

An aerial photograph of Los Angeles, California, showing the coastline, the city grid, and the mountains. The image is rotated 90 degrees clockwise. The left side of the image is a solid teal color, which serves as a background for the text.

# Community Garden Stormwater Capture Investigation

Scientific Studies Program

Fiscal Year 2022-2023

Upper San Gabriel River

Los Angeles Community Garden Council

Diana Campos Jimenez, Juan Diaz-Carreras



# About Us!

- A 501(c)3 non-profit organization founded in 1998
- Our mission is to strengthen communities by building and supporting community gardens where every person in Los Angeles County can grow fresh food in their neighborhood
- Manage 40+ community gardens
- Offer workshops, gardening advice, and community organizing
- Advocate for accessibility to affordable, healthy food



# Project Overview

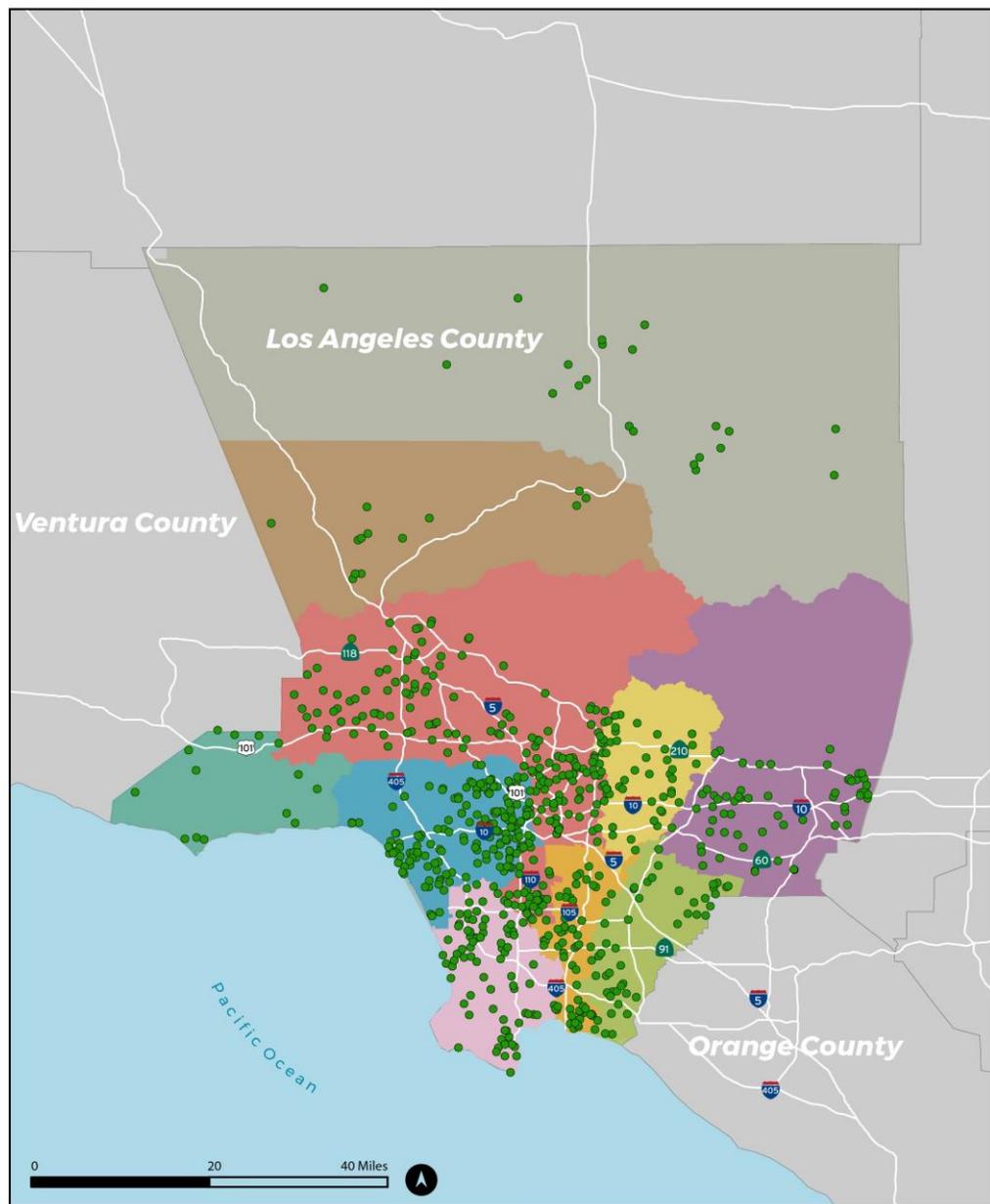
Community gardens can function as stormwater capture facilities. This study will investigate opportunities including conducting outreach.

- Primary Objective: Identify Community Garden locations that have potential for stormwater capture.
- Secondary Objectives: Engage through direct dialog with gardeners on potential garden sites to ensure any recommendations are supported by the community the garden serves. Identify 3 high potential sites and produce a concept report for each.
- Project Status: Planning
- Total Funding Requested: \$2,647,990 total/ \$378,285 per watershed.





