



# Gardena Willows Wetland Stormwater Enhancement Project

Technical Resources Program

Fiscal Year 2024-2025

South Santa Monica Bay Watershed Area

City of Gardena & Friends of the Gardena Willows Wetland Preserve

Presented by:

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# Project Overview

The Willows Wetland Project will provide nature-based solutions to treat flows reaching the wetland and increase its treatment capacity.

- Primary Objective: Water Quality Improvement
- Secondary Objectives: Community Enhancement, Water Supply
- Project Status: Planning Phase, requesting funding for Feasibility Study development
- Total Funding Requested: ≤\$300,000\*

\* Amount to be allocated to the SCW Technical Assistance Team (TAT) to help the applicants develop a Feasibility Study





# Project Location



Project Location:  
City of Gardena  
South SMB/Dominguez Channel





# Project Background

- Why was the Project Location selected?
  - Increase community access to a significant wetland system
  - Improve the water quality of stormwater and non-stormwater runoff draining to the Dominguez Channel
- How was the Project developed?
  - The City of Gardena funded the preliminary H&H analysis, site visits, and a review of previous planning
  - Conversations between The City of Gardena and the Friends of the Willows Wetland also contributed to BMP selection and siting
- Which regional water management plan includes the proposed project?
  - The Project will be proposed to the Integrated Regional Water Management and request to be included in their respective plan and database



# Project Background

- Description of benefits to municipality
  - Improve runoff water quality entering the wetlands
  - Help meet TMDL compliance for the Dominguez Channel including toxicity, copper, lead, zinc, cadmium, DDT, PAH, PCBs
  - Eliminate nuisance dry weather flows
  - Assist with vector control
  - Removal of invasive species replaced by natives
- Description of benefits to DAC
  - The Project is located within DAC
  - It will provide the following benefits to DAC directly:
    1. Increase access to natural open space
    2. Improve educational signage
    3. Increase educational programming
    4. Increase access to trails with benches





# Partners

- Who are the implementation partners already identified?
  - The City of Gardena and the Friends of the Gardena Willows Wetland Preserve
- What communities or groups have expressed support for the project?
  - Environmental Charter Schools
- Have you received a letter of concurrence from the municipality (if needed) – **Not needed**
- Have you received a letter of concurrence from the Flood Control District (if needed) – **To be determined**
- Have you yet engaged the appropriate vector control district about the project concept?
  - The City of Gardena has been in contact with the Vector Control District





# Project Details

Drainage Area ID	Drainage Area (ac)	% Impervious	85 <sup>th</sup> – 24 hr Capture Volume (AF/CF)
Catalina Ave	3.8	54%	0.15 / 6,600
Berendo Ave	3.2	64%	0.15 / 6,400
West Storm Drain	75.8	57%	1.28 / 55,600
New Hampshire Storm Drain	30.9	71%	3.77 / 164,000
<b>Total</b>	<b>113.7</b>	<b>66%</b>	<b>5.35 / 232,600</b>

## Legend

City of Gardena

Gravity Main

Drainage Areas

Berendo Ave

Catalina Ave

New Hampshire Storm Drain

West Storm Drain

Preliminary BMP Footprint by BMP Type \*

Bioswale

Detention Basin

Drywells



Additional nuisance drainage identified by the Gardena and FGWWP Team to be further explored during the Feasibility Study phase

\* BMP type and location will be confirmed during the development of the Feasibility Study





