Executive Summaries for FY23-24
Infrastructure Program Project

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LOWER SAN GABRIEL RIVER WATERSHED MANAGEMENT PROGRAM, CITY OF ARTESIA

ARTESIA PARK URBAN RUNOFF CAPTURE PROJECT

PROJECT FACT SHEET

EXISTING SITE CONDITIONS

DRAINAGE AREA

DRAINAGE CHARACTERISTICS

REGIONAL WATER MANAGEMENT PLAN	Lower San Gabriel River Watershed Management Program
DRAINAGE AREA	585 acres Artesia (66.2%) Cerritos (14.7%) Norwalk (19.1%)
INFILTRATION RATE	Not tested due to high groundwater
APPROX. DEPTH TO GROUNDWATER	12 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	332 ac-ft per year

Artesia Park Storm Drain

Artesia Park

BMP CHARACTERISTICS

LOCATION	Artesia Park 18750 Clarkdale Avenue, Artesia	LAT: 33° 51'34.14"N LONG: 118° 4'40.37"W

Proposed BMP Description: The Artesia Park site is owned and operated by the City of Artesia and has been identified as a Tier 1 Priority Project along the Norwalk/Cerritos Stormwater Treatment Corridor. Runoff within this corridor ultimately drains to the Coyote Creek and to the Lower Los San Gabriel River watershed. The project seeks to improve water quality discharged to Coyote Creek and to the Lower San Gabriel River. In addition, project also proposes to address localized flooding on Clark Ave and will restore and rehabilitate areas of the park. The project consists of a stormwater diversion from the LACFCD Artesia-Norwalk storm drain. The water captured will be filtered by a hydrodynamic separator, stored in a 1.6 MG/5 AF underground storage reservoir. Additional features include parking lot enhancements (native landscaping, permeable pavement, and bioswales), an ephemeral stream, and a wetland/habitat area. The treatment drainage area for the project at 585 acres captures runoff from the jurisdictions of Artesia, Cerritos, and Norwalk,. This project has the potential to offer runoff storage and water quality benefits for these jurisdictions that can address the additional needs for stormwater management identified to achieve compliance in the WMP. The project is downstream of the proposed Hermosillo Park Stormwater Capture Project and will work in tandem to provide watershed wide benefit.

Project Benefits:

- **Water Quality** Improvement in the Coyote Creek and the Lower San Gabriel River by treating stormwater and urban runoff
- **Nature-Based** parking lot enhancements and ephemeral stream with sustainable native landscaping and permeable pavement
- **Park recreational enhancements** with an ephemeral stream and wetland/habitat area
- **Local Flood reduction** with the modified catch basin and additional storage capacity

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PROPOSED CONCEPTUAL SITE LAYOUT

Parking Lot: Permeable Pavement and Bioswales

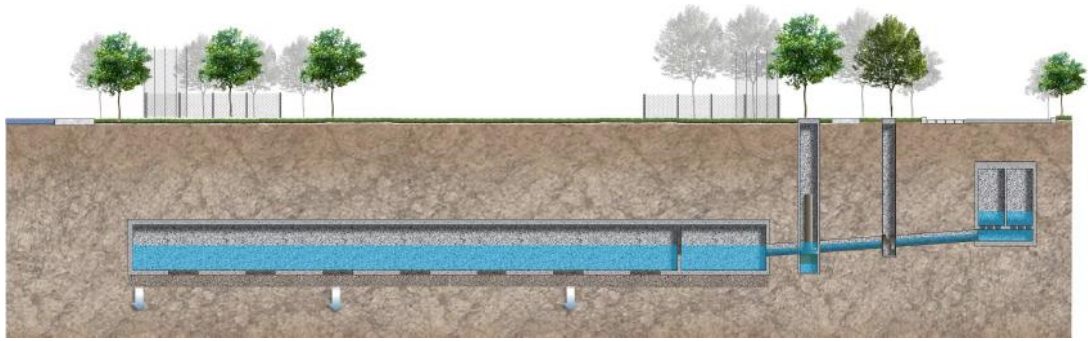
Pre-Cast Subsurface Storage Facility

Ephemeral Stream to butterfly garden

PRELIMINARY SCW SCORING

SECTION	TOTAL COST
A.2 Dry Weather Water Quality Benefits • A.2.1 Capture, infiltrate, treat & release, or divert 100% of all tributary dry weather flows • A.2.2 Tributary size >200 acres	40
B. Significant Water Supply Benefits • B1. Water Supply Cost Effectiveness • B2. Water Supply Benefit Magnitude	5
C. Community Investment Benefits • Improved flood management • Creation/enhancement/restoration of parks • Enhanced/new recreational opportunities • Reducing local heat island effect • Increasing number of trees and/or vegetation	5
D. Nature-Based Solutions	12
E. Leveraging Funds and Community Support • Strong local, community-based support	4
TOTAL SCORE	**66**

TYPICAL CROSS SECTION



PROJECT CHARACTERISTICS

Primary Pollutant Zinc Reduction Achieved (% Zn reduction)	76 lb/yr (91.4%)
Secondary Pollutant Bacteria (% Bacteria load reduction)	1.57 x 10^{13} MPN (98.1%)
Design Diversion Rate Project No. BI0021, Unit 2, Line A	20 cfs
Storage Capacity for Subsurface Storage Reservoir	5 ac-ft (1.6 MG)
24-Hour Capacity	20.6 ac-ft
Construction Cost Estimate	$11,785,345

LOWER SAN GABRIEL RIVER WATERSHED MANAGEMENT PROGRAM, CITY OF ARTESIA

ARTESIA PARK URBAN RUNOFF CAPTURE PROJECT

PROJECT FACT SHEET

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PROJECT COST AND SCHEDULE				
Phase	**Description**	**Cost**	**Start Date**	**Completion Date**
Planning	Environmental Planning and Permitting	$235,707.00	07/2024	07/2025
Design	Final Design (30/60/90/100)	$1,178,535.00	07/2024	07/2025
Design	Public Outreach Campaign	$50,000.00	07/2024	07/2025
Design	Agency Management (Design)	$104,634.00	07/2024	07/2025
Construction	Construction Costs	$11,785,345.00	07/2025	12/2028
Construction	Construction Survey	$20,000.00	07/2025	12/2028
Construction	Construction Administration and Design Support	$1,178,535.00	07/2025	12/2028
Construction	Agency Management (Construction)	$190,000.00	07/2025	12/2028
TOTAL		**$14,742,756.00**		

FUNDING REQUEST			
Year	**Description**	**SCW Funding Request**	**Phase**
Year 1	Environmental Planning and Permitting	$235,707.00	Planning
Year 1	Final Design (30/60/90/100)	$1,178,535.00	Design
Year 1	Public Outreach Campaign	$50,000.00	Design
Year 1	Agency Management (Design)	$104,634.00	Design
TOTAL		**$1,568,876.00**	

Beach Cities Green Streets Project

Funding Program (IP/TRP)

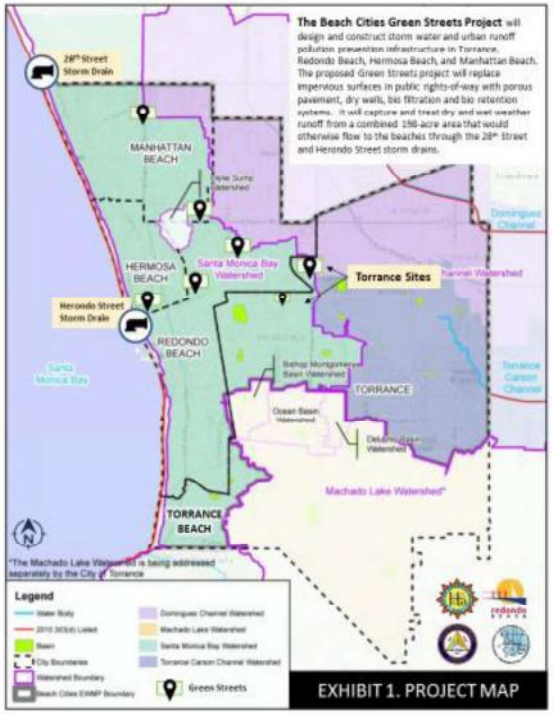
John Dettle, P.E.
(714) 343-0968
jdettle@torranceca.gov

Project Overview

The Beach Cities Green Streets Project (Project) is to be constructed in the Cities of Torrance, Redondo Beach, Hermosa Beach and Redondo Beach and include pervious pavement, dry wells and 200 more trees to intercept and infiltrate storm water.

- Primary objective is to comply with SMBBB TMDL and SMB Debris TMDL for the Herondo Drain watershed.
- The Project is currently under design.
- Total Funding Requested = $ 2,595,000.00

Project Location



- Project sites are located within public Right of Ways in the Cities of Torrance, Redondo Beach, Hermosa Beach and Manhattan Beach.
- Project sites located within the Santa Monica Bay Watershed, in areas not addressed by Regional BMPs.

Project Location

- Together, the Green Streets Project will capture and infiltrate storm water runoff from a combined 198-acre area.
- Torrance: Located along Kingsdale, Mansel, Grevillea and Burin Avenues. and 191st Street, covering a drainage area of 66 acres.
- Hermosa Beach: Located in medium to high density residential and commercial development area and covers a drainage area of 47.6 acres. The area is bounded by Herondo Street and the City's southern border to the south and the Santa Monica Bay to the west.
- Manhattan Beach (Herondo Drain): Located in a 7 acres of high-density residential area. Located along the northern side of Artesia Boulevard between S. Herrin Street and S. Redondo Avenue.
- Manhattan Beach (28th Street Drain): Located in single-family residential and commercial development area and covers a drainage area of 31 acres. Improvements will be installed along 19th Street between Sepulveda Blvd. and Pine Ave.
- Redondo Beach: Located in high density residential and commercial areas along Belmont, Pullman Lanes, Ford, Goodman and Steinhart Aves, and Anita Street, the Project will address approximately 47 acres.

Project Background

- The project locations (Project) was recommended in the Beach Cities Enhanced Watershed Management Plan.
- The Project will benefit the Cities of Torrance, Redondo Beach, Hermosa Beach and Manhattan Beach comply with SMBBB TMDL and SMB Debris TMDL.
- The Project has been partially funded by a State Coastal Conservancy grant and Beach Cities.
- The Project is currently in Final Design.
- Project does not benefit any Disadvantage Community.

Project Details

- Beach Cities have started Community Outreach Meetings in each City with Preliminary Design meetings completed.
- The Green Streets Project is currently in Final Design and are BMPs selected per the requirements/limitation of each project site and vetted by the Communities.
- The BMPs are proposed include a variety of technologies including pervious pavement, dry wells, planters and 200 more trees to intercept, filter and infiltrate storm water.

Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Preliminary and Final Design	$961,826	06/2023
Construction	Construction	$6,315,300	06/2025
TOTAL		**$7,277,126**	

- Annual O&M Costs estimated at $40,000
- Project Lifespan designed for 30 years

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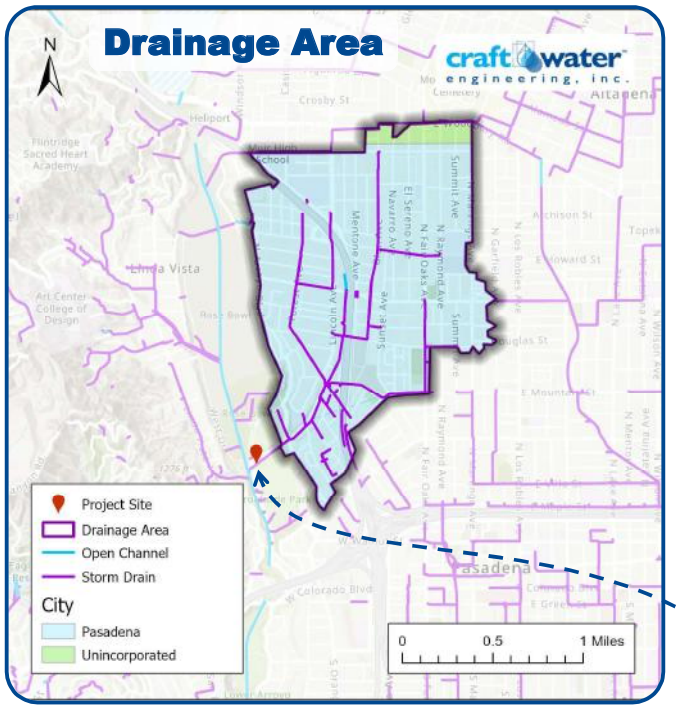
Funding Request

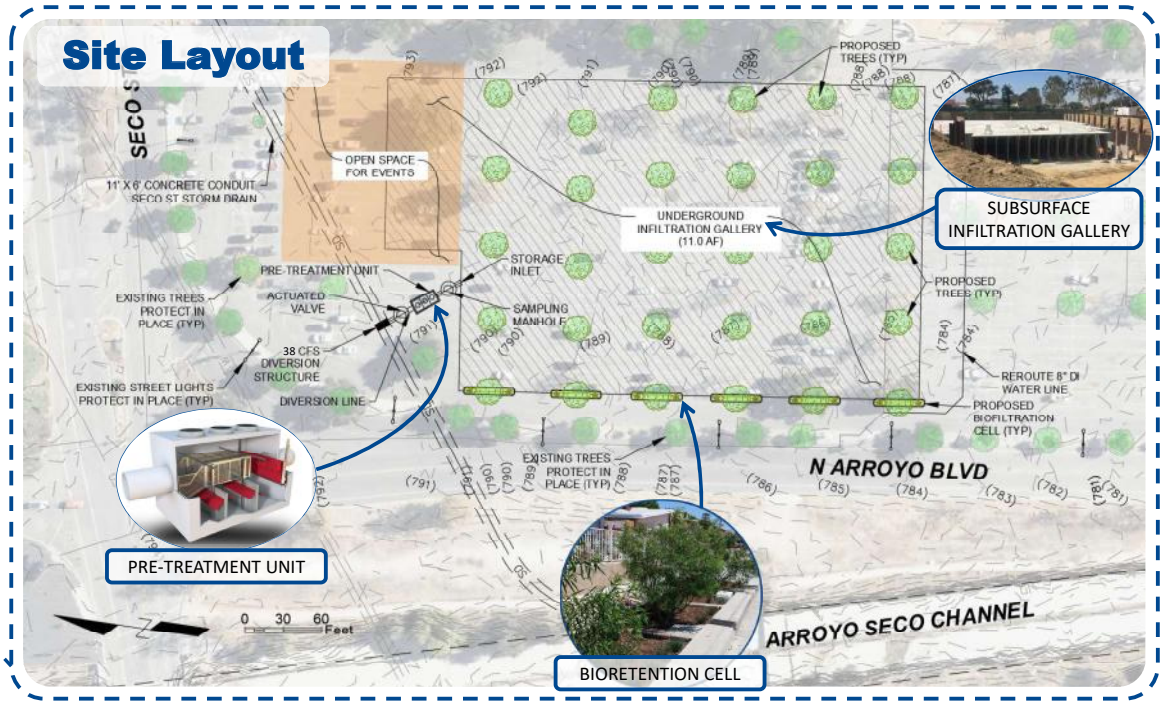
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1		Design and Permitting	Design and Permitting
2	$5,396,213	Construction	Bidding, Award and Construction
3			
4			
5			
TOTAL	**$5,396,213**		

- $2,550,000 funding provided by State Grant and Beach Cities

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

BROOKSIDE PARK STORMWATER CAPTURE PROJECT





Project Description

LOCATION: 360 N Arroyo Blvd, Pasadena, CA (LAT: 34°09'19.3"N / LONG: 118°09'59.7"W)

REGIONAL WATER MANAGEMENT PLAN: IRWMP & Upper Los Angeles River Watershed Enhanced Watershed Management Program

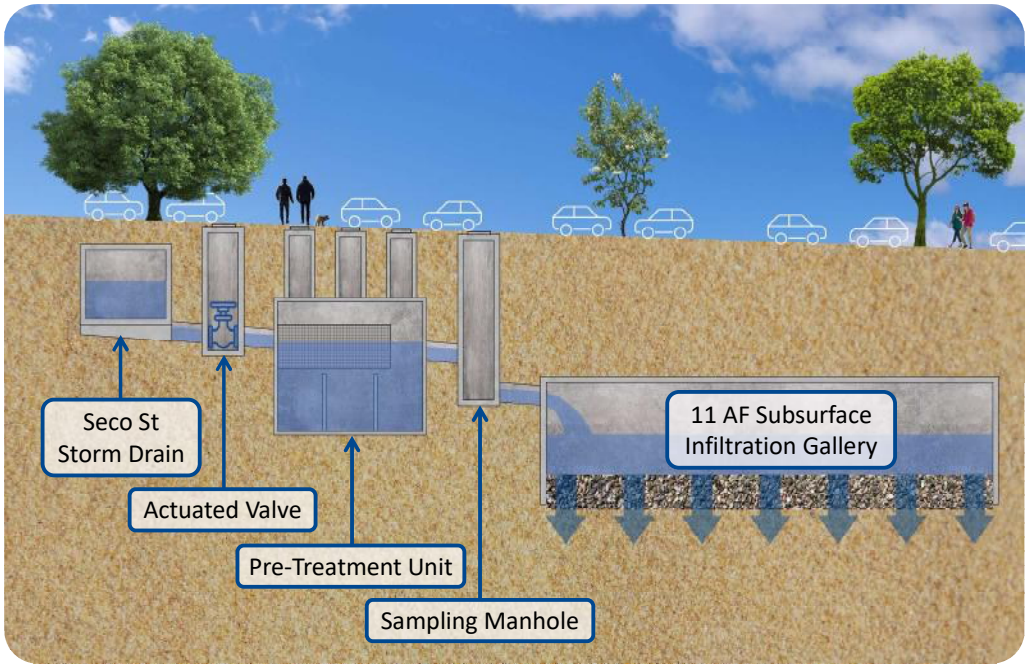
BRIEF: Brookside Park is located in and operated by the City of Pasadena. A 11' x 6' City storm drain underlies Seco Street and the north end of the Brookside Park parking lot. The proposed project will install an 11 acre-feet subsurface infiltration unit in the parking lot to provide stormwater treatment for a drainage area totaling 1166 acres which is mostly within the City of Pasadena. The primary treatment best management practices (BMPs) will include subsurface infiltration gallery and biofiltration cells.

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

BROOKSIDE PARK STORMWATER CAPTURE PROJECT

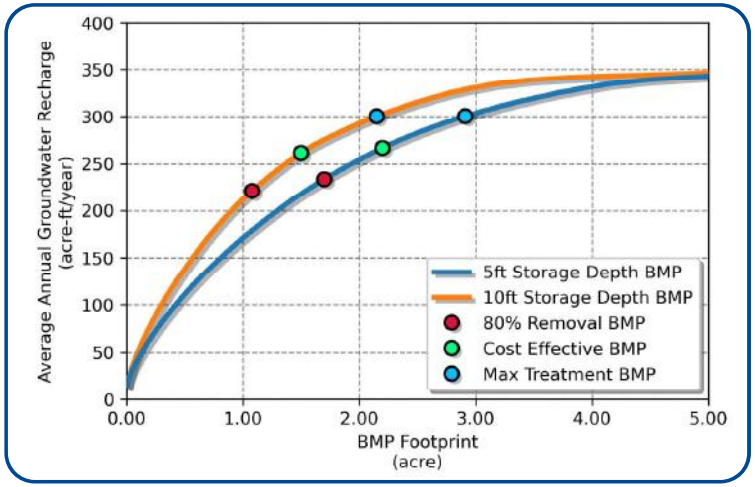
Drainage Area Characteristics

REGIONAL WATER MANAGEMENT PLAN	Upper Los Angeles River Watershed Enhanced Watershed Management Program
TOTAL DRAINAGE AREA	1,166 Acres Pasadena (96.7%) LA County (3.3%)
INFILTRATION RATE	4.0 in/hr
APPROX. DEPTH TO GROUNDWATER	> 50 feet
MODELED AVERAGE ANNUAL RUNOFF VOLUME	307.3 ac-ft



Water Quality Improvement

Primary Pollutant Zinc Reduction Achieved (% Zn reduction)	127.7 lb/yr (82.0%)
Secondary Pollutant Lead Reduction Achieved (% Pb reduction)	23.5 lb/yr (80.7%)
Design Diversion Rate	38 cfs
Storage Capacity for Subsurface Storage Structure	11.0 ac-ft (3.58 MG)
24-Hour Capacity	28.99 ac-ft
Construction Capital Cost Estimate	$18,137,869



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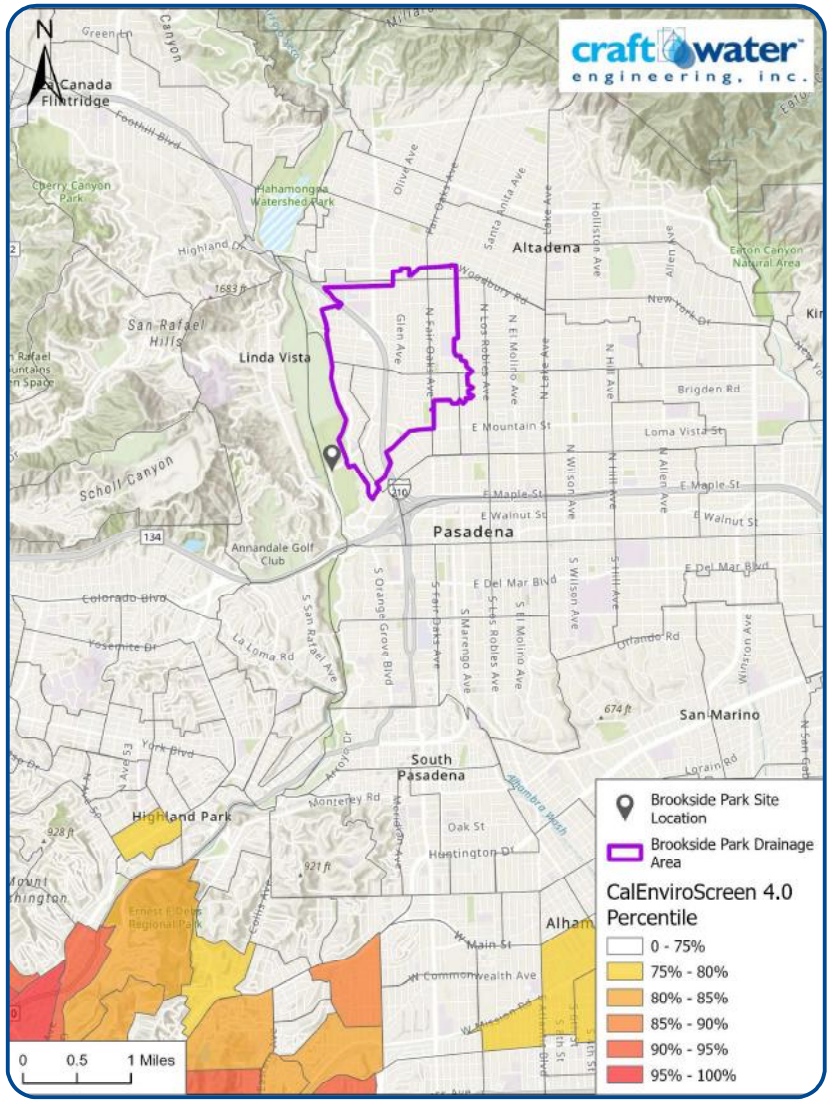
UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

BROOKSIDE PARK STORMWATER CAPTURE PROJECT

Disadvantaged Community Map



Community Investment Benefits

Nature Based Solution

Community Support

OUTREACH TO THE LOCAL COMMUNITY WILL BE PERFORMED MOVING INTO THE DESIGN PHASE

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

BROOKSIDE PARK STORMWATER CAPTURE PROJECT

Funding Request

Year	SCW funding Request	Project Phase
Year 1	$2,198,612	Design
Total	**$2,198,612**	-

Cost Estimate & Schedule

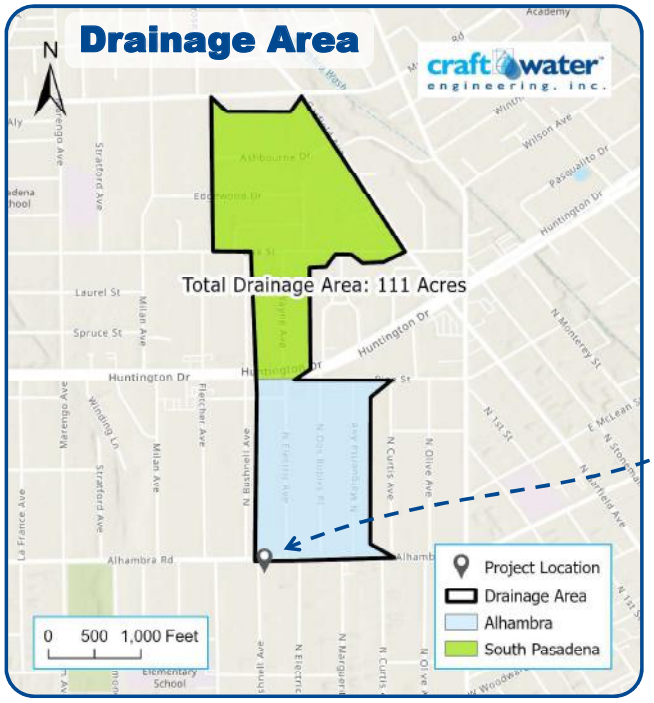
Phase	Description	Cost	Completion Date
Planning	Feasibility Study	$100,000	02/2023
Design	30/60/90/100 Plans Public Outreach CEQA & Permits Agency Management	$2,198,612	02/2024
Construction	Capital Costs Surveying Administration Agency Management	$20,271,656	10/2026
	Total	**$22,570,268**	

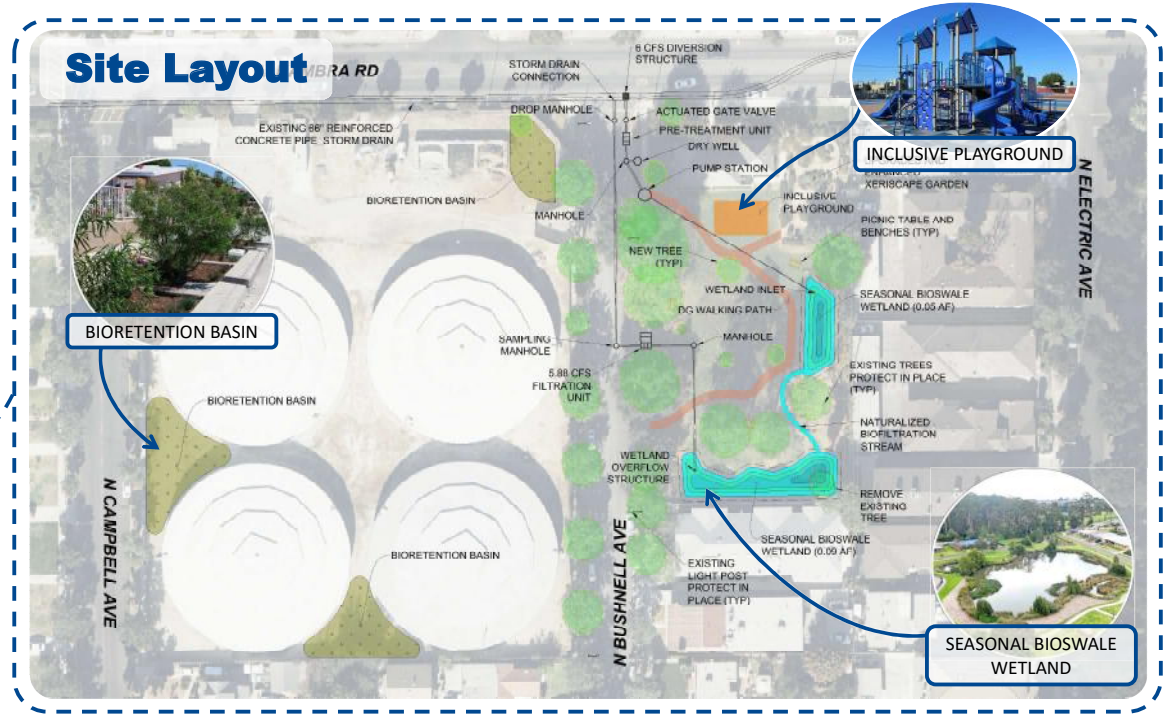
Preliminary SCW Scoring

SECTION	SCORE
A.1 Wet Weather Water Quality Benefits	
•A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million	20
•A.1.2 Pollutant Reduction >50%	30
A.2 Dry Weather Water Quality Benefits	
•A.2.1 Capture/Infiltrate/Divert dry weather flow = 100%	0
•A.2.2 Tributary size	0
B. Significant Water Supply Benefits	
•B1. Water Supply Cost Effectiveness	0
•B2. Water Supply Benefit Magnitude	5
C. Community Investment Benefits	
•Improved flood management •Creation/enhancement/restoration of parks •Reducing local heat island effect and increasing shade •Enhanced/new recreational opportunities	5
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support	
•E1. Cost-Share	0
•E2. Strong local, community-based support	0
TOTAL SCORE	**70**

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF ALHAMBRA

BURKE HERITAGE PARK & MARENGO YARD STORMWATER CAPTURE PROJECT





Project Description

LOCATION: 1550 Alhambra Rd, Alhambra, CA (LAT: 34.098160 / LONG: -118.140508)

REGIONAL WATER MANAGEMENT PLAN: IRWMP & Upper Los Angeles River Watershed Enhanced Watershed Management Program

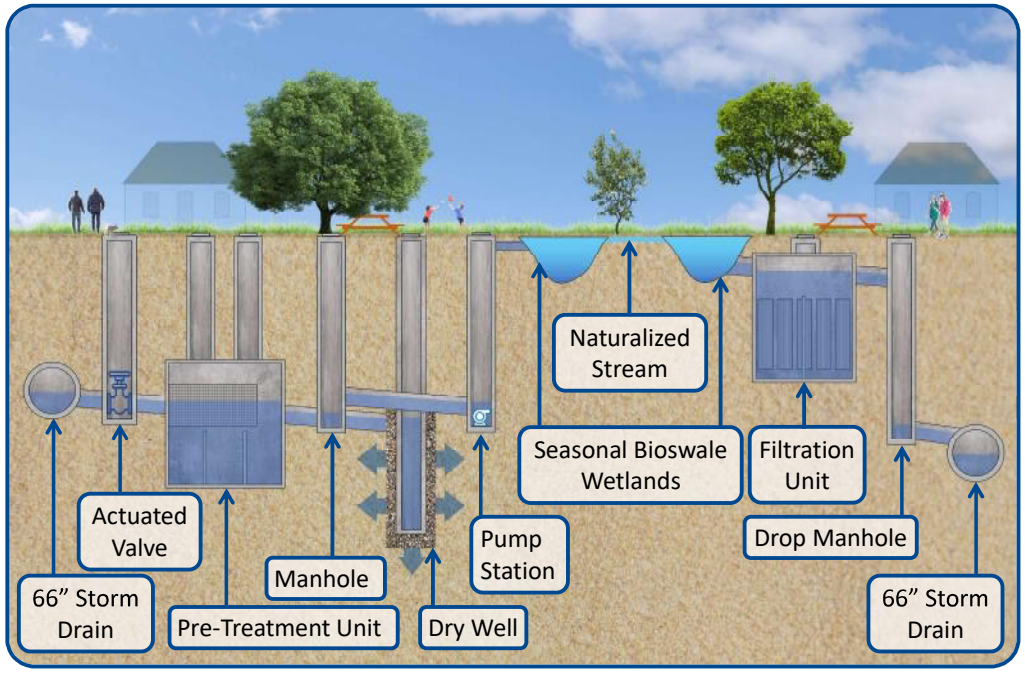
BRIEF: Burke Heritage Park and Marengo Yard are located in and operated by the City of Alhambra. A 66" Los Angeles County Flood Control District storm drain underlies Alhambra Road. The proposed project will install a dry well and two seasonal bioswale wetlands in Burke Heritage Park, and three biofiltration areas in Marengo Yard. The project will provide stormwater treatment for a drainage area totaling 111 acres including jurisdictional areas of Alhambra and South Pasadena. The primary treatment best management practices (BMPs) will include dry well, seasonal bioswale wetland, and bioretention basins.

