



Building a Green Infrastructure Workforce in the LA Region

Scientific Studies Program

Fiscal Year 2026-2027

All 9 WASCs

City of Pasadena, Stormwater Administrator, Public Works

Dawn Petschauer

City of Pasadena, Program Coordinator, MASH Division

Sherreeta White



Study Overview

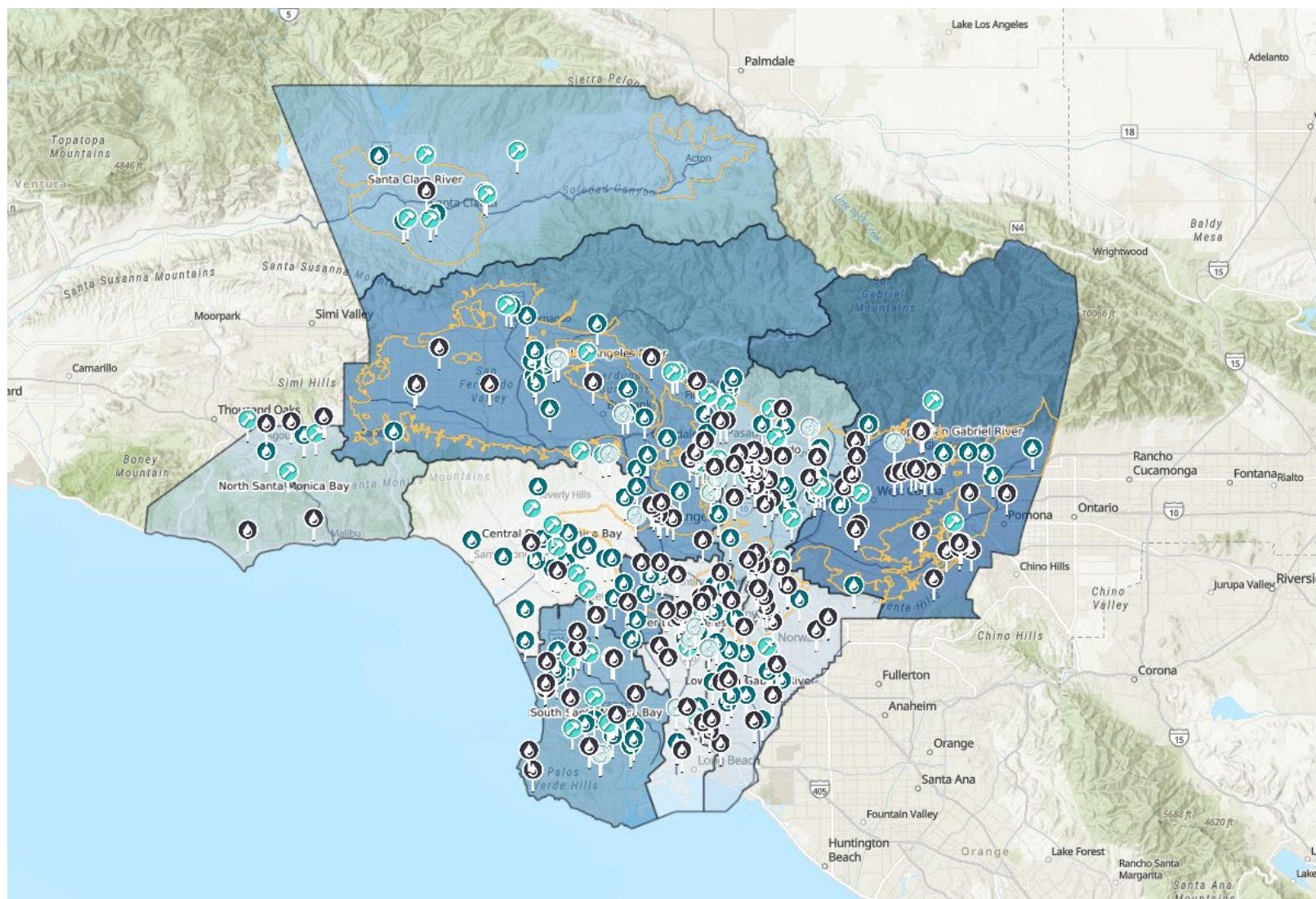
Development of a green infrastructure maintenance framework for regional workforce development

