areas are expected to guide project proponents and support strategic funding decisions by WASCs, Municipalities, and the District by identifying future Project and Program locations.
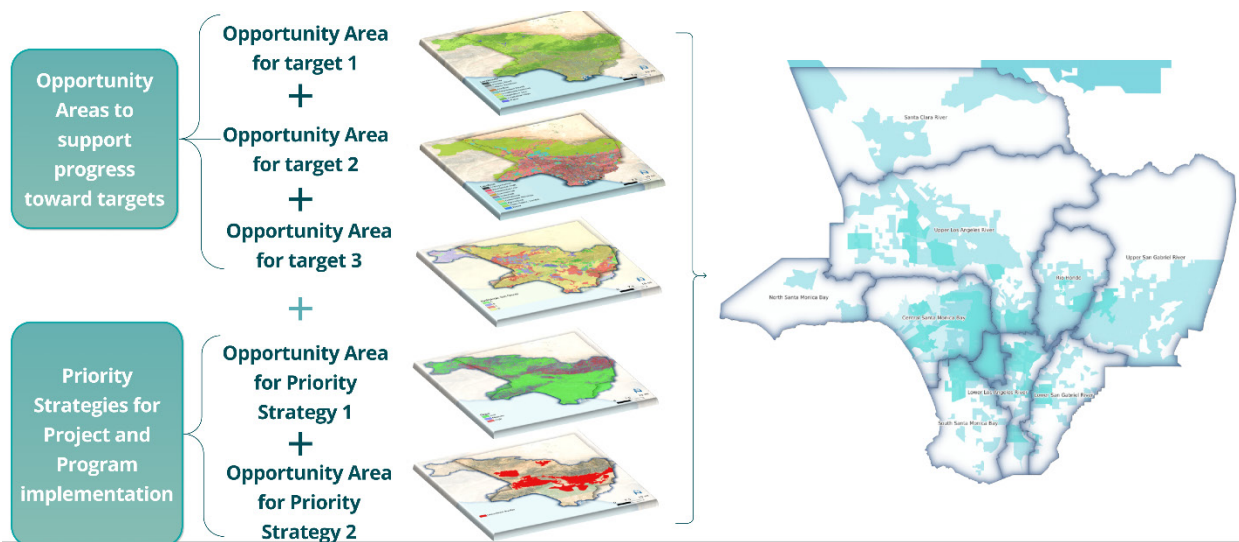

Figure 16. Conceptual example of Opportunity Area development

Figure 17 below illustrates an initial example capture Opportunity Areas which highlight where there is opportunity to implement new stormwater capture Projects while avoiding overlap with existing SCW Program funded Projects or other major existing centralized stormwater capture facilities such as spreading grounds, dams, and reservoirs. As summarized by the legend in Figure 17,

- Non-shaded areas (white) represent area where dry and wet weather stormwater runoff is currently managed by an existing SCW Program funded project (i.e., no opportunity for a new Project),
- the middle shade represents area where there is opportunity to implement a wet weather capture project (i.e., dry weather runoff is already managed by an existing SCW Program funded Project or other major capture facility), and
- the darkest shade represents capture area where there is opportunity to implement either a dry weather or wet + dry weather capture project (i.e., stormwater runoff is not managed by an existing SCW Program funded Project or other major capture facility).