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF ALHAMBRA

BURKE HERITAGE PARK & MARENGO YARD STORMWATER CAPTURE PROJECT

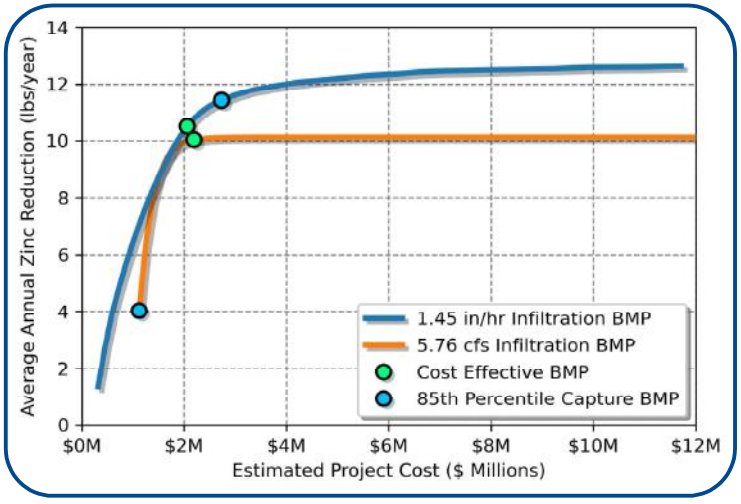
Drainage Area Characteristics

REGIONAL WATER MANAGEMENT PLAN	IRWMP & Upper Los Angeles River Watershed Enhanced Watershed Management Program
TOTAL DRAINAGE AREA	111 Acres Alhambra (43%) South Pasadena (57%)
INFILTRATION RATE	1.45 in/hr
APPROX. DEPTH TO GROUNDWATER	> 50 feet
MODELED AVERAGE ANNUAL RUNOFF VOLUME	42.6 acre-ft



Water Quality Improvement

Primary Pollutant Zinc Reduction Achieved (% Zn reduction)	17.2 lb/yr (99.9%)
Secondary Pollutant Copper Reduction Achieved (% Cu reduction)	6.4 lb/yr (99.9%)
Design Diversion Rate	6 cfs
Storage Capacity for Surface Wetland	0.14 ac-ft (46k Gal)
24-Hour Capacity	11.37 ac-ft
Construction Cost Estimate	$3,066,280



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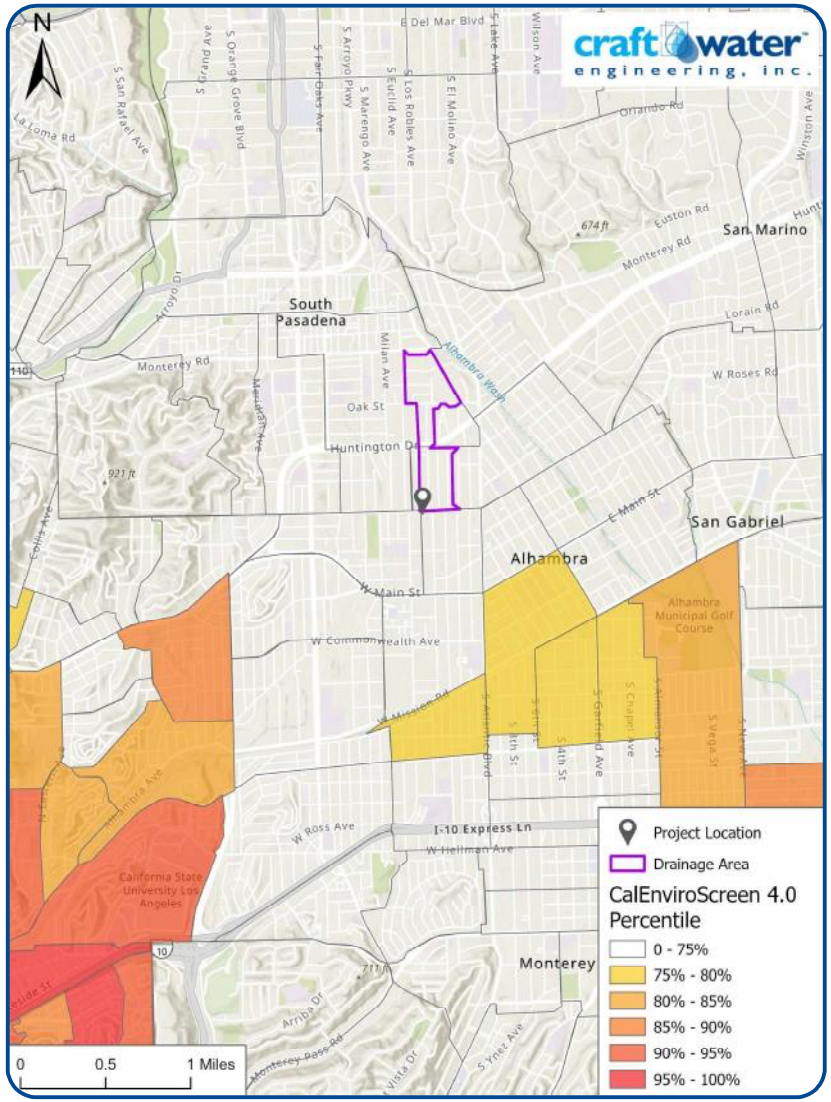
BURKE HERITAGE PARK & MARENGO YARD STORMWATER CAPTURE PROJECT

Disadvantaged Community Map



Community Investment Benefits

Reduce Heat Island Effect

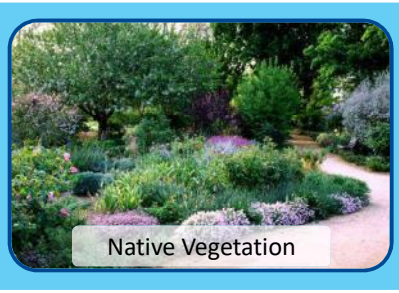
New Recreation Opportunities

Enhance Park Space

Increase Tree Canopy Coverage

Nature Based Solution

Infiltration Through Native Soils



Native Vegetation

Biofiltration Basins

Community Support

ACTIVESGV

ADDITIONAL OUTREACH TO THE LOCAL COMMUNITY WILL BE PERFORMED MOVING INTO THE DESIGN PHASE

BURKE HERITAGE PARK & MARENGO YARD STORMWATER CAPTURE PROJECT

Funding Request

Year	SCW funding Request	Project Phase
Year 1	$2,292,762	Design
Year 2	$1,225,408	Construction
Year 3	$1,205,407	Construction
Year 4	$1,205,407	Construction
Total	**$4,424,118**	-

Cost Estimate & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	$90,254	07/2022
Design	30/60/90/100 Plans Public Outreach CEQA & Permits Agency Management	$787,896	12/2023
Construction	Capital Costs Surveying Administration Agency Management	$3,636,222	02/2026
	Total	**$4,514,372**	

Preliminary SCW Scoring

SECTION	SCORE
A.1 Wet Weather Water Quality Benefits	
•A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million	20
•A.1.2 Pollutant Reduction >50%	30
A.2 Dry Weather Water Quality Benefits	
•A.2.1 Capture/Infiltrate/Divert dry weather flow = 100%	N/A
•A.2.2 Tributary size	N/A
B. Significant Water Supply Benefits	
•B1. Water Supply Cost Effectiveness	0
•B2. Water Supply Benefit Magnitude	0
C. Community Investment Benefits	
•Improved flood management •Creation/enhancement/restoration of parks •Reducing local heat island effect and increasing shade •Enhanced/new recreational opportunities	5
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support	
•E1. Cost-Share	0
•E2. Strong local, community-based support	4
TOTAL SCORE	**69**

California Avenue and Adjacent Streets Storm Drain Infiltration Project

City of Glendale | Regional Project Program

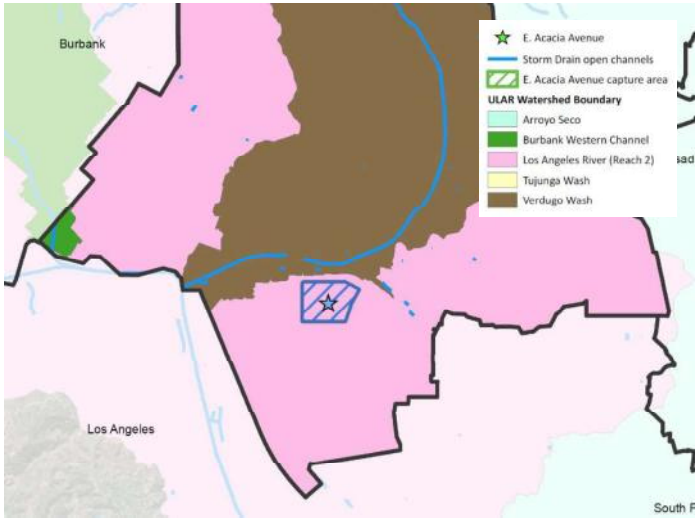
Overview

Project Description: The project consists of distributed stormwater systems that will treat flow from the 85th percentile, 24-hour event, capturing 10.1 ac-ft of stormwater runoff. Surface water quality features include twenty-four (24) bioretention swales and 9,980 linear feet of permeable concrete, while subsurface infiltration features include twenty-four (24) drywells. Forty-eight (48) native trees.

Benefits:

- **Community**: Improvements in front of R.D. White Elementary School will include ADA improvements and shade trees to encourage walking to school, connect to the proposed project, and the large parkway will be converted to a stormwater BMP to capture over 1.5 acres of surface runoff from the school playground.
- **Water quality:** Runoff and stormwater will be captured by drywells, bioretention swales and permeable concrete. The project will address total zinc as the primary pollutant and Nitrogen as the secondary pollutant.
- **Flood Risk Mitigation:** Infiltration systems will capture runoff, reducing local and downstream flooding.
- **Nature-Based:** infiltration through native soils and utilization of native vegetation to create local habitat.
- **Disadvantaged Community:** The majority of the project is located in and surrounded by a DAC. The increase of green area and plating of native trees in the neighborhood will provide shade and a reduction in the heat island effect, reduce CO2 and improving air quality. The project will also provide flood mitigation benefits.
- **Nature-Based:** to include on-site infiltration through installation of bioretention swales and permeable concrete and adding native California landscaping throughout the project area.

Location and Drainage Area



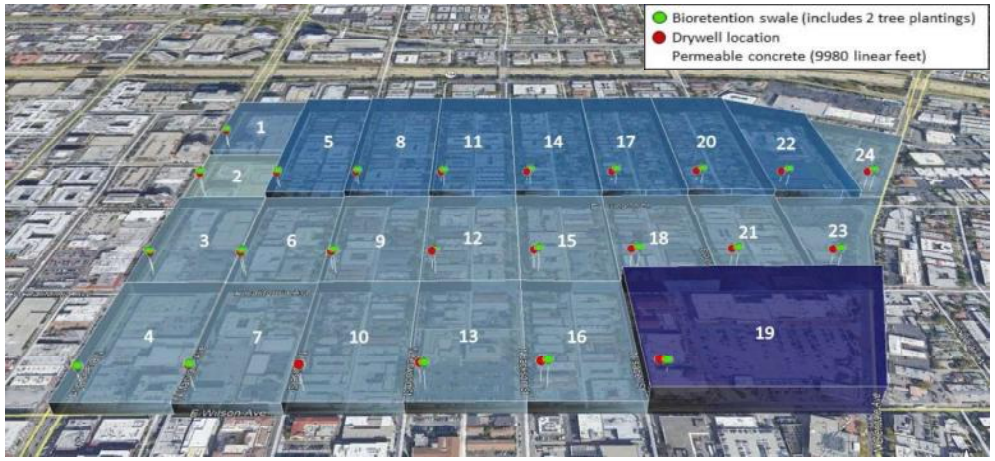
Coordinates: (34.151981, -118.250134)

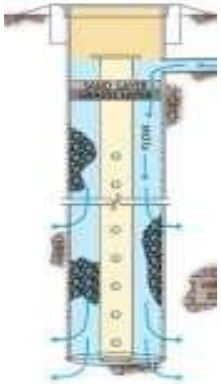
Total Drainage Area: 164.47 acres

Jurisdictions in Drainage Area: City of Glendale (164.47 acres)

Watershed: The Upper Los Angeles River Watershed Management Group (ULAR WMG) identified the proposed green streets project in the ULAR EWMP (Subwatershed No. 648529, Table 6.E-6 of Appendix 6) as a project location for structural BMPs designed to address water quality objectives within the watershed.

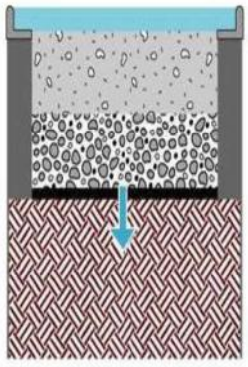
Multi-Benefit Design Elements





Drywell

Bioretention Swale with Native Trees

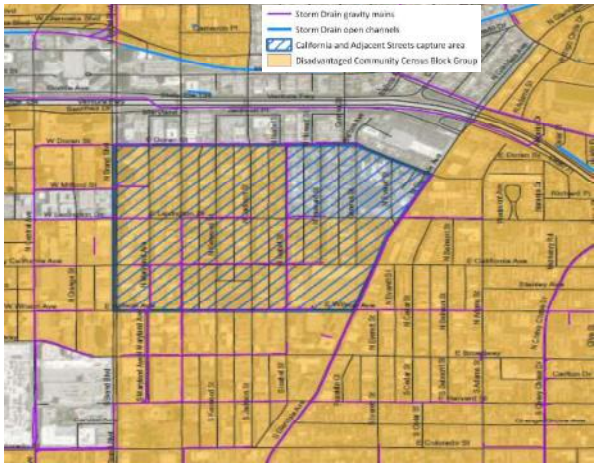


Permeable Concrete

DAC Benefits and Nature Based Solutions

The protect utilizes a network of green streets elements to capture and infiltrate runoff from the project. The subsurface dry wells provide infiltration beneath the usable sidewalks area. The bioretention swales increase the native vegetation, provide shade and reduce heat impacts. The design elements of the project provide multiple benefits to the disadvantage community where the project is located. These include:

- Improve local water quality, prevent flooding and increase water supply through the installation of the bioretention swales, dry wells and permeable concrete
- Reduce heat island effect and increase tree and shade count through the installation of California native trees and vegetation
- Create the opportunity for the community to become familiar with various types of vegetation, the habitat it creates for wildlife, and variations during seasonal and climate changes through the incorporation of natural elements
- Provide improved aesthetics for passive recreation such as running or walking through the neighborhood



Local Support

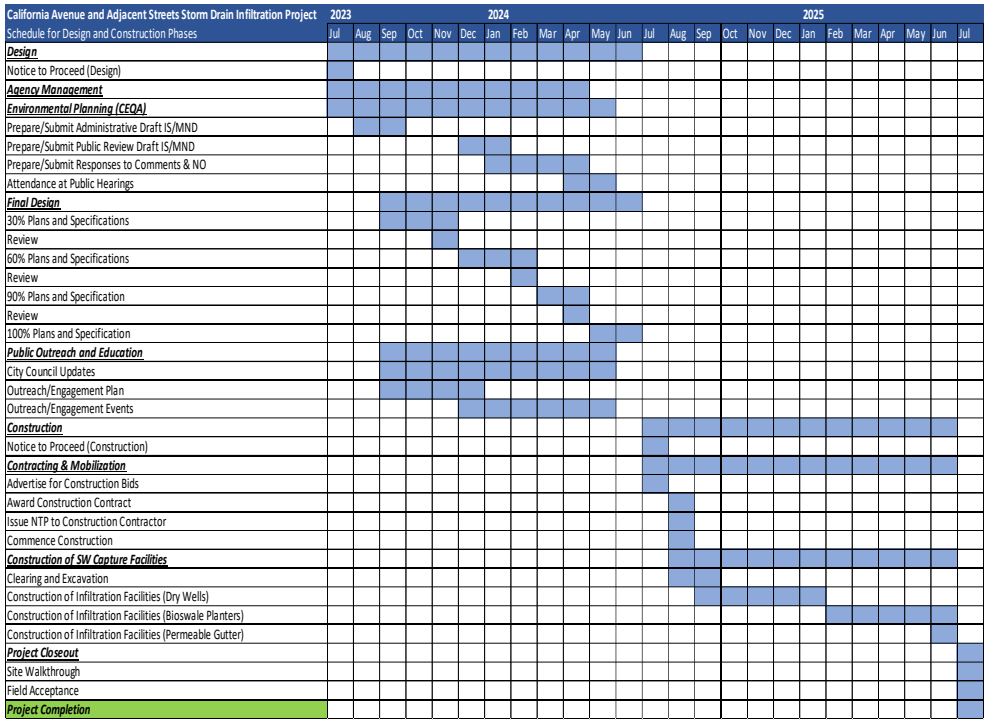
The project has received strong local support due to the projects many benefits including improved water quality, expanded green space and tree shade, and Enhancements to the local environment within and surrounded by Disadvantaged Communities (DAC). Letters of Support for the project were received from local community organizations including Glendale Environmental Coalition, Glendale Unified School District, and Bike Walk Glendale.

Cost Estimate and Funding Request

Description	Cost
Planning and Design	$289,810.00
Construction	$3,506,701
O&M and Monitoring (3 years)	$165,000
Total Project Cost	$3,961,217
Project Life Cycle Cost (50-Years)	$5,280,881.54

Total Project Cost	$3,961,217
City of Glendale Funding (25%)	$990,318
SCW Funding Requested (75%)	$2,970,899

Preliminary Project Schedule



Anticipated Safe Clean Water Program Scoring

Section	Scoring Criteria	Score	Comments
Water Quality Wet + Dry Weather Part 1	Effectiveness (Cost Effectiveness) = (24-hour BMP Capacity) / (Construction in Millions) • <0.4 (ac-ft capacity/$-Million) = 0 pts • 0.4 - 0.6 = 7 pts • 0.6 – 0.8 = 11 pts • 0.8 - 1.0 = 14 pts • >1.0 = 20 pts	**20**	**85th percentile storm (10.1 acre-feet) is captured. Project cost is $ 3,961,217.**
Water Quality Wet + Dry Weather Part 2	Primary Class of Pollutants • >50% = 15 pts • >80% = 20 pts Second or More Classes of Pollutants • >50% = 5 pts • >80% = 10 pts	**25**	**57.3% Zinc load reduction and 85.6% Nitrogen load reduction achieved.**
Water Supply Part 1	• >$2500/ac-ft = 0 pts • $2000 – 2500/ac-ft = 3 pts • $1500 – 2000/ac-ft = 6 pts • $1000 – 1500/ac-ft = 10 pts • <$1000/ac-ft = 13 pts	**10**	**$1,482/acre-foot.**
Water Supply Part 2	• <25 ac-ft/year = 0 pts • 25 - 100 ac-ft/year = 2 pts • 100 – 200 ac-ft/year = 5 pts • 200 – 300 ac-ft/year = 9 pts • >300 ac-ft/year = 12 pts	**5**	**181 acre-feet per year of water capture**
Community Investment	• One of the Community Investment Benefits = 2 pts • Three distinct Community Investment Benefits = 5 pts • Six distinct Community Investment Benefits = 10 pts	**5**	**4 Community investments provided: reduce local heat island, increase shade and trees, enhance recreation, improve flooding,**
Nature-Based Solutions	• Implements natural processes or mimics natural processes and/or restores habitat, green space and/or usable open space = 5 pts • Utilizes natural materials such as soils and vegetation = 5 pts • Removes impermeable area from Project (1 pt per 20% paved area removed = 5 pts	**12**	**Natural process and California-native trees and vegetation used.** **44.9% of impermeable area removed.**
Leveraging Funds Part 1	• >25% Funding Matched = 3 pts • >50% Funding Matched = 6 pts	**3**	**25% of funding matched by the City of Glendale**
Leveraging Funds Part 2	The Project demonstrates strong local, community-based support	**4**	**Local support received from community organizations**
	Total Points	**84**	

Cornell – Mulholland Highway Green Improvement Project

Infrastructure Program Executive Summary

North Santa Monica Bay, Los Angeles County Public Works, FY 23-24

Project Background

Project Objectives: The proposed Project located in the unincorporated community of Cornell/Agoura will improve water quality & provide community enhancements.

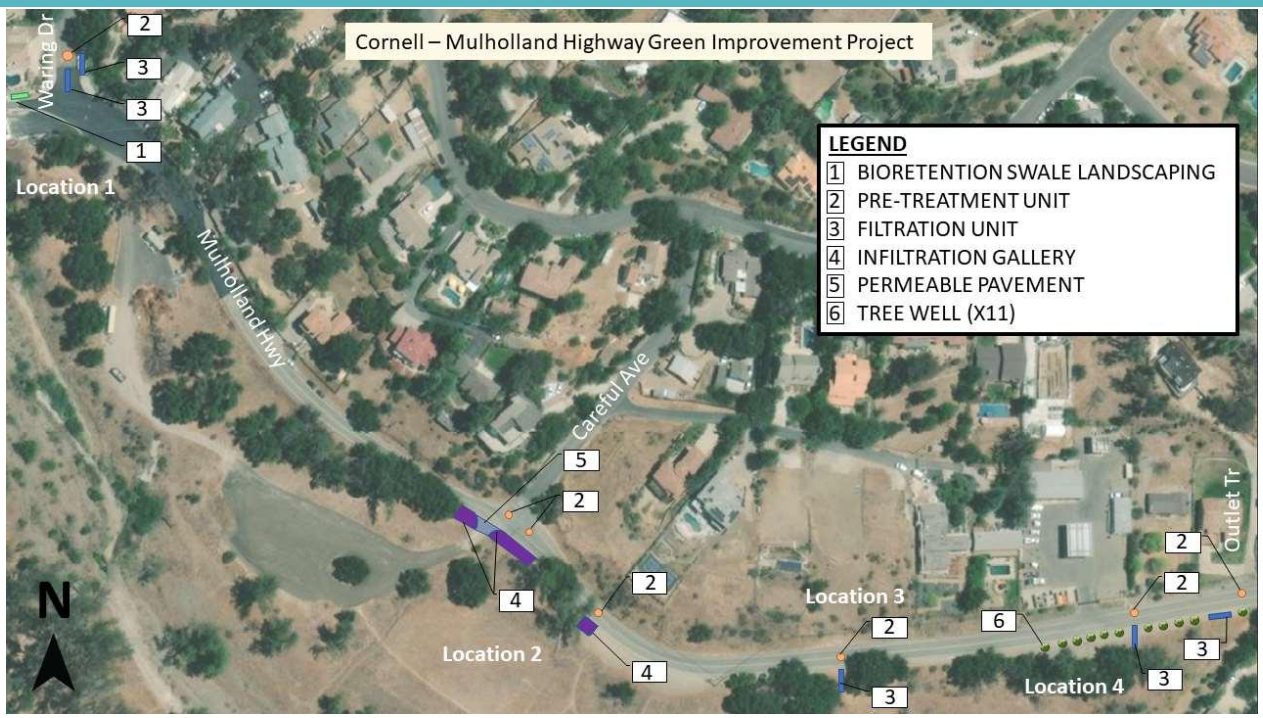
Project Status: Design

Total Funding Requested: $350,000

Project Overview

The Cornell - Mulholland Highway Green Improvement Project (Project) is required to meet the current control measure capacities identified for the Triunfo Creek and Malibu Creek in the Malibu Creek Watershed (MCW) Enhanced Watershed Management Program (EWMP) and is identified as a priority project. The scope of the project was determined based on a collaborative effort with various stakeholders. The Project will help reduce pollutant discharges, protect beneficial uses of the receiving waters, and protect and preserve aquatic habitats. There are no DACs identified within the project area.

Project Details



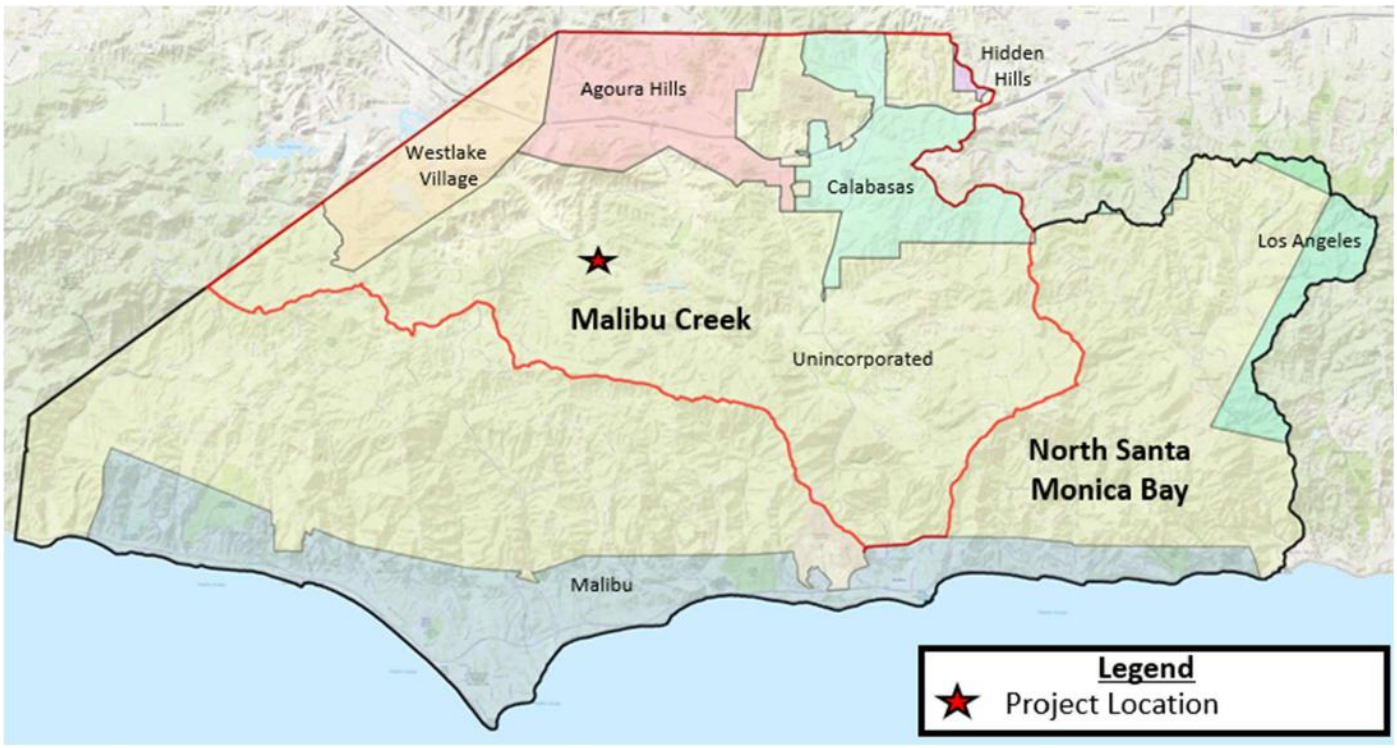
- The Project is proposed entirely within public right of way and is designed to reduce the identified pollutants of concern by capturing and treating approximately 1.1 acre-feet from the 71.3-acre drainage area through the implementation of pretreatment units, small infiltration galleries, flow through filtration units, and tree wells.
- Based on geotechnical investigations, most soils underneath the project site are highly compacted fill and have unfavorable infiltration rates.
- Hydrologic analyses determined the Project would divert and treat the full 85th percentile, 24-hour storm volume.
- Information obtained from these studies was used to determine the number of filtration units and small infiltration galleries needed to capture the 85th percentile storm event and total volume treated.

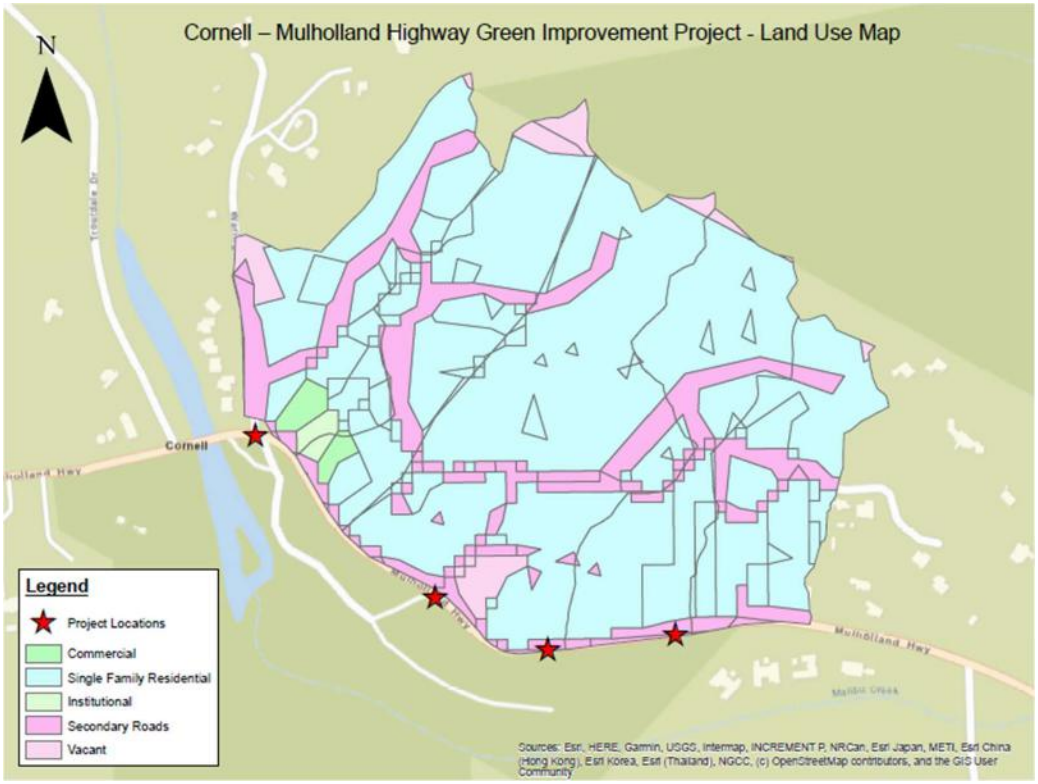
Cornell – Mulholland Highway Green Improvement Project

Infrastructure Program Executive Summary

North Santa Monica Bay, Los Angeles County Public Works, FY 23-24

Project Location





Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	36	• Primary mechanisms that achieve Water Quality - pretreatment units, small infiltration galleries, flow through filtration units, and tree wells. • Wet Weather • Tributary Area – 72.30 acre • Capacity – 1.1 acre-feet • Primary Pollutant Reduction – Phosphorus 65.4% • Secondary Pollutant Reduction – Toxics 85% • Water Quality Cost Effectiveness – 0.6 (acre feet capacity / $-Million)
Water Supply	N/A	
Community Investment	5	• Create habitat, increase trees and vegetation, and reduce the local heat island effect.
Nature Based Solutions	10	• The Project includes nature-based components, including two small infiltration galleries (1200 SF and 365 SF), a 335 SF permeable pavement driveway. The Project also includes natural material, including the vegetation within the 20 feet by 4 feet bioretention swale and the ten tree wells.
Leveraged Funds	6	• The County is committed to providing the level of local match using general funds, grant funds, and its approximately $11 Million annual share of the SCW Municipal Funds • % 50 funding matched
Community Support	4	• The Project demonstrates strong local, community-based support • Community meets were conducted on Wednesday, June 29, 2022 and Thursday, July 21, 2022
TOTAL	**61**	

Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Planning	**Development of Project Concept Report, including 30% plans.**	**$500,000.00**	**08/2022**
Design	**Develop 60%, 90%, and Final Plans, Specifications and Estimates**	**$750,000.00**	**11/2023**
Construction	**Award contract and construction implementation**	**$1,860,000.00**	**08/2025**
TOTAL		**$3,110,000.00**	

- Annual Operation and Maintenance cost - $511k, Annual Monitoring Cost - $80K, Project Life Span – 50 Years

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$350,000.00	**Design**	**Complete 60% design plans, 90% design plans, and Final Plans, Specifications and Estimates.**
TOTAL	**$350,000.00**		

- The County may apply for SCW funding to fund the construction phase of the project

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LOS ANGELES

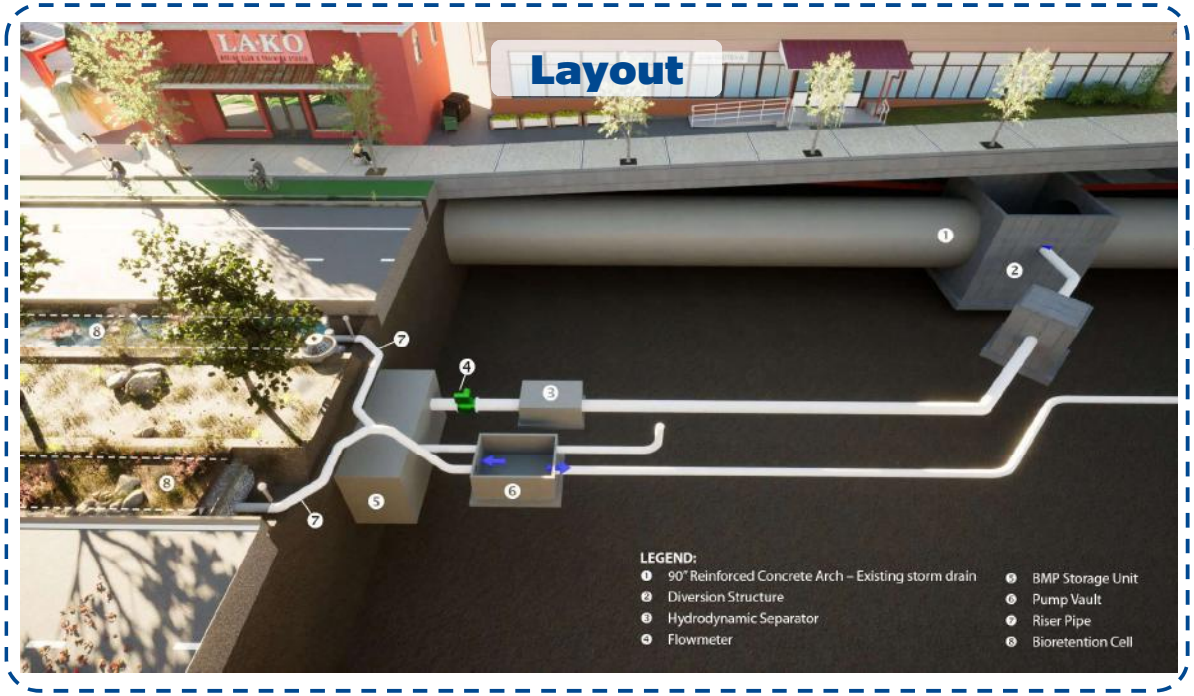
EAGLE ROCK BOULEVARD: A MULTI-MODAL STORMWATER CAPTURE PROJECT

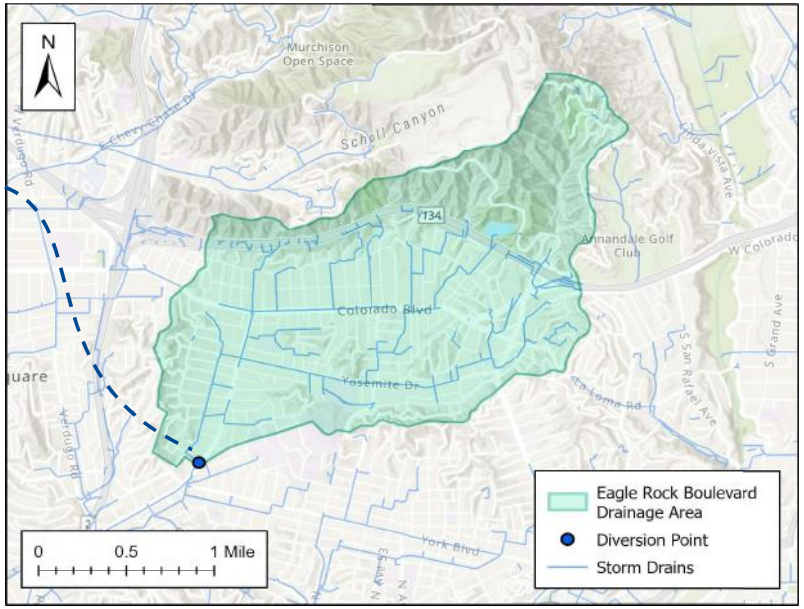
Project Description

LOCATION: Eagle Rock Boulevard between Westdale Avenue and York Boulevard (LAT: 34.127807 N / LONG: 118.217737 W)

REGIONAL WATER MANAGEMENT PLAN: Upper Los Angeles River Watershed Enhanced Watershed Management Program

BRIEF: Eagle Rock Boulevard is located in and operated by the City of Los Angeles (LA). Through the 710 North Mobility Improvement Projects (710MIP), the corridor will be improved to include protected bike lanes, street amenities, and widened medians. Under the project site, a 90" City of LA reinforced concrete arch extends along Avenue 45, turns south on Eagle Rock Boulevard, and diverges at Eagle Rock Boulevard and Alumni Avenue. Along the proposed median, the project will install 0.6 acres of surface biofiltration and a 1.0 ac-ft underground storage reservoir for dry-weather capture. These facilities will provide stormwater treatment for a drainage area totaling 2,220 acres, located mostly within the City of LA. The primary treatment best management practice (BMP) is filtration. Green street elements and nature-based solutions are proposed along the street.





UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LOS ANGELES

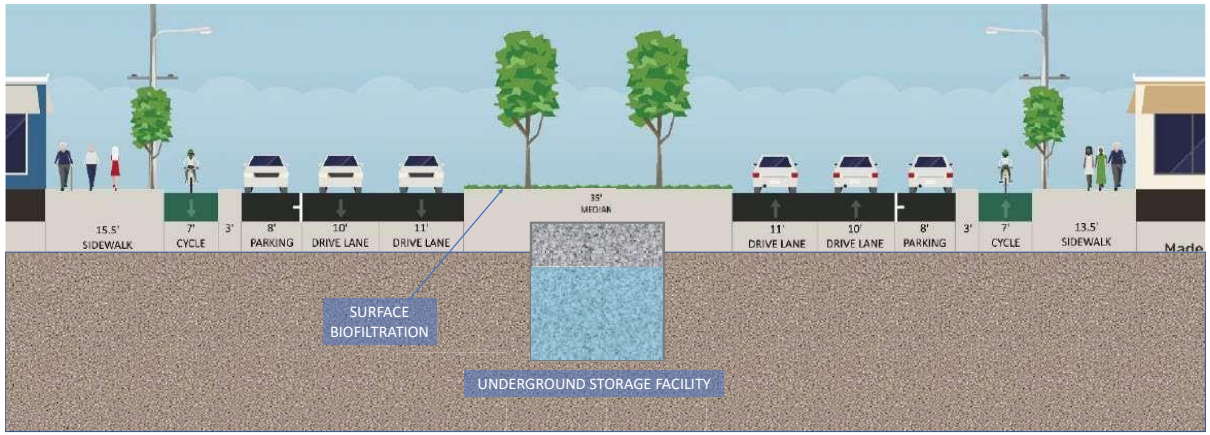
EAGLE ROCK BOULEVARD: A MULTI-MODAL STORMWATER CAPTURE PROJECT

Water Quality Improvement

Estimated Average Dry Weather Flow Rate	0.089 cfs
Average Annual Dry Weather Volume	64 ac-ft
Design Diversion Rate	10 cfs
Storage Capacity for Subsurface Storage Structure	1.0 ac-ft (0.28 MG)
Biofiltration Capacity for Surface Storage	0.66 ac-ft (0.18 MG)
Construction Capital Cost Estimate	$11,114,207

Drainage Area Characteristics

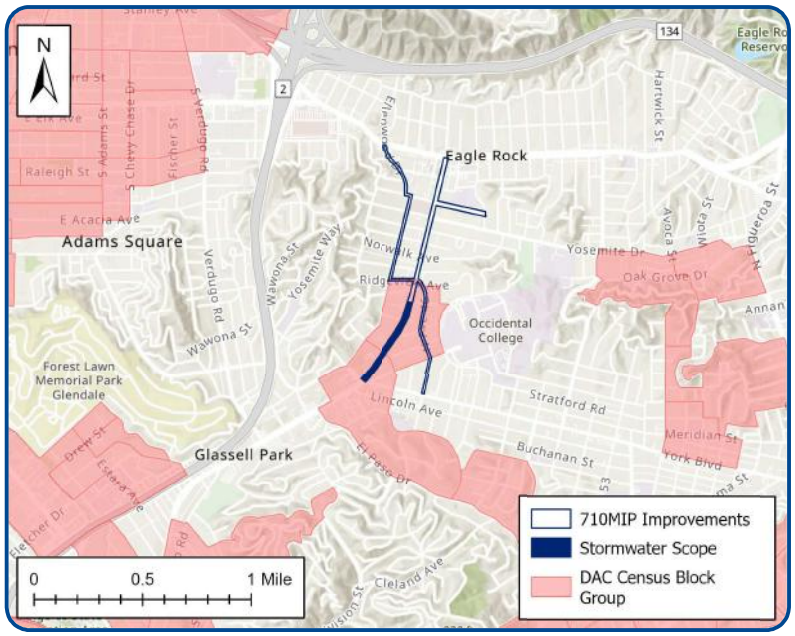
Regional Water Management Plan	Upper Los Angeles River Watershed Enhanced Watershed Management Program
Total Drainage Area	2,220 acres City of LA (81%) City of Glendale (10%) City of Pasadena (9%)
Infiltration Rate	< 0.1 in/hr
Approx. Depth to Groundwater	8 feet to 10 feet
Modeled Average Annual Runoff Volume	860 acre-ft



UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LOS ANGELES

EAGLE ROCK BOULEVARD: A MULTI-MODAL STORMWATER CAPTURE PROJECT

Disadvantaged Community Map



Community Investment Benefits

Nature-Based Solutions

Community Support

TERA The Eagle Rock Association
ernc eagle rock neighborhood council
TBI
Los Angeles Unified School District Board of Education
Los angeles walks
EAPD East Area Progressive Democrats
LACBC
OXY Occidental College
SOLHEIM SENIOR COMMUNITY

3 of 4

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LOS ANGELES

EAGLE ROCK BOULEVARD: A MULTI-MODAL STORMWATER CAPTURE PROJECT

Funding Request

Year	SCW funding Request	Project Phase
Year 1	$1,089,238	Design
Year 2	$155,599	Bid/Award
Year 3	$3,206,443	Construction
Year 4	$3,181,443	Construction
Total	**$7,632,723**	-

Cost Estimate & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study & Geotechnical	$242,477	07/2022
Design	30/60/90/100 Plans Public Outreach CEQA & Permits Agency Management	$2,178,479	12/2024
Bid/Award	Bid and award	$311,198	06/2025
Construction	Capital Costs Surveying Administration Agency Management	$12,775,780	06/2027
	Total	**$15,507,934**	

Preliminary SCW Scoring

SECTION	SCORE
A.1 Wet Weather Water Quality Benefits	
•A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million	0
•A.1.2 Pollutant Reduction >50%	0
A.2 Dry Weather Water Quality Benefits	
•A.2.1 Capture/Infiltrate/Divert dry weather flow = 100%	20
•A.2.2 Tributary size	20
B. Significant Water Supply Benefits	
•B1. Water Supply Cost Effectiveness	0
•B2. Water Supply Benefit Magnitude	0
C. Community Investment Benefits	
•Improved flood management •Creation/enhancement/restoration of parks •Reducing local heat island effect and increasing shade •Enhanced/new recreational opportunities	5
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support	
•E1. Cost-Share	6
•E2. Strong local, community-based support	4
TOTAL SCORE	**65**

Earvin “Magic” Johnson Park Operation and Maintenance Project

Infrastructure Program Executive Summary

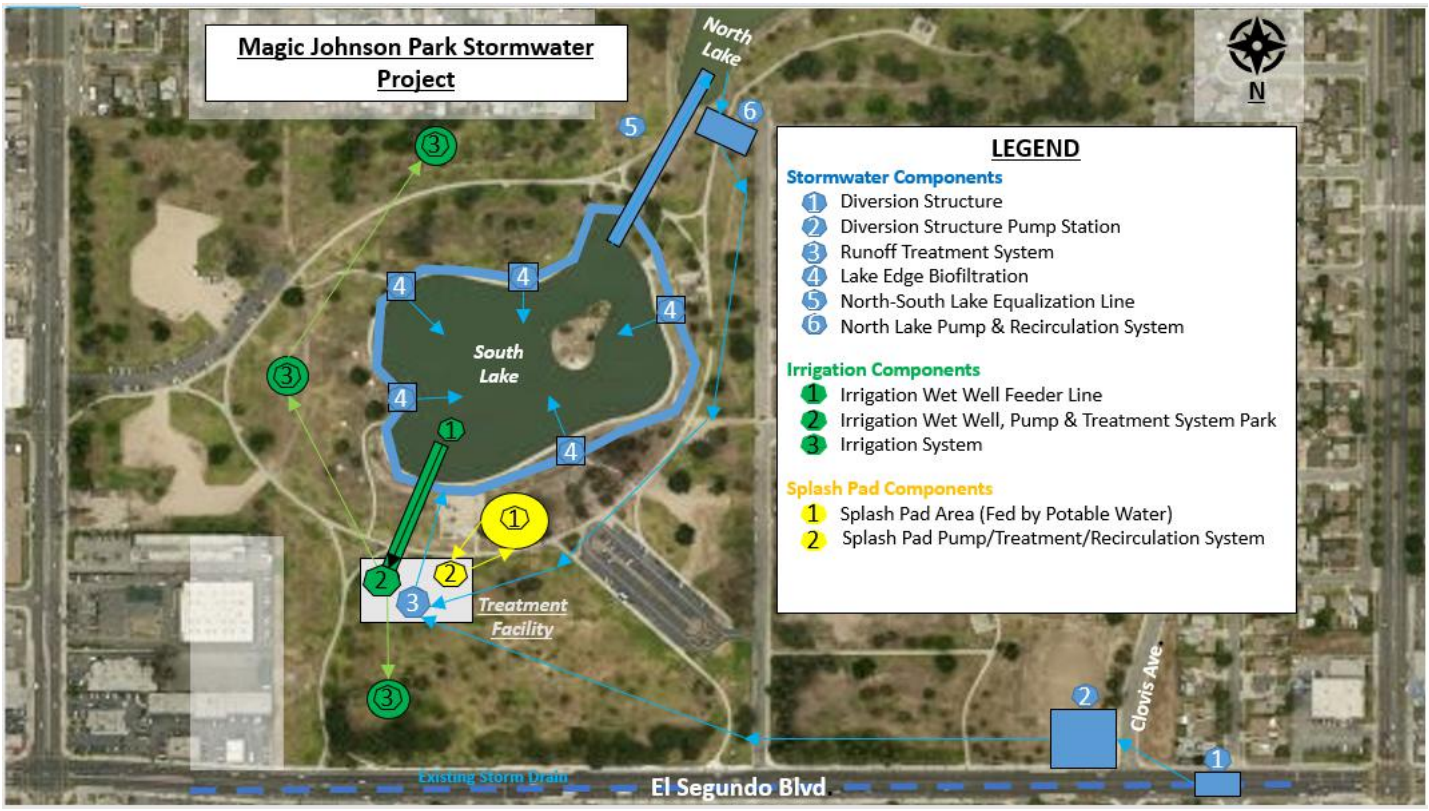
Upper Los Angeles River, County of Los Angeles, FY 23-24

Project Objectives: Park improvements will protect the water quality of local rivers and streams, provide water reuse and enhance park amenities

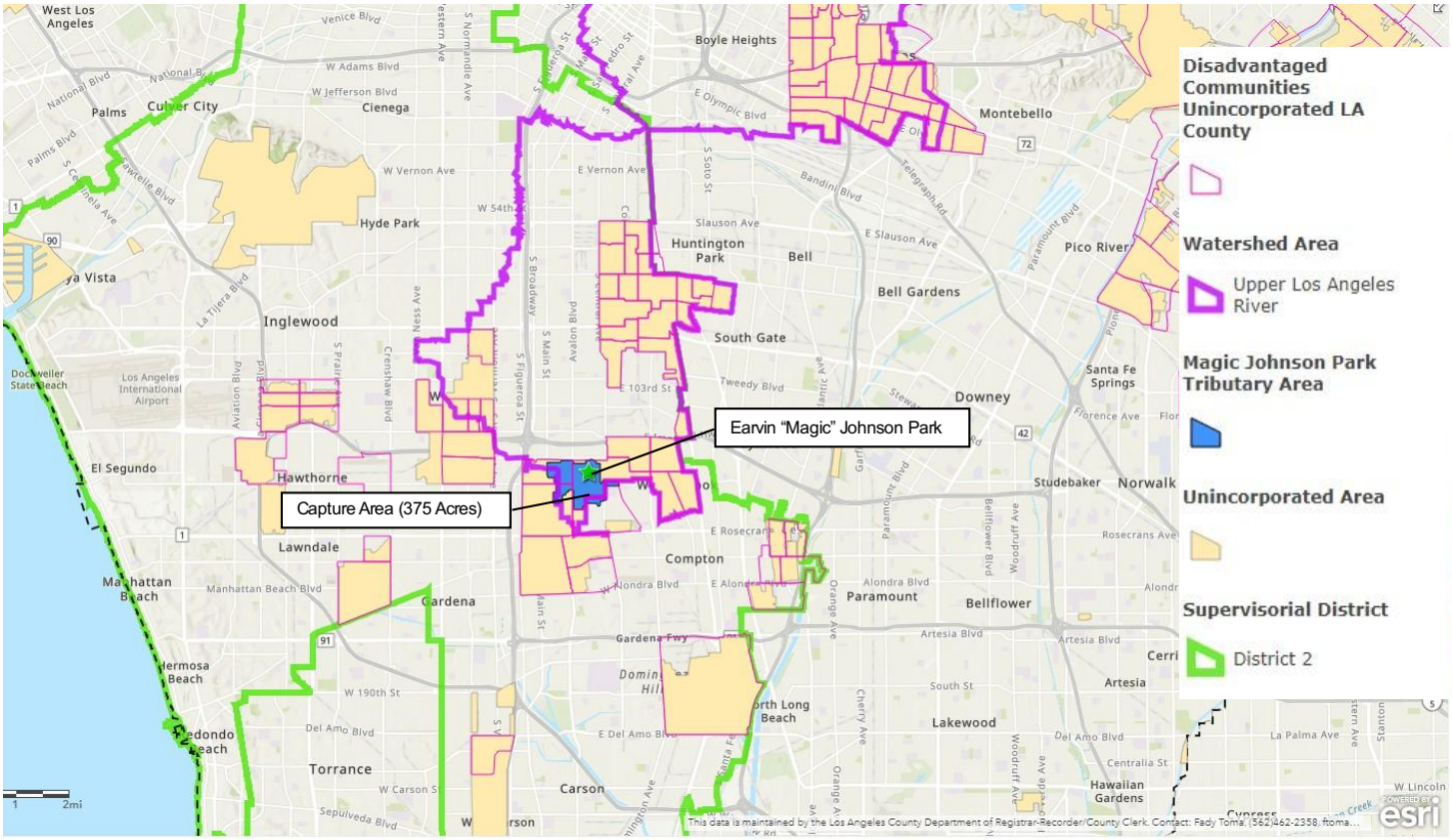
Project Status: O & M

Total Funding Requested: $1,625,000

The Earvin "Magic" Johnson Park Operation and Maintenance Project (O&M Project) will allow the existing facilities in the Unincorporated area of Los Angeles County to continue to meet the intended goals of the recently completed project: improving water quality and supply through the capture and treatment of stormwater and urban runoff, all while improving the open space and recreational amenities of the Park.



Previously, Earvin “Magic” Johnson Park (Park) used 100% potable water for landscape irrigation and filling the existing lakes. To minimize potable water use, the Park was re-engineered through collaboration with project stakeholders to provide a sustainable new water source, using a unique stormwater management system to recycle runoff from the watershed. This system captures urban runoff, treats the captured flows, then stores the treated runoff within the existing lakes where it can ultimately be reused for irrigation at the park.


Earvin “Magic” Johnson Park
Capture Area (375 Acres)
Disadvantaged Communities Unincorporated LA County
Watershed Area
Upper Los Angeles River
Magic Johnson Park Tributary Area
Unincorporated Area
Supervisorial District
District 2
West Los Angeles
Venice Blvd
Boyle Heights
Palms
Culver City
Cienega
W Adams Blvd
W Jefferson Blvd
Montebello
W Vernon Ave
E Vernon Ave
Hyde Park
Huntington Park
Bell
Bell Gardens
Pico River
Slauson Ave
E Slauson Ave
Inglewood
South Gate
Tweedy Blvd
Downey
Santa Fe Springs
El Segundo
Hawthorne
Studebaker
Norwalk
Lawndale
Compton
Paramount
Bellflower
Manhattan Beach
Gardena
Artesia
Lakewood
Torrance
Carson
Hawaiian Gardens
Los Angeles International Airport
Manhattan Beach Blvd
Del Amo Blvd
Alondra Blvd
Artesia Blvd
Gardena Fwy
Rosecrans Ave
Florence Ave
Centralia St
La Palma Ave
W Lincoln
esri

Benefit	Score	Description
Water Quality	41	• Divert and treat urban and stormwater runoff for on-site reuse • Captures dry and wet weather flows • Tributary Area: 375 Acres • Capacity: 7 ac-ft • Pollutant Reduction: Zinc 92.3%, Bacteria 84.1% • Annual Water Supply Volume: 148.8 ac-ft • Water Supply Use: on-site irrigation
Water Supply	5	
Community Investment	5	• Project improves flood management, restores park space, improves public access to waterways and enhances new recreational opportunities
Nature Based Solutions	10	• Project includes approximately 2300' of wetland area around the perimeter of the lake, which includes a gravel bed, gabion wall to assist with sedimentation and treatment of the diverted runoff.
Leveraged Funds	6	• The County of Los Angeles is committed to providing the level of local match using general funds, grant funds and its approximately $11 million annual share of the Safe Clean Water Municipal Funds. The Project will be funded 50% through cost share.
Community Support	4	• The Project demonstrates strong local, community-based support, as showcased through the awards received and community testimonials provided through outlets such as news articles.
TOTAL	**71**	

Phase	Description	Cost	Completion Date
Design	Pre-Design, Design, Construction Administration	**$1,350,000.00**	**05/2018**
Construction	Construction, Post-Construction Costs of Stormwater Components (Water Quality and Water Conservation)	**$28,300,000.00**	**02/2021**
TOTAL			

Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$325,000.00	**O & M**	Operation and maintenance of pump station, water quality treatment facility and stormwater best management practices around the lake.
2	$325,000.00	**O & M**	Operation and maintenance of pump station, water quality treatment facility and stormwater best management practices around the lake.
3	$325,000.00	**O & M**	Operation and maintenance of pump station, water quality treatment facility and stormwater best management practices around the lake.

4	$325,000.00	**O & M**	Operation and maintenance of pump station, water quality treatment facility and stormwater best management practices around the lake.
5	$325,000.00	**O & M**	Operation and maintenance of pump station, water quality treatment facility and stormwater best management practices around the lake.
TOTAL	**$1,625,000.00**		

Project Background and Alternatives

The Trust for Public Land (TPL) is the applicant, and together with community partner Active San Gabriel Valley (ASGV) proposes El Monte Norwood Elementary School Stormwater Capture Feasibility Study (Project) to address pollutant loads of wet weather discharges to downstream waterbodies within the Rio Hondo and Upper San Gabriel River watersheds. The Project will create a new multi-benefit park space on the grounds of the decommissioned Norwood Elementary School in the City of El Monte to serve the surrounding disadvantaged community. There is currently no public use of the site aside from access to its athletics fields by local softball teams. The Project will cool the site and adjacent neighborhood through tree planting and asphalt removal, and will capture, convey, and infiltrate stormwater runoff from surrounding public street right-of-way, tributary to Cogswell Road and Whistler Street through on-site bioswales, permeable surfaces, strategic grading, and native and drought tolerant plantings. While maintaining the softball facilities, the Project will add two new playgrounds, a walking path, shade structures, fitness equipment, and an edible learning garden. **Figure 1** shows the drainage area that will be capture by the project (shown in yellow).

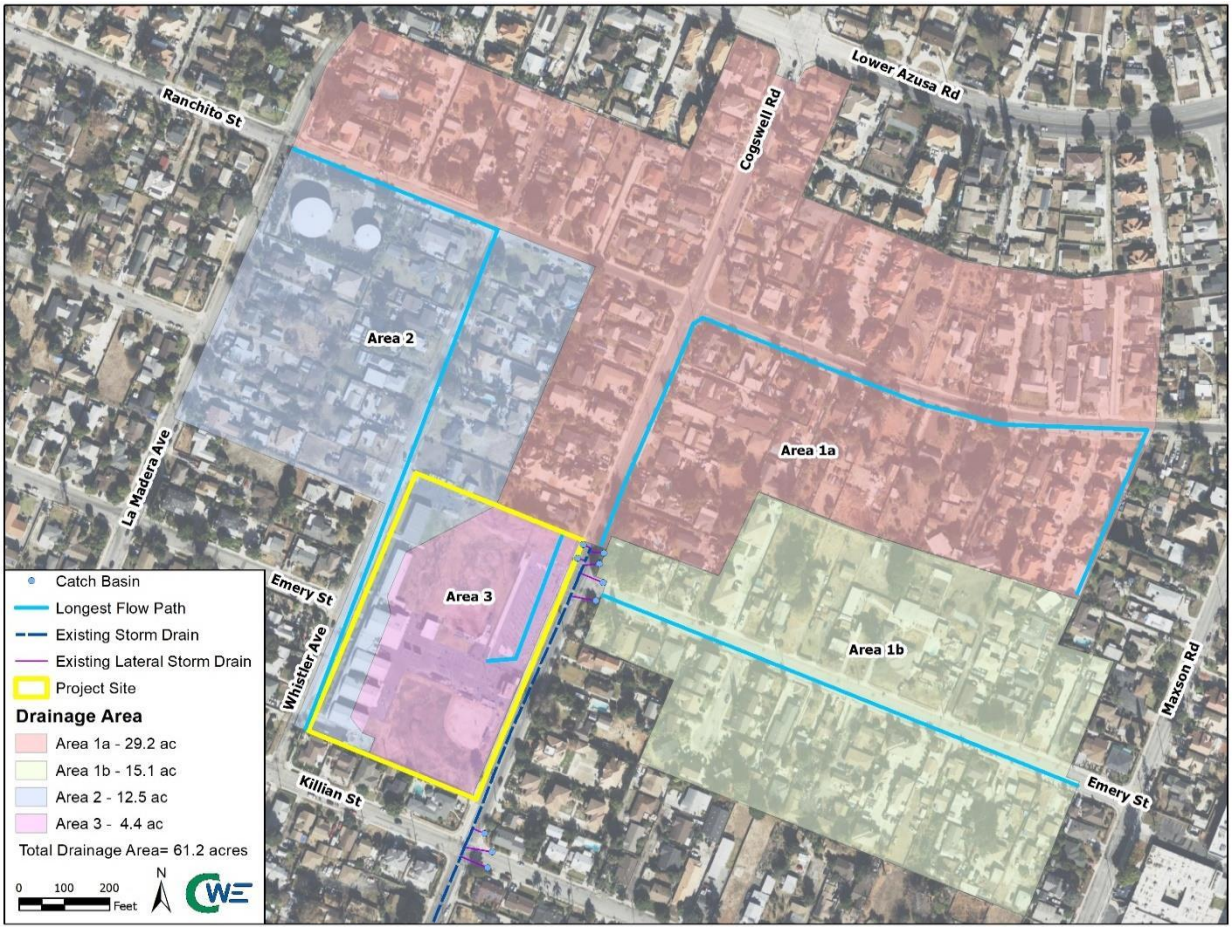


Figure 1 Drainage Area and Project Location

ASGV seeks to implement stormwater capture best management practices (BMPs) and create a new park through the addition of trees and rain gardens, which will decrease the site's total impervious area. Storm -water capture and treatment systems will primarily be surficial systems with retention and/or infiltration capabilities. **Figure 2** below illustrates the stormwater treatment cycle from interception to infiltration.

Figure 2 General Project Concept

There are 2 alternatives that were developed for the preliminary concept. The first alternative will have two large areas for infiltration as shown in **Figure 3**. Drainage Area 1a and 1b will be captured in the rain garden near Cogswell Road via the grate inlets on Cogswell Road and Emery Street. The garden will have at least 1 feet of ponding and 6 inches of freeboard. The playground area will be a depressed area that will function as an infiltration basin to capture and infiltrate runoff from Drainage Area 2. The basin will be 2 feet deep and have a ponding depth of at least 6 inches. An existing parkway drain on Whistler Avenue will be reconfigured to divert runoff from the street and into the infiltration basin. Pipe inlets for the basin and rain garden will have rip rap energy dissipation structures to prevent erosion around the slope.

On Whistler Ave, permeable concrete pavement will be installed in the downstream end of the drainage area. Runoff from the parking spaces and sidewalks adjacent to the school currently flows to an existing gutter and goes downstream. The existing gutter will deliver these flows to the permeable pavement area.

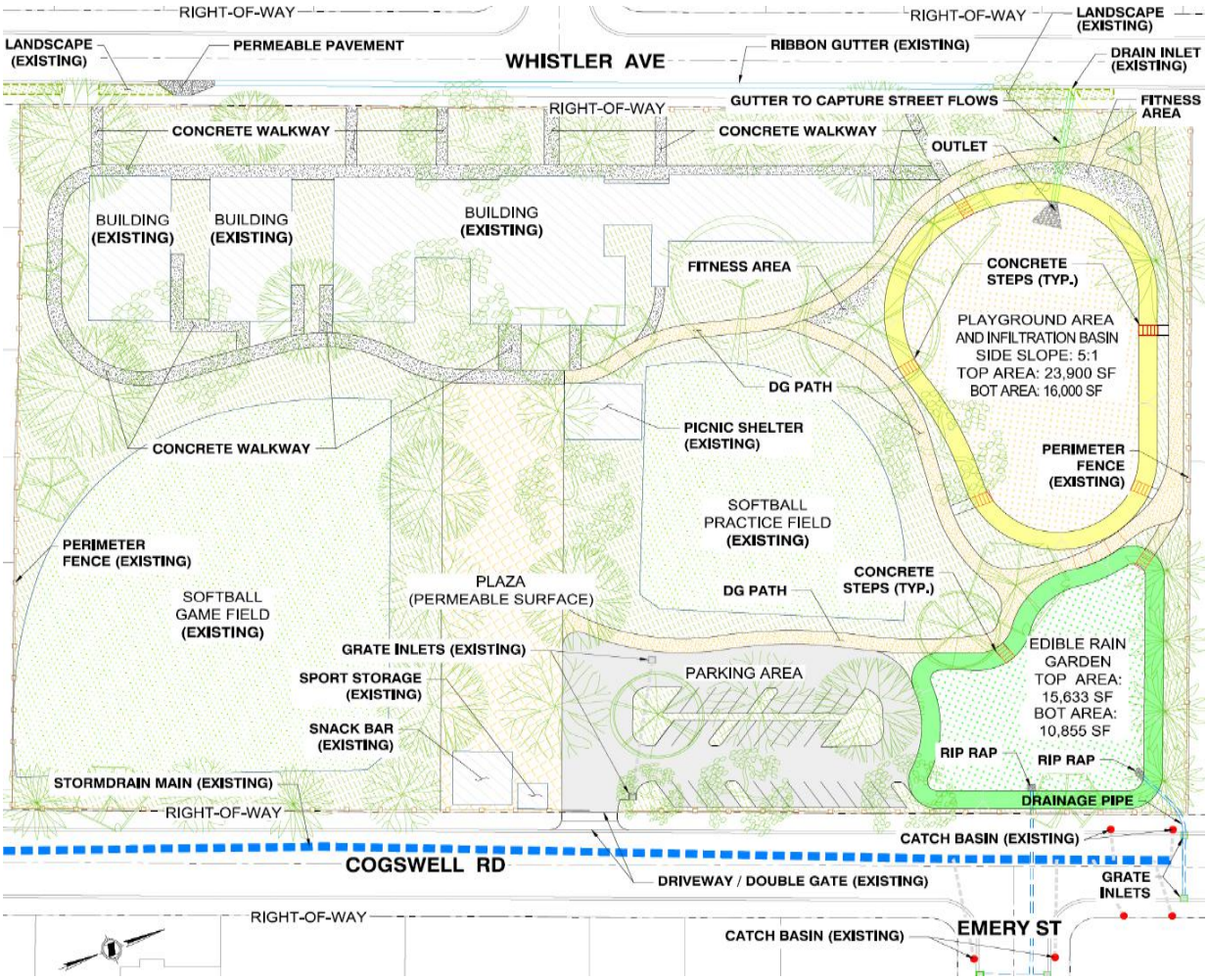


Figure 3 Alternative 1 Concept

The second alternative will have one large area for infiltration and several smaller areas for infiltration. Drainage Area 1a and 1b will be captured in the rain garden near Cogswell Road, which is described in Alternative 1. The playground area will not be an infiltration basin. Instead, several smaller rain gardens will capture flows from Drainage Area 2 as shown in **Figure 4**.

On Whistler Avenue, three rain gardens will be constructed along the fence line to capture flows from the street. Curb inlets or parkway drain inlets with local depressions will divert the flows from the gutter to the BMP. Energy dissipation structures will be placed near the outlets to prevent erosion around the slope. The gardens will have a depth of at least 2 feet and will be designed to have a minimum ponding depth of 6 inches. The rain gardens will capture runoff from the road, sidewalks, and building roofs via downspout. Two rain gardens near the playground area will be connected by a pipe underneath the walkway to increase its capacity. Once these two rain gardens reach capacity, flows will bypass them and go into the third rain garden at the southern end of the site.

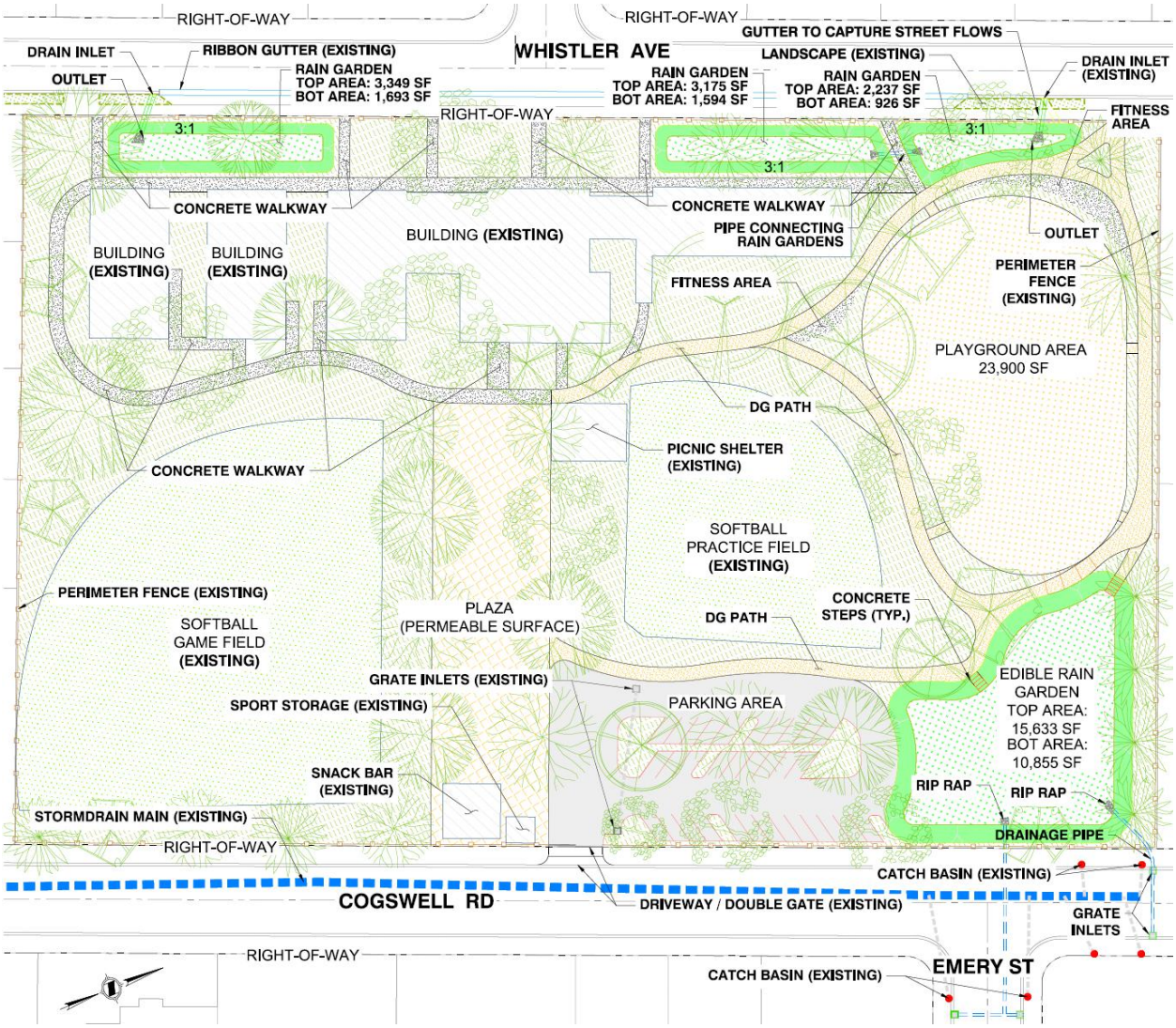


Figure 4 Alternative 2 Concept

Benefits

The primary objective of the Project is to improve water quality locally, downstream, and within the Rio Hondo and San Gabriel River by:

- Reducing metal discharges from the storm drain system

A secondary objective of the project will be:

- Reducing bacterial discharges from the storm drain system

The Project will generate additional benefits, including:

- Enhancing the Norwood Elementary School Park and athletic facilities
- Enhancing local streets and implementing natural pollutant reduction solutions by adding trees, native plants, and bioretention and/or biofiltration Low Impact Development (LID) designs.
- Creating educational and engagement opportunities for the local community, such as:
  - The creation of the edible learning garden
  - Installing permanent educational signage
  - Engaging in dialogue with stakeholders, local schools, community groups, and the public through community meetings
- Reducing trash/debris discharge from the storm drain system
- Meeting the Total Maximum Daily Loads (TMDLs) for metals and bacteria

Outreach and Engagement

The goal of outreach/engagement is to gain support for the Project and identify challenges that may hold up the Project's progress such that they can be mitigated early in the process. Led by ASGV, community engagement has been ongoing between summer 2021 and winter 2022 and has taken the form of surveys, conversations, stakeholder interviews, and an interactive community input web map. Residents have been contacted in a variety of methods to inform them of the Project and input opportunities, and engagement materials have been translated into four local languages: English, Spanish, Chinese, and Vietnamese.