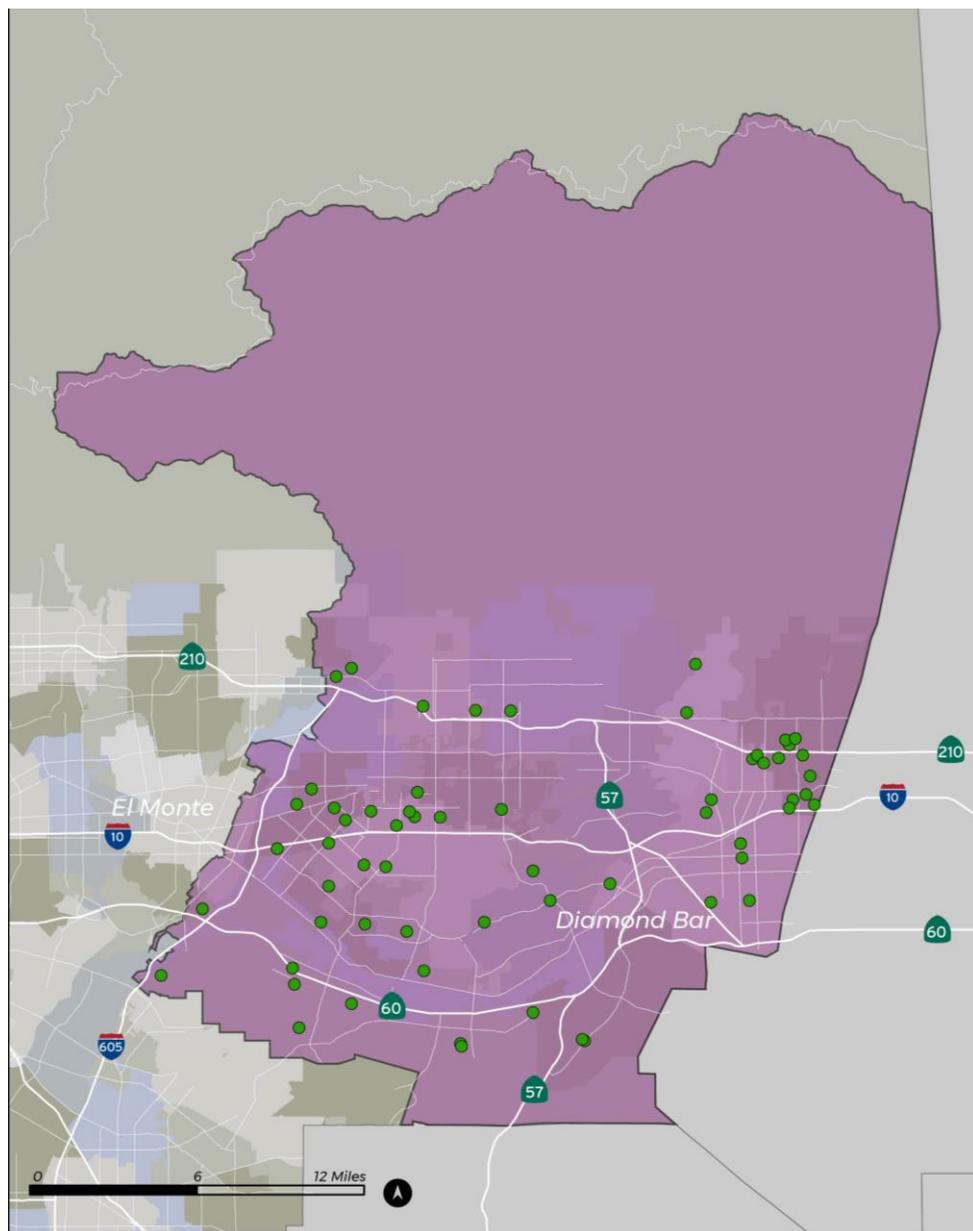
# Project Location



- Almost 800 Community Gardens across LA County
- Many are managed by community groups
- Community gardens serve diverse communities in the County