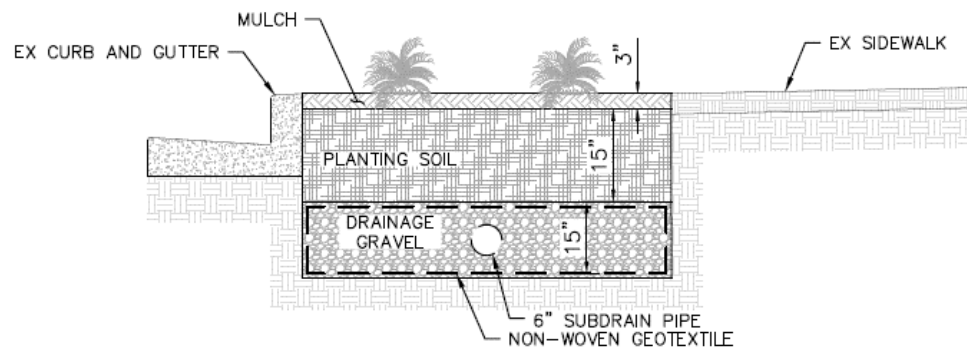
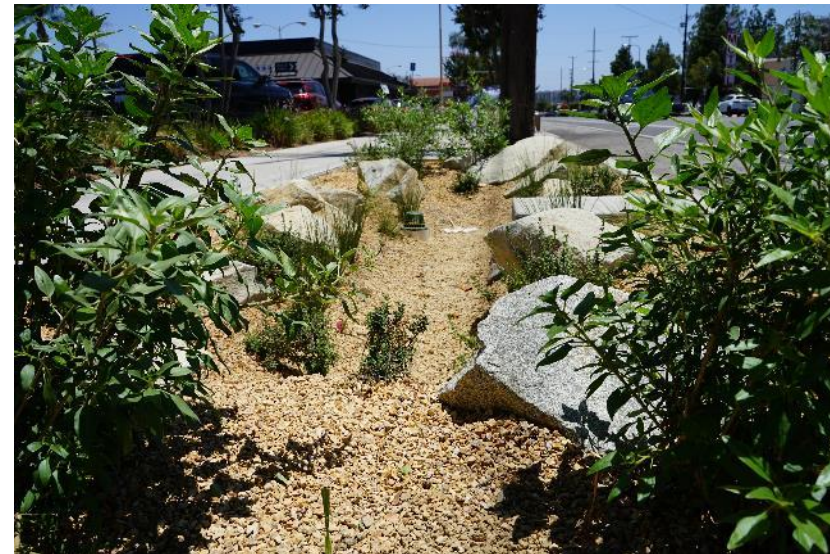