A combination of outreach and engagement will be used throughout the Project implementation process. Outreach/engagement events will highlight Project goals and benefits while creating and maintaining a positive relationship between the community and City. This relationship will be built and maintained through communication, effective dialogue, and providing a public platform to receive questions and concerns.

The Outreach plan has already been implemented by ASGV and engagement will continue during the Project's design and construction phases. ASGV has performed outreach with the community through social media posts, and flyer/handout distribution, tabling events, and public surveys. A project specific website will be developed to include, as applicable: information on upcoming meetings, project introduction, description, frequently asked questions, glossary of terms, letters of support, reference documents, and contact information. The webpage will be kept up to date as the project progresses. ASGV will also collect community contact information for future Project correspondence. Community members interested in receiving Project updates can provide their contact information at outreach events. ASGV will use this contact information during the design and implementation phases of the Project to provide information on updates and additional engagement events.

Estimated Project Scoring

The Project has an estimated score of 67 points. Most of the points are earned from the water quality (wet and dry) section as shown in **Figure 5** for addressing bacteria loading and other pollutants within the Rio Hondo and Upper San Gabriel River watersheds. **Table 1** summarizes the points earned and includes a description of how the points were determined in the Safe Clean Water Program Module. Additional details are included in the Feasibility Study and funding application.

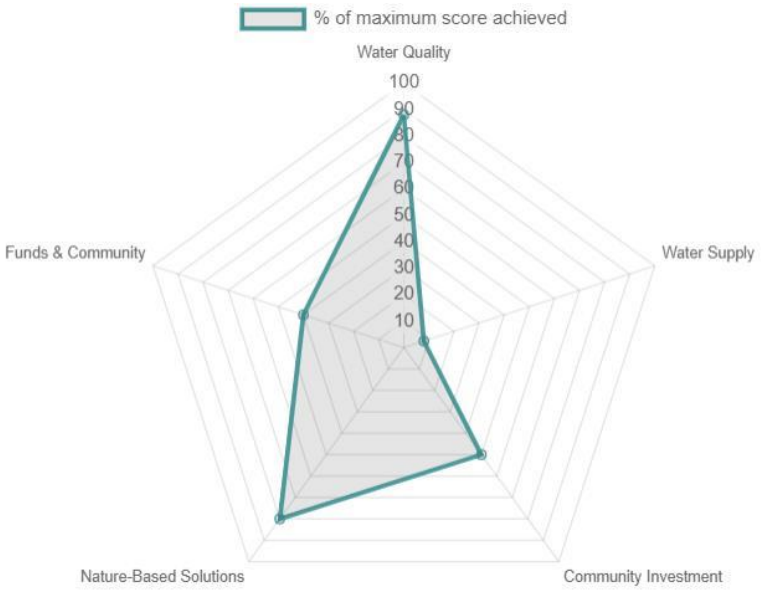


Figure 5 Maximum Score of Each Scoring Section

Table 1 Summary of Project Scoring in Safe Clean Water Program Module

Category	Points	Description
Water Quality Wet + Dry (Part 1 and Part 2)	44	Cost effective project when comparing volume capture to total cost and reduces bacteria and other pollutant loading to the Ri Hondo and San Gabriel River
Water Supply (Part 1 and Part 2)	2	Captures and infiltrates 7.17 acre-feet of runoff per 24-hour period and is cost effective
Community Investment	5	Reducing local island effect and increasing shade through the planting of additional trees, landscaping, and rain gardens
Nature-Based Solutions	12	Replacing asphalt with permeable pavement, enhancing the landscape with additional trees and vegetation, and promoting infiltration, which naturally occurred prior to development
Leveraged Funding (Part 1 and Part 2)	4	Letters of support were obtained from several local Non-Profit Organizations and Community-Based Organizations and the cost share is greater than 25%, as the City will continue operation and maintenance outside the current request
Total:	**67**	

Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project

Infrastructure Program Executive Summary

ULAR, Amigos de los Rios, FY23-24

SAFE CLEAN WATER PROGRAM

Project Background

The multi-benefit Project improves campus and neighborhood drainage and maximizes the student health benefits of sustainable campus greening.

Project Objectives: improve drainage, optimize stormwater capture and infiltration, increase vector control, and maximize mental health, academic performance, and physical fitness benefits of sustainable greening for students.

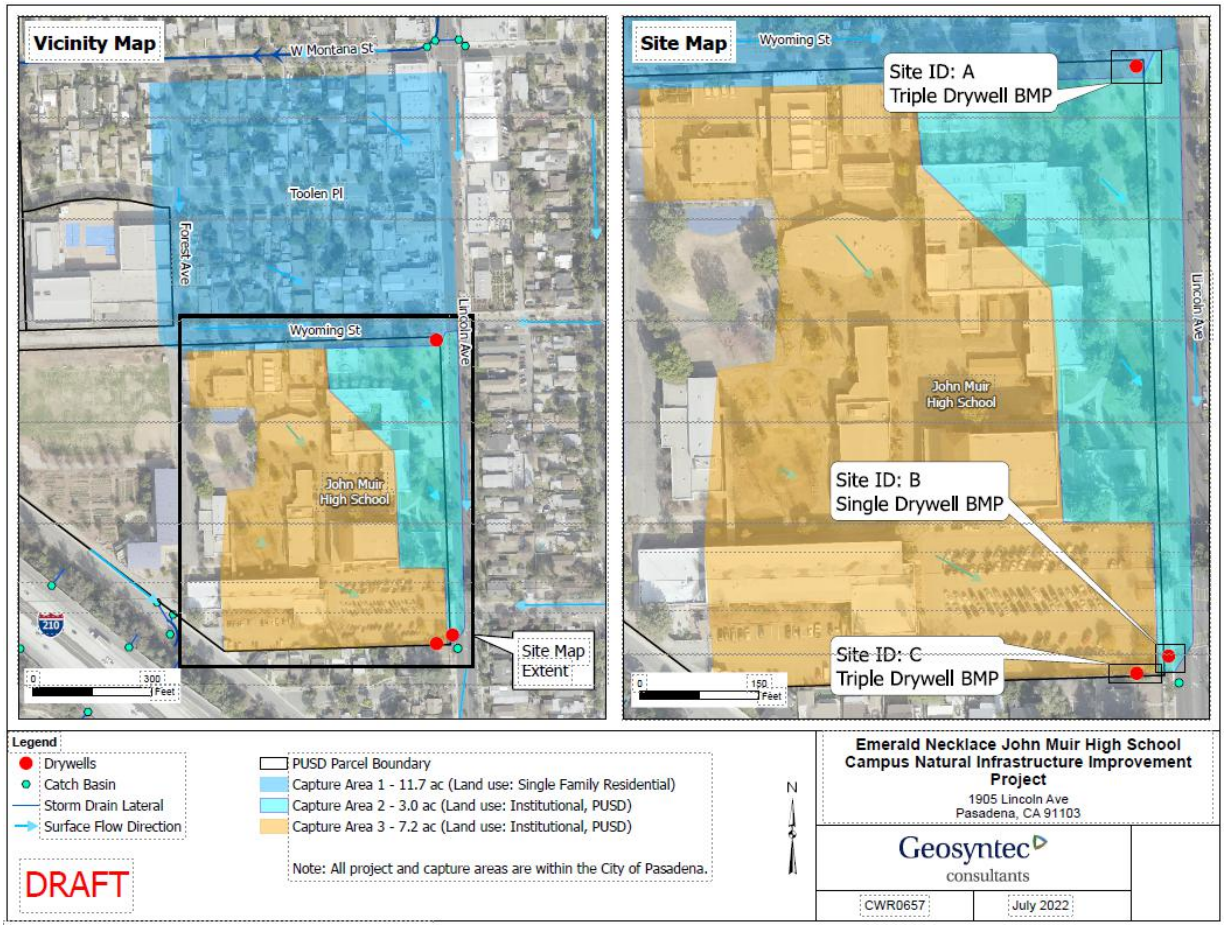
Project Status: Funding reqested for Planning, Design, Construction, O&M, and Monitoring.

Total Funding Requested: $1,891,500 (with $737,500 of leveraged funding)

Project Overview

- John Muir High School is Title 1 school serving predominantly DAC/LIC students (DAC within 0.5 miles and LIC within 0 miles), with an adjacent neighborhood with no storm drain infrastructure.
- The Project is listed on the ULAR IRWM database.
- Project will improve nuisance flooding on campus and in the neighborhood, enhance green spaces at school, reduce heat island effect, increase shade and improve stormwater quality to downstream SDAC.
- Project will provide 95% of LIC and minority students with a state-of-the-art Natural Infrastructure School campus in an area historically impacted by public school disinvestment. This project will help to correct that and amplify the voices of traditionally disenfranchised communities.

Project Location, Capture Area, and Drywell Locations



Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project

Infrastructure Program Executive Summary

ULAR, Amigos de los Rios, FY23-24

SAFE CLEAN WATER PROGRAM

Campus Greening and Natural Infrastructure Elements

Project Details:

- Located in the City of Pasadena
- Upper Los Angeles River Watershed
- Capture Area – 22 acres
- Supervisorial District 5
- Title 1 School, Serving DAC/LIC Students

Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project

Infrastructure Program Executive Summary

ULAR, Amigos de los Rios, FY23-24

Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	44	• Drywell infiltration • Wet + dry weather performance • 22-ac capture area and 24-hr capacity: 1.5 ac-ft • 82% long-term pollutant capture
Water Supply	0	• Project infiltrates 0.7 ac-ft per year on average • Project does not claim any water supply benefit
Community Investment	5	• Project addresses nuisance flooding, enhances green spaces at school, reduces heat island effect, increases shade
Nature-Based Solutions	10	• The primary mechanisms of this project are infiltration and shade. Infiltration to treat runoff and shade from proposed vegetation to reduce heat island effect and cooling.
Leveraged Funds	3	• AdIR has a strong track record of obtaining grants and in-kind pledges with commitments and applications in progress for $716,230 of matching funds • 25.3% funding matched
Community Support	4	• Project has multiple support letters from the Principal, PUSD Superintendent, and Alumni Assoc. to non-profits and community-based organizations. • AdIR had been conducting outreach for almost six years.
TOTAL	**66**	

Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Planning	CEQA Cat Ex, permit acquisition, and ROW costs.	$93,4000	4/2024
Design	Project design and development of PS&Es.	$416,000	6/2024
Construction	Project implementation, including construction man.	$1,750,000	10/2025
TOTAL		**$2,259,400**	

- Annual Costs: O&M = $107,200 Maintenance = $16,000
- Project Lifespan = 40 years

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$404,400	Planning/Design	CEQA, permit applications, and ROW/ Design and PS&Es
2	$1,117,500	Construction	Project implementation
3	$123,200	O&M/Monitoring	First year of O&M and Monitoring
4	$123,200	O&M/Monitoring	Second year of O&M and Monitoring
5	$123,200	O&M/Monitoring	Third year of O&M and Monitoring
TOTAL	**$1,891,500**		

- Additional O&M funding will be needed after year 5.

Glen Anderson Park Regional Stormwater Capture Green Streets
Infrastructure Program Executive Summary
South Santa Monica Bay, City of Redondo Beach, FY23-24

SAFE CLEAN WATER PROGRAM

Project Background

A Beach Cities EWMP Project to support MS4 compliance, augment water supply, and add community greening.

Project Objective: Achieve regional water quality design objectives set forth in the Beach Cities EWMP for the following wet weather pollutants of concern: toxicity, lead copper, zinc, E.coli, and benzo[a]pyrene.

Phases Requested for SCW Funding: Planning and Design

Total Funding Requested: $782,000

Project Overview

Glen Anderson Park Regional Stormwater Capture Green Streets ("Project") is a regional stormwater management project identified in the Updated Beach Cities EWMP. It is an essential piece for City of Redondo Beach and the rest of the Beach Cities Watershed Management Group to achieve the applicable wet weather water quality objectives in the Dominguez Channel watershed. In addition, the Project aims to add green space, reduce the heat island effect and enhance the experience of all parkgoers, including those belonging to the nearby Disadvantaged Communities (DACs) located approximately 0.25 miles from the Project site. Many of the additional benefits will address the needs of improvement identified in the City of Redondo Beach's Glen Anderson Park Master Plan.

Project Details

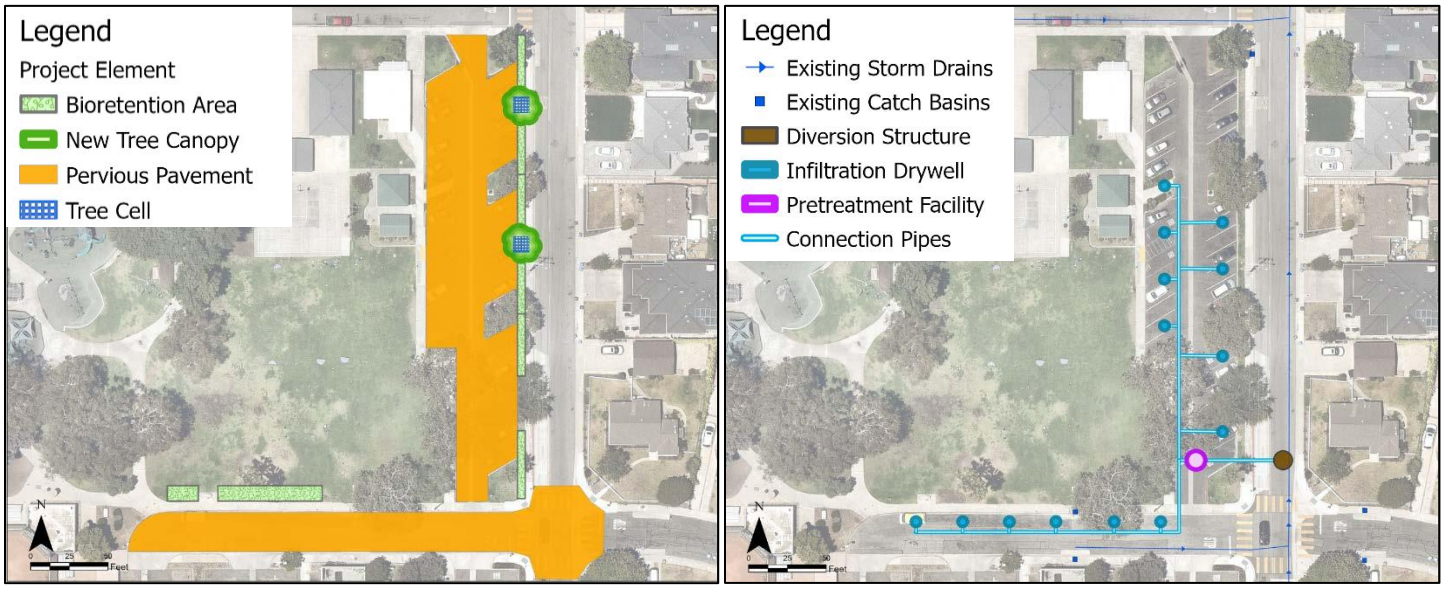


Figure 1. Surface (Left) and Subsurface (Right) Project Site Layout

The Project consists of three interconnected components:

1. Converting approximately 200-feet of right-of-way along May Ave. into a green street that consists of pedestrian-friendly pervious surfaces and bioretention area to capture and infiltrate surface runoff;
2. Retrofitting the existing Glen Anderson Park parking lot with ADA compliant pervious surface, bioretention area and tree filter wells to capture and infiltrate surface runoff; and
3. Constructing 14 drywells with pretreatment under the green streets and the parking lot to capture and treat stormwater runoff from the regional storm drain, as well as overflows from the green streets, bioretention and tree filter wells

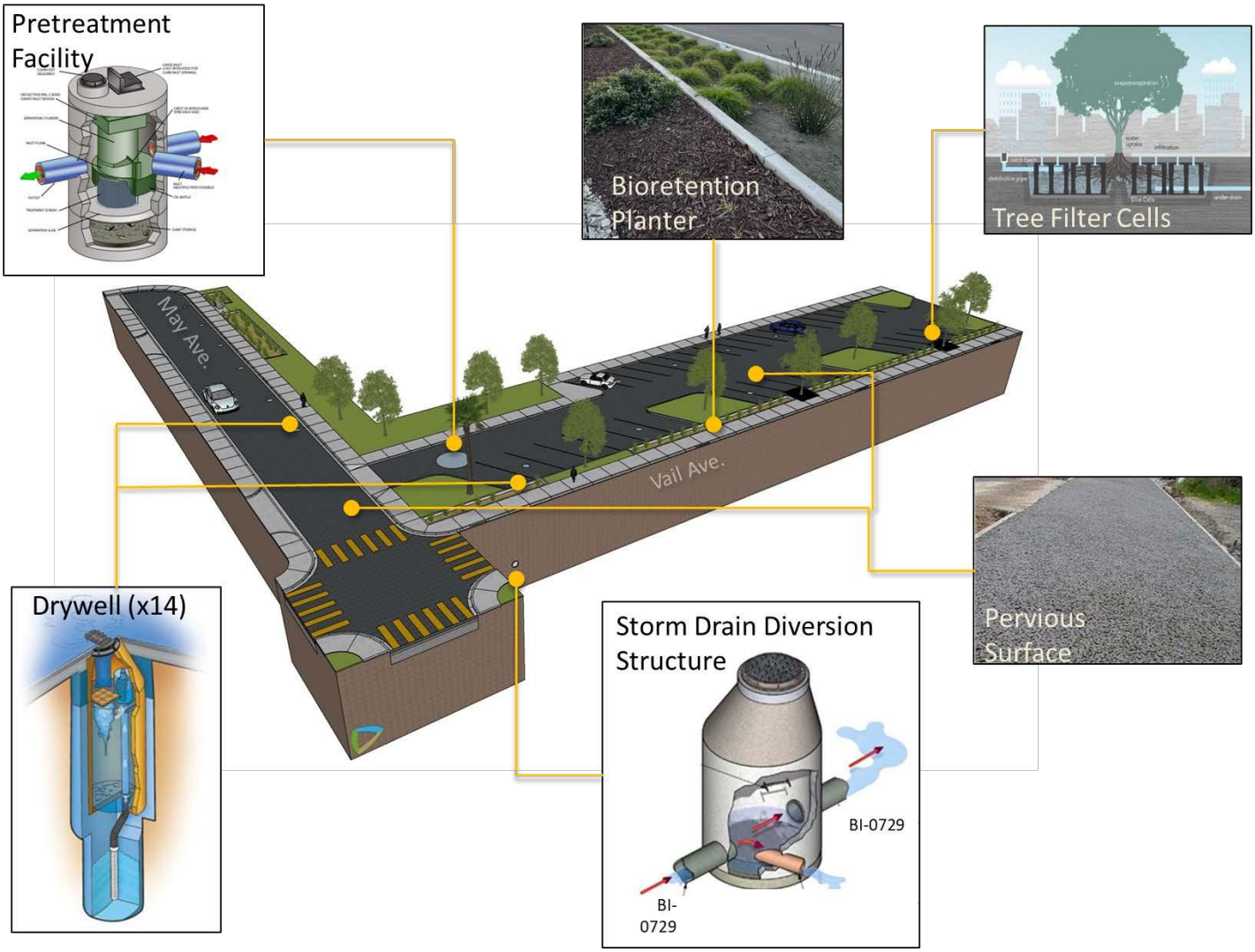


Figure 2. Design Concept Rendering

Majority of the Project site are parcels and rights-of-way owned by City of Redondo Beach. The south portion of May Ave is owned by the Redondo Beach Unified School District, which is a Project co-applicant. The project proposes to divert runoff from LACFCD-operated storm drain BI-0729. A letter of conceptual approval has been obtained from LACFCD.

Engineering analyses of the existing Project site conditions were performed by reviewing geotechnical investigation reports, geology maps, topographic data, soil boring logs and Cone Penetration Test (CPT) results collected on-site, utility mapping and as-built drawings, and the Goetracker database. Geophysical constraints preventing stormwater infiltration are not anticipated. The infiltration drywells are expected to achieve a 1-cfs infiltration rate per well. Existing average annual runoff volume and pollutant loading rate were calculated using the SCWP online module's built-in modeling tool. In addition, an event-based simulation was performed to assess the 85th percentile, 24-hour runoff volume and peak rate using HydroCalc. Lastly, no significant contaminant plume was identified beneath the proposed BMP sites and within 2,000 feet of Project site. Therefore, the risk of the proposed BMP introducing additional contaminants into the ground is low.

Project Location

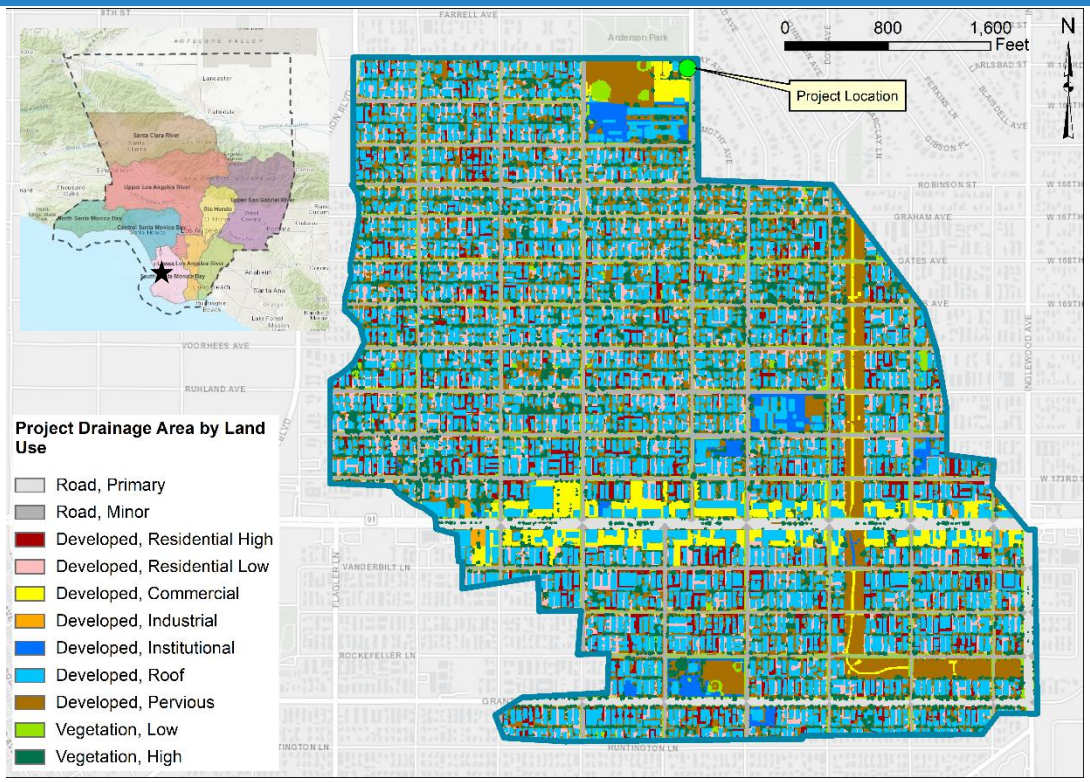


Figure 3. Project Location and Drainage Area

Total Drainage Area = 483 acres; all within South Santa Monica Bay watershed, City of Redondo Beach and Supervisorial District 2

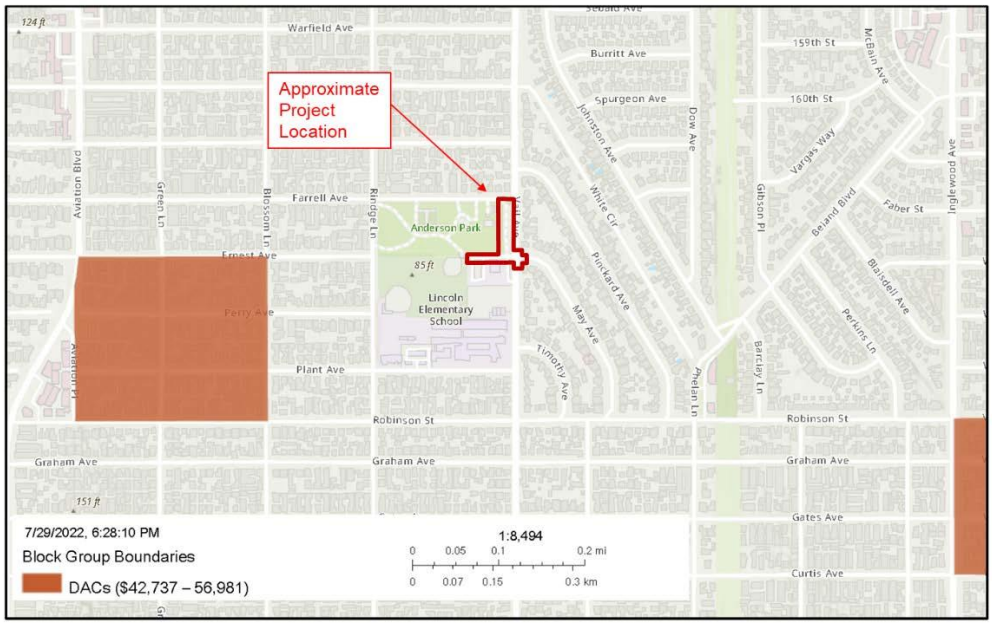


Figure 4. DAC Map

Nearest DAC is 0.25 mile from the Project location (Glen Anderson Park)

Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	50	• *Primary Mechanism:* Infiltration-based wet weather stormwater BMP • *Drainage Area*: 483 acres • *Capacity:* 22 ac-ft of 24-hour management capacity • *Cost Effectiveness*: 2 ac-ft capacity / $-Million • *Long-term Water Quality Benefit:* o 81% zinc removal (primary pollutant); o 82% bacterial removal (secondary pollutant)
Water Supply	0	
Community Investment	5	• **Flood Management** : Drywells will enhance existing flood control system capacity by 14 cfs; Pervious surfaces will eliminate local flooding and ponding issues along May Ave. • **Park Enhancement**: 50 rain garden plants and new trees will be planted to enhance habits for wildlife • **Heat Island Effect Reduction**: 2000 ft^2 of concrete pavement will be replaced with bioretention planters. Additional shades to the parking lot will be provided by the new trees.
Nature Based Solutions	14	• **Mimicking Natural Processes**: Drywells mimics the natural process of water infiltration. • **Impervious Surface Removal**: 0.5 acres of concrete pavement will be replaced with pervious paver, representing a 0.45 acre (90% of total Project area) pervious surface removal • **Use of Natural Vegetation and Material**: Native soils will be used to achieve cut/fill balance during construction; California native, rain garden appropriate vegetations will be planted in the bioretention area.
Leveraged Funds	0	• N/A
Community Support	4	• Received letters of support from Redondo Beach Unified School District and Redondo Beach Mayor's Office. • The Project team has discussed Girl Scout regarding partnership with several troops to add educational outreach and received informal support. • Feedbacks from the following community outreach events were utilized in Project concept design: o Glen Anderson Park Master Plan community meetings (x2) o Beach Cities EWMP Outreach meetings • The Project team has initiated discussion with the following local organizations to solicit feedback: Grades of Green, The Guacamole Fund, King Harbor Boating Foundation, and Oceanographic Teaching Stations, Inc.
TOTAL	**73**	

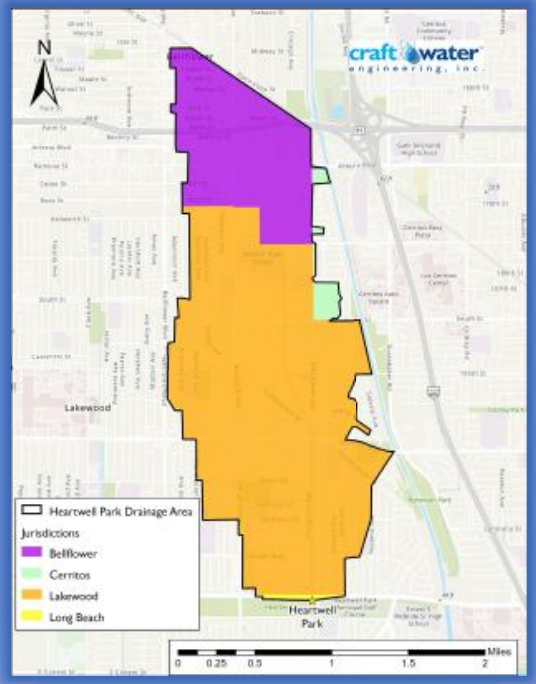
Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Planning	Planning includes early concept design, site investigations, and CEQA and other environmental impact studies and permitting	$156,400	07/2024
Design	Design includes, pre-project monitoring, site investigations, formal project design, intermediate and final project completion audits.	$625,600	07/2026
Construction	Construction cost includes the cost of labor, equipment, material, plus overhead and contingencies. In addition, it includes the present value of 2-years post-construction monitoring.	$5,838,300	07/2028
TOTAL		**$6,620,300**	

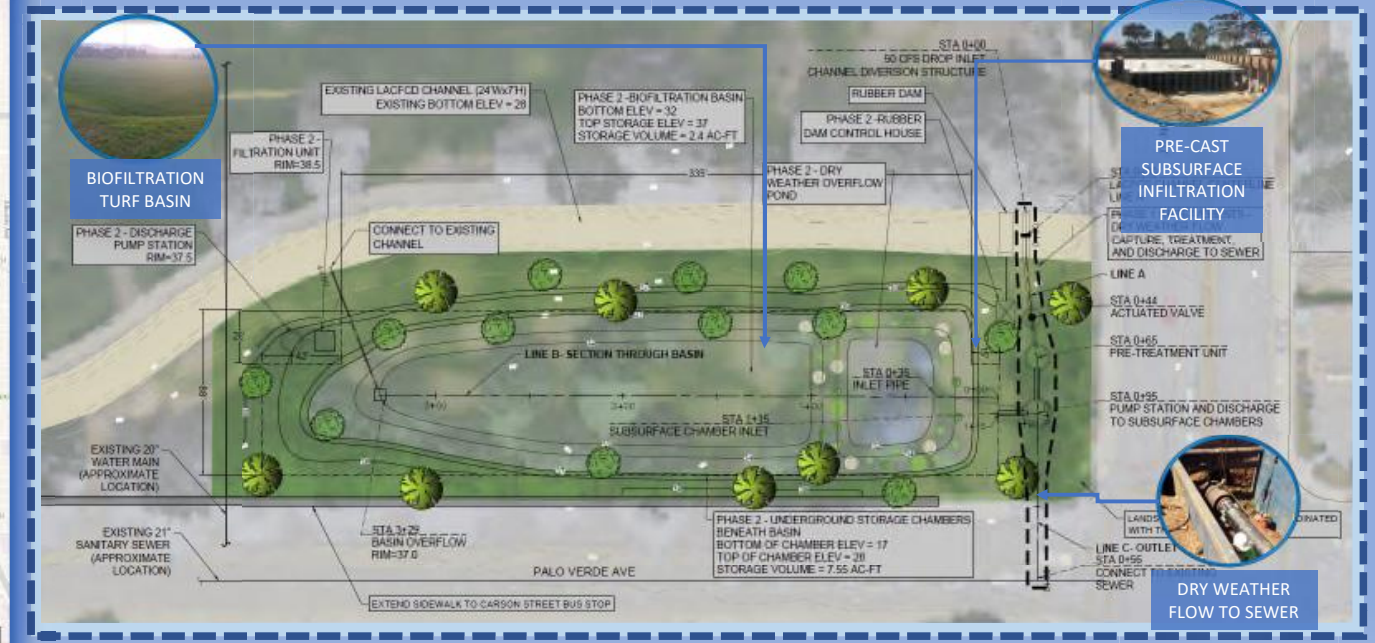
The Project is anticipated to have a 30-year lifespan. Annual operations and maintenances costs are expected to be $50,000 per year, and include activities such as inspections, removal of sediment and debris, pruning and/or replacing plants as needed.