# Project Location



## Upper San Gabriel River Watershed

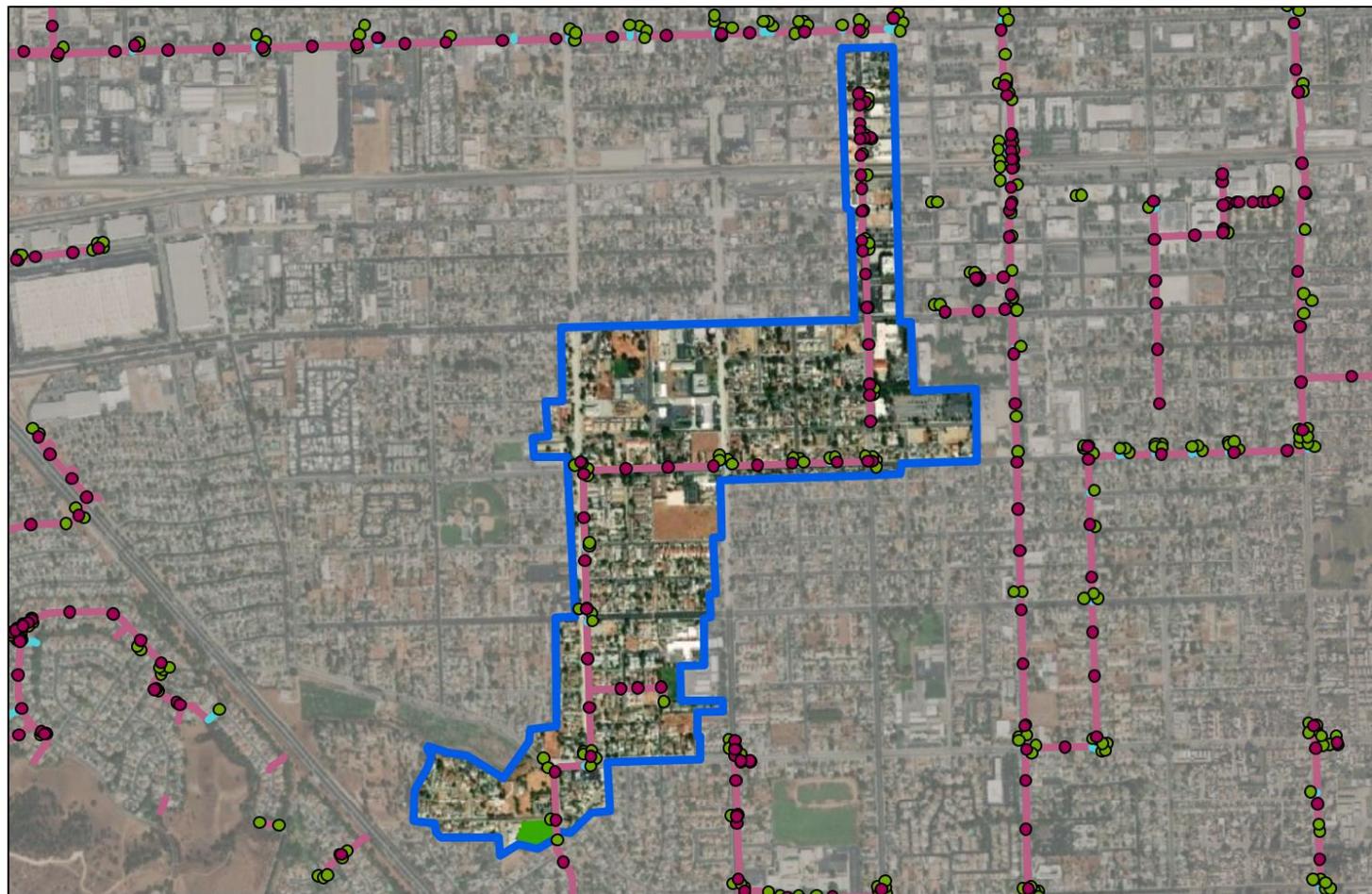
- 61 community gardens in the watershed



- Pomona Community Garden
  - Approximately 1.6 acres
  - Gardens downstream of urban areas can be redesigned to collect offsite “run-on” from these areas to provide pollutant reduction benefits to municipalities.



# Project Location



## Legend

 Pomona Community Garden  
(1.61 acres)

 Watershed Area  
(246 acres)

## Utilities

 Maintenance Hole

 Catch Basin

 Gravity Main

 Lateral Line

 Culvert

- Example Community Garden with Upstream Tributary Area
- Drainage area is 246 acres to the community garden





## Project Background

- The primary objective of the Community Garden Stormwater Capture Scientific Study is to identify and evaluate potential sites for stormwater capture at community gardens within the Watershed.
- The Community Garden Stormwater Capture Scientific Study will propose and implement a methodology to compile, evaluate and prioritize potential opportunities to install best management practices (BMPs) at existing community garden sites to capture, infiltrate and/or treat urban stormwater runoff.
- The study will also include preliminary concept plans for three priority sites.



# Cost & Schedule

Schedule Milestone Table

| Milestone Name                                      | Completion Date |
|---|-----------------|
| Database of Existing Community Gardens              | 01/03/2022      |
| Develop Screening Criteria                          | 03/01/2022      |
| Preliminary Investigation                           | 05/02/2022      |
| Site Reconnaissance and Outreach                    | 08/01/2022      |
| Concept Reports and Fact Sheet                      | 10/14/2022      |
| SCW Program Technical Resources Funding Application | 11/30/2022      |



# Funding Request

## Funding Requested Per Year Per Watershed

| Funding Request Year | Watershed Area           | Amount for Year |
|----------------------|--------------------------|-----------------|
| Year 1               | Central Santa Monica Bay | \$ 189,142.00   |
| Year 1               | Lower Los Angeles River  | \$ 189,142.00   |
| Year 1               | Lower San Gabriel River  | \$ 189,142.00   |
| Year 1               | Rio Hondo                | \$ 189,142.00   |
| Year 1               | South Santa Monica Bay   | \$ 189,142.00   |
| Year 1               | Upper Los Angeles River  | \$ 189,144.00   |
| Year 1               | Upper San Gabriel River  | \$ 189,142.00   |
| Total Year 1         |                          | \$ 1,323,996.00 |
| Year 2               | Central Santa Monica Bay | \$ 189,142.00   |
| Year 2               | Lower Los Angeles River  | \$ 189,142.00   |
| Year 2               | Lower San Gabriel River  | \$ 189,142.00   |
| Year 2               | Rio Hondo                | \$ 189,142.00   |
| Year 2               | South Santa Monica Bay   | \$ 189,142.00   |
| Year 2               | Upper Los Angeles River  | \$ 189,142.00   |
| Year 2               | Upper San Gabriel River  | \$ 189,142.00   |
| Total Year 2         |                          | \$ 1,323,994.00 |
| Total Funding        |                          | \$ 2,647,990.00 |

# Project Benefits

Community gardens can function as stormwater capture facilities.

