### SCWP Community Garden Stormwater Capture Investigation - Findings Upper Los Angeles River Watershed

WSP & LACGC ULAR Watershed Area Steering Committee Meeting – September 04, 2024





### **Project Lead**



- 501( c )3 non-profit organization
- Manages 42 community gardens across the County

- Advisory services
- Workshops
- Community organizing assistance







### **Purpose and Outcome**

**Community Garden Stormwater Capture Investigation** 

Scientific Study funded by the Safe, Clean Water (SCW) Program aimed to do the following:



SCW Program goals (achieving stormwater management goals with community benefits)



Case studies identifying community gardens with the potential to be used for stormwater capture







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### **Project Objective**

SCW Program funded the study in three (3) watershed areas.\*



**Identify Opportunity Gardens –** within the designated watersheds

**Select Gardens** – Develop criteria for selection

#### **Objectives**

- Identify conditions for potential stormwater capture
- Engage with gardeners to understand potential needs & opprtunities

\*Watershed areas as identified and funded by the program



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### **Project Phase I – Identify & Early Engagement**



## I: Identify

Identify existing Community Gardens

- Identified existing Community Gardens, gathered publicly available/relevant data
- Matrix Development
  - Water Related Data
  - Soil Data
  - Land Use Data
  - Disadvantaged
     Communities (DAC)
- Initial contact with gardens for info sessions









**Data Sources** 





**Project Phase I – Identify & Early Engagement** 

Natural Resources Conservation Service U.S. DEPARTMENT OF AGRICULTURE





Project Watershed Areas, WSP 2023



### **Project Phase I – Identify & Early Engagement**







#### ¡Emocionante oportunidad para su jardín comunitario!

Los Angeles Community Garden Council recibió fondos a través de la Medida W del Condado de Los Ángeles - Programa de Agua Limpia y Segura para realizar tres investigaciones de cuencas hidrográficas, conocidas colectivamente como el Proyecto de Investigación de Captura de Aguas Pluviales de Jardines Comunitarios. La Investigación identificará y evaluará el potencial de los jardines comunitarios para implementar las mejores prácticas de gestión de aguas pluviales. La Investigación dará como resultado diseños conceptuales de captura de aguas pluviales para tres (3) jardines comunitarios, uno para cada cuenca. Estos diseños se pueden usar para solicitar la financiación de subvenciones propias de los jardines para apoyar la obtención de permisos y la implementación.

> Interesado en aprender más? Regístrese para asistir a una de estas sesiones informativas:

> > Enlace de registro:



Si tiene preguntas o desea obtener más información comuniquese con el Gerente de Provecto. Kayla Kelly-Slatten en kayla@kksstrategies com



Measure W - Safe Clean Water Program to conduct three watershed investigations, known collectively as the Community Garden Stormwater Capture Investigation Project. The Investigation will identify and assess the potential for community gardens to implement stormwater best management practices. The Investigation will result in conceptual stormwater capture designs for three (3) community gardens, one for each watershed. These designs can then be used to apply for the gardens' own grant funding to support permitting and implementation.

Spring 2023 - Winter 2024

If you have questions or would like more information please reach out to the Project Manager. (------Clatten at kayla@kksstrategies.com.

> inity garden is interested in learning he project and how to get involved, d one of the following information sessions Session 1 Date: ssion 1 Registration Link:

Session 2 Date: ssion 2 Registration Link:





#### Phase 1

#### -Information Sessions

Flyers developed and distributed to contacts and sessions were held to introduce the project and foster interest.

#### -Interest Forms

Gauged interest and begin to collect general information about the gardens.

-Continued Conversations

One on one sessions were held.

-Scheduled Site Visits

To continue assessing the site and understand garden needs.



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### **Project Phase II - Filter**



## II : Filter

**Develop Criteria** 

- Used data previously collected for the matrix to develop screening criteria for the selection process.
- Initial screening criteria.
- Secondary screening criteria, if needed.





#### INITIAL LIST OF CRITERIA USED TO FILTER GARDEN SITES

Based on publicly available data collected during identification phase.