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$156,400	Planning	Project planning will be completed during Year 1
1	$234,600	Design	Project design and permitting will begin in Year 1
2	$391,000	Design	Project design and permitting will be completed during Year 2
TOTAL	$782,000		

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LONG BEACH

HEARTWELL PARK AT PALO VERDE STORMWATER CAPTURE PROJECT FACT SHEET





PROJECT DESCRIPTION

LOCATION: Heartwell Park, 5801 East Parkcrest Street, Long Beach, CA, 90808. (LAT: 33°49'53.35"N, LONG: 118° 06'29.22"W)

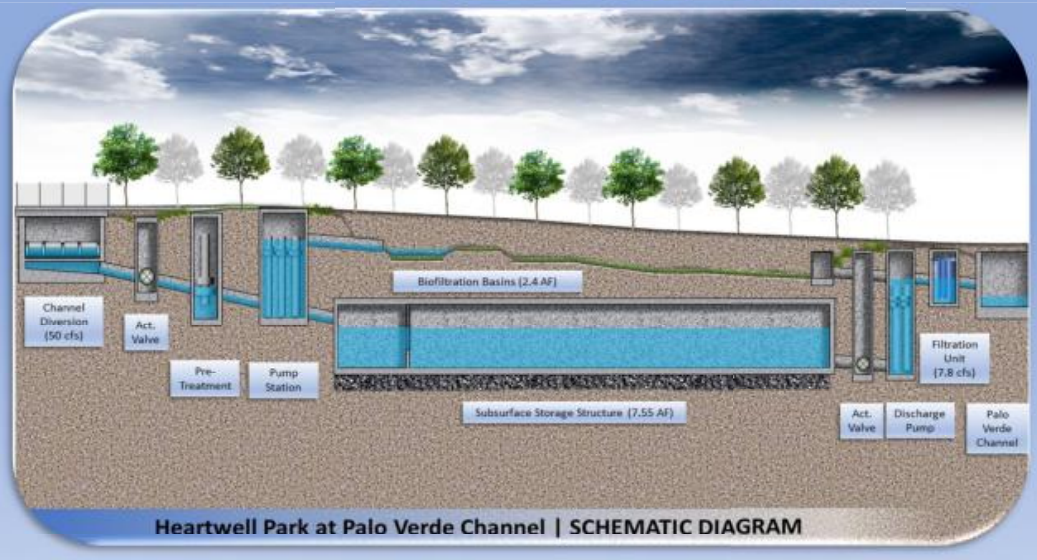
REGIONAL WATER MANAGEMENT PLAN
Los Cerritos Channel Watershed Management Program

BRIEF: The Heartwell Park at Palo Verde Channel site is owned and operated by the City of Long Beach and has been identified as a key Regional Project in the Los Cerritos Channel Watershed Management Program (LCC WMP). Runoff within this corridor drains to the Palo Verde Channel, the Los Cerritos Channel, the Los Cerritos Estuary, and ultimately the Pacific Ocean. The project seeks to improve the water quality of stormwater runoff flows conveyed within the Palo Verde Channel through capture, storage, and filtration before returning flows back to the channel. In addition, the project also proposes to provide water supply benefit through capture and redirection of the dry-weather flows and a portion of the wet-weather flows through diversion to the nearby sanitary sewer lines that convey flows to the water reclamation plant. The project also includes a stormwater drop-inlet diversion from the LACFCD Los Cerritos Channel, Unit 1, Line E, a rubber dam structure to impound the flows within the channel, a pretreatment unit, and a combination of a 7.55 acre-foot underground subsurface storage reservoir and 2.4 acre-feet surface biofiltration/turf basin. This project has the potential to offer runoff storage and water quality benefits for the cities of Long Beach, Lakewood, Bellflower, and Cerritos that can address the additional needs for stormwater management identified to achieve compliance with the LCC WMP.

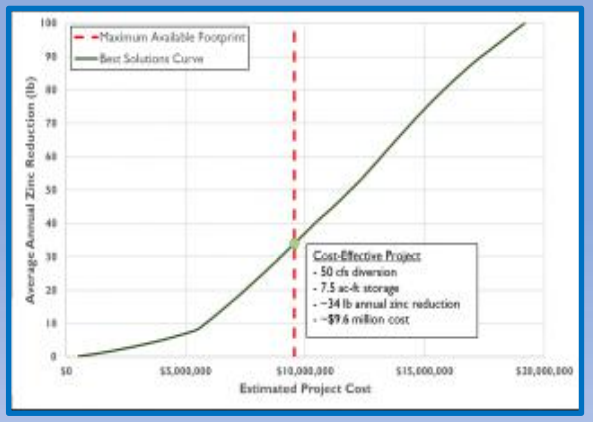
LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LONG BEACH

HEARTWELL PARK AT PALO VERDE STORMWATER CAPTURE PROJECT FACT SHEET

DRAINAGE AREA CHARACTERISTICS	
REGIONAL WATER MANAGEMENT PLAN	Los Cerritos Channel Watershed
TOTAL DRAINAGE AREA	**2,099 acres** Lakewood (73.9%) Bellflower(23.8%) Cerritos (1.8%) Long Beach (0.5%)
INFILTRATION RATE	0.1 in/hr
APPROX. DEPTH TO GROUNDWATER	29 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	1,142 acre-ft



Heartwell Park at Palo Verde Channel | SCHEMATIC DIAGRAM



WATER QUALTIY IMPROVEMENT	
Primary Pollutant Zinc Reduction Achieved (% Zn reduction)	133 lb/yr (51.8%)
Secondary Pollutant Copper Reduction Achieved (% Cu reduction)	15 lb/yr (55.6%)
Design Diversion Rate Palo Verde Channel	50 cfs
Storage Capacity for Biofiltration/Turf Basin and Subsurface Storage Structure	9.95 ac-ft (3.2 MG)
24-Hour Capacity	33.3 ac-ft
Construction Cost Estimate	$10,724,473

Heartwell Park at Palo Verde Channel Site

Palo Verde Channel - 1

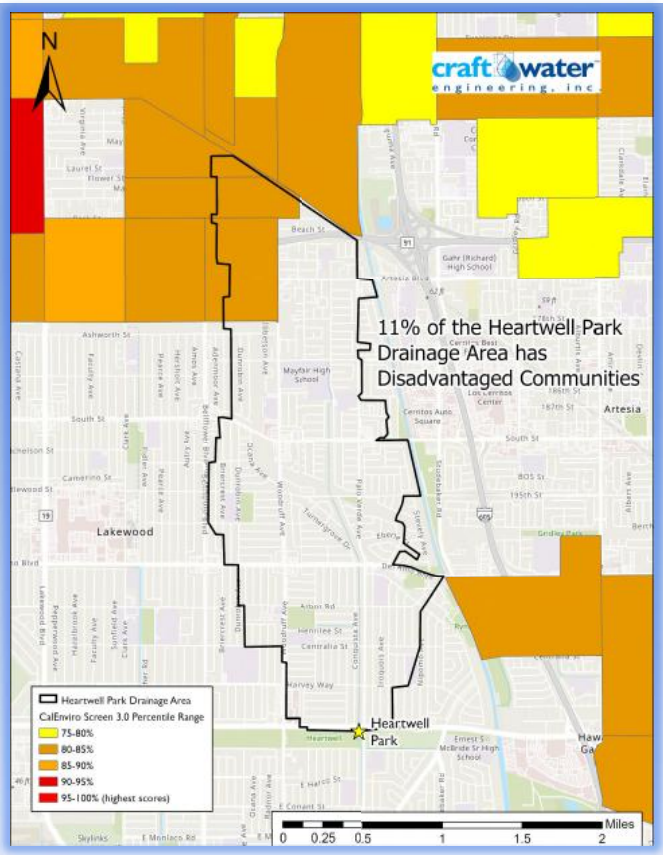
Palo Verde Channel - 2

2 of 4

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LONG BEACH

HEARTWELL PARK AT PALO VERDE STORMWATER CAPTURE PROJECT FACT SHEET

DISADVANTAGED COMMUNITY MAP



This project will provide improved park facilities for the use by residents of Long Beach and adjacent cities with the nearest disadvantaged community located only 1 mile away. The currently unused space will be converted to a subsurface water capture facility with a surface biofiltration/turf basin feature that will include various walking paths. The biofiltration/turf basin system proposed includes additional natural vegetation and new trees that provide gathering spaces and areas for rest. The sidewalk that currently terminates on Palo Verde Avenue will be extended to provide the local residents a safe passageway to Carson Street as a sidewalk currently does not exist on the west side of street.

COMMUNITY INVESTMENT BENEFITS

NATURE BASED SOLUTIONS

COMMUNITY SUPPORT

Conservation Corps of Long Beach · CCLB ·

Los Cerritos Wetlands Authority

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF LONG BEACH

HEARTWELL PARK AT PALO VERDE STORMWATER CAPTURE PROJECT FACT SHEET

SCHEDULE FUNDING BY YEAR

Year	SCW funding Request	Project Phase
Year 1	$1,485,049	Design
Year 2	$1,828,818	Construction
Year 3	$5,074,051	Construction
Year 4	$5,054,051	Construction
Year 5	$199,000	O&M/Monitoring
Total	**$10,894,751**	-

PRELIMINARY SCW SCORING

SECTION	Score
A.1 Wet Weather Water Quality Benefits • A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million • A.1.2 Pollutant Reduction >50%	20 20
B. Significant Water Supply Benefits • B1. Water Supply Cost Effectiveness • B2. Water Supply Benefit Magnitude	0 5
C. Community Investment Benefits • Creation/enhancement/restoration of parks • Enhanced/new recreational opportunities • Reducing local heat island effect and increasing shade • Increasing the number of trees increase and/or other vegetation at the site location that will increase carbon reduction/sequestration and improve air quality	10
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support • E2. The project demonstrates strong local, community-based support and/or has been developed as part of a partnership with local NGOs/CBOs	4
TOTAL SCORE	**69**

Hollenbeck Park Lake Rehabilitation Park

Infrastructure Program Executive Summary

Upper Los Angeles River Watershed, City of Los Angeles Sanitation and Environment, 2023-2024 Fiscal Year

SAFE CLEAN WATER PROGRAM

Project Background

This project proposes multi-benefit components consisting of stormwater diversions, stormwater capture and treatment, significant park and lake improvements, and green street network components

The objective of the project is to improve water quality in Hollenbeck Park Lake (HPL) and the Upper Los Angeles River Watershed (ULAR)

SCW funding is being requested for the following project phases:

Planning, Design, Construction, O&M

Total Funding Requested: $25,161,316

Project Overview

The project location was selected because HPL has a history of water quality concerns, is located within a Disadvantaged Community (DAC), and the existing area has minimal stormwater and green infrastructure.

The Project was developed by considering water quality and supply needs for the area, in addition to community investment needs.

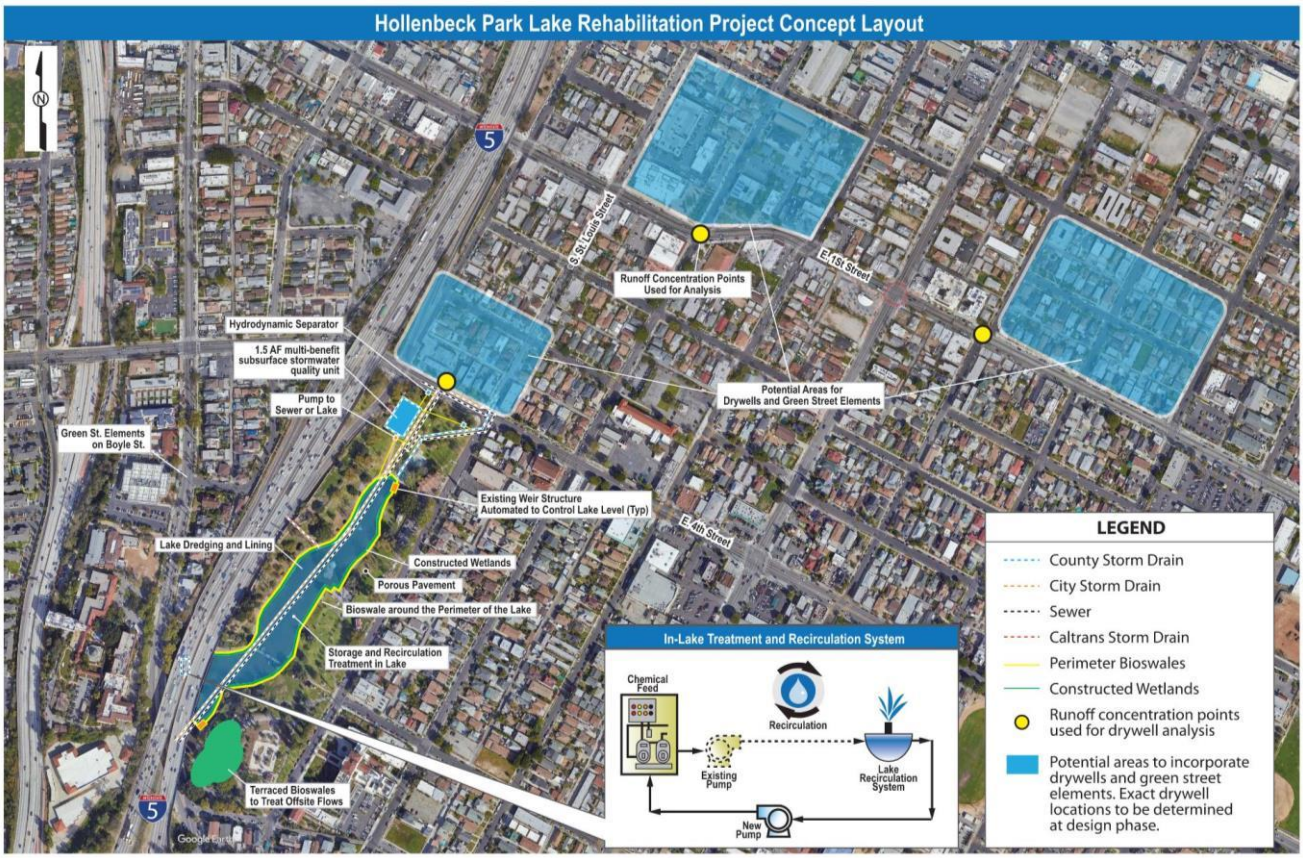
<u>The project will benefit municipalities by</u>:

- Full Capture of 340.9 AF of dry weather runoff annually.
- Annual water supply benefit of 340.9 AF.

<u>The project will provide DAC Benefits by</u>:

- Reducing pollutants in local runoff and the Upper Los Angeles Watershed.
- Providing localized flood mitigation benefits.
- Increase shade, improve air quality, and reduce heat island effect.

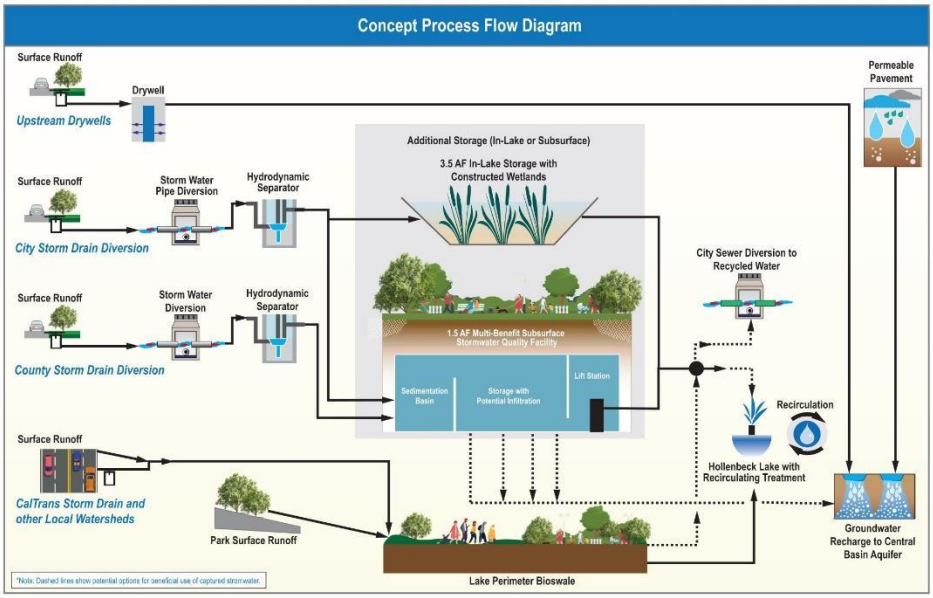
Project Details



Hollenbeck Park Lake Rehabilitation Park

Infrastructure Program Executive Summary

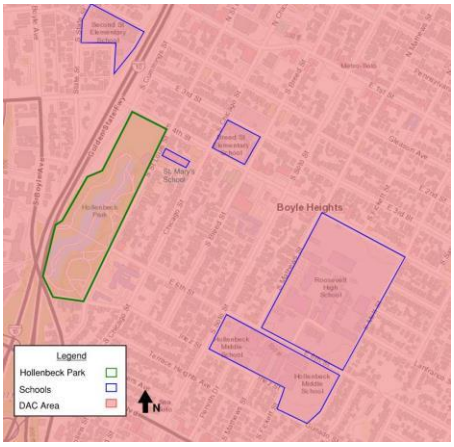
Upper Los Angeles River Watershed, City of Los Angeles Sanitation and Environment, 2023-2024 Fiscal Year



Project Key Elements:

- Additional Storage (subsurface and in-lake) in the form of a subsurface multi-benefit water quality unit or within the lake itself is proposed to accommodate 5 ac-ft of necessary runoff storage.
- Constructed wetlands, whether constructed along the entire lake perimeter or a portion of the lake shoreline, will receive pretreated stormwater at the design flowrate of 1.2 cfs from the additional storage source and park bioswales.
- Improvements to the Lake's recirculation system and incorporating in-lake mechanical treatment.
- Lake dredging and lining with a bentonite-enhanced liner system.
- Lake perimeter bioswales and terraced bioswales located in the southeastern portion of the park to intercept external loading.
- 18 drywells distributed throughout the drainage area upstream of Hollenbeck Park Lake.

Project Location



Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	40	• Primary mechanisms – infiltration, sedimentation, aeration/recirculation, media treatment, dredging and removal • 340.9 AF/yr dry weather runoff capture • Estimated average dry weather flow rate of 0.47 cfs • 695.6-acre Tributary Area
Water Supply	12	• Captures 100% of all tributary dry weather flows • An average annual water supply benefit of 340.9 AF/yr
Community Investment	10	• Planned green street elements will capture surface flow, providing local flood mitigation • Addition of 50 trees, 35,000 sf of bioswales, and educational signs will enhance the park • Park aesthetic enhancement will encourage and provide greater recreational opportunities • Using California native vegetation for the greening of two potential different school sites • Proposed landscaping elements will provide additional public shade and reduce the heat island effect • Increased carbon sequestration and air quality improvements through natural processes resulting from bioswales and tree planting
Nature Based Solutions	12	• Greater than 40% of impermeable area within Hollenbeck Park will be replaced with porous pavement, thus improving infiltration • The constructed wetlands will mimic the natural water treatment process of natural wetlands, improving lake water quality • The drywells and bioswales will capture water for supply and use natural process of infiltration • The Project will use largely native California plants for landscaping the green street and park features
Leveraged Funds	3	• $5 million from Proposition O for Design & CM, and Construction • $7 million from City Earmark Funding for Construction and O& • Leverage funding along with City services matching funds results in $19.4 Million • 43.6% of funding expected to be matched
Community Support	4	• The Project demonstrates strong local, community-based support and/or has been developed as part of an on-going partnership with community leaders and local NGOs/CBOs.
TOTAL	**81**	

Hollenbeck Park Lake Rehabilitation Park

Infrastructure Program Executive Summary

Upper Los Angeles River Watershed, City of Los Angeles Sanitation and Environment, 2023-2024 Fiscal Year

SAFE CLEAN WATER PROGRAM

Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Planning	Engineering, Legal, & Administrative (ELA)	**$1,257,636**	YR1-FY23/24
Design & CM	ELA	**$12,695,922**	YR3-FY25/26
Construction	Including Contingencies	**$29,495,096**	YR5-FY27/28
O&M	50-Year Design Life Span	**$496,451**	After Project Construction
Monitoring	Lake Monitoring and Storm Drain Diversion & Green Infrastructure Elements Monitoring	**647,848**	Continued After Project Construction
TOTAL		**$44,592,953**	

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	**$482,582**	Planning & Monitoring	Preliminary design and baseline monitoring, YR1-FY23/24
2	**$1,658,979**	Design & Monitoring	Design and baseline monitoring, YR2-FY24/25
3	**$1,687,479**	Design & Monitoring	Final Design and continued monitoring, YR3-FY25/26
4	**$9,247,548**	Construction	Construction, project effectiveness monitoring, YR4-FY26/27
5	**$12,159,728**	Construction	Post-Construction, Optimization, and First Year of O&M, YR5-FY27/28
TOTAL	**$25,161,316**		

Imperial Highway Green Infrastructure Project

Infrastructure Program Executive Summary

Central Santa Monica Bay, City of Los Angeles Sanitation and Environment, Fiscal Year 2023 - 2024

Executive Summary

Project Background

Multi-benefit Project located along Imperial Highway designed to capture and treat the 85th percentile storm using infiltration drywells and bioswales. It captures 15 AF annually from a 19.7-acre drainage area

Project objectives include:

- ✓ Improve water quality at Dockweiler State Beach by removing stormwater pollutants using drywells and bioswales.
- ✓ Improve flood management and flood conveyance.
- ✓ Increase nature-based solutions by replacing 13,000 square feet of impervious surface with green space.
- ✓ Improve public access to recreational opportunities by improving the bicycle path with safety features.
- ✓ Provide street highway improvements including the replacement of deteriorated curb, removal of trash and debris, and the addition of safety signage.

The Project is requesting SCW funding for the following phases: Planning, Design, Construction, and O&M.

Total Funding Requested: $5,232,000

Project Overview

LASAN worked with Los Angeles World Airport Authority (LAWA), and City of El Segundo to identify an area in which all agencies could collaborate in the development of multi-benefit stormwater Project. This section of the Imperial Highway has been identified as an area of need of water quality and community investment benefits.

The Project benefits the cities of Los Angeles and El Segundo as it collects water from both municipalities. Furthermore, safety, pedestrian, and recreational improvements will benefit all residents that use this section of the highway.

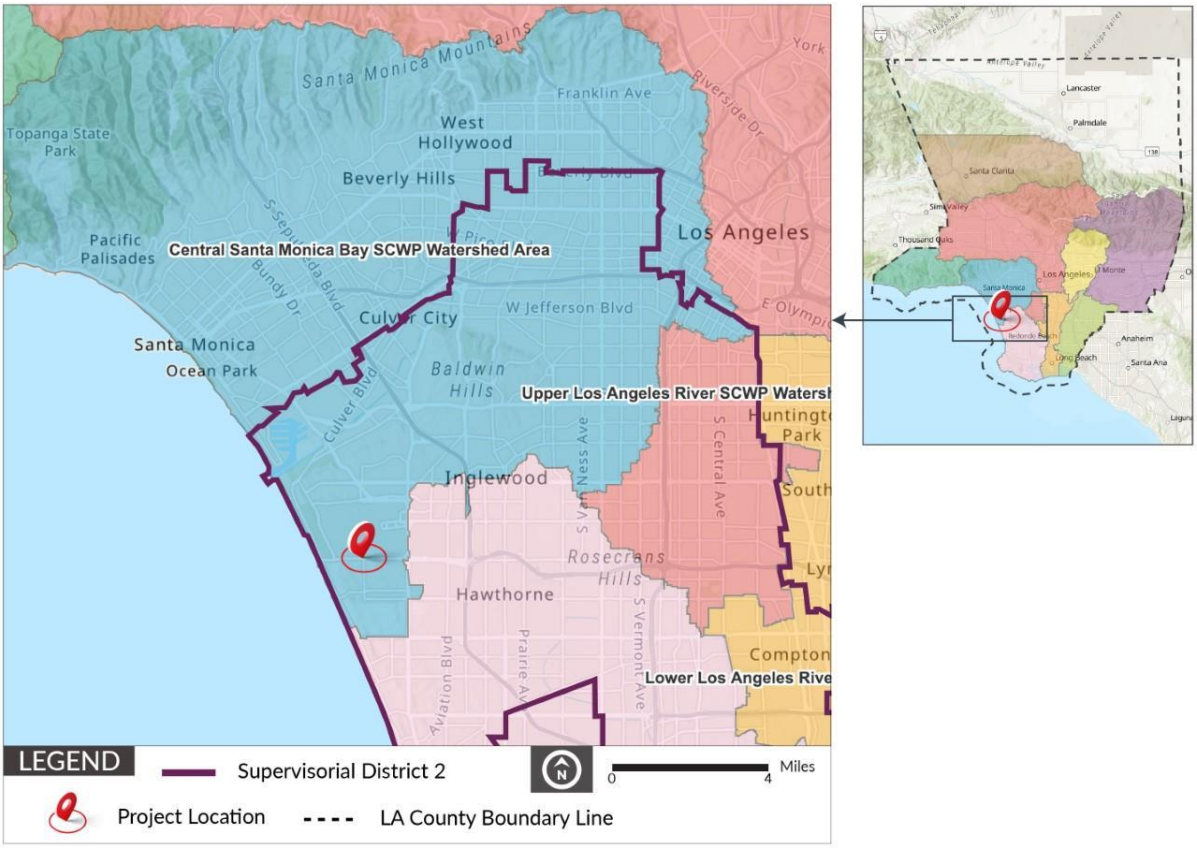
While the Project site is not located within a DAC, it will provide access to abundant recreational activities leading up to and along Dockweiler State Beach. This portion of the Imperial Highway provides commuter access to the main entrance to Dockweiler State Beach, located at the western terminus of the Project site. The Project will enhance water quality and provide safe pedestrian and bicycle access to the beach for all surrounding communities.

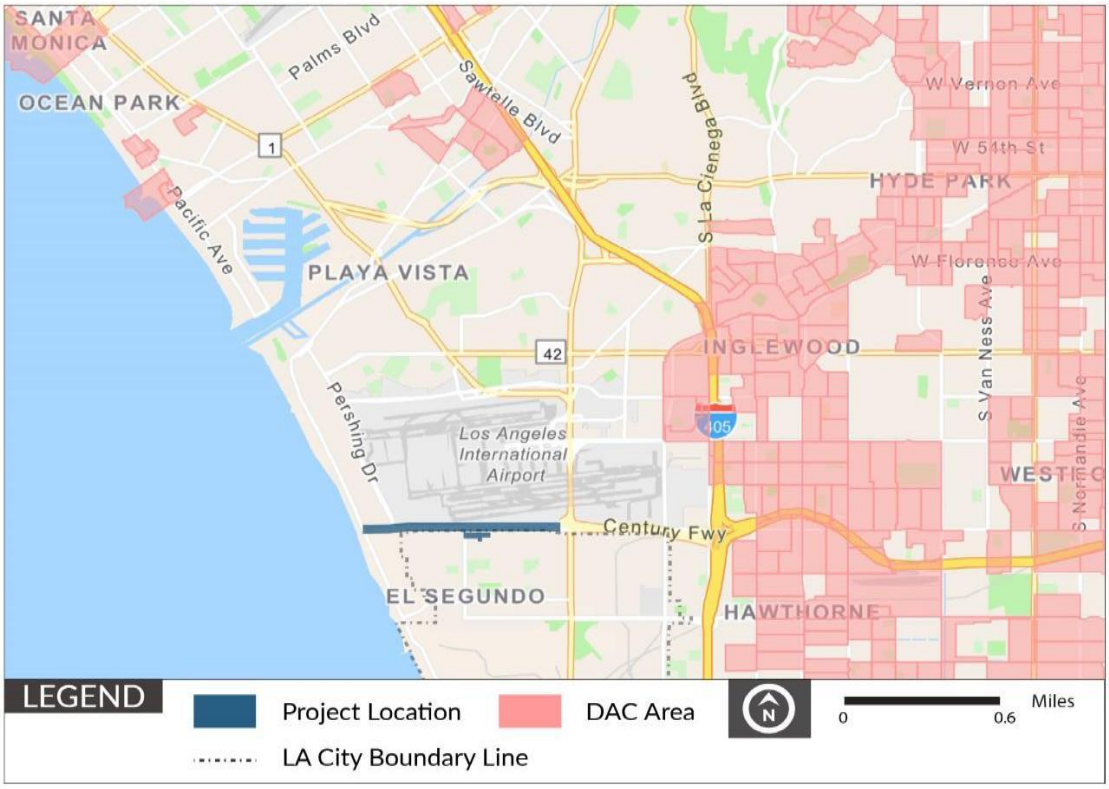
Project Details

The Project site is located in a 1.7-mile section of the Imperial Highway within the City of Los Angeles. This portion of the highway is located within a predominantly high-density residential area, which provides commuter access to Dockweiler State Beach, LAX facilities, and City of El Segundo. Due to high urbanization the area faces many challenges from poor water quality of urban runoff, heat island effect, deterioration of road infrastructure, and poor pedestrian safety.

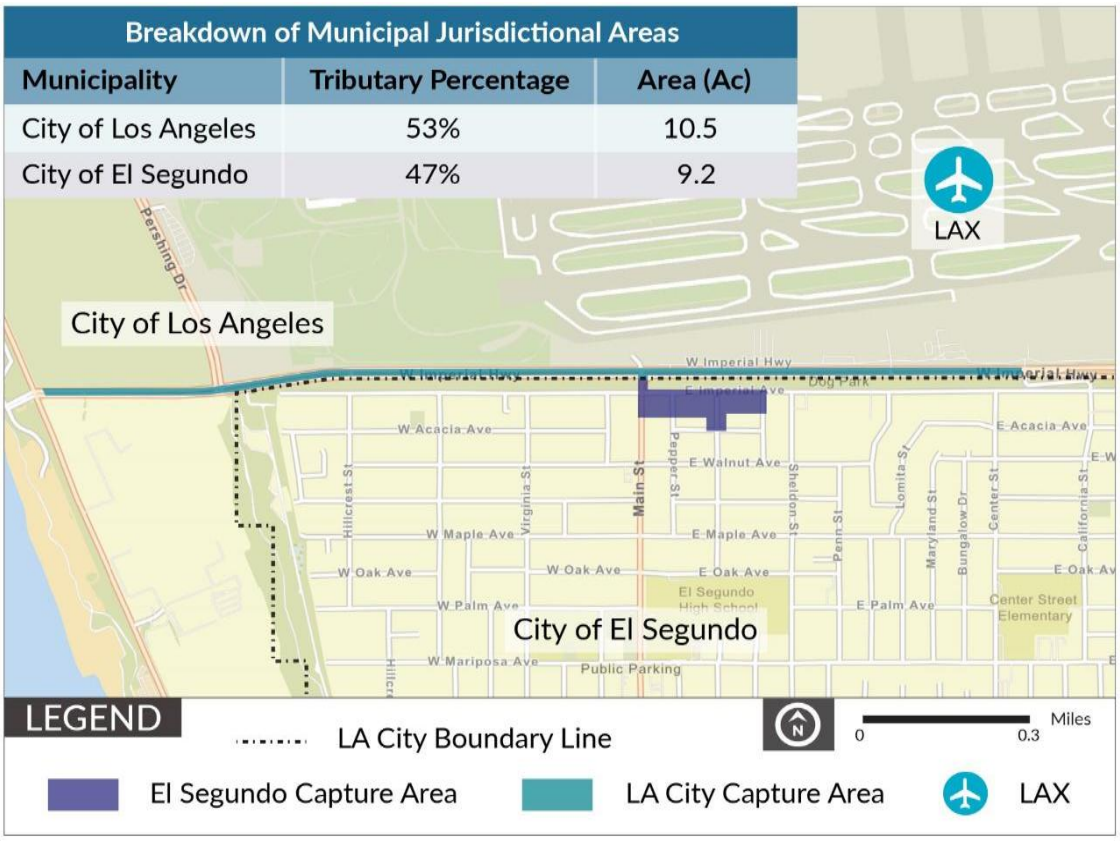
The following illustration shows the proposed above features along the new section of median including trees, bioswales, California native landscape, and the hedge.