- Project success dependent on ongoing maintenance
- Provide educated, local workforce for GI maintenance
- Increase understanding of maintenance activities to maximize project performance





Study Location



All 9 WASCs

- Upper LA River & Rio Hondo building foundational framework
- Other 7 WASCs expanding framework to specific watershed needs and capabilities



Study Team

Study Lead

City of Pasadena,
Department of
Public Works



Additional Study Collaborators

Municipal Assistance Solutions and
Hiring Division (MASH) - City of
Pasadena Housing Department

Parks, Recreation and Community
Service (PRCS) – City of Pasadena
Parks Department



Anticipated Study Developer

Center of Watershed
Protection

Black & Veatch





Municipal Assistance Solutions and Hiring

- **MASH** started in the **late 1970s** with help from community stakeholders and City leadership
- **Purpose:** To provide hands-on job training and work experience to underserved populations, preparing them for careers in either the private or public sectors
- **Measure of Success:** # of trainees who obtain permanent jobs that provide long-term career potential, benefits, livable wages, promotional opportunities





Clean Water Certificate (CWC) Program

- **Focus:** The CWC program is designed to develop an entry-level workforce for roles in the stormwater sector.
- **Benefits:** Participants learn essential skills and earn certifications, preparing them for careers in stormwater management.
- **Career Pathways:** The program creates connections with businesses, offering a pathway for individuals to enter living-wage careers in watershed protection.
- **Local Integration:** The CWC program integrates with local workforce development programs to provide life skills and support services to participants.



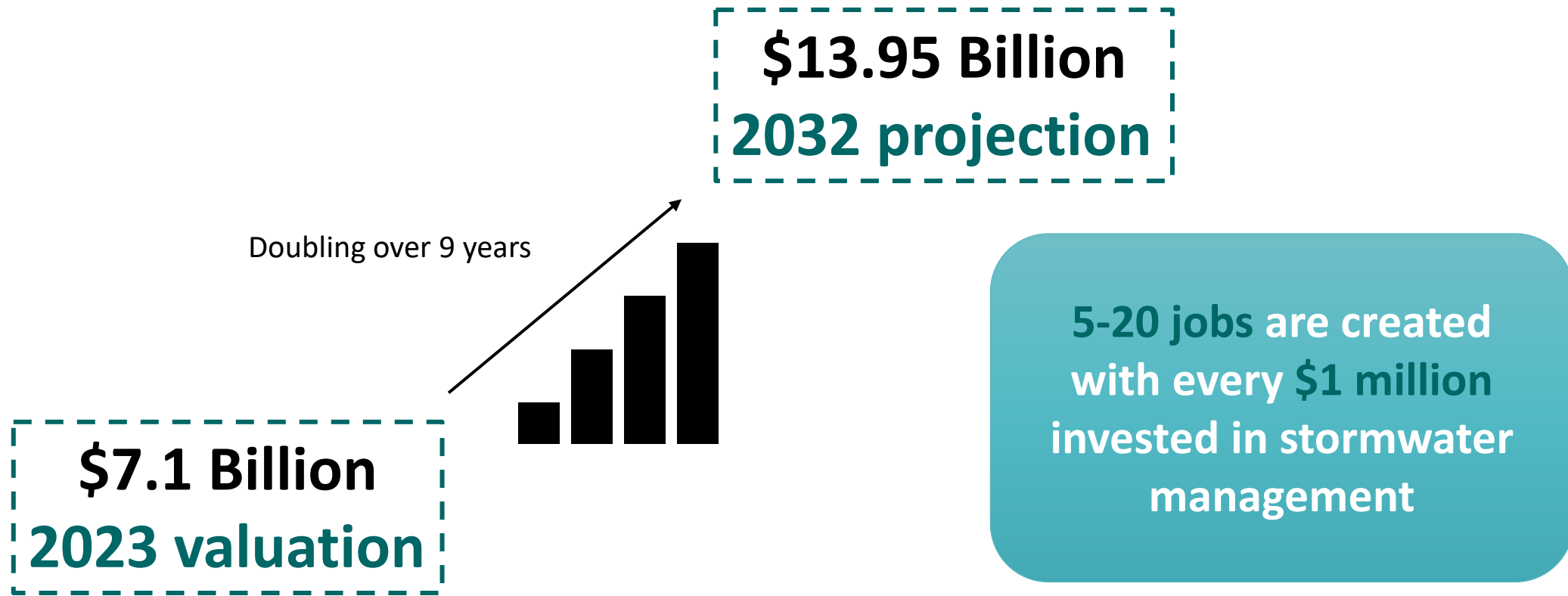
Geographic Spread for Trained Instructors of the CWC Program