- The Study will identify, evaluate and prioritize Community Garden locations for stormwater capture at community gardens within the Watershed which will benefit WASC member agencies.
- Engage with gardeners to ensure any recommendations are supported by the community the garden serves.
- Identify 3 high potential sites and produce a concept report for each.
- Prioritize additional sites for future potential project concepts.





# Questions?



# Maximizing Impact of Minimum Control Measures

Scientific Studies Program

Fiscal Year 2022-2023

Upper San Gabriel River; Rio Hondo; Upper Los Angeles River

San Gabriel Valley Council of Governments

Chad Helmle; Brad Wardynski; Brianna Datti (Craftwater)



# Study Overview

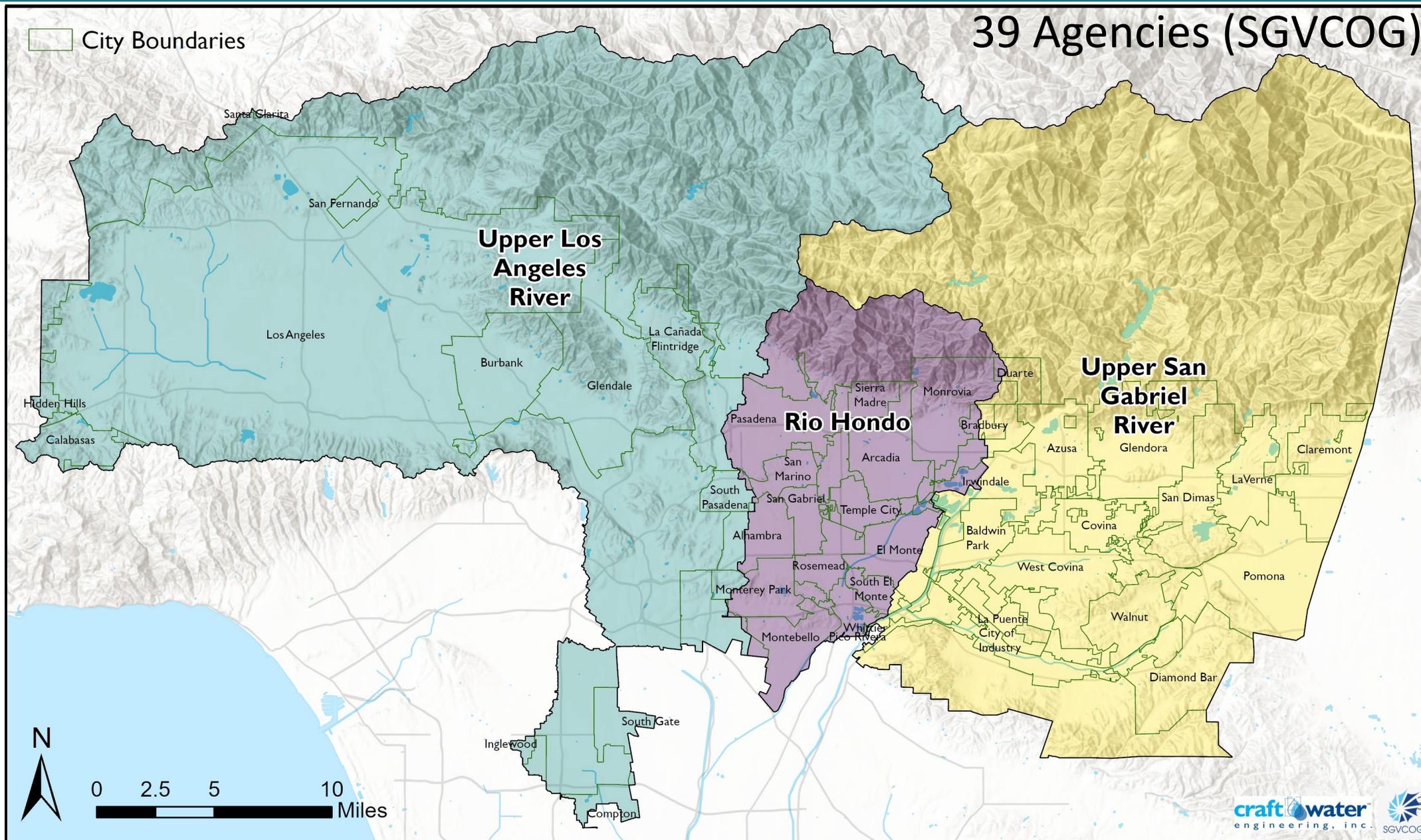
Develop tools to quantitatively *estimate effectiveness* and *support optimization* of Minimum Control Measures (MCMs)