CRITERION	DEFINITION	FILTER
Туре	Type of Garden	Is the garden classified as a Community Garden, Farm, or School Garden
LACSDS Proximity (ft)	Proximity to existing drainage infrastructure (ft)	Site in proximity of 100 feet or less of a LA County Storm Drain
Estimated Average Well Depth	Estimated Average Well Depth depending on wells within 3 miles form site.	Sites with an average well depth of 10 ft or more
WMP/EWMP	Falls within an Enhanced Watershed Management Plan (EWMP)?	YES
Hydrologic Group - Dominant Condition	Natural Resources Conservation Service (NRCS) Hydrologic Group - Dominant Condition	Garden site is either: Null, A, B (Null = site is primarily categorized as urban land, and actual soil characteristics may vary)
NRCS drainage Class	NRCS Drainage Class is well drained (to help with the null of the Hydrologic group)	Filtered to only show sites considered "well drained"
Agency Type	Agency type created to help sort the various agency name (owners) into categories for filtering.	Filtered to only show type is either municipality, Null, County, or School district. Most community gardens fall withing one of these categories.
Impaired Water Body Or Watershed	is in an impaired water body or watershed	is in an impaired water body or watershed

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### **Project Phase II - Filter**

Site Name	Туре	City	DAC Status
Pueblo De Los Angeles Continuation	School Garden	Los Angeles	Yes
Verdugo Park Community Garden	Community Garden	Glendale	No
Parkman Gardens	Community Garden	Woodland Hills	No
Carpenter Community Charter	School Garden	Studio City	No
William Mulholland Middle School	School Garden	Lake Balboa	No
Eagle Rockdale Community Garden	Community Garden	Los Angeles	No
Geneva Gardens	Community Garden	Glendale	No
Glassell Park Community Garden	Community Garden	Los Angeles	Yes
Granada Hills Salad Bowl Garden Club	Community Garden	Granada Hills	No
Palmer Park Community Garden	Community Garden	Glendale	No
Orcutt Ranch Horticultural Center Rancho Sombra Del Roble	Community Garden	West Hills	No
Sepulveda Garden Center	Community Garden	Encino	No
El Cariso Park Community Garden	Community Garden	Sylmar	No
Jefferson Elementary (Glendale)	School Garden	Glendale	No
Network For A Healthy California	School Garden	Van Nuys	No

### **Initial Screening Process**

#### **ULAR** screening results:

**19%** of gardens were filtered using the criteria

#### **Top 15** sites were selected for further analysis.





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### **Project Phase III – Refine**



#### III: Refine Selected Gardens

- Gardens that were vetted by the screening criteria were further analyzed. We aimed Ten (10)
   Gardens per watershed.
- Continued efforts to engage with the gardens to identify sites willing to participate.

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Project Phase III – Refine	Project	<b>Phase</b> I	III – Refine
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Best Management Practices (BMPs)	Potential Locations
Infiltration Basins	-
Detention Basins	-
Detention w/ SSF Wetlands	-
Constructed SF Wetlands	-
Underground Storage/tanks	On site under garden beds
Hydrodynamic Separators	On site if drainage inlets exist on sight
Channel Naturalization	-
Rainwater Harvesting Cisterns - By the building/underground	By building/underground
Bioretention Cells - On site	On site
Vegetated Swales	Perimeter of garden and park area
Green Roofs	On roof of structures
Porous/ Permeable Pavements	Parking space and walkways.
Gross-Solids Removal Devices (GSRDs)	-
Media Filters	-
Catch Basin Inserts	-

#### List of BMPs considered for each site.

This included Regional and Distributed BMPs and potential locations were identified prior to site visit. During the site visits opportunities, constraints, and BMP placement was discussed.

Mostly distributed BMPs that service the garden were recommended due to limited knowledge of the larger parcels that the gardens are located on.





### **Project Phase III – Refine**

#### **Desktop Study:**

Identify site characteristics for the feasibility and placement of a stormwater capture Best Management Practices (BMPs).

#### **One on One Engagement:**

Verify the gardens are still active and location within the parcel. Are they interested in participating? Additional needs? Prep for site visit.