Opportunity Areas will continue to evolve with Initial Watershed Planning through engagement and technical analyses.
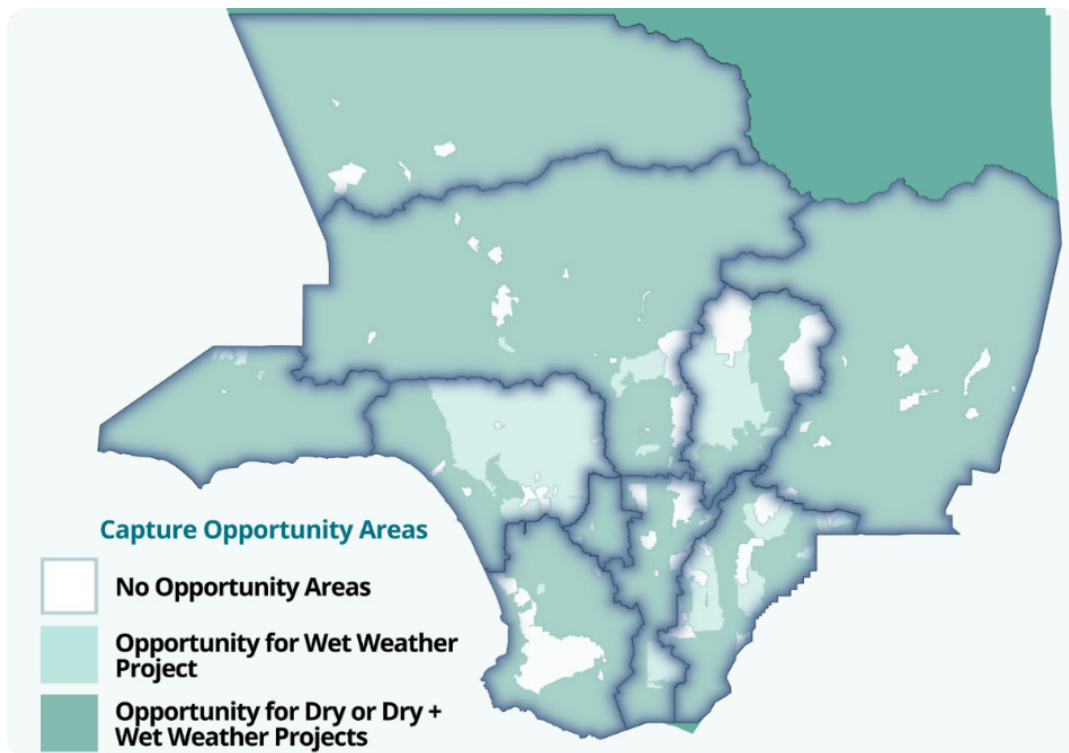
Figure 17. Conceptual example of capture Opportunity Areas for new Projects

Addressing Key Gaps and Limitations

The Initial Watershed Plans will continue to address definitional gaps identified by MMS and to identify planning limitations and key data gaps that need to be addressed to effectively track progress and set meaningful targets. Figure 18 below outlines categories and examples of gaps identified for Watershed Planning and how this effort is addressing gaps in the near term through Initial Watershed Planning, or as part of Adaptive Watershed Planning.

Initial Watershed Plans will outline limitations and gaps with brief descriptions of the types of data collection efforts that could address those gaps. While some limitations and additional relevant considerations may be outside of the scope of Watershed Planning, they may still be acknowledged in the Initial Watershed Plans for consideration by other efforts across the County. Key data gap categories and initial examples are detailed in Figure 18 below.

Definitional Gaps

Examples:
• Locally Available Water Supply
• Who benefits
• Guidelines for Engagement
• Green Jobs
• Flood Protection
• Access to Waterways
• NBS (e.g., habitat)

Establishing a shared language and gaining clarity on policy language and metric definitions is needed to appropriately quantify metrics and develop clear and concise Watershed Plans. Initial Watershed Planning ongoing interested party engagement will inform guidance on key definitional gaps identified by MMS (detailed in Appendix J). Based on this input, the SCW Program will release guidance to clarify these gaps and support Watershed Planning.

Community Data Gaps

Examples:
• Areas in need of beautification or improvement
• Community concerns (crime, traffic, trash, etc.)
• Priority benefits
See Appendix F and Appendix H

Community-based perspectives are needed to understand strengths to reinforce, and community needs to address. MMS identified several community data gaps to be addressed by Initial Watershed Planning through the CSNA. See Appendix H - MMS Approach & Outcomes for more background and Appendix F for the community data that will be collected by the CSNA Survey.

Project Data Gaps

Examples:
• Municipal Project data for modeling
• Net change in canopy at maturity
• Net new green space created
See Appendix H for details on all new PMs and supporting project data.

Several PMs, established through ROC discussions and MMS, are new metrics that do not yet have supporting project data. Initial Watershed Planning is addressing related project data gaps by integrating all PMs into Projects Module applications and the Reporting Module and collecting data required to quantify the PMs.

Knowledge & Spatial Data Gaps

Examples:
• Verify aquifer spatial datasets with regional water managers
• Develop a Scientific Study to determine a methodology for modeling localized, urban flooding
See Appendix G for knowledge and spatial gaps identified by MMS.

Initial Watershed Planning is identifying gaps in the spatial coverage of key data layers and research areas where outcomes would support achievement of Goals. These gaps will require large-scale data collection and additional research and will be identified in the Initial Watershed Plans to guide future Adaptive Watershed Planning.

Other Activities Data Gaps

Examples:
• Data for modeling of Programs
• Other (non-SCW Program funded) Project data that impacts SCW Program Project performance

Initial Watershed Planning is evaluating data needed to quantify benefits provided by other SCW Program funded activities, such as monitoring and Programs, and by non-SCW Program Projects which will be incorporated into Adaptive Watershed Planning.