# Current Site Conditions

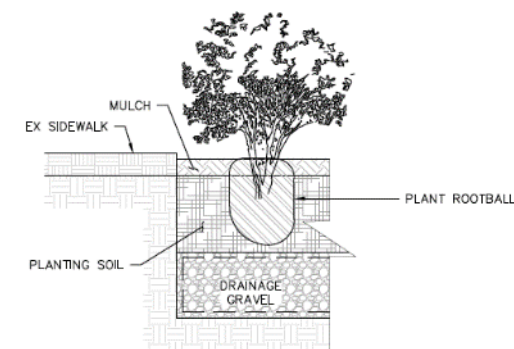




# BMP Concepts: Bioswale



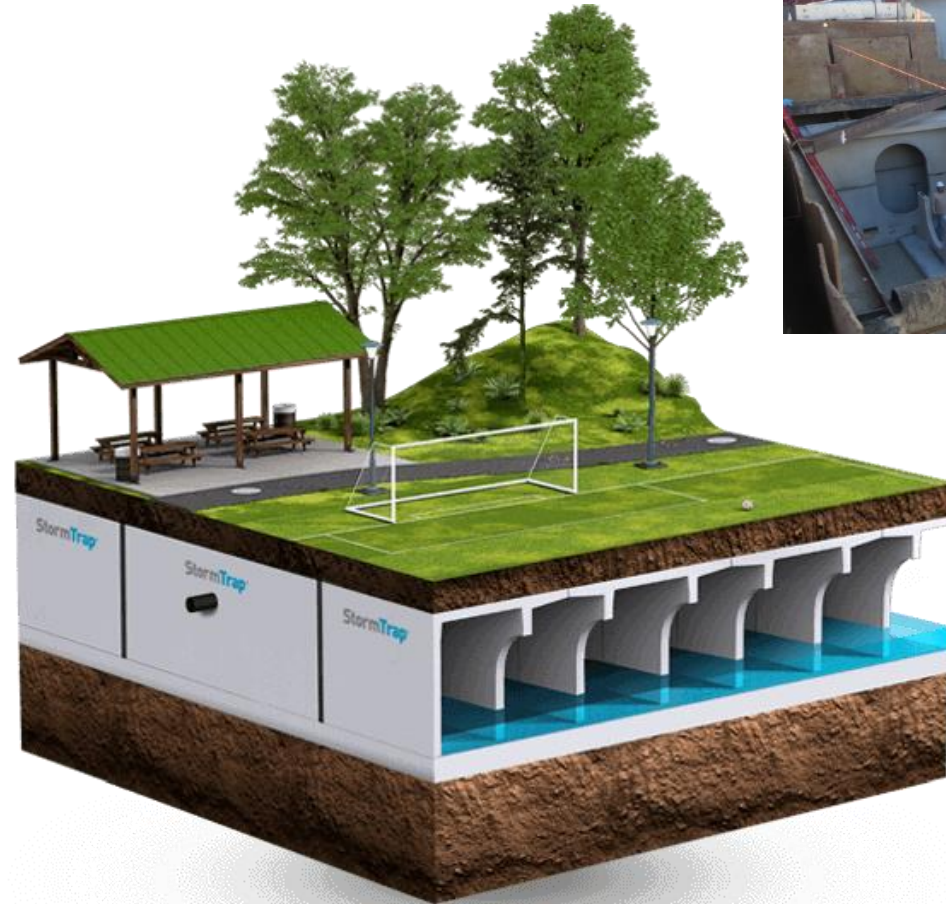
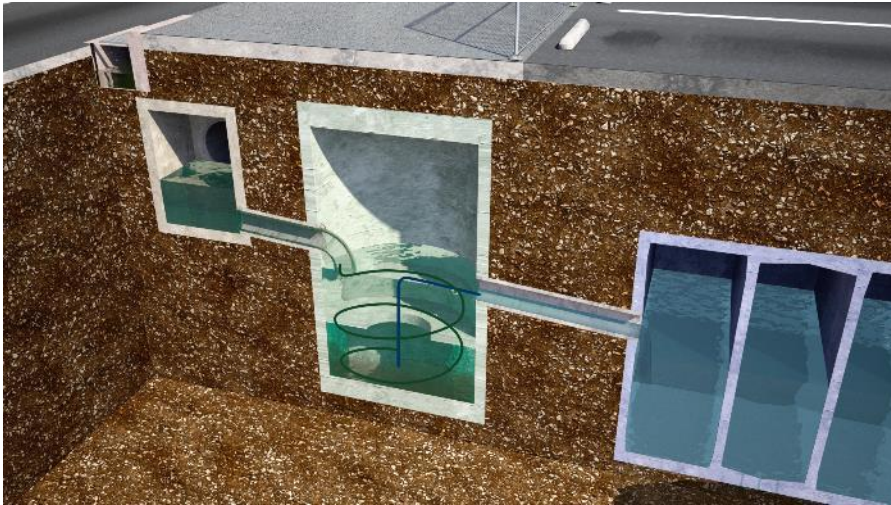
**B**  
1  
**RAIN GARDEN SECTION**  
NOT TO SCALE