- MCMs are the first line of defense against polluted stormwater discharging to our waterways
- Efficiency in MCMs translates to more funding for nature-based solutions and community investment benefits
- Watershed-specific guidebook for targeted enhancements to MCMs





# Study Location





## Study Details

### It's Prime Time for Projects

- EWMPs: \$B's of projects to build under pressing deadlines
- Pressure to build now
- 85-100% of SCWP Regional Program (~\$120M-140M/yr) ready to spend on multi-benefit projects
- But, uncertainty about what to build where, who is doing what, what to do first, and how it all fits together



## Study Details

### But Don't Downplay the Power of Programs

- EWMPs assumed Minimum Control Measures (MCMs) achieve **5-10%** reduction
  - MCM programs are orders of magnitude **cheaper**
  - Recent data are showing that **something is working...**
  - Compliance strategies are **shifting**
  - Agencies already heavily investing in Programs:  
**\$1M+/yr, on average** (LA City and County: \$50M+/yr)



# Study Details



Outreach events and materials



Construction site inspections and enforcement



Miles swept and debris removed



Infrastructure inspections



IC/ID investigations and abatement

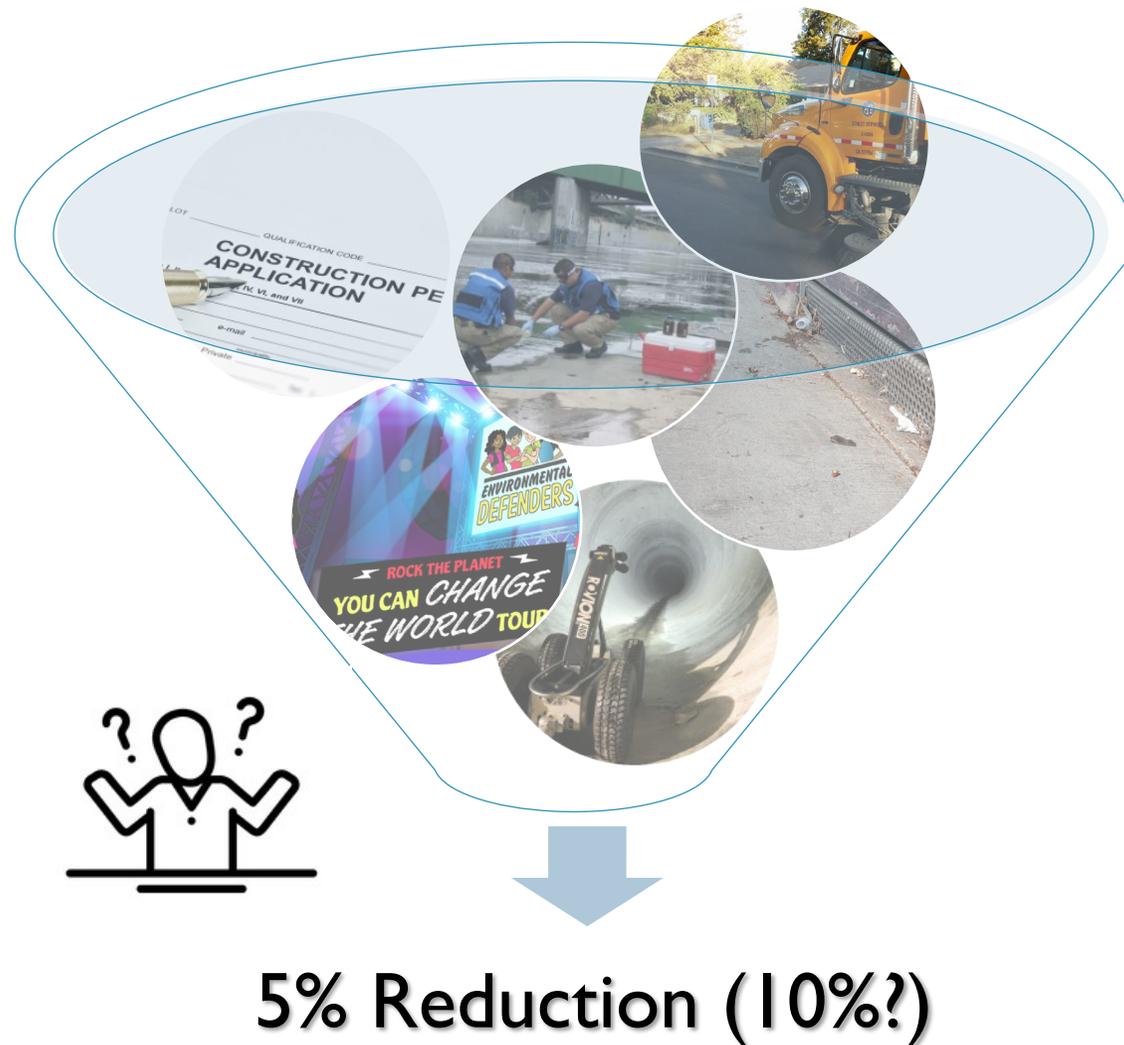


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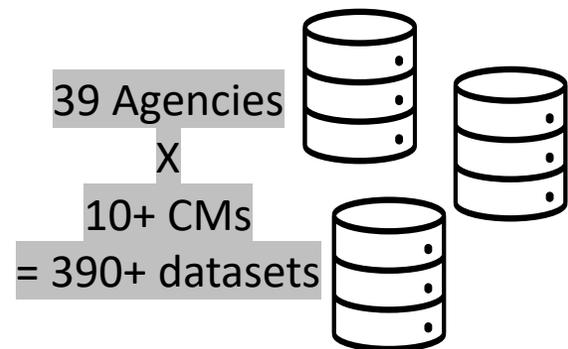
# Study Details