Figure 18. Key gap categories and initial examples

Next Steps for Watershed Planning

Watershed Planning is an adaptive process, not just a set of documents or tools. Delivery of Initial Watershed Plans in 2025 will mark a new phase in the SCW Program, where resources such as the Initial Watershed Plans and Planning Tools will be available to support strategic decisions for funding, Project and Program planning, tracking, and data gathering. Adaptive Watershed Plans will be designed to address gaps identified in the Initial Watershed Plans. Figure 19 to the right summarizes these next steps for Watershed Planning while the subsections below provide additional details.

Near Term

By mid-2025, Initial Watershed Planning will advance this Framework to define Indicators and PMs, establish targets, and identify Priority Strategies and Opportunities for achieving Goals. These outcomes will be communicated through nine Initial Watershed Plans, a SCW Program Executive Summary for the SCW Program, and a Planning Tool. This effort will seek clarity for the gaps identified for Initial Watershed Planning in Addressing Key Gaps and Limitations above, perform additional engagement and technical analysis to set targets and identify Opportunity Areas, and identify remaining gaps and recommendations for Adaptive Watershed Planning. Figure 20 below provides Initial Watershed Plan example uses by WASCs, Municipalities, the District, project proponents, and members of the community.

Near Term (2025)

Initial Watershed Plans
- Illustrative documents and tools to support strategic planning & tracking.
- Outline gaps in decision support tools and guide data gathering

Adaptive Management (2026+)

Adaptive Watershed Plans
- Added outreach and engagement
- Refine Goals and Priorities
- Address key data gaps
- Bolster decision support tools
- Updates to Opportunity Areas
- Modeling of nonstructural Programs

Recurring Updates to Planning Tools
- Incorporate data from updated Projects and Reporting Modules
- Updated spatial layers
- Updated visualizations
- Updated functionality
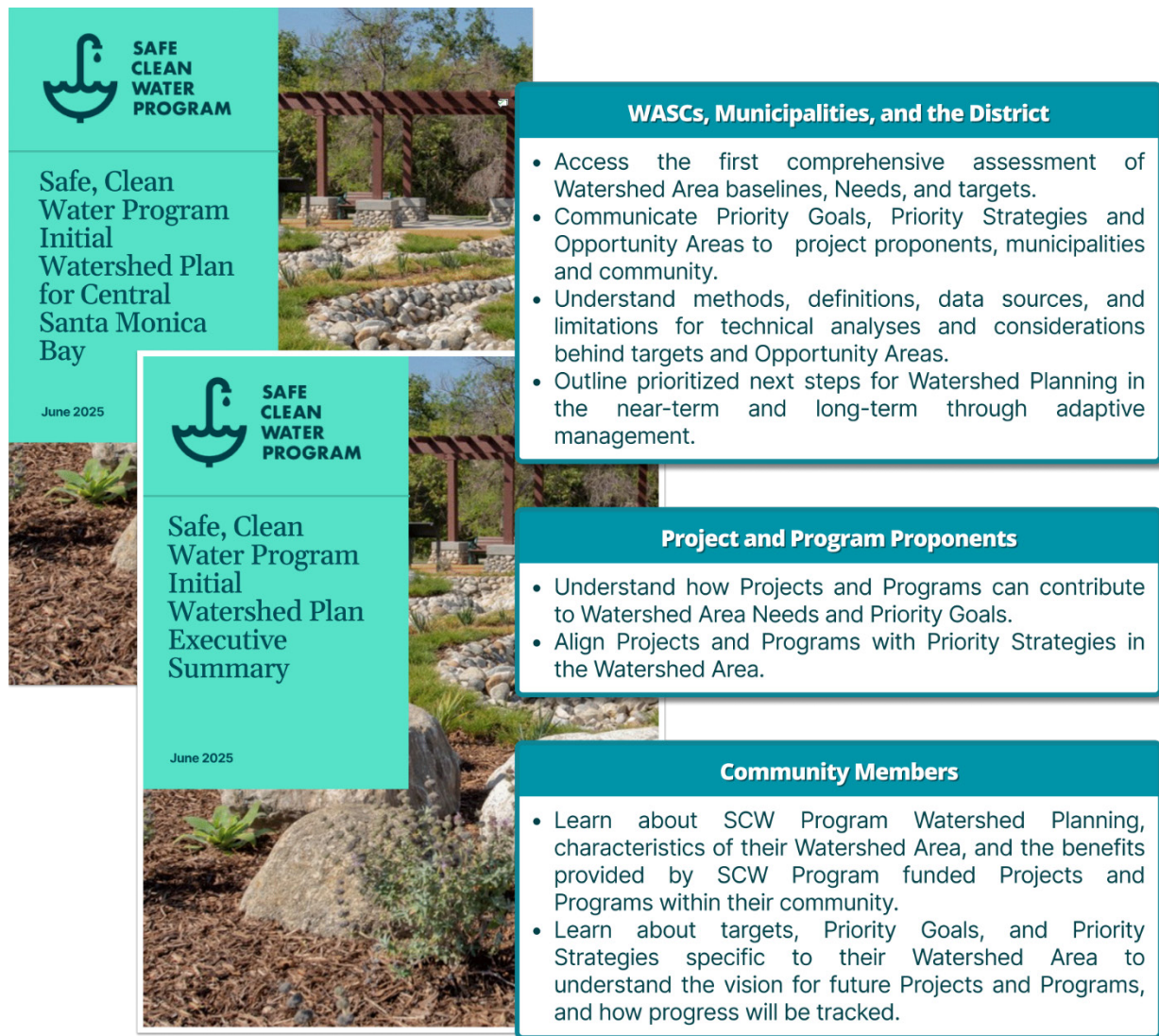
Figure 19. Next Steps for Watershed Planning