**B**  
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**TYP PLANT DETAIL**  
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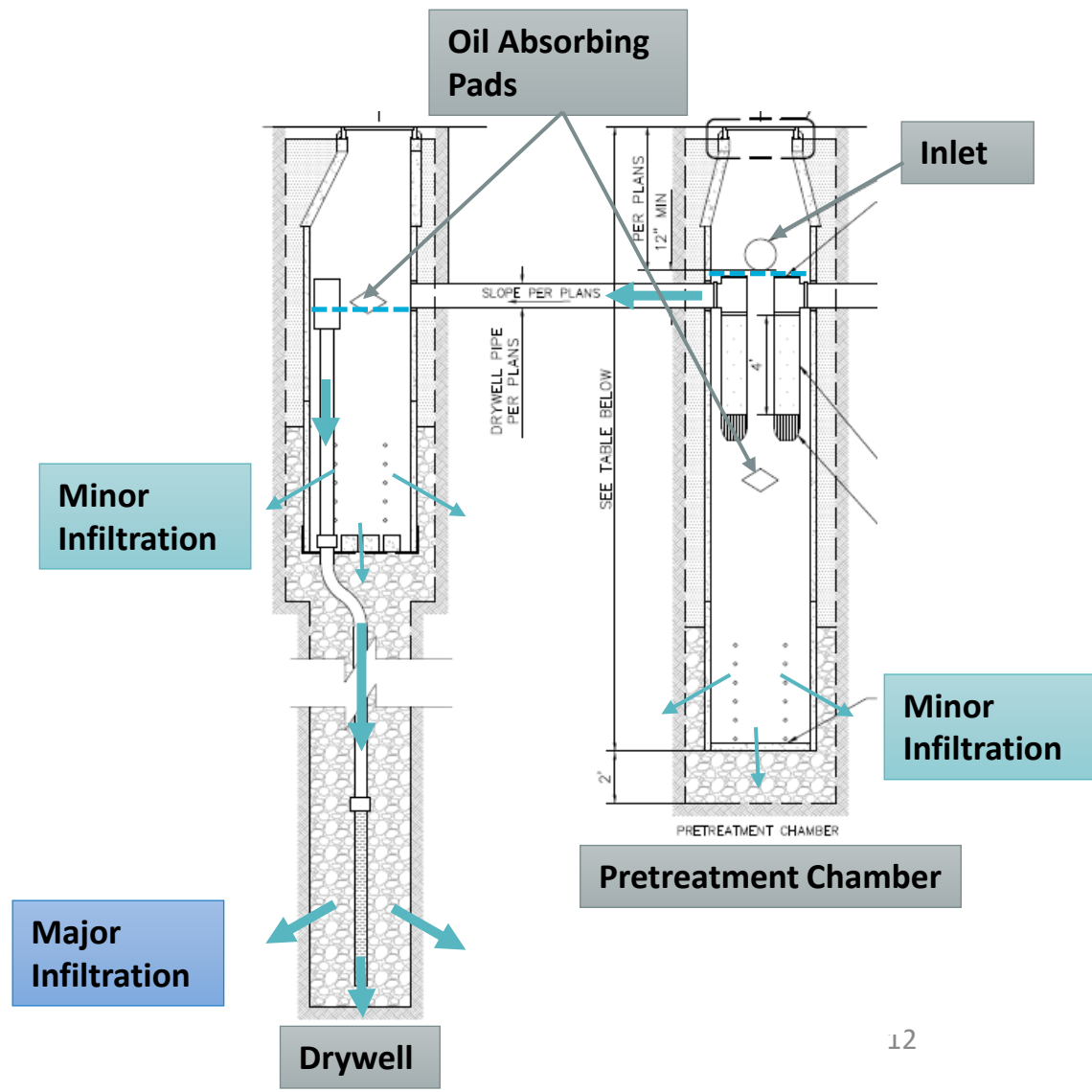
# BMP Concepts: Detention Basin

- Divert runoff from a storm drain
- Pretreat flows
- Release flows to the wetland (or sanitary sewer)