- Limited studies on effectiveness during E/WMP development
- Programs lumped together
- Accepted coarse, conservative assumptions
- State Water Board and new permit requiring robust justification





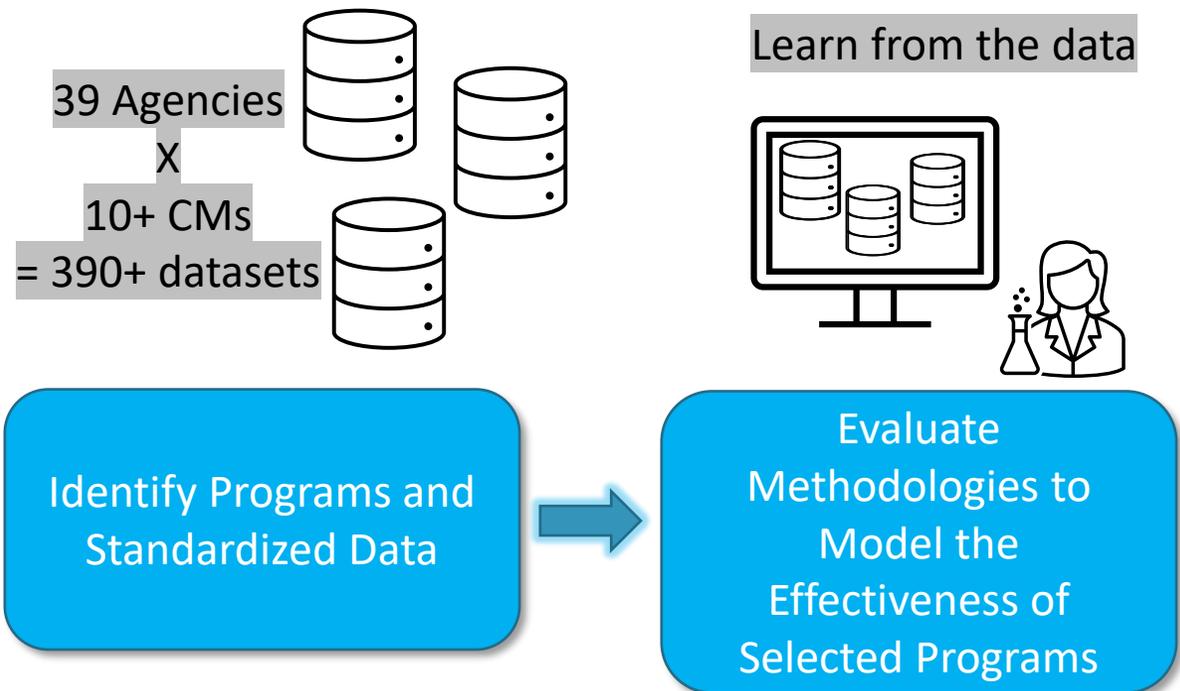
# Study Details



Identify Programs and  
Standardized Data

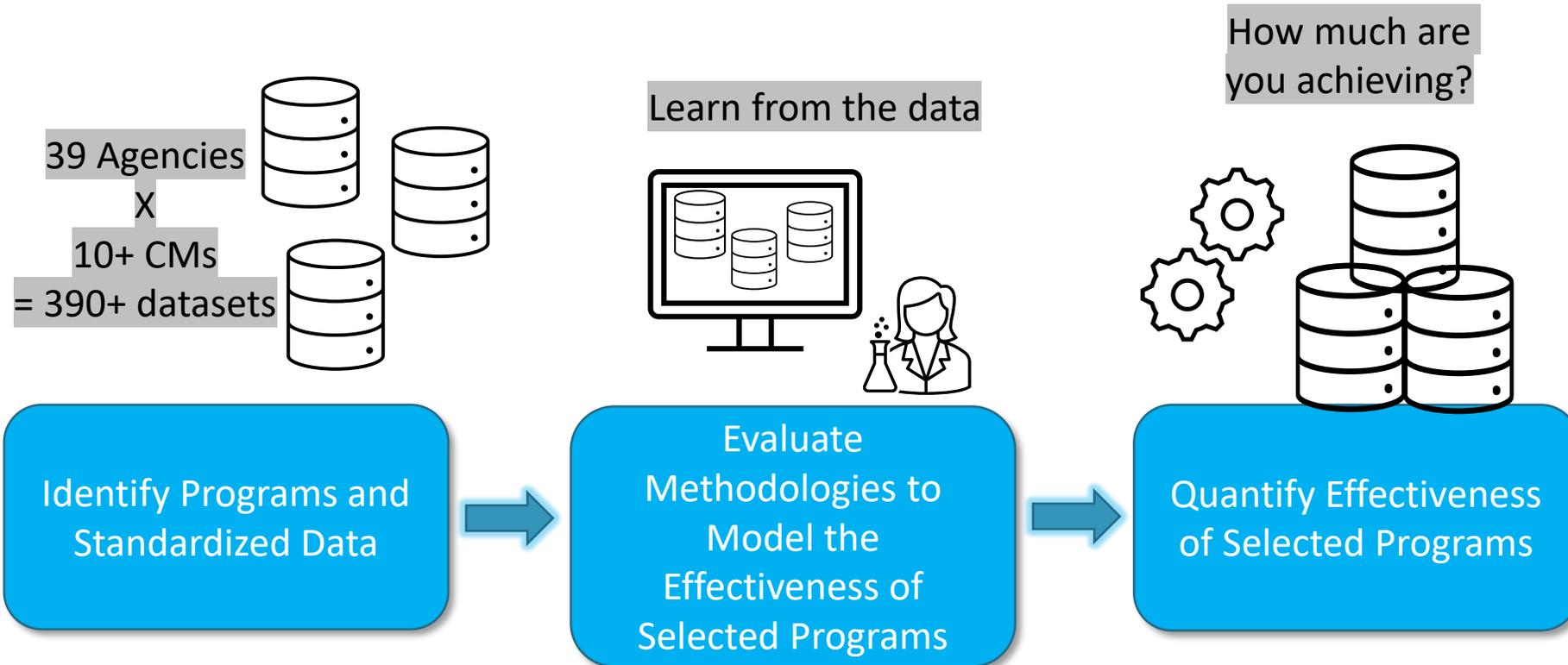


# Study Details



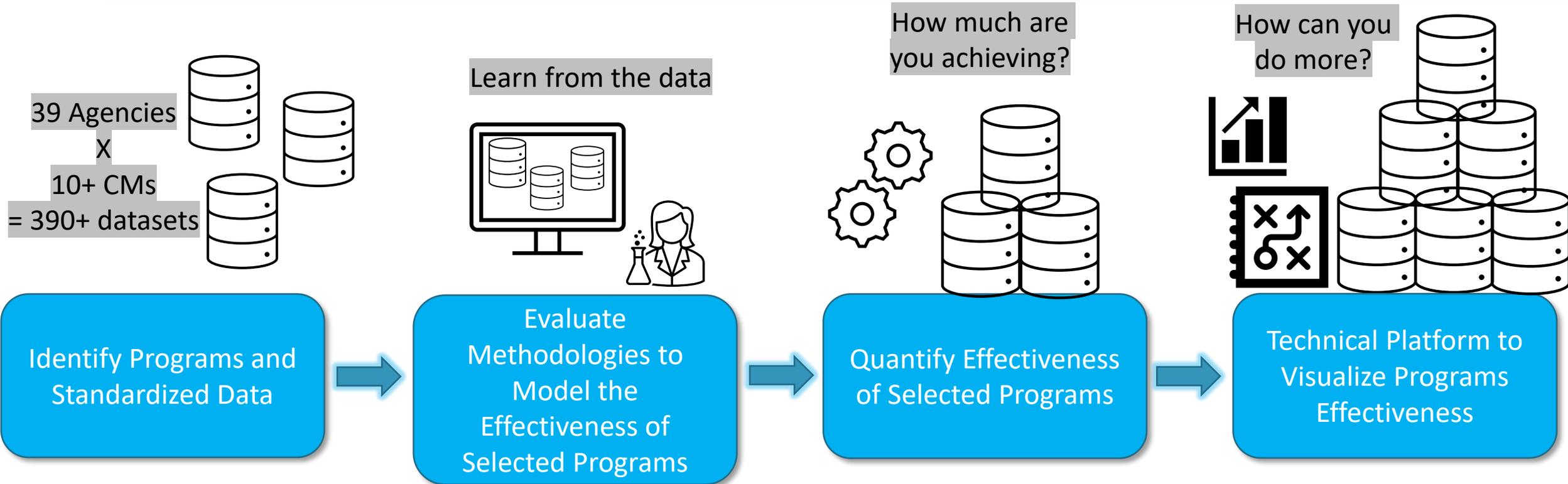


# Study Details



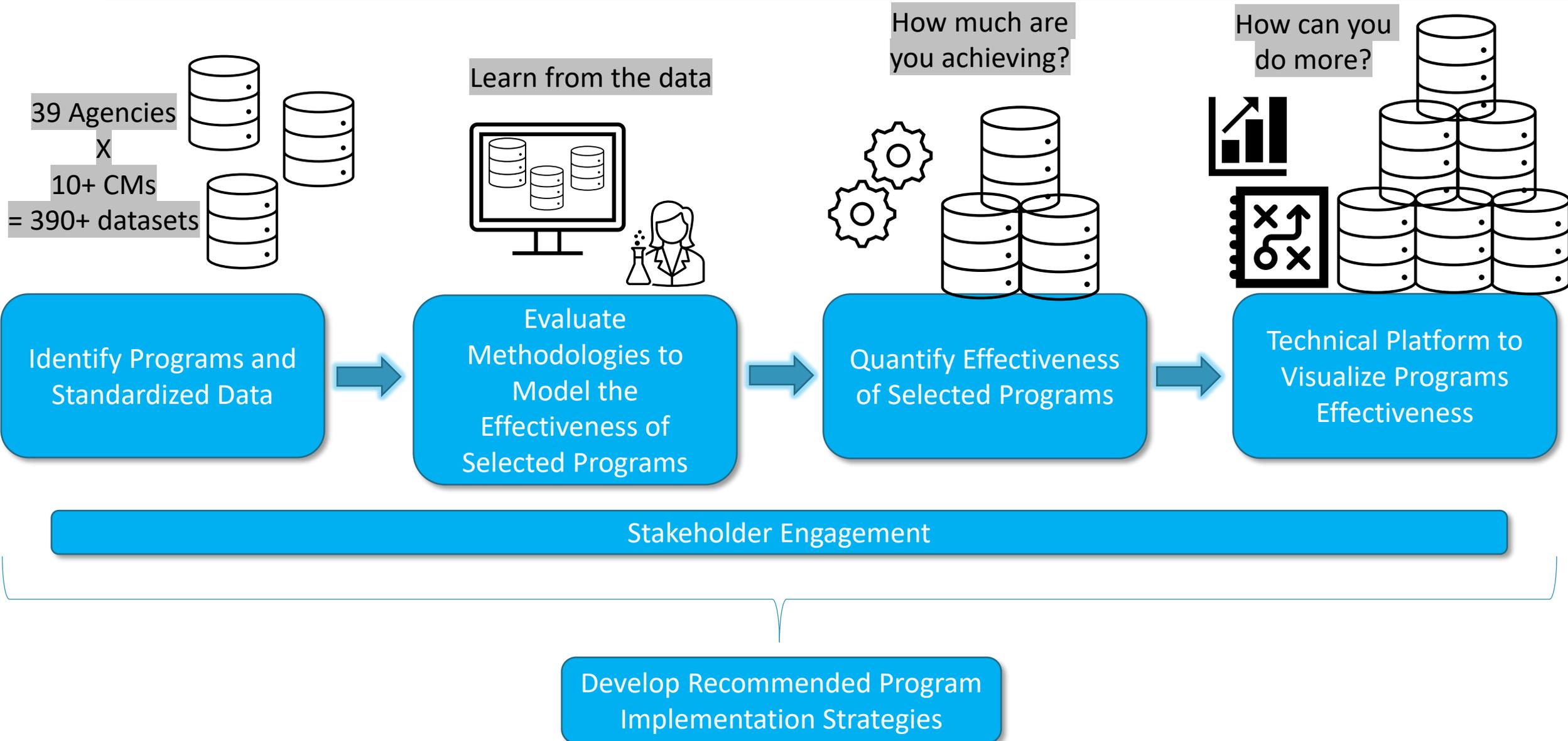


# Study Details





# Study Details





# Schedule

| Phase   | Description  | Completion Date |
|---|--|-----------------|
| <b>Stakeholder Engagement</b>   | Form Stakeholder Group                                   | 12/31/2022      |
| <b>Identify Programs and Standardized Data</b>                                | Select Program Strategies to Evaluate                    | 1/31/2023       |
|   | Develop Standardized Data Templates                      | 3/31/2023       |
