Stormwater BMP O&M Needs Assessment, Guidance Document, and Implementation Materials

Scientific Studies Program

Fiscal Year 2026-2027

Central Santa Monica Bay, South Santa Monica Bay, Upper Los Angeles River

Project Lead: Herrera Environmental Consultants

Presenter Names: Rebecca Dugopolski (Herrera) | Elizabeth Fassman-Beck (SCCWRP)

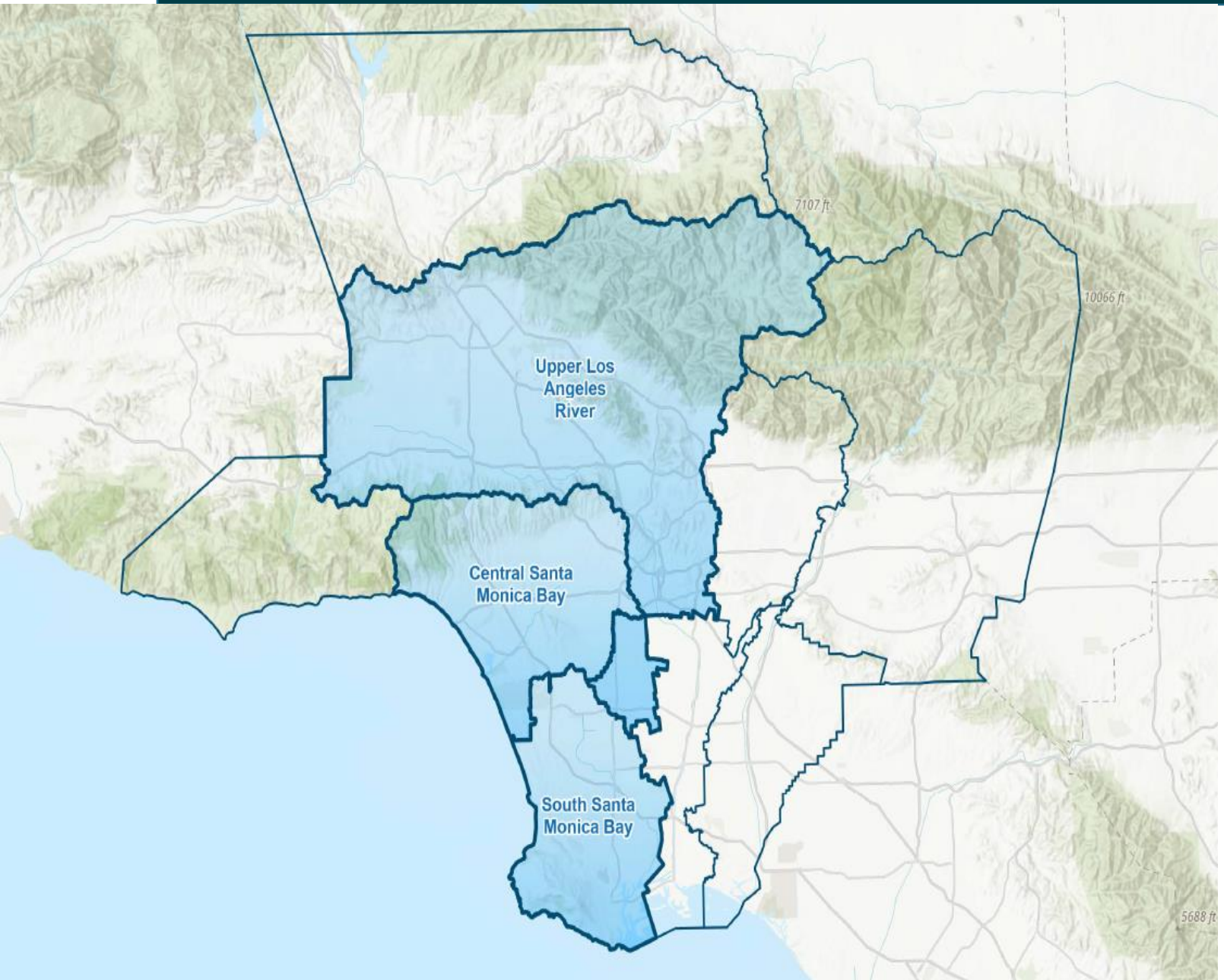
Study Overview

Gather information on common BMPs, O&M practices, and barriers to O&M. Prioritize barriers and needs, develop solutions, and measure the impact of improved O&M practices.

Proper O&M is **critical** for long-term, successful stormwater runoff management, regardless of BMP type.

Poorly maintained BMPs do not provide designed **water quality, water supply, and other multi-benefit outcomes,** and may result in adverse impacts.