Project Maps





Breakdown of Municipal Jurisdictional Areas		
Municipality	**Tributary Percentage**	**Area (Ac)**
City of Los Angeles	53%	10.5
City of El Segundo	47%	9.2



Imperial Highway Green Infrastructure Project

Infrastructure Program Executive Summary

Central Santa Monica Bay, City of Los Angeles Sanitation and Environment, Fiscal Year 2023 - 2024

Preliminary Score

Benefit	Score	Description
Water Quality	30	• The Project will use infiltration drywells to achieve water quality and water supply benefits • It is a wet weather Project with a 24-hour BMP capacity of 2.92 AF • It will capture and infiltrate 15 AF annually of surface runoff from a 19.7-acre drainage area • It achieves a pollutant load reduction of 92% for Zinc and 100% for trash • Water quality cost effectiveness is 0.3 AF per $Million • Water supply cost effectiveness is $47,250 per AF
Water Supply	0	
Community Investment	10	• The Project addresses flooding • Restores natural habitat along the highway • improves public access to Dockweiler State Beach • Enhances and improves recreational opportunities • Reduces heat island effect • Increases number of trees and vegetation
Nature Based Solutions	14	• The Project will maximize nature-based solutions by utilizing natural processes including: ✓ The addition of 2,000 square feet of median bioswales will provide vegetated area through which stormwater will be filtered ✓ Replace about 13,000 square feet of impervious surface with green space.
Leveraged Funds	6	• LASAN has allocated $1,916,000, LAWA has committed $4,000,000, and City of El Segundo has allocated $500,000. • The total funding match for this Project is $6,416,000 and it represents a 55% funding match.
Community Support	4	• The Project has received multiple letters of support and has engaged with representatives to hear the needs of the residents.
TOTAL	**64**	

Project Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Planning, Public Outreach, CEQA, and Permitting	$360,000	06/2024
Design	Design, Construction Management, and Monitoring	$3,256,000	06/2028
Construction	Construction	$7,799,000	06/2027
O&M	Operations and Maintenance	$233,000	O6/2028
	TOTAL	**$11,648,000**	

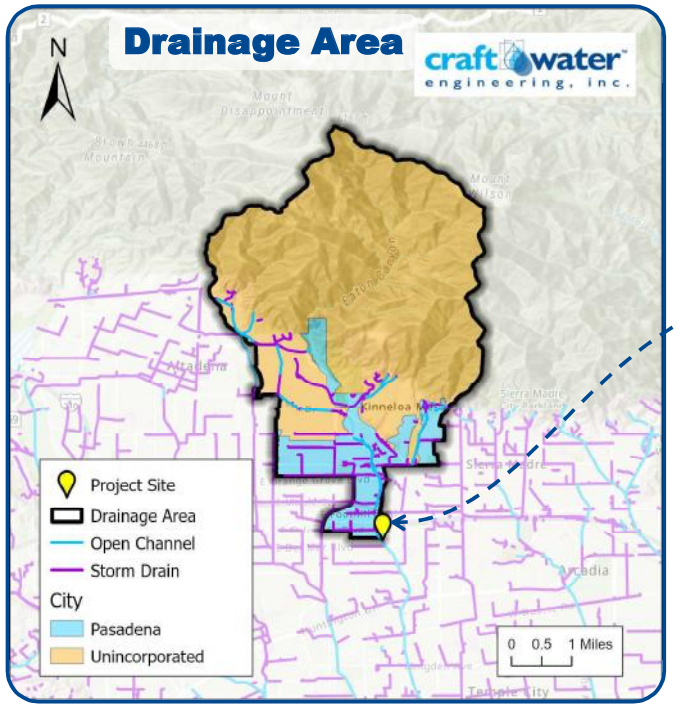
The Project has an annualized life-cycle cost of $718,457 and a life-cycle of 50-years.

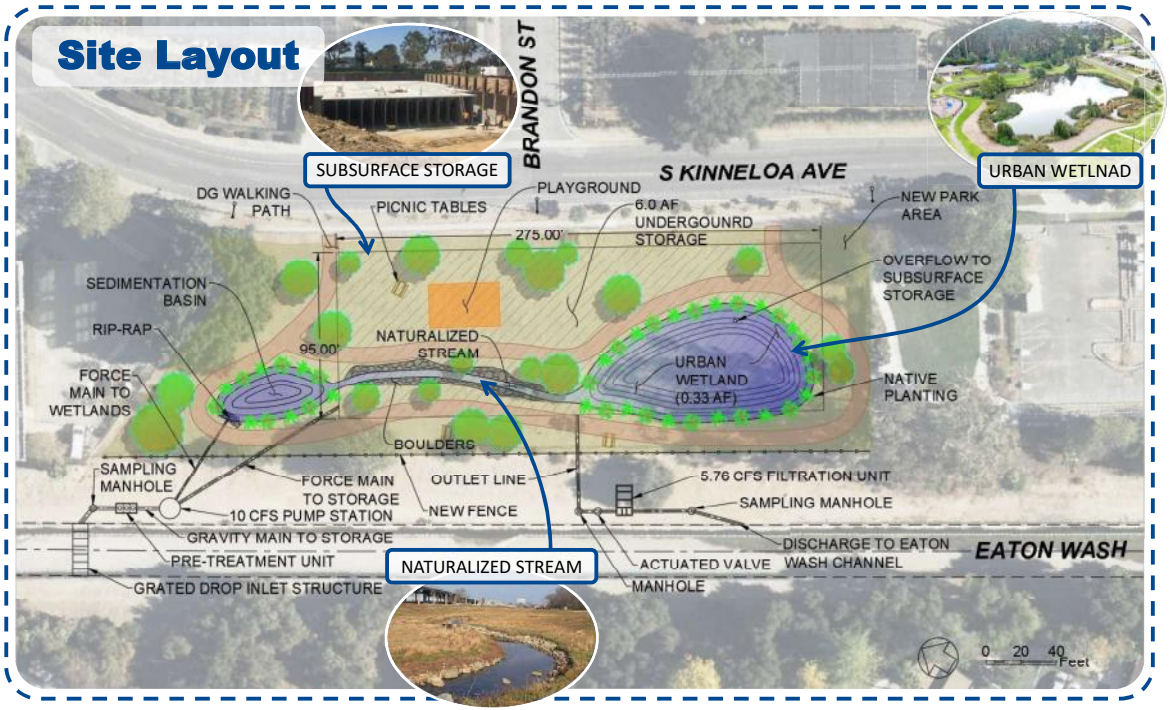
Funding Request

Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$173,000	Planning, Pre-design, and Monitoring	Public outreach, environmental planning (CEQA), and permitting - 2024
2	$216,000	Design	Design - 2025
3	$339,000	Construction	Construction - 2026 to 2027
4	$4,504,000	Construction, Monitoring, and O&M	Construction, Monitoring, and O&M - 2028
TOTAL	**$5,232,000**		

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

KINNELOA YARD STORMWATER CAPTURE PROJECT





Project Description

LOCATION: 175 S Kinneloa Ave, Pasadena, CA (LAT: 34°08'37.4"N / LONG: 118°05'12.7"W)

REGIONAL WATER MANAGEMENT PLAN: IRWMP & Upper Los Angeles River Watershed Enhanced Watershed Management Program

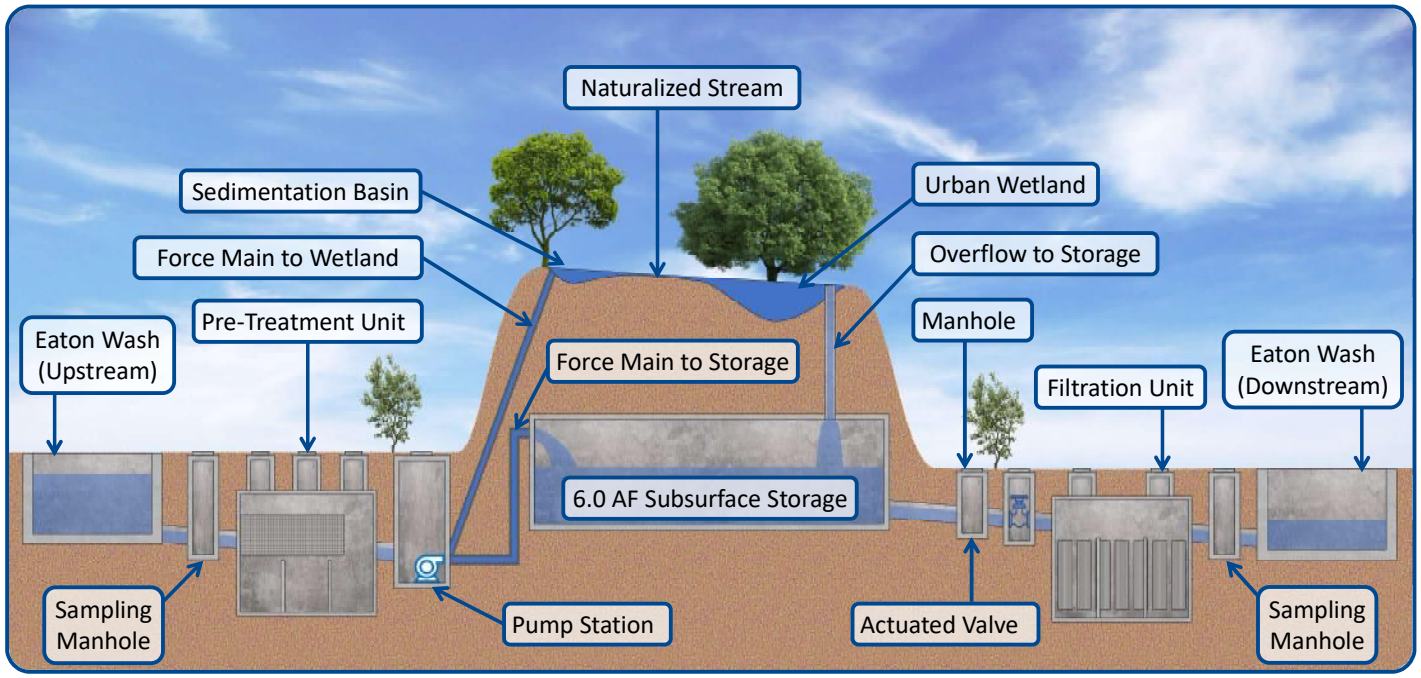
BRIEF: Kinneloa Yard is located in and owned by the City of Pasadena. The parcel is bounded on the east side by S Kinneloa Ave and on the west side by the 30'-wide, 10'-deep Eaton Wash Channel. The proposed project will install a 6.0 acre-feet subsurface storage unit in Kinneloa Yard and a wetland system above the storage. The project will provide stormwater capture and treatment for a drainage area totaling 10255 acres including jurisdictional areas of the City of Pasadena and LA County.

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

KINNELOA YARD STORMWATER CAPTURE PROJECT

Drainage Area Characteristics

REGIONAL WATER MANAGEMENT PLAN	Upper Los Angeles River Watershed Enhanced Watershed Management Program
TOTAL DRAINAGE AREA	10,254.5 Acres Pasadena (15.6%) LA County (84.4%)
INFILTRATION RATE	0.0 in/hr
APPROX. DEPTH TO GROUNDWATER	> 50 feet
MODELED AVERAGE ANNUAL RUNOFF VOLUME	503 acre-ft



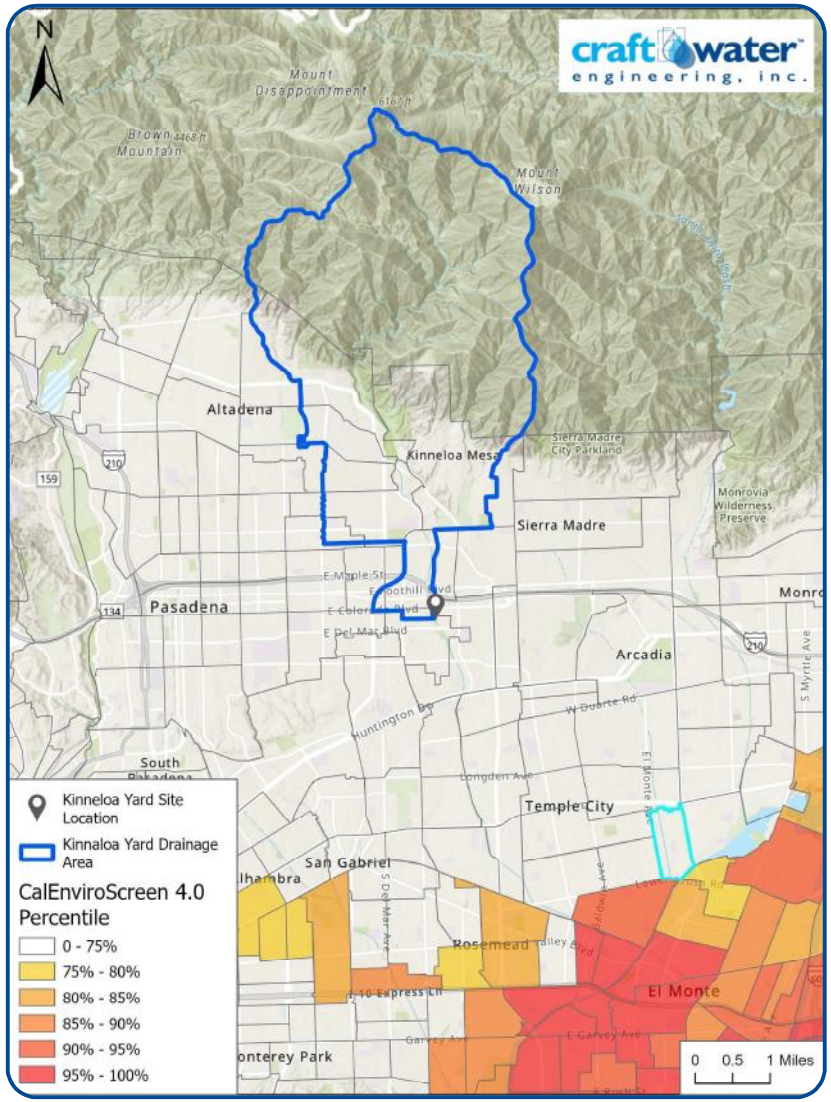
Water Quality Improvement

Primary Pollutant **Zinc Reduction Achieved (% Zn reduction)**	135.7 lb/yr (92.7%)
Secondary Pollutant **Copper Reduction Achieved (% Cu reduction)**	33.6 lb/yr (89.1%)
Design Diversion Rate	10 cfs
Storage Capacity for Subsurface Storage Structure	6.0 ac-ft (1.96 MG)
24-Hour Capacity	17.42 ac-ft
Construction Cost Estimate	$13,672,923

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

KINNELOA YARD STORMWATER CAPTURE PROJECT

Disadvantaged Community Map



Community Investment Benefits

Nature Based Solution

Community Support

BOYS & GIRLS CLUB OF PASADENA

ADDITIONAL OUTREACH TO THE LOCAL COMMUNITY WILL BE PERFORMED MOVING INTO THE DESIGN PHASE

3 of 4

UPPER LOS ANGELES RIVER ENHANCED WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PASADENA

KINNELOA YARD STORMWATER CAPTURE PROJECT

Funding Request

Year	SCW funding Request	Project Phase
Year 1	$2,292,762	Design
Total	**$2,292,762**	**-**

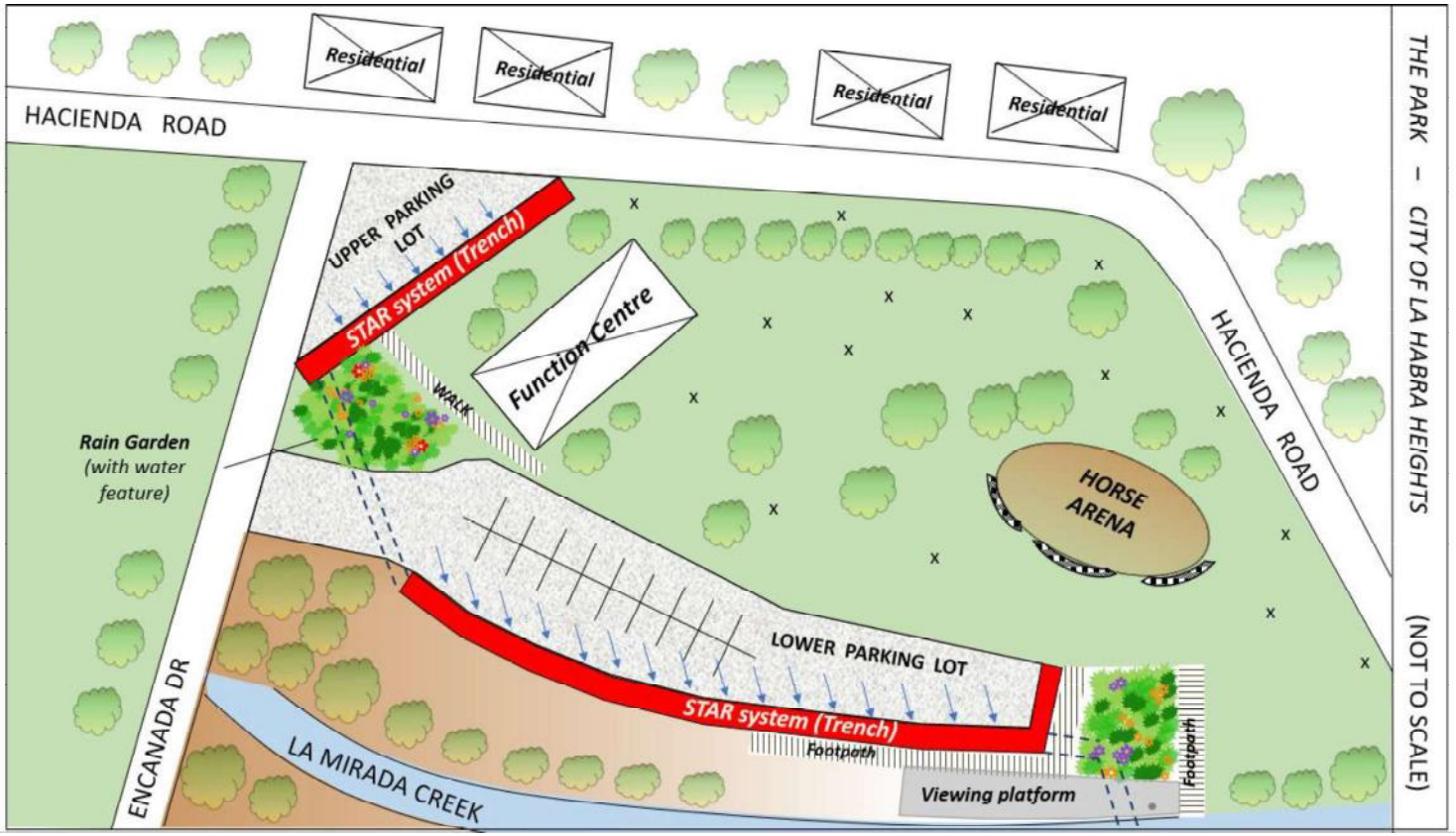
Cost Estimate & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	$100,000	02/2023
Design	30/60/90/100 Plans Public Outreach CEQA & Permits Agency Management	$2,292,762	12/2023
Construction	Capital Costs Surveying Administration Agency Management	$15,210,215	12/2026
	Total	**$17,602,977**	

Preliminary SCW Scoring

SECTION	SCORE
A.1 Wet Weather Water Quality Benefits	
•A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million	20
•A.1.2 Pollutant Reduction >80%	30
A.2 Dry Weather Water Quality Benefits	
•A.2.1 Capture/Infiltrate/Divert dry weather flow = 100%	0
•A.2.2 Tributary size	0
B. Significant Water Supply Benefits	
•B1. Water Supply Cost Effectiveness	0
•B2. Water Supply Benefit Magnitude	0
C. Community Investment Benefits	
•Improved flood management	
•Creation/enhancement/restoration of parks	10
•Reducing local heat island effect and increasing shade	
•Enhanced/new recreational opportunities	
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support	
•E1. Cost-Share	0
•E2. Strong local, community-based support	4
TOTAL SCORE	**74**

La Habra Heights Stormwater Treatment and Reuse System The Park Hacienda Road



Grassy (lawn) Area

Horse Arena

Parking Lot

Viewing Platform

STAR Trench System ①

Rain Garden (with water feature) ②

Roof Surface

Footpath

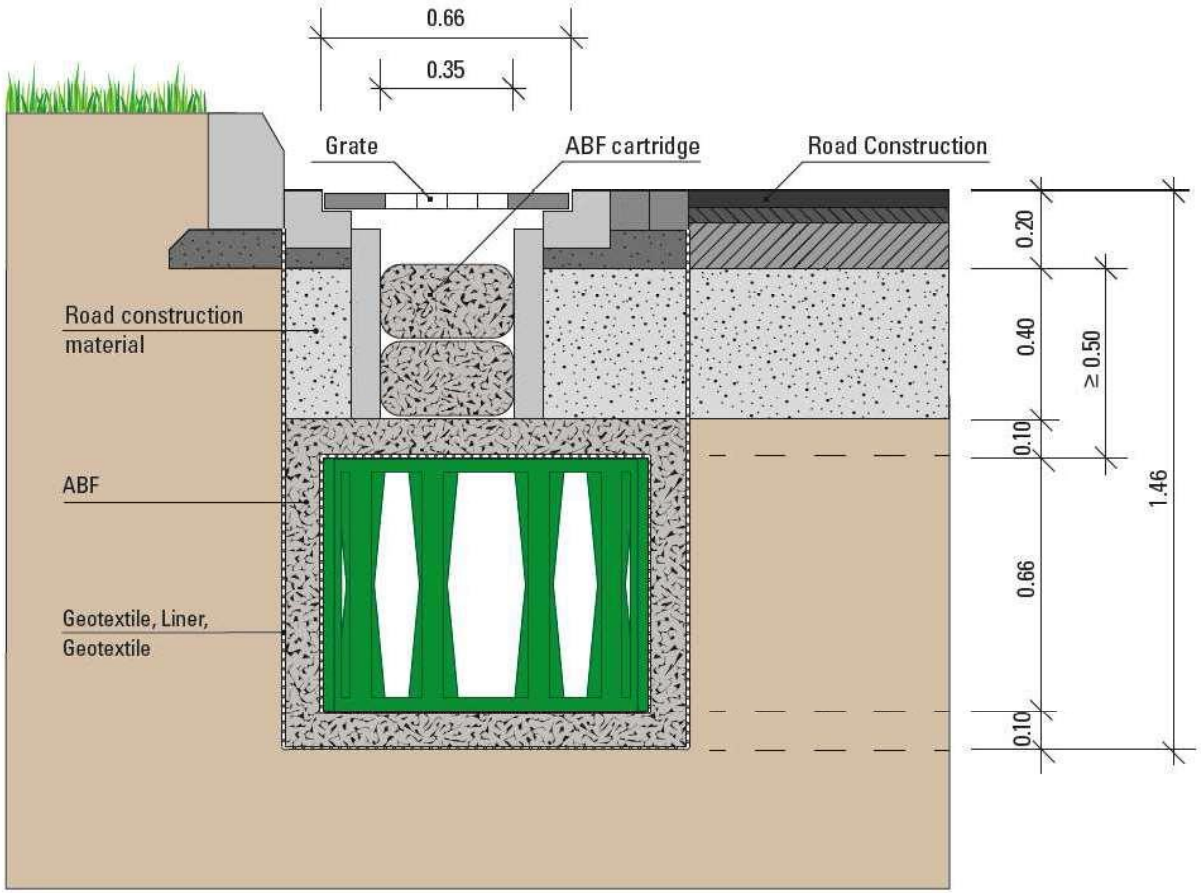
Underground Pipe (overflow discharge)

X Reactive Filter Amendment for Grassy Area ③

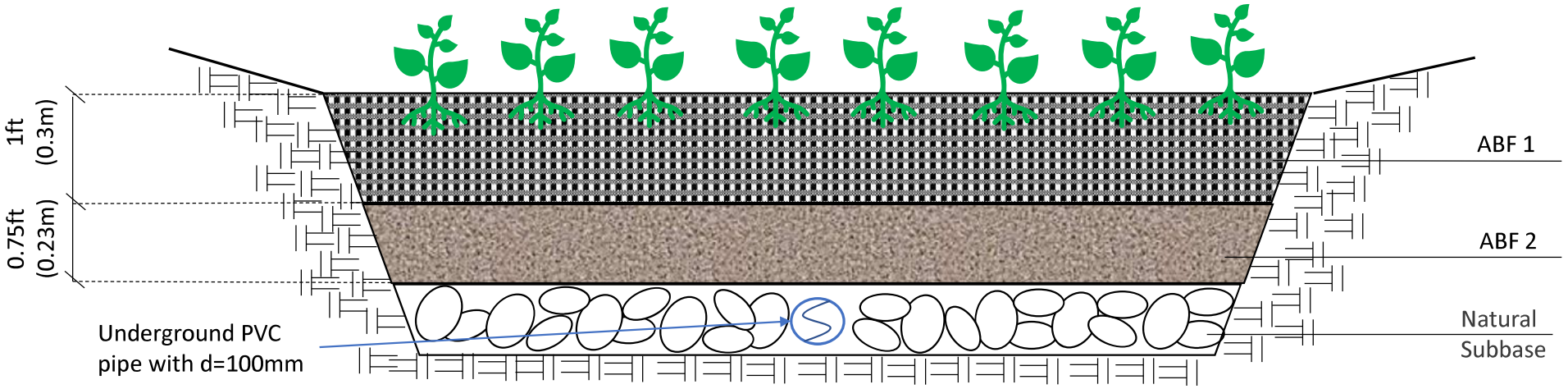
Cartridge system (runoff treatment for horse arena)

Catchment Area	Road (Hacienda Rd & Encanada Dr)	Roof (Function Center & Residential)	Parking Lot	Grassy Area of The Park	Total
Impermeable	2.061 ac (8,340m²)	0.760 ac (3,076m²)	1.384 ac (5,600m²)	-	4.205 ac (17,016m²)
Permeable	-	-	-	2.471ac (10,000m²)	2.471ac (10,000m²)

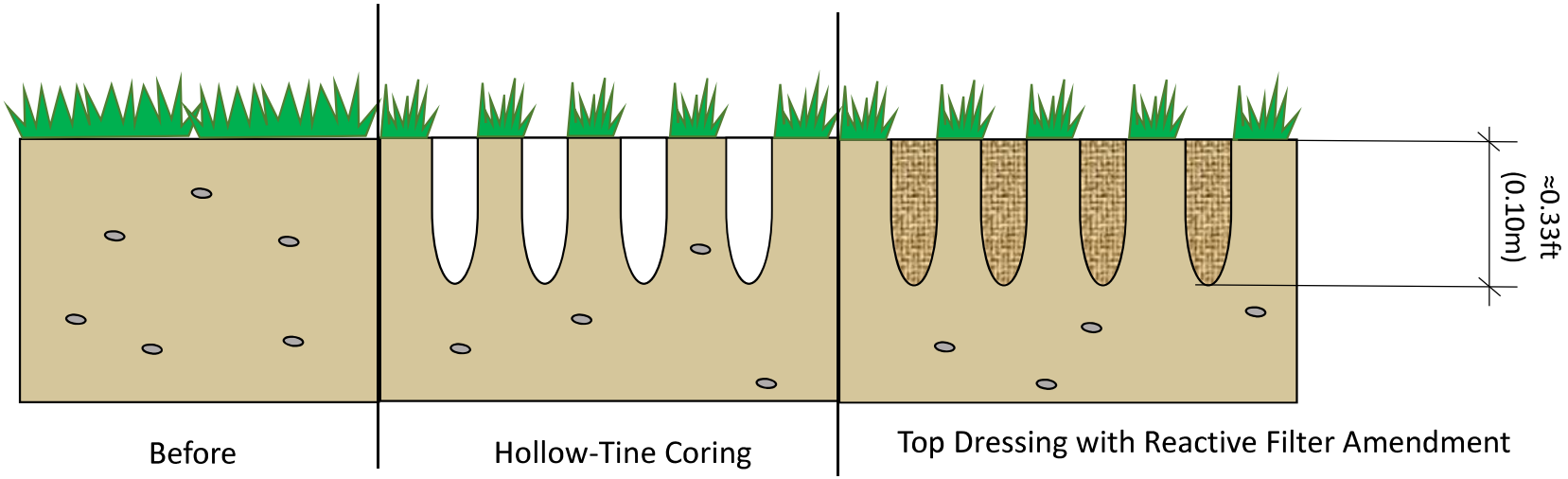
La Habra Heights Stormwater Treatment and Reuse System The Park Hacienda Road



① *Cross-sectional Design/Mechanisms of STAR system (in meters)*



② *Cross-sectional Design of Rain Garden*



③ *Reactive Filter Amendment for Grassy Area*

La Mirada Creek Park Project

LA MIRADA CREEK PARK
MASTER PLAN
LA MIRADA, CA

LEGEND

- Lawn
- Natural Plantings
- Garden Areas
- Existing Trees
- Proposed Trees

SCALE 1" = 40' JUNE 13, 2018

rrm design group

LA MIRADA CREEK PARK
CREEK CHANNEL NATURALIZATION PLAN
LA MIRADA, CA

LEGEND
- Low Flow Channel: 1-Year Storm Event
- Terrace: 5-Year Storm Event
- Channel Extents: 25-Year Storm Event

Long Beach Municipal Urban Stormwater Treatment – Phase 2

Infrastructure Program Executive Summary

Lower Los Angeles River, City of Long Beach, 2023-2024

SAFE CLEAN WATER PROGRAM

Project Background

Phase 2 includes constructing a pump station and cistern within a new park and connecting 5 existing pump stations to the Facility.

Project Objectives: Treat runoff for water quality compliance and create additional water supply

Project Status: SCW funding is being requested for Design and Construction

Total Funding Requested: $10,387,527

Project Overview

- Project location: The identification of potential facility locations was based on: a) General evaluation of watershed opportunities, b) Development of regional/subregional project opportunity categories, and c) Preliminary opportunity identification and screening based on watershed land uses, drainage patterns, and limitations
- Project is included in the Lower Los Angeles River (LLAR) Watershed Management Program
- Benefits for Cities of Long Beach and Signal Hill:
  - Increased water quality, water supply, & urban green space
  - Improved air quality & public health
  - Public education & community engagement opportunities
- The Project is located within a severely Disadvantaged Community (DAC) and will serve DACs through the environmental and community benefits listed above.

Project Details

- The Phase 2 Project includes constructing a pump station, cistern, and bioswale within a new park **(Figure 1)**. The cistern will be used to hold treated water from the LB MUST Facility to be used for irrigation at Cesar Chavez Park.
- Phase 2 also includes connecting 5 existing pump stations to the LB MUST Facility (orange shading in **Figure 2**). These connections will convey additional dry weather and first flush flows from a combined area of 3,672 acres. Treated non-brackish water will be used as an alternative water supply.

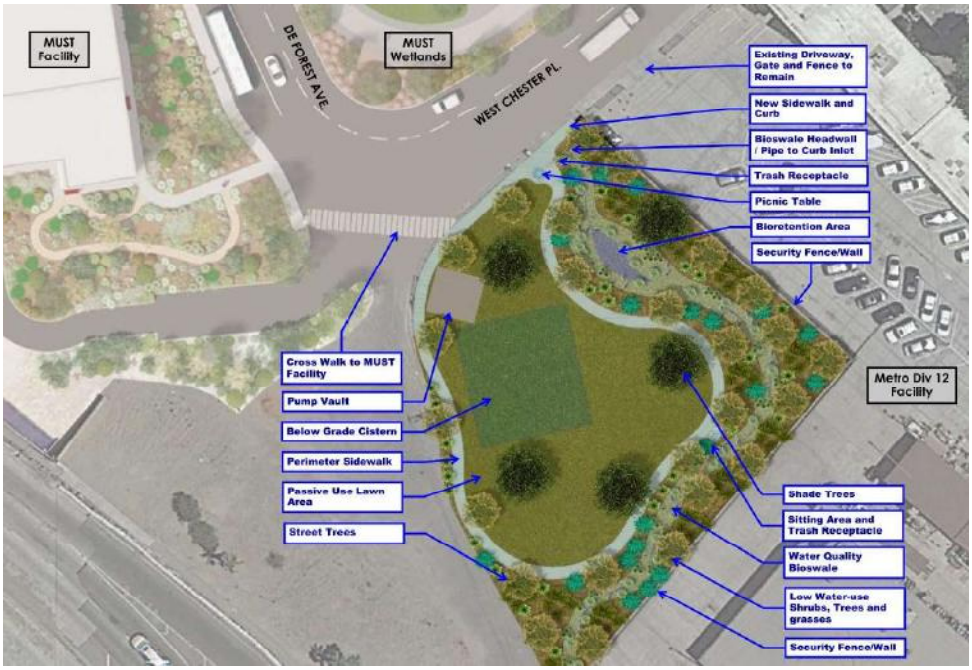


Figure 1. LB MUST Phase 2 Park Project Site and Features

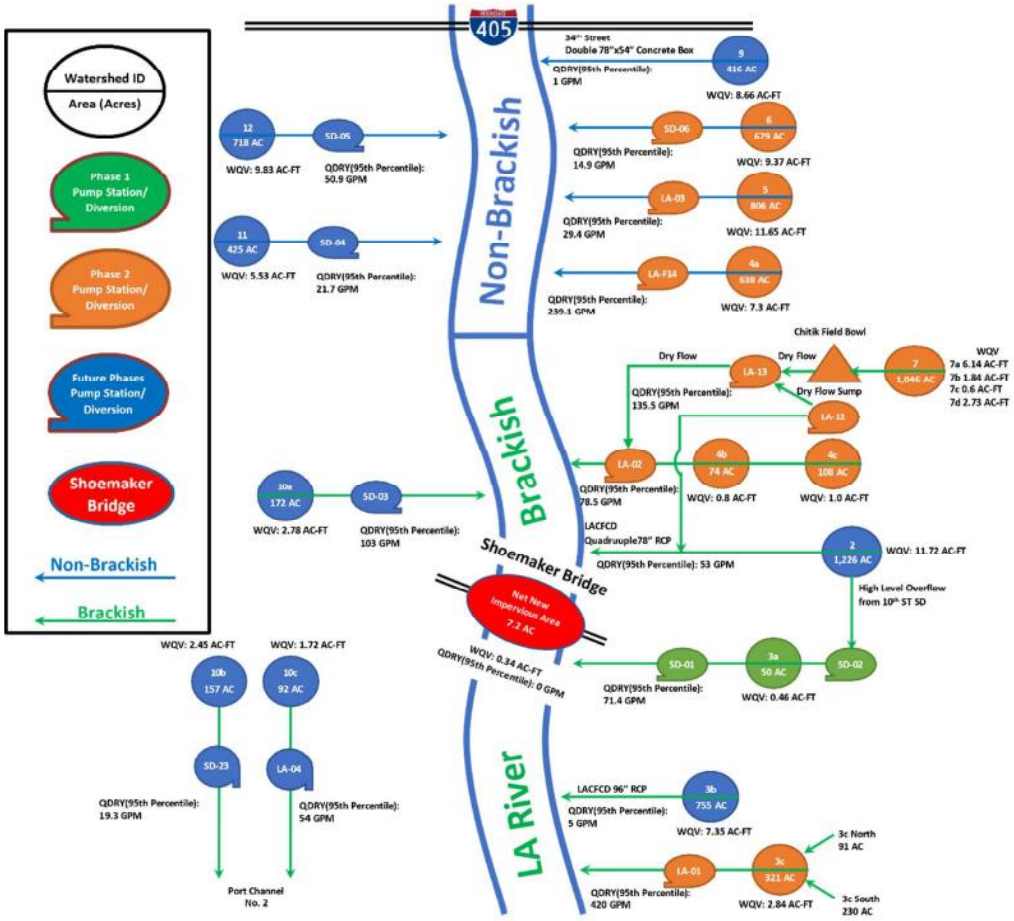


Figure 2. LB MUST Watershed Operations

- LACFCD operates 4 of the 5 Phase 2 pump stations (LA-01, LA-02, LA-F14, and LA-03). The City of Long Beach owns the park parcel and one of the Phase 2 pump stations (SD-06). All of these pump stations are active.
- The new park will be located in an unutilized industrial area owned by the City of Long Beach. This park is located adjacent to the new wetland and treatment facility.
- Multiple studies and analyses have been completed for the project area including the LB MUST Facility Master Plan, LB MUST Initial Study/Mitigated Negative Declaration, and LB MUST Basis of Design Report, preliminary testing for asbestos contamination, geotechnical analyses, and site evaluations.