**Green Infrastructure
Workforce
Development
Organizations across
the US involved with
CWC**





US Stormwater Management Market



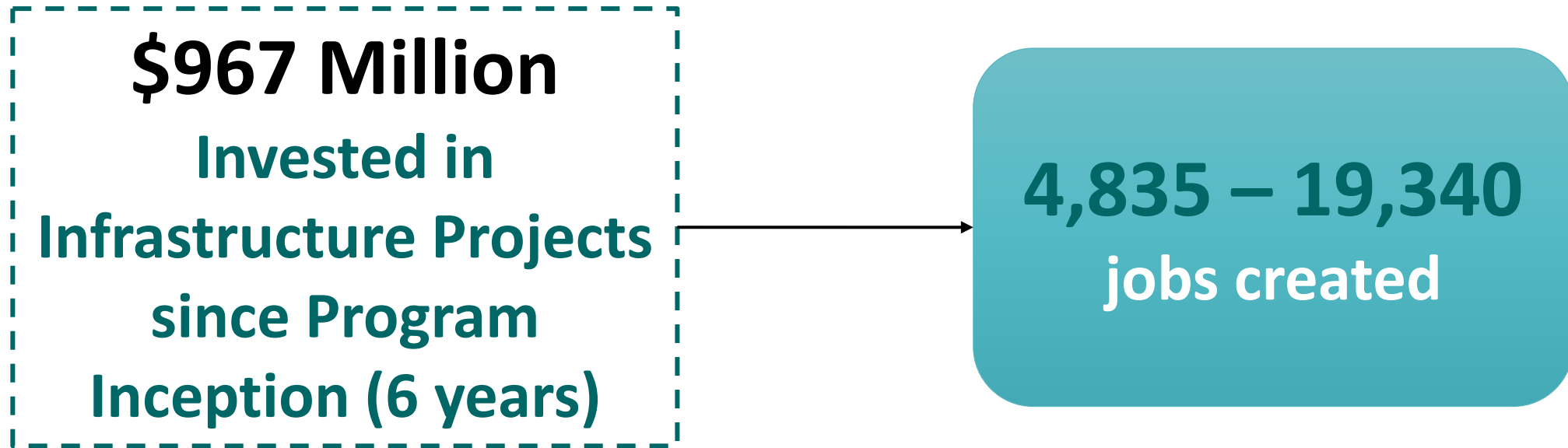
S&S Insider | Report: SNS/E&P/3051

Pacific Institute. (2013). *Sustainable water jobs: A national assessment of water-related green job opportunities*



Study Details – Problem Statement

Safe, Clean Water Program Investment





Study Details – Problem Statement

Workforce Gap in Stormwater Industry



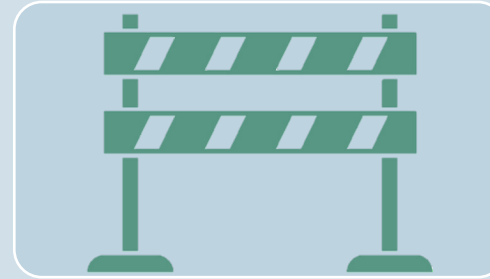
Rapid growth of the stormwater sector has created a high demand for entry-level workers with foundational knowledge in stormwater management practices