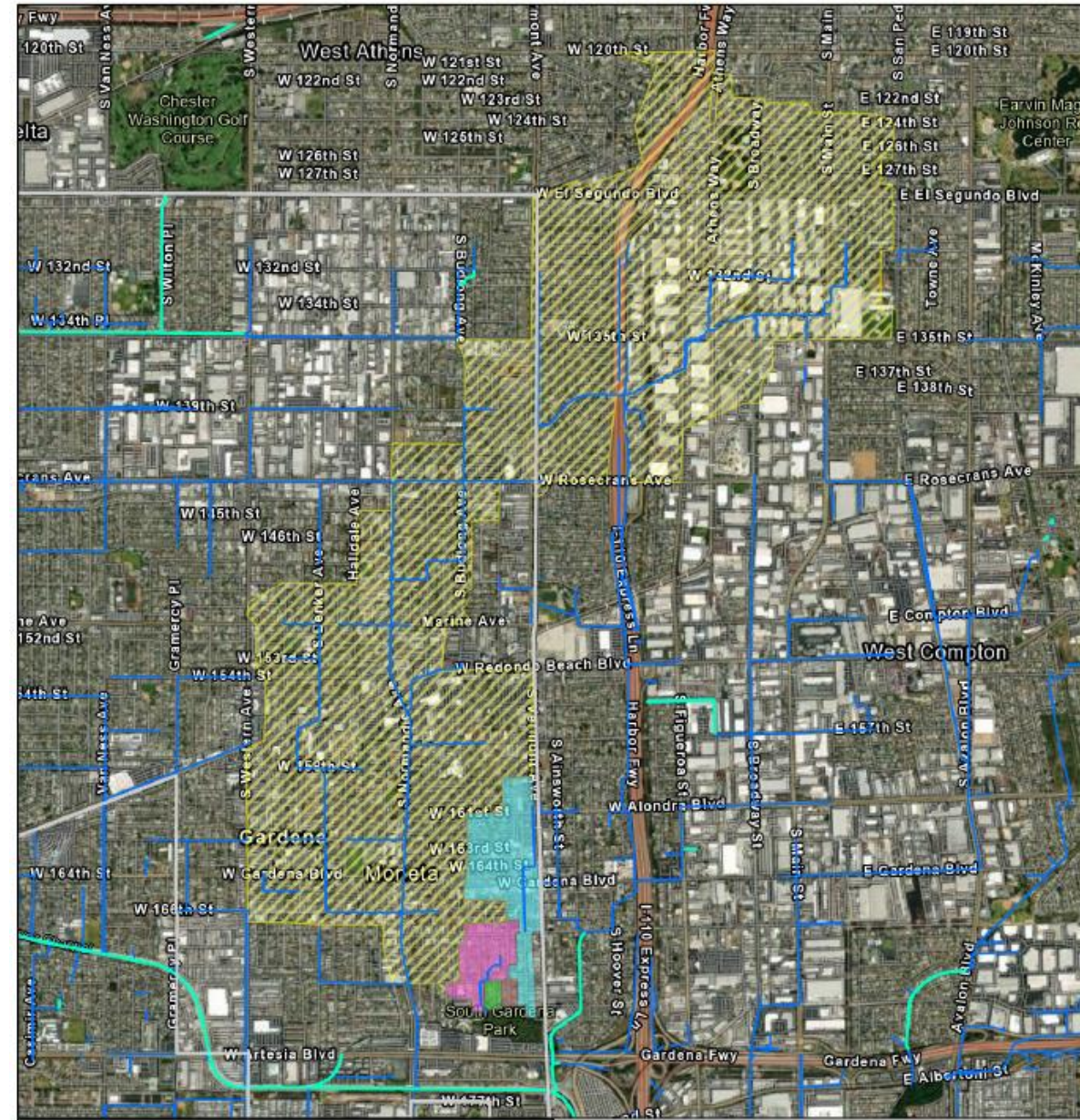
# BMP Concepts: Drywells





# Potential Project Concepts to be Explored

- Project concepts to be explored further during the Feasibility Study Phase:
  - Installing drywells along Vermont Ave
  - Installing bioswales throughout the neighborhood upstream of the Willows Wetland
  - Increasing the treatment capacity of the Willows Wetland
  - Capturing drainage from an LA County 8.75' x 10.5' storm drain
  - Diversion to sanitary sewer and water recycling options





# Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	≤\$300,000*	2026
Design	100% Design plans and permitting	\$954,000	2028
Construction	Construction of stormwater BMPs and community enhancements	\$5,243,000	2030
<b>TOTAL</b>		<b>\$6,497,000</b>	<b>2030</b>

- Annual costs will include maintaining the drywells, bioswales, pretreatment systems, and stormwater detention tank. The expected life span is about 40 years.
- Lifecycle Cost:
  - Annual Maintenance: \$96,000
  - Annual Operation: \$9,600
  - Annual Monitoring: \$38,924
- Design and construction costs will be revised as part of the Feasibility Study

\* Amount to be allocated to the TAT to help the applicants develop a Feasibility Study



# Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	≤\$300,000*	Planning	Complete the SCW Infrastructure Program feasibility study
<b>TOTAL</b>	<b>≤\$300,000*</b>		

- Leveraged Funding options, including additional grants, will be explored during the feasibility study phase
- Future potential SCW funding requests will include funding for 100% design, permitting, and construction

\* Amount to be allocated to the TAT to help the applicants develop a Feasibility Study



**Questions?**

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