### **Project Phase III – Refine**

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Name of Garden 📼	Watershed <del>–</del>	Date/Time of Meeting 📼	Project Team Attendees	- Video Conference Link -	Thank You Sent? =
Eagle Rockdale Community Garden	UPLAR	Wednesday, Oct. 4 @ 10:30am		https://us06web.zoom.us/j/83277965662?pw d=62SjuKl6xcOOEablzZku99mIAHaKZq.1	
El Cariso	UPLAR	Tuesday, Sept. 26 @ 10:30am	Kayla, Gabriela, Cyndi	https://us06web.zoom.us/j/83543468016?pw d=I12CviFSkTwx5wvS4Fb6YWAqnG2ihG.1	yes
Glassell Park Community Garden	UPLAR	Friday, Sept. 22 @ 10am	Kayla, Gabriela	https://us06web.zoom.us/j/81080595007?pw d=rNtEkhx3wIRENWB0TeUVxvoYvOUMMd. 1	yes
Granada Hills Salad Bowl Garden Club	UPLAR	Friday, Oct. 6 @ 1:30pm	Kayla, Gabriela, Cyndi	https://us06web.zoom.us/i/86570026466?pw d=05tTquSvVOF53TWuhr6QSZCYEAGrzB.1	yes
Jefferson Elementary	UPLAR	Friday, Oct. 6 @ 2:45pm	Kayla, Gabriela, Cyndi	https://us06web.zoom.us/j/86556593767?pw d=2UtyespgmJqS4gUy7XVSjjVH7CYcvA.1	yes
Parkman Community Garden	UPLAR	Monday, Sept. 18 @ 5pm	Kayla, Gabriela	https://us06web.zoom.us/j/87263837076?pw d=bL0jjyN1dP8rFWFxZnmdhM4ycKBCN1.1	yes
East Hollywood Community Garden	CSMB	Thursday, Sept. 28 @ 4:30pm	Kayla, Gabriela	https://meet.google.com/exz-fwyo-vru	yes
Mar Vista Community Garden	CSMB	Thursday, Sept. 28 @ 3pm	Kayla, Gabriela, Cyndi	https://us06web.zoom.us/j/82651235846?pw d=I1Rbcut0yOpzhMvdJB6zym9XLAHD3U.1	yes
Santa Monica Park Drive and Main Street	CSMB	Tuesday, Sept. 19 @ 3pm	Kayla, Gabriela	https://us06web.zoom.us/j/87237040424?pw d=5GvTAaai2HvFT8Bs2seAKrdAQXemn4.1	yes
Venice Learning Garden	CSMB	Monday, Oct. 2 @ 11am	Kayla, Gabriela	https://us06web.zoom.us/i/84659429474?pw d=YZ1CyEWXvbnbI5EjQViXyHD7bA1Rx8.1	yes
Wattles Farm	CSMB	Friday, Sept. 29 @ 1pm	Kayla, Gabriela, Cyndi	https://us06web.zoom.us/j/81465477619?pw d=TcOdCShqeGbjk6OuSaJMTWcB6QOFXi. 1	yes
Greystone Mansion Demonstration Garden	CSMB	Friday, Oct. 6 @ 3:30pm	Kayla, Gabriela	https://us06web.zoom.us/j/85253915493?pw d=KSdWb17uUWLLpBfDsMRBaVNId4cesD. 1	yes

#### Phase IV

Phase III

Phase 1

#### -Information Sessions

Flyers developed and distributed to contacts and sessions were held to introduce the project and foster interest.

#### -Interest Forms

Gauge interest and begin to collect general information about the gardens.

#### -Continued Conversations

One on one sessions held.

#### -Scheduled Site Visits

Continue assessing the site and understand garden needs.





### **Project Phase III – Refine**

#### **ULAR** selection results:

19% of gardens were filtered using the criteria

**Top 15** sites were selected for further analysis.

# 6 sites responded, but only **4** had site visits conducted.

Site Name	Туре	DAC Status	LACGC
Parkman Gardens	Community Garden	NO	NO
Glassell Park Community Garden	Community Garden	YES	YES
Granada Hills Salad Bowl Garden Club	Community Garden	NO	NO
El Cariso Park Community Garden	Community Garden	NO	NO
Jefferson Elementary-Glendale	School Garden	NO	NO
Eagle Rockdale Community Garden	Community Garden	NO	NO



Community Garden Stormwater Capture Investigation

### **Project Phase IV – Collaboration & Engagement**



# **IV : Collaboration**

Collaboration with selected Gardens

- Leverage LACGC's strength in outreach and engagement.
- Outreach has bewn conducted through out the study.
- Opportunity to introduce the sites about the project and SCWP.
- Site reconnaissance to aid in the conceptual design

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### **NSP** Project Phase IV – Collaboration & Engagement



#### -Information Sessions

Flyer developed and distributed to contacts and sessions were held to introduce the project and foster interest.

#### -Interest Forms

Gauge interest and begin to collect general information about the gardens.

#### -Continued Conversations

One on one sessions held.

#### -Scheduled Site Visits

Continue assessing the site and understand garden needs.

### **NSP** Project Phase IV – Collaboration & Engagement



#### Site visits - ULAR









Community Garden Stormwater Capture Investigation







### **Project Phase IV – Collaboration & Engagement**

#### **ULAR** selection results:

**19%** of gardens were filtered using the criteria

**Top 15** sites were selected for further analysis.

6 sites responded, but only **4** had site visits conducted.