Project Location

See Figure 3 and 4 for the watershed area and the DACs, respectively.

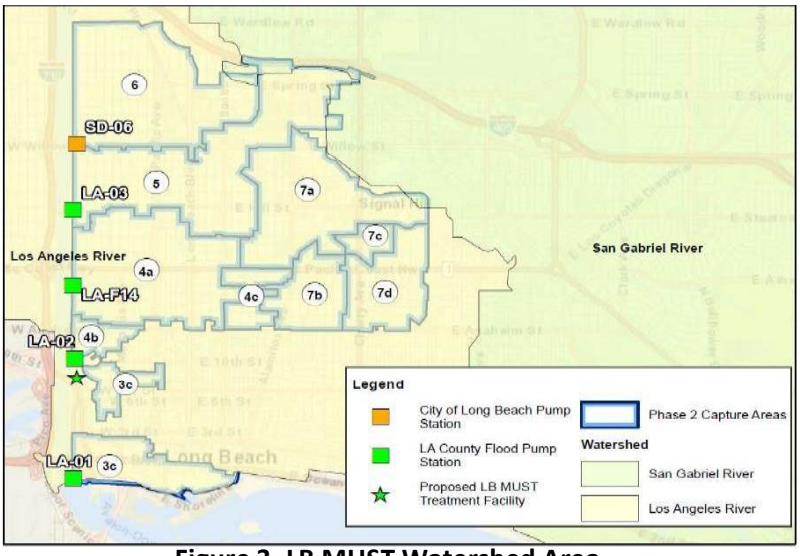


Figure 3. LB MUST Watershed Area

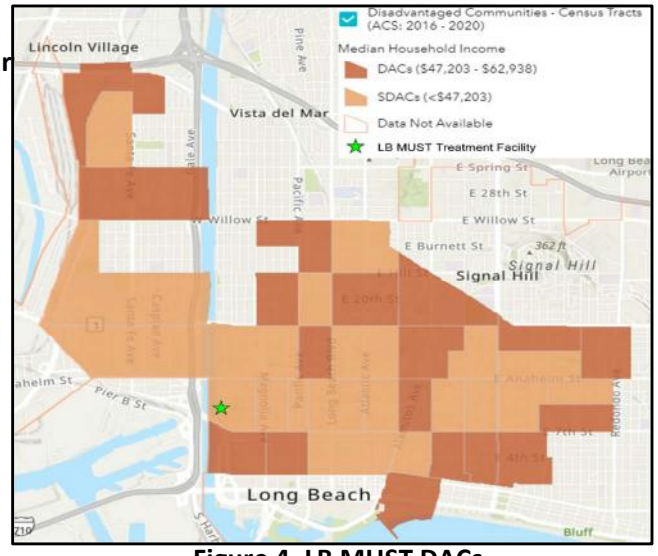


Figure 4. LB MUST DACs

See Figures 5 and 6, respectively, for the municipalities that will benefit from the Project and the supervisorial district.

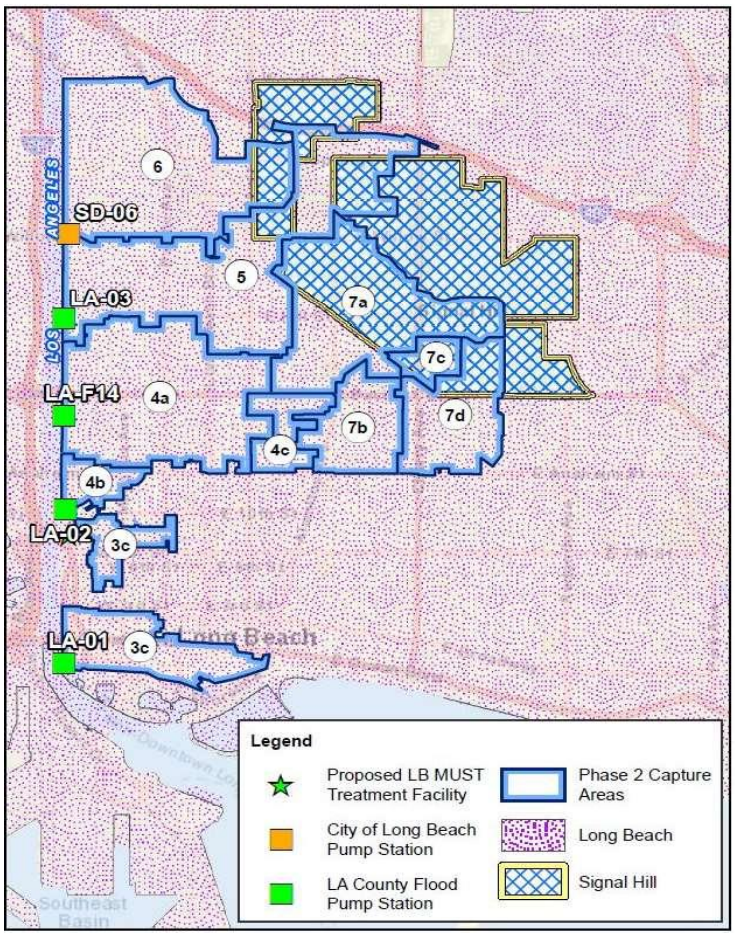


Figure 5. LB MUST Municipalities

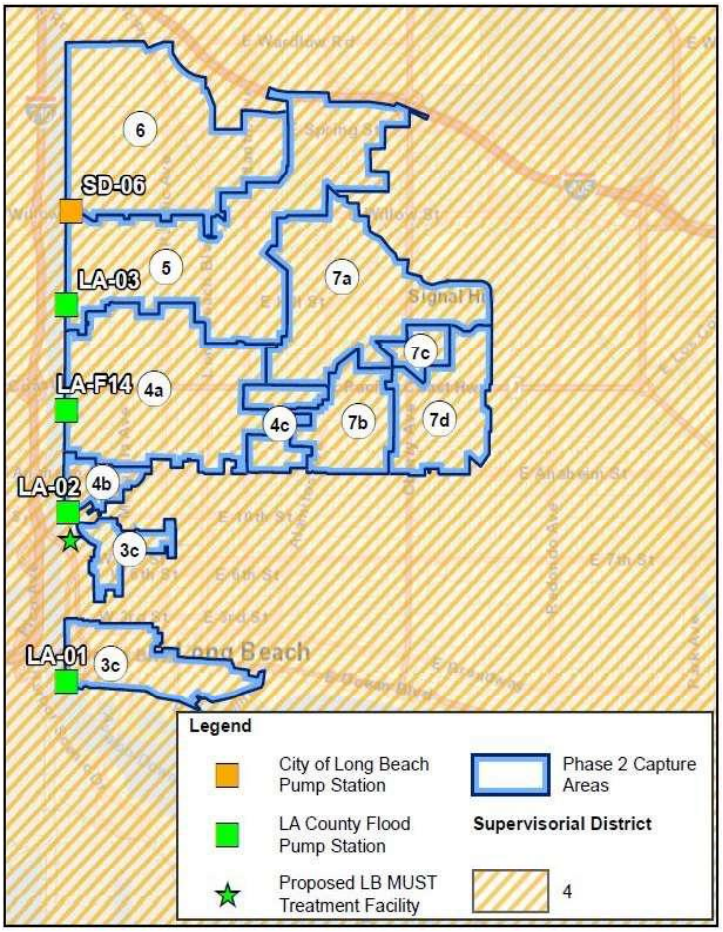


Figure 6. LB MUST Supervisorial District

Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	40	• Expands the conveyance system so that dry weather and first flush flows from a drainage area of 3,672 acres can be treated • The LB MUST Treatment Facility has an initial capacity to treat 2 MGD. The Phase 2 pump stations will contribute 1.1 MGD to the Facility. • A 125,000 gallon cistern and pump station will be constructed in a new park to allocate treated water to irrigate Cesar Chavez Park and landscaped areas on Shoreline Drive
Water Supply	2	• The annual average capture for water supply from Phase 2 is 81.6 acre-feet, which will be used for irrigation.
Community Investment	10	• Community investment benefits include creation of a new park at a former industrial area, which serves as a recreation amenity for the local DAC/EDA and continues to improve public access to the LA River, improvement of flood management through the extension of an existing bioswale, and reduction of heat island effect and increased shade through the planting of trees/vegetation in the park.

Benefit	Score	Description
Nature Based Solutions	14	• An impermeable parcel will be replaced with a park, containing an underground cistern and pump station. A bioswale will be constructed within the park to extend an existing bioswale, providing a natural flow pathway to a catch basin.
Leveraged Funds	3	• A Proposition 1 Storm Water Grant was awarded for $3,973,140. The City of Long Beach agreed to match the funding amount of $3,973,140 using Measure W Local Return funding.
Community Support	4	• Local community involvement since project inception including two charettes and community meetings. • Local community support, including from the Willmore City Heritage Association • Project facilities will be used as platforms to educate the public on water quality issues and measures to address them.
TOTAL	**73**	

Project Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Planning for Phase 2: Phase I and II Site Assessment, Asbestos, Lead-based Paint, and Hazardous Materials Survey, and CEQA Addendum	$95,000	6/2024
Design	Design for Phase 2: New park green space and cistern, conveyance, pump station (electrical, mechanical, and I&C)	$912,557	6/2024
Construction	Construction of cistern/pump station, performing site improvements in new park, and installation of new pumps and conveyance for Phase 2 pump stations	$17,326,250	6/2027
TOTAL		**$18,333,807**	

- For a life span of 30 years, the annualized life-cycle cost is $1,114,284.27.

Funding Request

Year	SCW Funding Request	Phase	Efforts during Phase and Year
2	$3,522,551	Construction	Construction for cistern/pump station, park site improvements, pipe conveyance for LA-01 to LB MUST, pipe conveyance for LA-F14 to LB MUST, and new pumps at LA-01, LA-02, and LA-F14.
3	$3,797,892	Construction	Construction for conveyance from LA-F14 to LA-03 and new pump at LA-03.
4	$3,067,084	Construction	Construction for conveyance from LA-03 to SD-06 and new pump at SD-06.
TOTAL	**$10,387,527**		

Machado Lake Ecosystem Rehabilitation (MLER) O&M

Infrastructure Program Executive Summary

SSMB, City of Los Angeles Sanitation and Environment, FY 23-24

SAFE CLEAN WATER PROGRAM

Project Background

Machado Lake is a large urban lake and treatment wetlands located within Ken Malloy Harbor Regional Park in the Harbor City community of Los Angeles. The Machado Lake Ecosystem Rehabilitation (MLER) Operation and Maintenance Project (Project) will ensure the sustainability, operability and continuous water quality and community benefits provided by the existing MLER capital project.

Project Objectives: Operation and maintenance (O&M) of major stormwater facility infrastructure, biological treatments for control of algae and cyanobacteria to maintain lake equilibrium, meet TMDL standards, and protect public health; sediment removal from wetlands; sampling and analysis, repair and calibration of in-lake aeration, recirculation, and monitoring systems; invasive species assessment and control; prevention of conditions causing vector issues; structural components such trash separator units, wet wells, pump station, inlet forebay, and oxygenation system; and environmental education (for example, Do Not Feed Birds and other warning signage) and outreach to the community (website info, public tours), community partnering, and public information to benefit water quality and protect public health.

Project Status: Funding for this project is requested for Operation and Maintenance phase only.

Total Funding Requested: $3,200,000

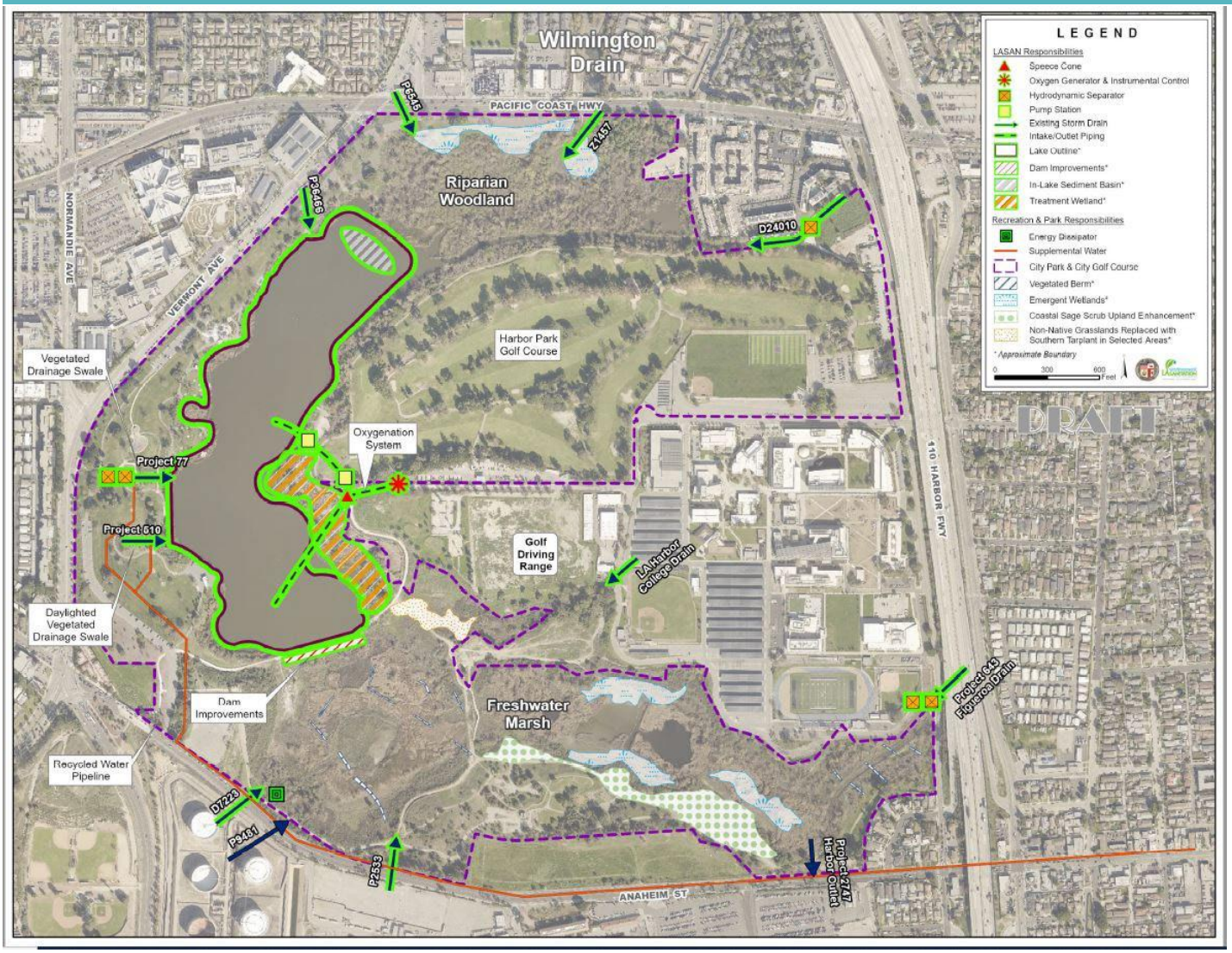
Total Municipal leveraged funds: $2,554,816 (44% match)

Local Outreach, Engagement and Support: 30 Letters, 125+ survey responses, 4 community events, 250+ persons engaged so far.

Project Overview

- The Project will operate and maintain the MLER, a City of Los Angeles Clean Water Bond (Proposition O) capital project which was completed in 2018.
- The original MLER capital project was included in the 2013 GLAC IRWMP as a regional project for water quality improvement.
- The MLER watershed area is over 14,000 acres and comprises eight other jurisdictions besides the City of Los Angeles.
- Residents of the watershed will benefit by the proper maintenance of the MLER nature based-solutions including improved flood management, reduced flood risk; increased, improved, and restored habitat areas; improved water quality; water supply benefits, increase in tree canopy/reduction of heat island effect, enhanced biodiversity and reduction and control of invasive species and vectors, and improved aquatic, wetlands and riparian habitats and increased access to the public waterways and recreation.
- Over 100,000 people live within a 2-mile radius of the Lake, and more than 20,000 of those are disproportionately burdened by multiple sources of pollution (90-95th percentile per CalEnviroScreen4.0). The residents of the adjacent Harbor City and Wilmington communities, with many low-income households and heavily burdened by pollution, deserve a large beautiful park space with well-maintained and safely operated Lake and wetlands.
- Machado Lake is a significant regional public amenity for recreation, open space, habitat and biodiversity

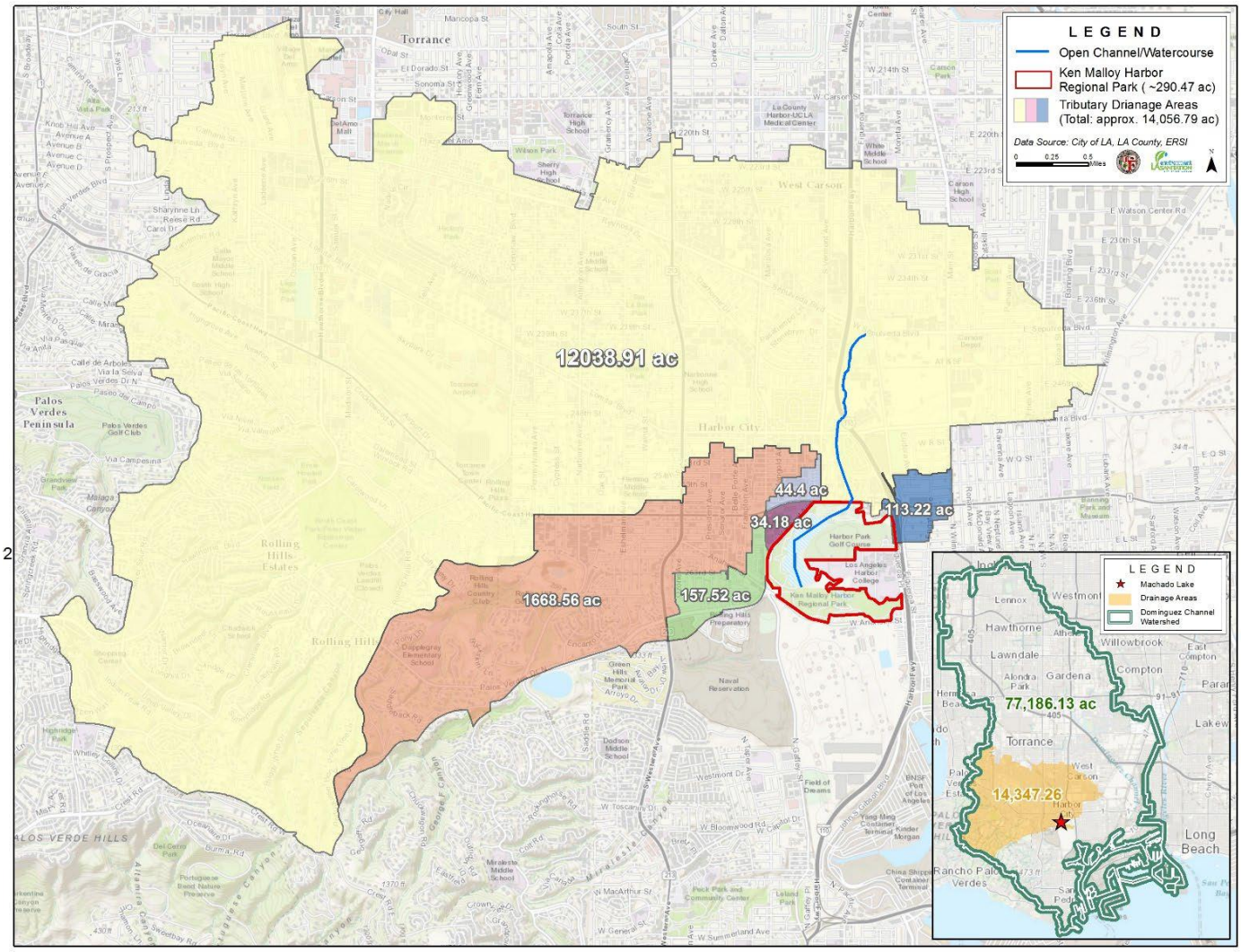
Project Details



- The MLER project's budget of $100 million, mainly funded by Proposition O, completed in 2018 and included removal of contaminated sediments, relining of the lake bed, installation of pretreatment devices including trash separation units, a recirculation and oxygenation system and constructed treatment wetlands to help remove pollutants and achieve water quality goals. These improvements require ongoing O&M of complex structural, mechanical, instrumentation and natural systems.
- The Machado Lake ecosystem is one of the largest remaining coastal wetland ecosystems in Southern California. It is a 40-acre lake located in 290-acre Ken Malloy Harbor Regional Park (KMHRP) in the Harbor City and Wilmington communities of the City of Los Angeles. The Lake is located within the Dominguez Watershed and has a drainage area of approximately 22 square miles (14,156 acres). The Project will sustain the objectives of the original capital project, maintaining improved water quality at the lake, the surrounding natural habitat and recreational features of the park, and ensuring local flood management and restored habitat.

Project Location

Watershed area



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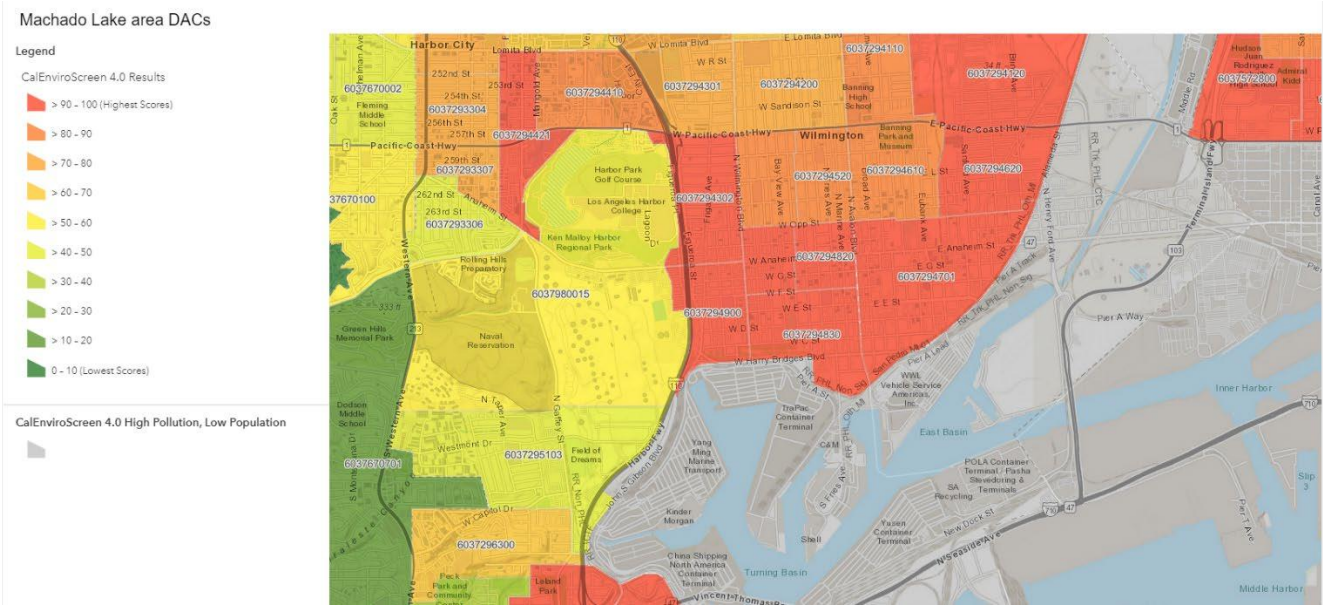
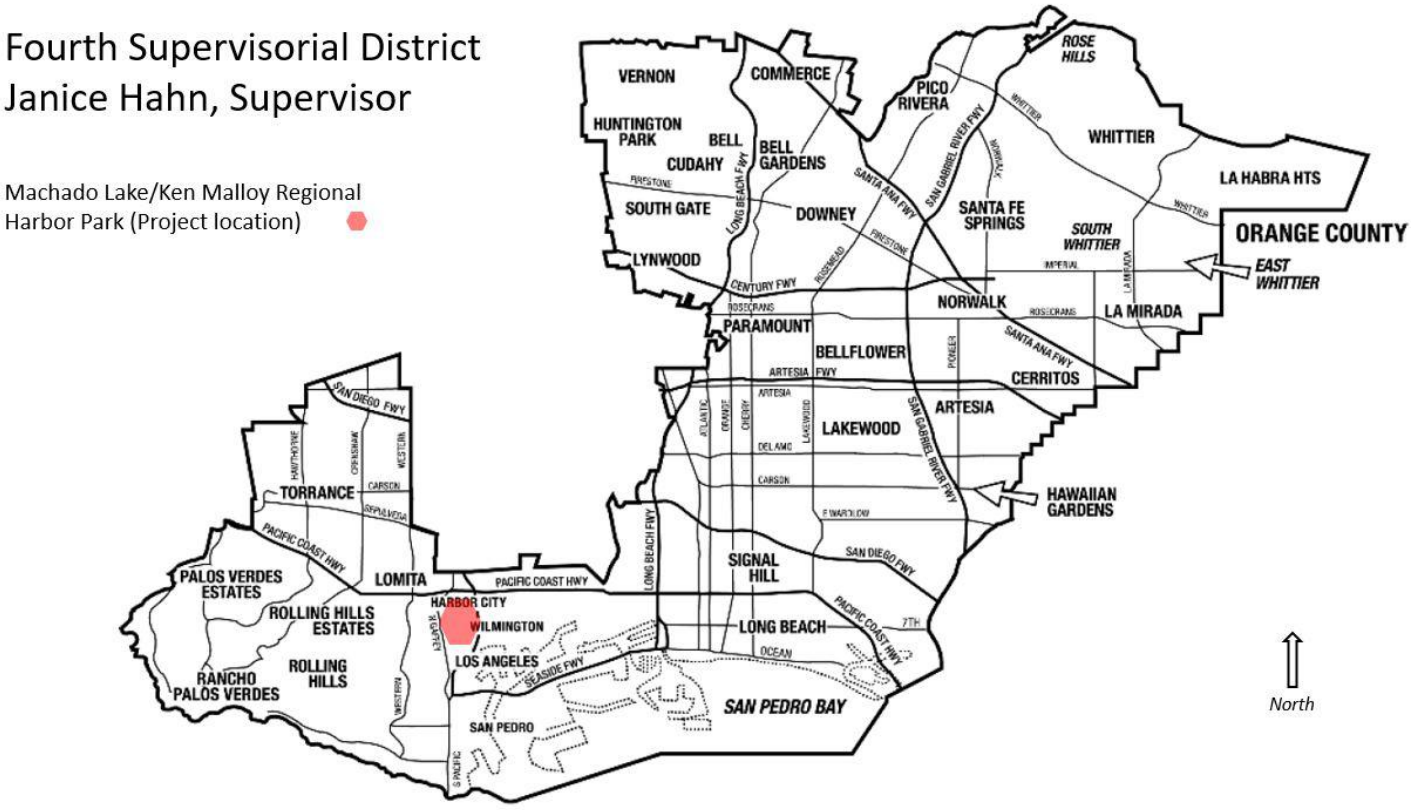

Machado Lake area DACs
Legend
CalEnviroScreen 4.0 Results
> 90 - 100 (Highest Scores)
> 80 - 90
> 70 - 80
> 60 - 70
> 50 - 60
> 40 - 50
> 30 - 40
> 20 - 30
> 10 - 20
0 - 10 (Lowest Scores)
CalEnviroScreen 4.0 High Pollution, Low Population
Harbor City
Wilmington
Harbor Park Golf Course
Los Angeles Harbor College
Ken Malloy Harbor Regional Park
Rolling Hills Preparatory
Naval Reservation
Green Hills Memorial Park
Dodson Middle School
Field of Dreams
Kinder Morgan
Yang Ming Marine Transport
TraPac Container Terminal
POLA Container Terminal / Pasha Stevedoring & Terminals
Yusen Container Terminal
China Shipping North America Container Terminal
Turning Basin
East Basin
Inner Harbor
Middle Harbor


Fourth Supervisorial District
Janice Hahn, Supervisor
Machado Lake/Ken Malloy Regional Harbor Park (Project location)
VERNON
COMMERCE
HUNTINGTON PARK
BELL
CUDAHY
BELL GARDENS
PICO RIVERA
ROSE HILLS
WHITTIER
LA HABRA HTS
SOUTH GATE
DOWNEY
SANTA FE SPRINGS
SOUTH WHITTIER
ORANGE COUNTY
EAST WHITTIER
LYNWOOD
NORWALK
LA MIRADA
PARAMOUNT
BELLFLOWER
CERRITOS
ARTESIA
LAKEWOOD
HAWAIIAN GARDENS
TORRANCE
SIGNAL HILL
PALOS VERDES ESTATES
LOMITA
HARBOR CITY
WILMINGTON
LONG BEACH
ROLLING HILLS ESTATES
ROLLING HILLS
RANCHO PALOS VERDES
LOS ANGELES
SAN PEDRO
SAN PEDRO BAY
North

Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	45	• Primary mechanisms that achieve Water Quality and Water Supply Benefits claimed: • Wet weather • Tributary Area 14,156 acres • Capacity: 24-hr 154 ac-ft • Pollutant Reduction: 55% TP, 98% Trash • Annual Water Supply Volume: 235 ac-ft
Water Supply	9	• Water Supply Use (irrigation, water recycling, water supply aquifer) • Cost Effectiveness: $25,843 per ac-ft.
Community Investment	10	• Improved water quality and flood management, improved and restored habitat areas; habitat, open space, beneficial uses, educational opportunities
Nature Based Solutions	10	• Maintain nature materials and process treatment BMPs (lake and wetlands), habitat enhancement and sustainment
Leveraged Funds	3	• $2,555,000 in municipal leveraged funds committed • 44% funding matched
Community Support	4	• 30 Letters of support, 4 events, 125 survey responses, >250 persons engaged in 2022 • Email blasts, social media, community events, survey planned in 2022-23
TOTAL	**81**	

Project Cost & Schedule

***Phase costs of original MLER capital project**

Phase	Description	Cost	Completion Date
Planning	Concept report, planning reports and activities	$1,058,851	06/2006
Design	Pre-design Reports, Construction drawings, Specifications, Environmental review, Permits	$7,425,000	06/2009
Bid/Award	Right of Way, Bid and Award	$2,450,731	05/2012
Construction	Construction, Construction Management and Project management	$77,898,728	01/2014
Construction	HRMMP, Post -construction and related activities	$2,406,183	02/2018
TOTAL		$91,239,493	

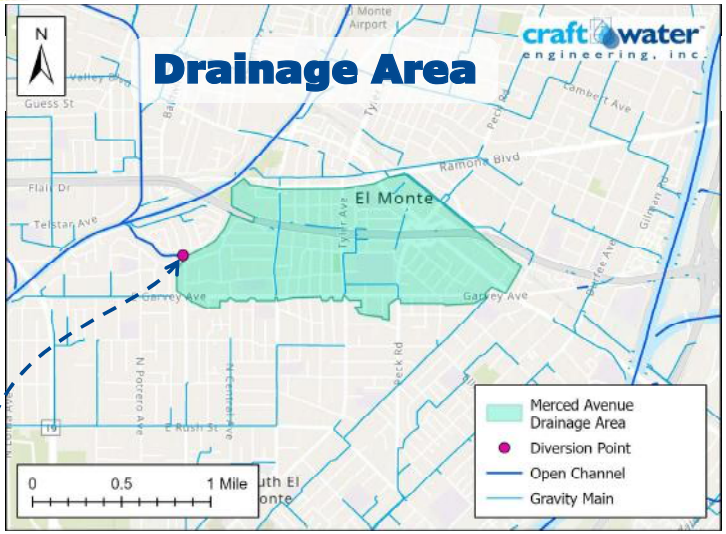
- **$2,554,816 Municipal leveraged funds (44% match)**

Funding Request

Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$ 282,706.	O & M	Trash, algae removal, water quality treatment, vegetation control
2	$ 794,880.	O & M	Trash, algae removal, water quality treatment, vegetation control, survey and monitoring
3	$ 728,280.	O & M	Trash, algae removal, water quality treatment, survey and monitoring, sediment removal and disposal
4	$ 794,880.	O & M	Trash, algae removal, water quality treatment, vegetation control, survey and monitoring
5	$ 598,625.	O & M	Trash, algae removal, water quality treatment, vegetation control, survey and monitoring
TOTAL	$ 3,199,371.		