Figure 20. Initial Watershed Plan potential applications by user

The Watershed Planning Tool will provide a living version of the Initial Plans for use in the near-term by WASCs, Municipalities, the District, project proponents, and members of the community as shown in Figure 21 and Figure 22.
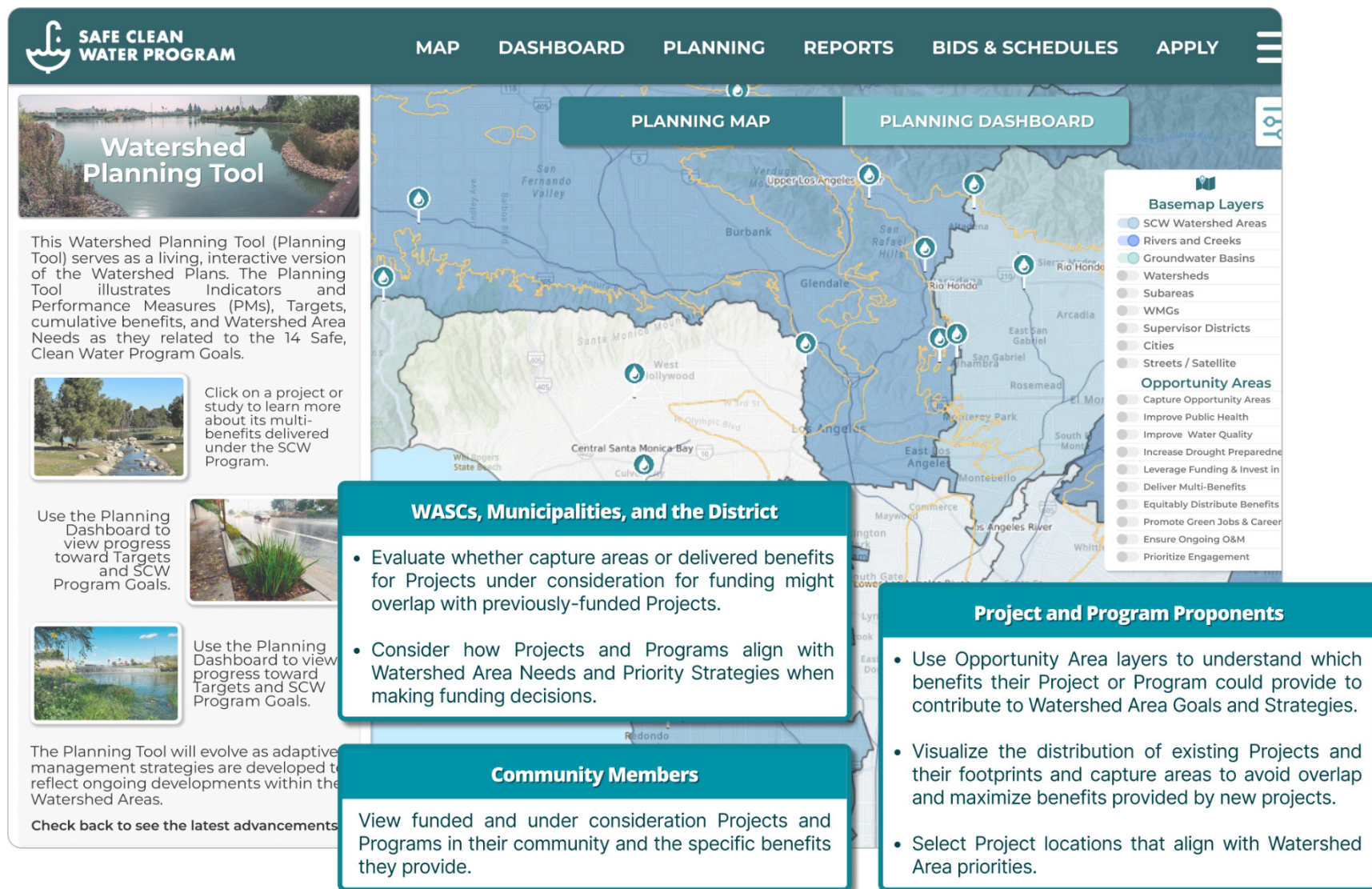
Figure 21. Watershed Planning Map preview and potential applications by user