Study Location



<u>Watershed Areas</u>

Central Santa Monica Bay

South Santa Monica Bay

Upper Los Angeles River

(Selected in part given local members of the Southern CA Stormwater Monitoring Coalition (SMC): City of LA and LA County. <u>See also Problem Statement slides</u>.)

Study Team – Lead

HERRERA
Science + Planning + Design

Nation-leading expertise in traditional, nature-based, and green infrastructure BMP planning, design, construction, monitoring, O&M, and training

Rebecca Dugopolski, PE
Project Manager, O&M Guidance Document Lead, and Lead Trainer
Engineer with deep expertise in stormwater manual and guidance development, enhanced O&M recommendations, monitoring, and training

Kate Forester, PLA
Stormwater BMP O&M Survey/Interview Lead, and Support Trainer
Landscape architect with expertise in stormwater design, monitoring, life cycle maintenance, and training

Study Team – Collaborators

SCCWRP is a public R&D agency that develops and applies next-generation science to improve management of aquatic systems in Southern California and beyond

Elizabeth Fassman-Beck, PhD
Engineering Dept. Head
O&M Performance Assessment

Ken Schiff
Deputy Director
Study Technical Advisor

Ken and Elizabeth bring more than 50 years of combined experience in urban stormwater management and practically-oriented BMP research. They are currently working on sensor-driven, automated indicators of maintenance need for infiltration basins and dry wells with the County of Los Angeles' Division of Water Quality.

Study Details – Problem Statement

- Stormwater BMP designs continue to evolve, and the number of BMP installations continue to grow
- Effective O&M is essential to the ability of stormwater BMPs to provide their intended long-term benefits (water quality, supply, and co-benefits)

Study Details – Problem Statement (cont.)

The SMC 2024-2029 Research Agenda identified O&M as a priority need in Southern CA:

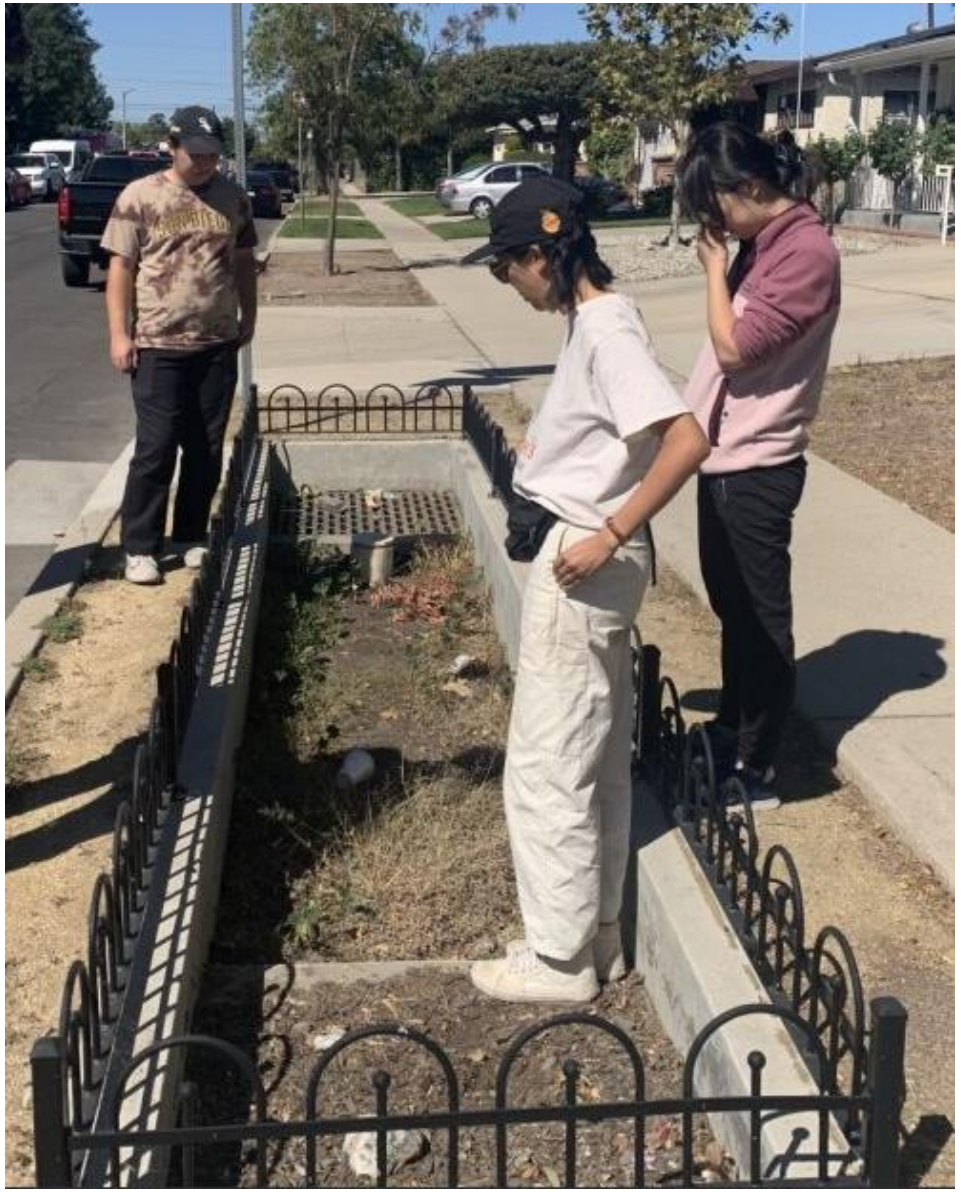
- *SMC found O&M managers note a lack of current, comprehensive, and rigorously vetted guidance for how to inspect, operate, and maintain BMPs to optimize performance over time.*