| <b>Evaluate Methodologies to Model the Effectiveness of Selected Programs</b> | Draft Program Performance Evaluation Methodologies       | 4/30/2023       |
|   | Final Program Performance Evaluation Methodologies       | 6/30/2023       |
| <b>Quantify Effectiveness of Selected Programs</b>                            | Draft Program Performance Evaluation                     | 9/30/2023       |
|   | Final Program Performance Evaluation Methodologies       | 11/30/2023      |
| <b>Technical Platform to Visualize Programs Effectiveness</b>                 | Draft Program Tracking and Assessment Technical Platform | 2/29/2024       |
|   | Final Program Tracking and Assessment Technical Platform | 6/30/2024       |
| <b>Develop Recommended Program Implementation Strategies</b>                  | Recommend MCM Implementation Strategies for Optimization | 6/30/2024       |



# Funding Request

| WASC         | Year 1            | Year 2            |
|--------------|-------------------|-------------------|
| RH           | \$ 83,275         | \$ 157,190        |
| ULAR         | \$ 278,068        | \$ 524,878        |
| USGR         | \$ 136,137        | \$ 256,972        |
| <b>TOTAL</b> | <b>\$ 497,480</b> | <b>\$ 939,040</b> |



# Regional Collaboration

MCMs are critical implementation strategies across the region, which are typically undervalued and not well understood

Collaboration with:

- Regional Board
- SCCWRP
- New York City



# Summary of Benefits

- Robust, scientific approach to:
  - Visualize and communicate MCM implementation
  - Quantify effectiveness
  - Identify adjustments/additions to increase water quality, water supply, and community benefits
- Continue support and investments in critical programs, uniquely integrated in our communities
- Cheaper and faster strategies progressing water quality goals
- Reduce burden on structural projects, allowing SCW funds to focus on multi-benefit projects that maximize nature-based solutions and community investment benefits



**Questions?**