Figure 22. Watershed Planning Dashboard preview and potential applications by user

Adaptive Management

To support the ongoing and evolving developments within the Watershed Areas, the SCW Program will advance the Initial Watershed Plans and its recommendations into full, detailed Adaptive Watershed Plans.

The Adaptive Watershed Plans will live and evolve in the long-term through adaptive management strategies, regular updates to the Watershed Plans, and by employing the Planning Tool to reflect ongoing developments. Watershed Planning is a non-static process that will continually improve the SCW Program as new investments are made, monitoring is conducted, community priorities shift, regulatory drivers materialize, and as progress toward Goals and targets advances. Figure 23 below outlines the next steps for Watershed Planning through 2026 and beyond.
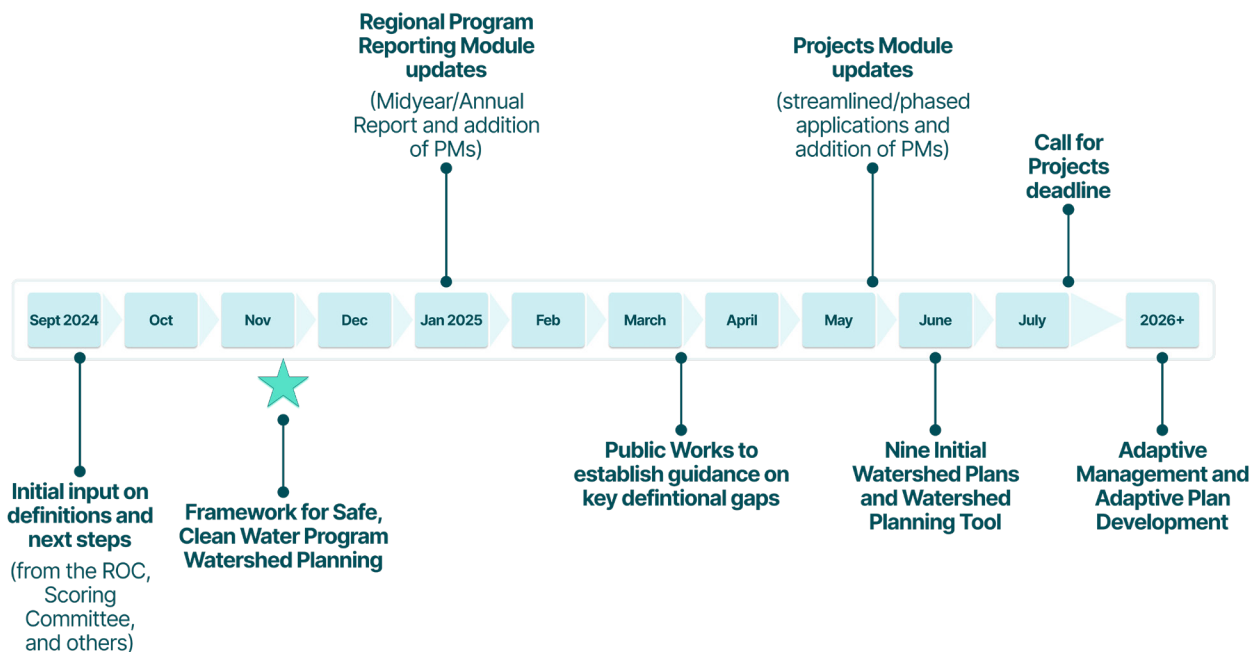

Figure 23. Tentative SCW Program Adaptive Management Timeline *(note: subject to change)*