Urban Employment Disparities



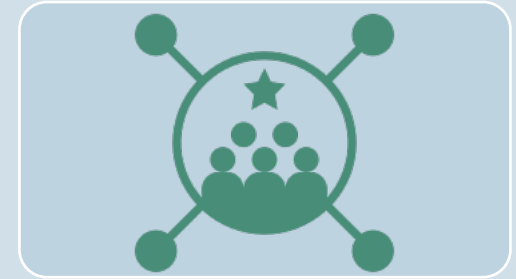
Most job growth is occurring in urban areas where underserved, under- and unemployed populations could benefit from access to living-wage employment opportunities

Barriers to Access



Many potential workers lack access to training and employer connections, not the capacity to learn, underscoring the need for accessible and supportive job training programs

Underutilized Talent Pool



Opportunity to build a skilled workforce by training under- and unemployed adults and younger generations entering the workforce, with upskilling options for existing workers seeking career advancement



Study Details – Goals



Create asset management of developing stormwater capture projects and their respective maintenance needs



Train staff on proper maintenance procedures for existing and proposed stormwater capture projects



Create a workforce development program to onboard and train existing/future maintenance staff



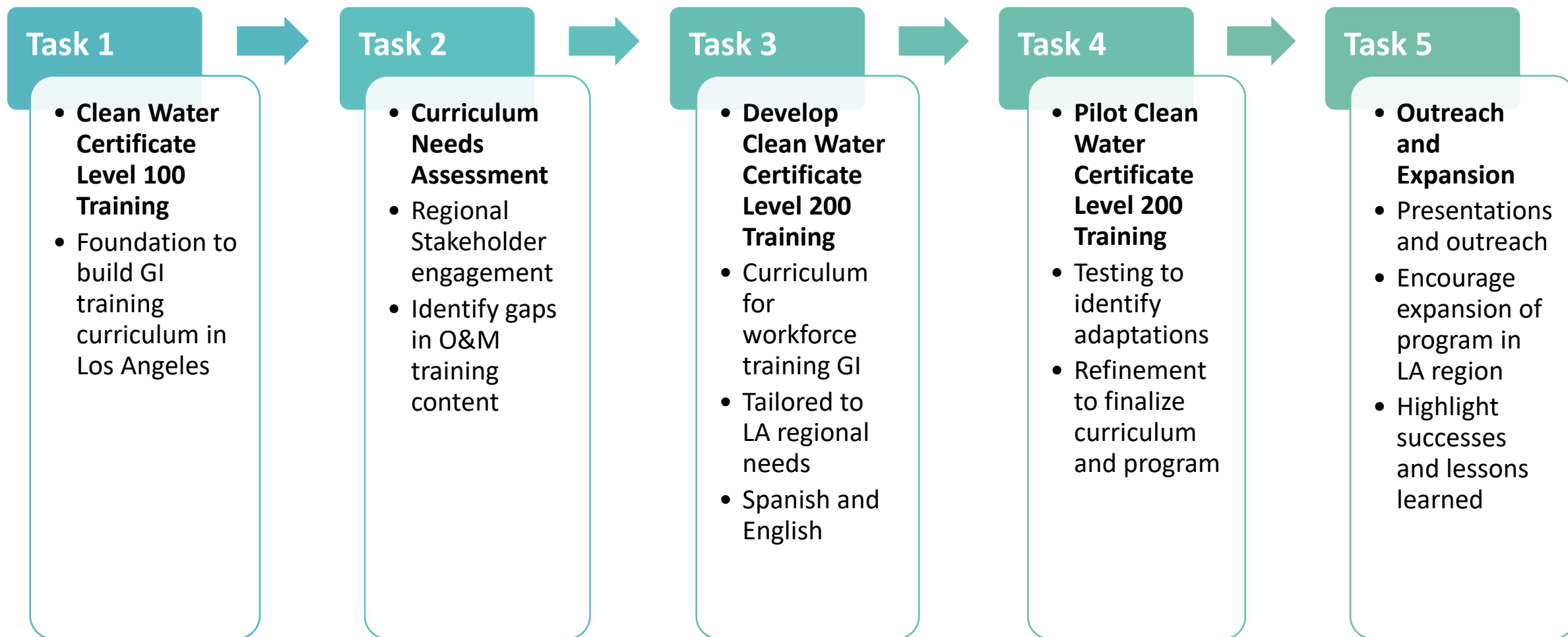
Expand existing MASH Program with inclusion of a green infrastructure tier, increasing capacity, increasing instructors' professional knowledge, and developing a "green team"