Draft SCWP Watershed Plan, Near-Term Action 8.1.1:

Study Details – Objectives & Outcomes

1) Identify common BMPs within the study area and drivers for BMP selection.
2) Identify and prioritize barriers to performing necessary inspection, operations, and maintenance.
3) Based on the level of funding, develop solutions to as many barriers as is feasible (e.g., O&M guidance document, training programs, asset management workflow systems, inspection/maintenance checklists).
4) Quantify the effectiveness of targeted improvements in O&M through monitoring.

Study Details – Methodology



Task 1 – Technical Advisory Group (TAG) Development and Engagement

Task 2 – Stormwater BMP O&M Survey and Interviews

Task 3 – Needs Assessment, Prioritization, and Document Review

Task 4 – O&M Guidance Document

Task 5 – O&M Training and Implementation Materials

Task 6 – Quantifying O&M Benefits

Task 7 – Project Management

Study Details – Collaboration

Regional Effort

- CSMB, SSMB, ULAR watersheds
- Efficiency in sharing knowledge, experience, and priorities among watersheds

Foundational and Complementary Efforts

1. Identifying Best Practices for Maintaining Stormwater Drywell Capacity (SCWP-funded study, in development)
2. City of Pasadena/MASH Workforce Development (SCWP 2025 application)
3. EPA Southwest Center of Excellence for Stormwater Control Infrastructure Technology (ongoing)

Study Details – Collaboration (cont.)

Foundational and Complementary Efforts (cont.)

4. Stormwater Technology Testing Center (STTC) (ongoing)
5. Western Washington Low Impact Development (LID) Operation and Maintenance (O&M) Guidance Document and Training (concluded)
6. Statewide LID Training Program (Washington) and National Green Infrastructure Certificate Program (NGICP) (concluded)
7. SMC 5-year Research Agenda (ongoing)

Cost & Schedule

Task	Cost	Start Date	Completion Date
Task 1 – Technical Advisory Group Development and Engagement	$83,237	April 2027	December 2028
Task 2 – Stormwater BMP O&M Survey and Interviews	$86,215	May 2027	October 2027
Task 3 – Needs Assessment, Prioritization, and Document Review	$61,829	October 2027	February 2028
Task 4 – O&M Guidance Document	$107,414	February 2028	August 2028
Task 5 – O&M Training and Implementation Materials	$81,207	April 2028	December 2028
Task 6 – Quantifying O&M Benefits	$462,514	August 2028	November 2030
Task 7 – Project Management	$89,571	April 2027	November 2030

Funding Request

WASC	Year 1	Year 2	Year 3	Year 4	Total
CSMB	$73,094	$87,049	$55,200	$12,968	**$228,311**
SSMB	$74,376	$88,576	$56,168	$13,195	**$232,315**
ULAR	$163,713	$194,969	$123,635	$29,045	**$511,362**
TOTAL	**$311,183**	**$370,594**	**$235,003**	**$55,208**	**$971,988**

Summary of Benefits

Direct Benefits

- Improve the short- and long-term performance and cost/benefit of existing and planned future BMPs
- Improve water quality, increase water supply, and enhance BMP co-benefits to communities (all via O&M improvements to ensure BMP function)

Indirect Benefits

- Enhanced past and future community investments in stormwater BMPs
- Enhanced and expanded workforce development
- Improved municipal O&M efficiency and effectiveness

Questions?

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Herrera

Elizabeth Fassman-Beck
SCCWRP