#### **<u>2</u>** selected for case studies

Site Name	Туре	DAC Status	LACGC
Parkman Gardens	Community Garden	No	No
Glassell Park Community Garden	Community Garden	Yes	Yes
<mark>Granada Hills Salad Bowl Garden</mark> <mark>Club</mark>	Community Garden	No	No
<mark>El Cariso Park Community Garden</mark>	Community Garden	No	No
Jefferson Elementary-Glendale	School Garden	No	No
Eagle Rockdale Community Garden	Community Garden	No	No



# of Garden Sites filtered

### **Project Phase V – Summarize**



## V : Summarize

Select Gardens

- One (1) garden was selected for each watershed
  - Each site had a concept report drafted summarizing the data collected through out the phases and the recommended BMPs selected for the site.
  - Site layout, rendering, bilingual fact sheets, and information to support the process of the applying for Technical Assitance.

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Best Management Practices (BMPs)	Potential Locations	4
Infiltration Basins	Not appropriate for garden, but maybe within park	XI.
Detention Basins	-	
Detention w/ SSF Wetlands	-	
Constructed SF Wetlands	-	
Underground Storage/tanks	On-site	
Hydrodynamic Separators	Inside inlets	
Channel Naturalization	-	
Rainwater Harvesting Cisterns - By the building/underground	-	
Bioretention Cells - On site	Can be designed in place of a gardening space	
Vegetated Swales	Around the perimeter of the site	
Green Roofs	-	RA
Porous/ Permeable Pavements	Parking lot adjacent to the garden. In between garden beds on paths among units	P
Gross-Solids Removal Devices (GSRDs)	At catch basin on-site if any	
Media Filters	At proposed swale (if any) outfall	
Catch Basin Inserts	At catch basin on-site if any	

#### **Initial Conversations**

-Garden has a lease agreement with LADWP but managed by community volunteers.

-140 plots varying in sizes with gardeners managing between 2-4 plots.

-Gardeners are mostly Spanish speakers and elderly.

-In 2023, the garden used 1,696 hundred cubic feet of water, which equates to **132,288 gallons** of water. Watering is mostly done with a hose.

#### **Site Visit Conversations**

-There are ponding issues outside of the garden.

-Access and mobility through out the garden is hard.

-Minimal shade on site.

### **Project Phase V – Summarize (Granada Hills)**



#### **Proposed Enhancements:**



Underground Storage Tank

Vegetated Stormwater Planter/Swale

Smart Irrigation System

**Educational Signs** 

Shade Structure

Mew Fencing

Composting Bins

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### **Project Phase V – Summarize (Granada Hills)**



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### **Project Phase V – Summarize**

Safe Clean Water Program Upper Los Angeles River Scientific Study Community Garden Stormwater Capture Investigation Project Granada Hills Salad Bowl Garden Club Concept Report	TABLE OF CONTENTS OFERING CONTENTS OFERI	<ul> <li>Attachments and additional documents provided per site included:</li> <li>Site Layout</li> <li>Renderings</li> <li>High Level cost estimate</li> <li>High Level CEQA analysis</li> </ul>	<ul> <li>Preliminary Data List</li> <li>One-Page Fact Sheet (Bi-Lingual)</li> <li>SCWP Technical Assistance Information</li> <li>List of Potential Funding Sources</li> </ul>
WEDSANGELES WSP	Servers and a final data we want of the server of the serv		
Conceptual Report*	Technical Assis	tance Feasibility Study	Construction/Implementation
*Study did not inc	lude implementation.		



# Recommendations







### Gardens:

-Establish more collaborative relationships with property owners to identify project opportunities.

-Partnerships allow multiple entities to combine resources, thereby resulting in more impactful/multi-benefit projects.

-Gardens should engage with **workforce development entities** such as a conservation corps. The California Conservation Corps is a state agency that offers assistance with climate adaptation and resiliency.

### **Municipalities:**

-Include language in **sustainability plans** to include community gardens and urban farms. These public land uses as spaces that can provide multiple benefits such as, access to food, recreation spaces, environmental resiliency, stormwater capture opportunities, etc.

-Establish training programs with garden leadership when planning for stormwater infrastructure projects. Teach garden volunteers how to maintain and report maintenance issues related to the BMPs.

### **SCWP:**

-Extend outreach efforts to community gardens and school districts identified in this study. Most sites the project team connected with were interested in stormwater capture projects and wanted to learn more about the Safe, Clean Water Program.



# **LEARNING LESSONS**



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### Lessons Learned

### **Project Description/Scope of Work:**

- Engagement incentives.
- Plan for and schedule more collaborative sessions with both property owners and garden
   leadership.
- Leave room to include concepts that include areas outside of the garden, but that provide benefits to the community garden.

# Thank you

WSP: Gabriela Gonzalez – gabriela.gonzalez@wsp.com

LACGC: Kayla Kelly-Slatten (PM) - kayla@kksstrategies.com

Safe Clean Water Program - <u>safecleanwaterla.org</u>

LACGC - lagardencouncil.org