Develop training materials/protocols, field training videos, outreach information that can be used for continued education of public, staff, and maintenance crews in multiple languages



Study Details – Tasks Overview





Study Details – Participants



Project Management & Study Development Team

- Day-to-day development of framework



Study Leaders

- Oversight and guidance on development of framework



Regional Stakeholders

- Solicited input on initial framework based on regional needs



Technical Stakeholder Committee

- Reoccurring input in development of final framework



Study Details – Central Santa Monica Bay

How will this Study benefit the CSMB?

Direct Community Engagement

Watershed Coordinators:

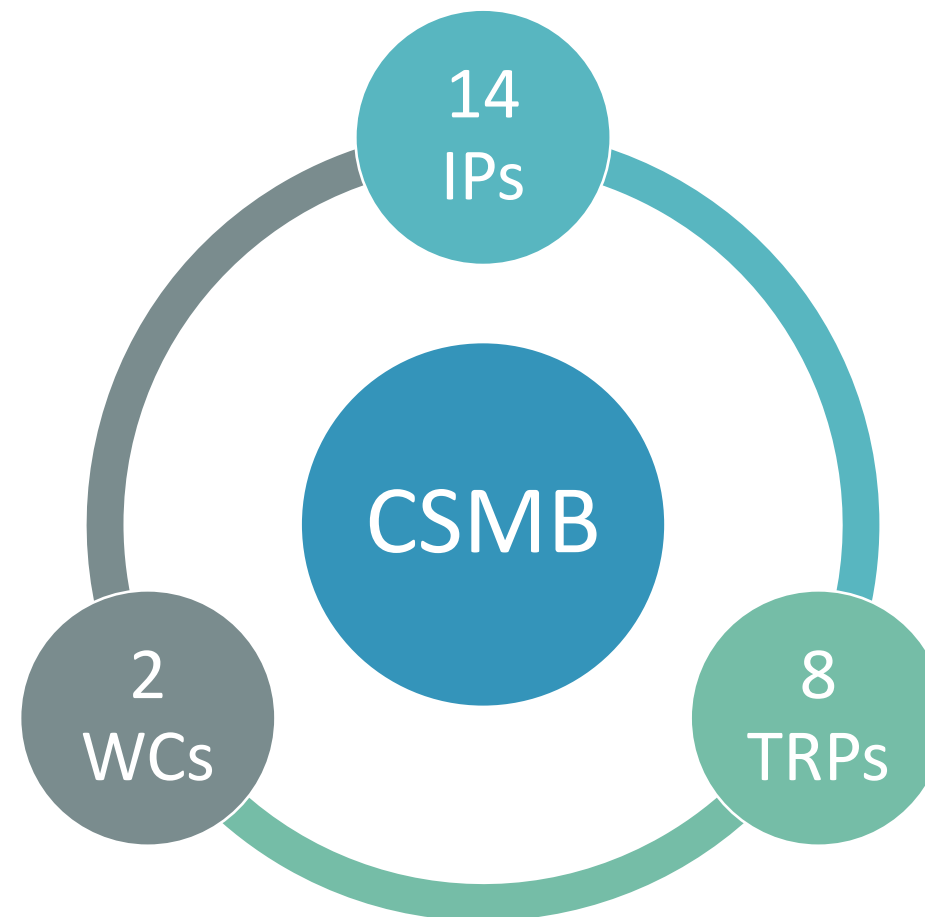
Heal the Bay
SGA Marketing

Other Key Stakeholders:

LA County County Chief Sustainability Office
PSOMAS
SCOPE
LA Waterkeeper
Black Women for Wellness

Deliverables:

- Asset management of approved CSMB projects
- Training materials developed for key GI components (English and Spanish)
- Project's incorporated into the LA Curriculum for tailored training opportunities



The Study's curriculum will be developed based on the identified needs and priorities of participating WASCs 14



Cost & Schedule

| Phase | Description | Cost | Completion Date |
|-----------------------------|---|--------------------|-----------------|
| Pre-Study and Work Planning | Clean Water Certificate (CWC) Level 100 Training for key Study leaders (Task 1) | \$314,310 | 07/31/2027 |
| Pre-Study and Work Planning | Curriculum Needs Assessment (Task 2) | \$197,870 | 12/31/2027 |
| Study Implementation | Develop CWC Level 200 Training (Task 3) | \$544,720 | 12/31/2030 |
| Study Implementation | Pilot CWC Level 200 Training (Task 4) | \$677,780 | 07/31/2031 |
| Post-Study | Outreach and Expansion (Task 5) | \$341,470 | 12/31/2031 |
| TOTAL | | \$2,076,150 | |

- \$500,000 cost share from City of Pasadena



Funding Request

| WASC | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------|------------------|------------------|-----------------|------------------|------------------|
| CSMB | \$6,957 | \$9,777 | \$3,192 | \$22,772 | \$7,430 |
| LLAR | \$5,004 | \$7,033 | \$2,296 | \$16,380 | \$5,344 |
| LSGR | \$6,713 | \$9,434 | \$3,080 | \$21,973 | \$7,169 |
| NSMB | \$732 | \$1,029 | \$336 | \$2,397 | \$782 |
| RH | \$204,983 | \$102,344 | \$33,416 | \$238,372 | \$77,776 |
| SCR | \$2,360 | \$3,316 | \$1,083 | \$7,724 | \$2,520 |
| SSMB | \$7,079 | \$9,949 | \$3,248 | \$23,172 | \$7,560 |
| ULAR | \$204,983 | \$102,344 | \$33,416 | \$238,372 | \$77,776 |
| USGR | \$7,568 | \$10,635 | \$3,472 | \$24,770 | \$8,082 |
| TOTAL | \$446,379 | \$255,861 | \$83,539 | \$595,932 | \$194,439 |



Summary of Benefits

- **Promotes green jobs** and sustainable career pathways
- Training underserved and unemployed populations, providing **access to living-wages**
- New **LA-specific maintenance training** materials and tools
- Adaptively manage and tailor curriculum and training approaches
- **Addresses critical gap** in region of workforce to ensure O&M
- Comprehensive maintenance curriculum, training and procedures to ensure **consistency in maintenance techniques**
- Long-term maintenance **ensures maximum performance** of water quality, water supply, and community benefits expected **of projects**



Study Details – Testimonials of the CWC Program



Training
Partner

<https://youtu.be/-LCF3A950Rw>




Employer
Partner

<https://youtu.be/rLDjW69VaxE>



Participant

<https://youtu.be/KIV70pYeIzE>



and doing really good work.

A close-up portrait of a man with short, dark hair, looking directly at the camera. He is wearing a blue and white striped shirt. The background is a plain, light-colored wall.

Liam O'Meara

PRESIDENT, ENVIRONMENTAL
QUALITY RESOURCES

built-in labor force that is
skilled and experienced in stormwater.



my kids' kids and stuff like that.

Questions?

Dawn Petschauer
City of Pasadena

Sherreeta White
City of Pasadena

CENTER FOR
**WATERSHED
PROTECTION**

**BLACK &
VEATCH**