RIO HONDO WATERSHED, CITY OF EL MONTE

MERCED AVENUE STORMWATER PROJECT: LINEAR PARK AND DRY-WEATHER INFILTRATION



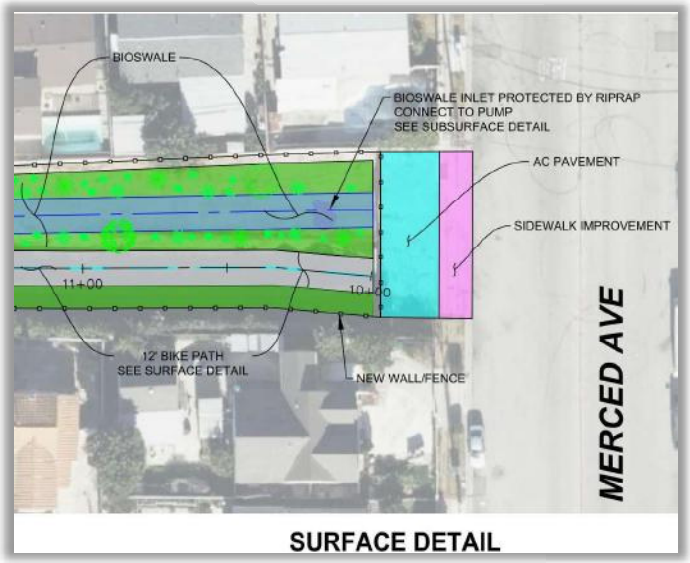
Project Description

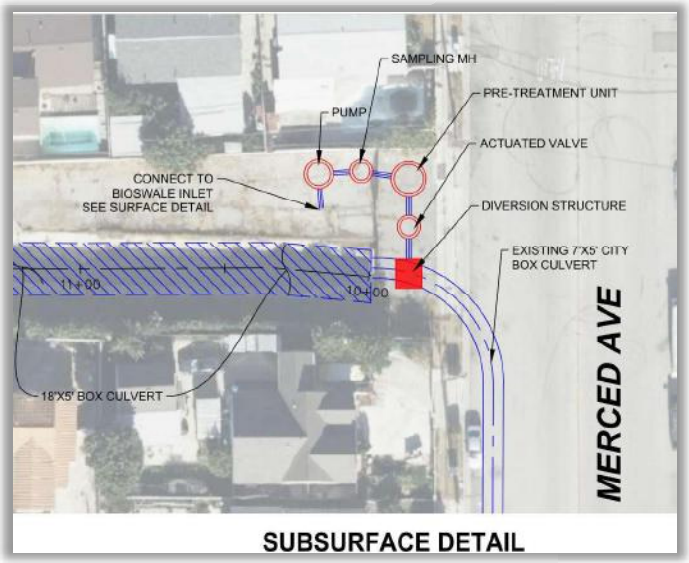
LOCATION: Open channel between Merced Avenue and Brockway Street (LAT: 34.06627 N / LONG: 118.05155 W)

REGIONAL WATER MANAGEMENT PLAN: City of El Monte Watershed Management Plan

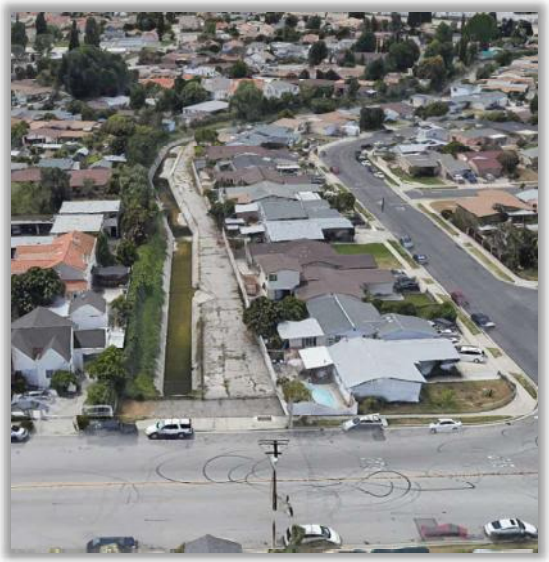
BRIEF: Merced Avenue and the adjacent channel is located in and operated by the City of El Monte. At Merced Avenue, a City of El Monte reinforced concrete box culvert is daylighted and continues for approximately 2,000 feet, then outfalls to the Rio Hondo. The proposed project will replace this channel with a subsurface box culvert and divert all dry-weather flows and 3% of the 85th percentile storm to an infiltrating bioswale. The bioswale will have a ponding depth of 0.5 feet, a footprint area of 0.4 acres, and a storage volume of 0.17 acre-feet. Above the proposed box culvert, the space will be converted to a linear park with a bike and walking path alongside the bioswale. The bike path will link the Merced Avenue median bike path to the Rio Hondo bike path, increasing access to active transportation.

Merced Avenue Channel Site Layout





Existing Condition



RIO HONDO WATERSHED, CITY OF EL MONTE

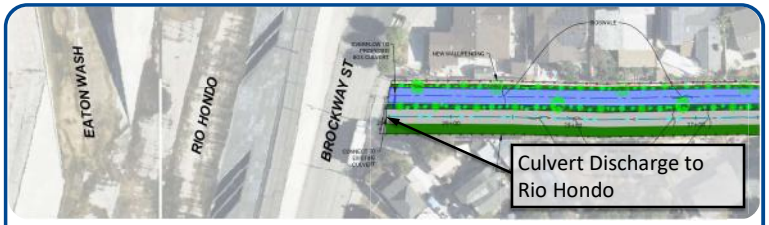
MERCED AVENUE STORMWATER PROJECT: LINEAR PARK AND DRY-WEATHER INFILTRATION

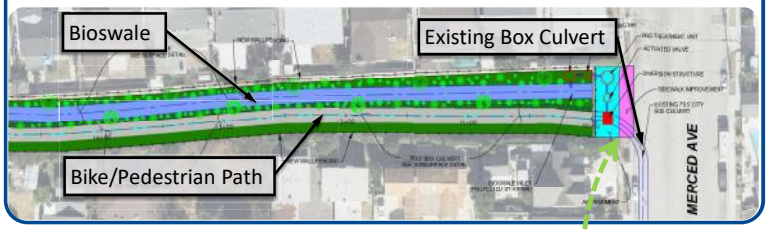
Drainage Area Characteristics

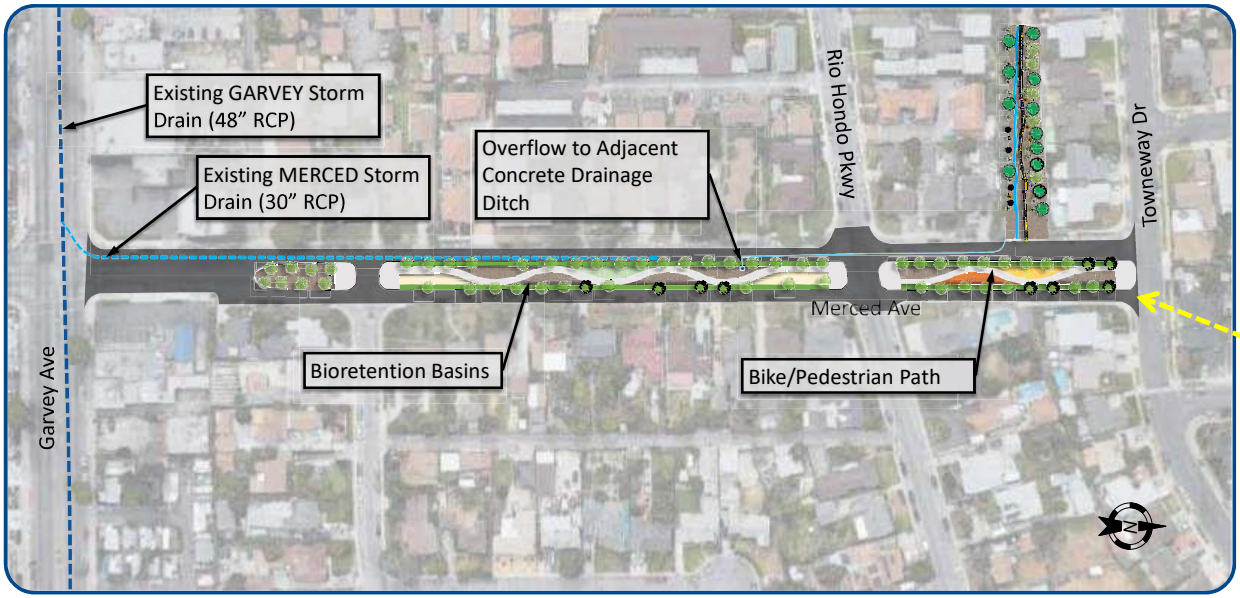
Regional Water Management Plan	City of El Monte Watershed Management Plan
Total Drainage Area	670 acres City of El Monte (100%)
Infiltration Rate	1 in/hr
Approx. Depth to Groundwater	Further Geotechnical Investigation Required
Modeled Average Annual Runoff Volume	430 ac-ft

Water Quality Improvement

Primary Pollutant: Zinc Reduction Achieved (% Zn reduction)	7.85 lbs/yr (76%)
Secondary Pollutant: Copper Reduction Achieved (% Cu reduction)	1.75 lbs/yr (73%)
Design Diversion Rate	1.2 cfs
Storage Capacity for Bioswale	0.17 ac-ft (55,000 gallons)
24-Hour Capacity	0.97 ac-ft
Construction Cost Estimate	$7,731,117



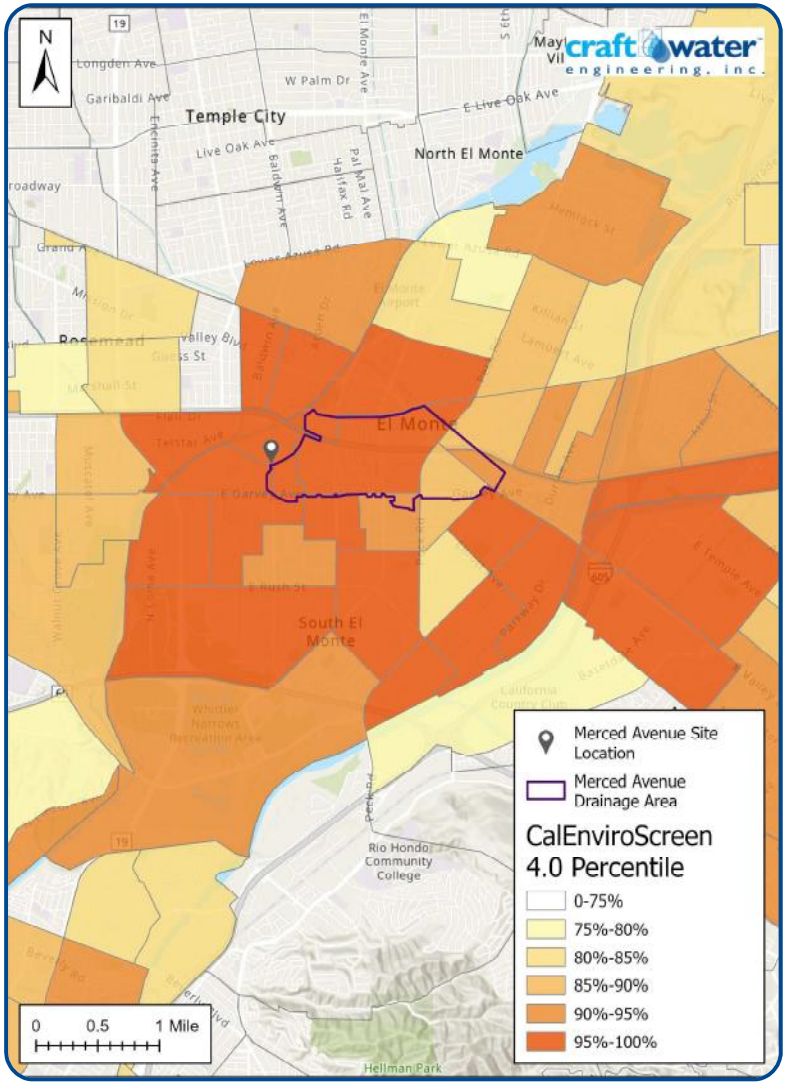




RIO HONDO WATERSHED, CITY OF EL MONTE

MERCED AVENUE STORMWATER PROJECT: LINEAR PARK AND DRY-WEATHER INFILTRATION

Disadvantaged Community Map



Community Investment Benefits

Nature-Based Solutions

Community Support

ACTIVESGV

Metro

LACBC

SCAG

EL MONTE CITY SCHOOL DISTRICT

SOUTH EL MONTE · CITY OF ACHIEVEMENT ·

3 of 4

RIO HONDO WATERSHED, CITY OF EL MONTE

MERCED AVENUE STORMWATER PROJECT: LINEAR PARK AND DRY-WEATHER INFILTRATION

Schedule Funding by Year

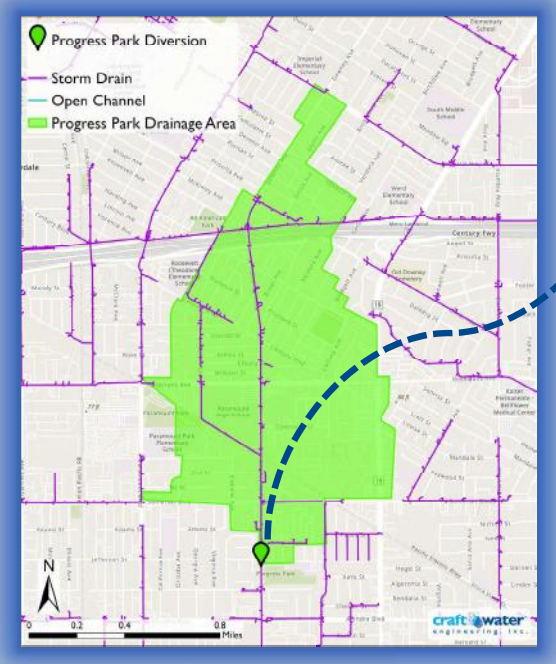
Year	SCW Funding Request	Project Phase
Year 1	$1,068,058	Design
Year 2	$2,923,717	Construction
Year 3	$2,903,717	Construction
Year 4	$2,903,717	Construction
Year 5	$355,000	O&M and Monitoring
Total	**$9,799,210**	-

Preliminary SCW Scoring

SECTION	SCORE
A.1 Wet Weather Water Quality Benefits	
•A.1.1 Water Quality Cost Effectiveness > 1.0 AF/$Million	0
•A.1.2 Pollutant Reduction >50%	0
A.2 Dry Weather Water Quality Benefits	
•A.2.1 Capture/Infiltrate/Divert dry weather flow = 100%	20
•A.2.2 Tributary size	20
B. Significant Water Supply Benefits	
•B1. Water Supply Cost Effectiveness	0
•B2. Water Supply Benefit Magnitude	0
C. Community Investment Benefits	
•Improved flood management •Creation/enhancement/restoration of parks •Reducing local heat island effect and increasing shade •Enhanced/new recreational opportunities	5
D. Nature-Based Solutions	12
E. Leveraging Funds and Community Support	
•E1. Cost-Share	3
•E2. Strong local, community-based support	4
TOTAL SCORE	**64**

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PARAMOUNT

PROGRESS PARK STORMWATER CAPTURE PROJECT FACT SHEET



PROJECT DESCRIPTION

LOCATION: Progress Park, 15500 Downey Ave, Paramount, CA. (LAT: 33.891933, -118.149368)

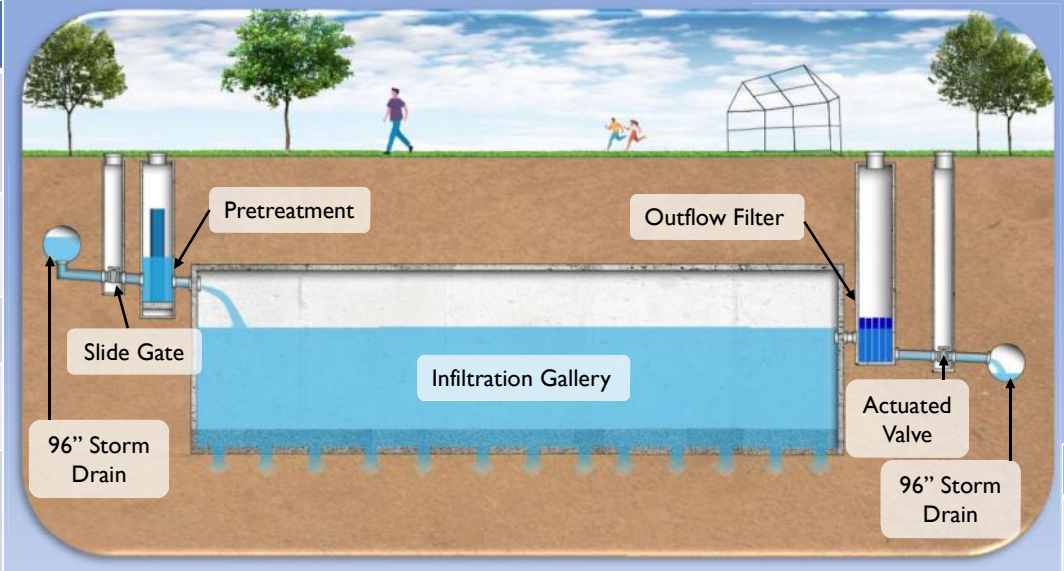
REGIONAL WATER MANAGEMENT PLAN
Lower San Gabriel River Watershed Management Program

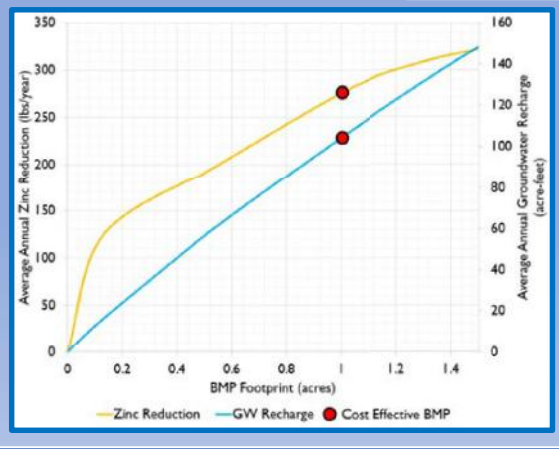
BRIEF: Progress Park is owned and operated by the City of Paramount and has been identified as a key Regional Project in the Los Cerritos Channel Watershed Management Program (LCC WMP). Runoff within this corridor drains to the Clark Avenue Channel, the Los Cerritos Channel, the Los Cerritos Estuary, and ultimately the Pacific Ocean. The proposed project includes a 30 CFS stormwater diversion from the BI 1106 – Unit 2 storm drain, a pretreatment unit, and a combination of a 10 acre-foot underground subsurface infiltration gallery with a 7.84 CFS filter system. The project seeks to improve the water quality of stormwater runoff flows conveyed within the BI 1106 – Unit 2 storm drain through capture, storage, infiltration, and filtration before returning flows back to the storm drain. In addition to the subsurface infiltration gallery, a bioretention unit will be installed to capture on-site runoff. The bioretention cell will capture on-site runoff while increasing native vegetation that will provide additional shade and cooling to the park. The sports fields above the storage system will be revitalized by creating a multi-use sports complex that allows for soccer, baseball, and softball. Walkways made from permeable materials will increase the walkability of the site without increasing imperviousness. This project has the potential to offer runoff storage and water quality benefits for the cities of Paramount, Downey, and Bellflower that can address the additional needs for stormwater management identified to achieve compliance with the LCC WMP.

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PARAMOUNT

PROGRESS PARK STORMWATER CAPTURE PROJECT FACT SHEET

DRAINAGE AREA CHARACTERISTICS	
REGIONAL WATER MANAGEMENT PLAN	Lower San Gabriel River
TOTAL DRAINAGE AREA	**729 Acres** Paramount (66%) Downey (31%) Bellflower (2%)
INFILTRATION RATE	1.5 in/hr
APPROX. DEPTH TO GROUNDWATER	47 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	544 acre-ft





WATER QUALTIY IMPROVEMENT	
Primary Pollutant Zinc Reduction Achieved (% Zn reduction)	184 lb/yr (91.381%)
Secondary Pollutant Copper Reduction Achieved (% Cu reduction)	45 lb/yr (90.114%)
Design Diversion Rate BI 1106 Unit 2	30 cfs
Storage Capacity for Basin and Subsurface Storage Structure	10.0 ac-ft (2.7 MG)
24-Hour Capacity	29.0 ac-ft
Construction Cost Estimate	$22,542,985

West Baseball Field

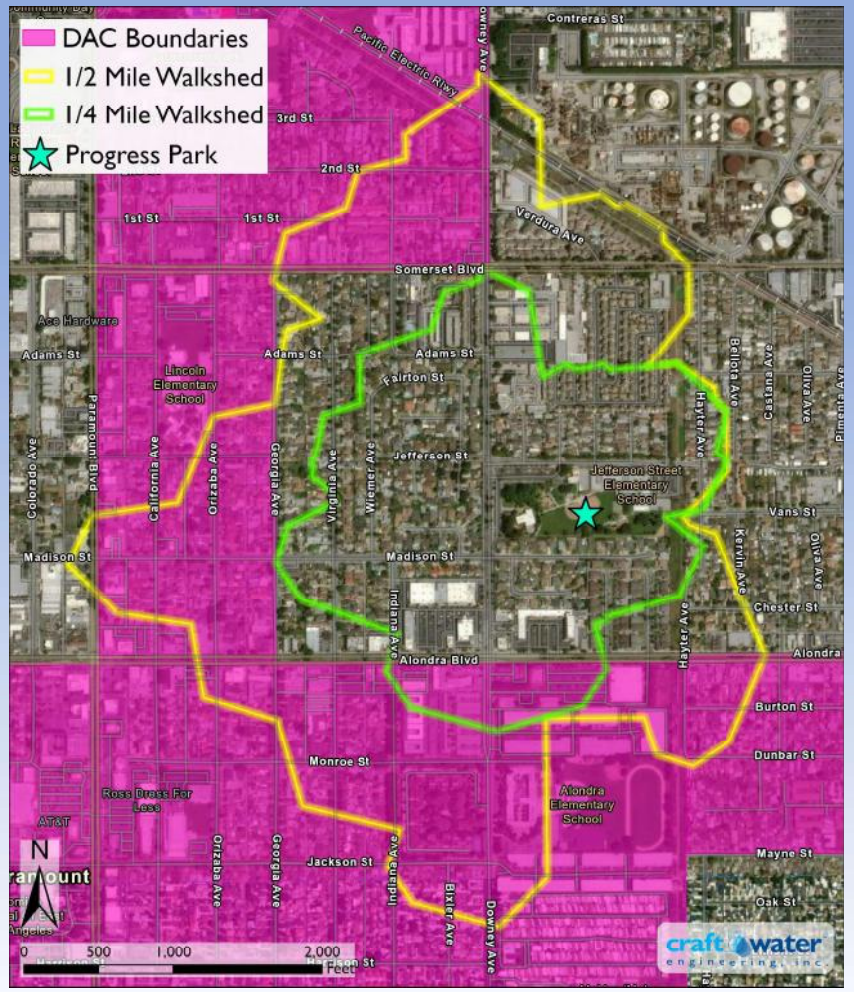
East Baseball Field

North Parking Lot

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PARAMOUNT

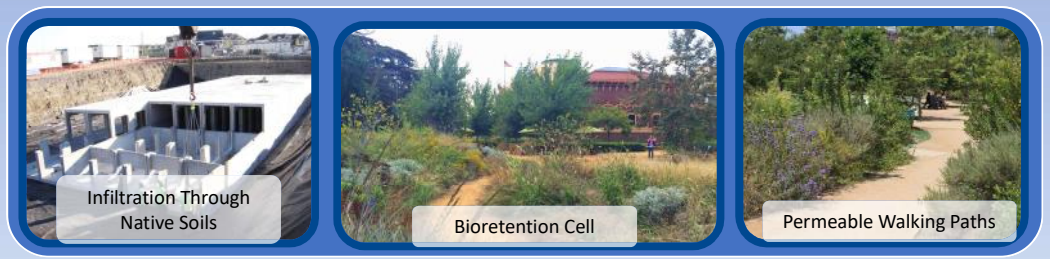
PROGRESS PARK STORMWATER CAPTURE PROJECT FACT SHEET

DISADVANTAGED COMMUNITY MAP



COMMUNITY INVESTMENT BENEFITS

NATURE BASED SOLUTIONS



COMMUNITY SUPPORT

PARAMOUNT FC PYSO

P.J.A.A. BASEBALL

TREEPEOPLE

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM GROUP, CITY OF PARAMOUNT

PROGRESS PARK STORMWATER CAPTURE PROJECT FACT SHEET

SCHEDULE FUNDING BY YEAR

Year	SCW funding Request	Project Phase
Year 1	$2,161,744	Design
Total	**$2,161,744**	-

COST ESTIMATE & SCHEDULE

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	$89,028	07/2022
Design	30/60/90/100 Plans Public Outreach CEQA & Permits Agency Management	$2,161,744	02/2024
Construction	Capital Costs Surveying Administration Agency Management	$19,971,243	05/2026
Total		**$22,222,015**	

PRELIMINARY SCW SCORING

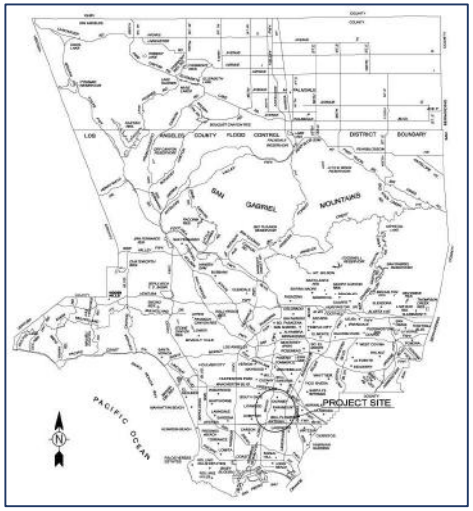
SECTION	Score
A.1 Wet Weather Water Quality Benefits	
• A.1.1 Water Quality Cost Effectiveness < 1.0 AF/$Million	20
• A.1.2 Pollutant Reduction >80%	30
B. Significant Water Supply Benefits	
• B1. Water Supply Cost Effectiveness	0
• B2. Water Supply Benefit Magnitude	5
C. Community Investment Benefits • Improved flood management, flood conveyance, or flood risk mitigation • Creation/enhancement/restoration of parks • Enhanced/new recreational opportunities • Greening of schools • Reducing local heat island effect and increasing shade • Increasing the number of trees increase and/or other vegetation at the site location that will increase carbon reduction/sequestration and improve air quality	10
D. Nature-Based Solutions	10
E. Leveraging Funds and Community Support	
• E1. Cost Share. > 25% Funding Matched by the City	0
• E2. The project demonstrates strong local, community-based support and/or has been developed as part of a partnership with local NGOs/CBOs	4
TOTAL SCORE	**79**

Spane Park | City of Paramount - Infrastructure Program

Project Overview

Location:

- Spane Park, a city-owned park in Paramount
- Tributary to LA River
- Located in a disadvantaged community
- Identified as top tier regional project location in the Lower Los Angeles River Watershed Management Program (LLAR WMP)

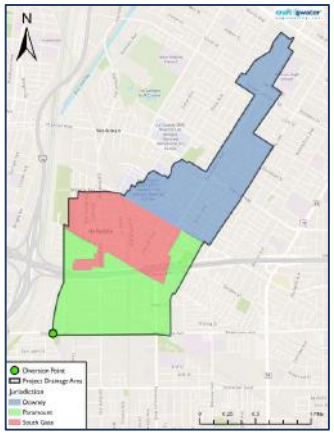


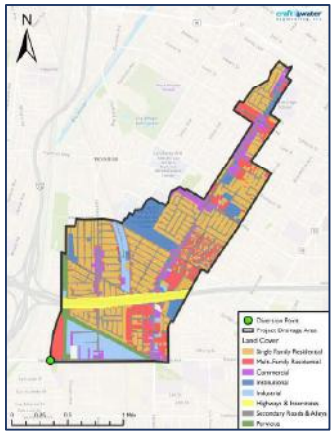
Key Benefits:

- Water quality
- Water supply
- Community investment
- Recreational opportunities

Funding Request: $18,913,128 to complete Project construction

Site Considerations

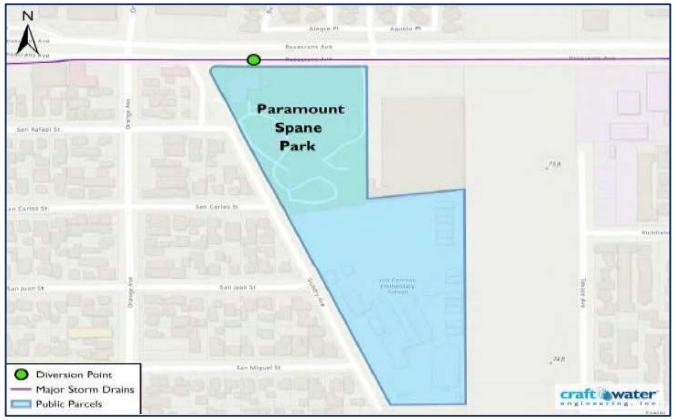




- The LLAR WMP identified Spane Park as an ideal site for the installation of a regional BMP to support the Watershed Management Group's effort to attain its TMDL/WMP compliance targets.
- The proposed Project site has a drainage area of 1,338 acres that encompasses portions of the jurisdictions of Paramount, Downey, and South Gate.
- The proposed Project site is suitable for infiltration and a combination infiltration/filtration practices was recommended in the Preliminary Design Report.
- A large Flood Control District storm drain underlies Rosecrans Avenue, the northern border of the park.
- The project will compliment and enable the City's plans to rehabilitate park facilities to provide the community with enhanced recreational opportunities. Notably, this will include the installation of the first public-use soccer field in the City.

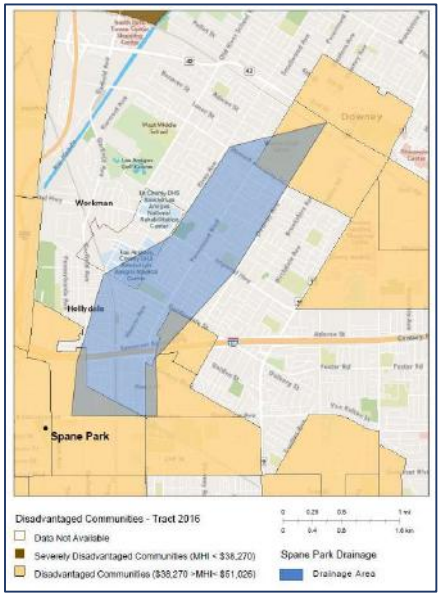
Water Quality & Supply

- The Project will take the opportunity of pending rehabilitation to install an 8.6-acre-foot capacity regional stormwater capture and infiltration facility.
- Other components include a bioswale along the south end of the park, a stream, permeable pavements and bioretention areas within the parking lots and pathways, and native California landscaping in the picnic area.
- The project will address total zinc as the primary pollutant and bacteria as the secondary pollutant.
- A pump and filter system provide final pollutant removal prior to discharge back into the storm drain channel during larger events, while smaller events are anticipated to infiltrate.
- The Project is connected to a managed water supply aquifer (Central Basin of the Coastal Plain, Los Angeles aquifer) and will augment groundwater supply.



Spane Park | City of Paramount - Infrastructure Program

Community Benefits



Community Benefits:

- Improved flood management (via the system's detention and thereby flood retention capabilities)
- Enhanced park space (via the installation of a new soccer field and an ephemeral stream supplied by the captured stormwater)
- New recreational opportunities (via the installation of the first City-owned soccer field)
- Enhanced green spaces for schools (Spane Park is immediately adjacent to Los Cerritos Elementary School)
- Reduced heat island effect (via the planting of native trees, shrubs, and grasses to be installed at select spots impacted by the construction throughout the park)
- Increased tree shade (via the planting of trees using a 2:1 ratio for each that is removed)

DAC Considerations:

- The project is located within a disadvantaged community.

Outreach:

- The City has engaged with the community at the City of Paramount Eco-Friendly Fair (April 22, 2022) in addition to holding two community meetings (April 26, 2022, and June 22, 2022) at the Spane Park Community Center to solicit input from the community regarding their neighborhood park.
- Outreach and engagement efforts will continue to include community meetings, construction information via a Project website, and Project signage and announcements.
- The target audience is local community residents and businesses.

Nature-Based Solutions

- A stream will be installed along the southern part of the park. The swale is sized to convey flow from the storage unit.
- Permeable pavements or equivalent LID elements will be installed in the parking lot.
- Landscape plans post construction include additional native, drought-tolerant trees, shrubs, and grasses to be installed at select spots impacted by the construction throughout the park.

Project Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Environmental Planning & Permitting	$128,371	12/2022
Design	Pre-Design, Design, Construction Support, Community Outreach, Project Management	$763,612	12/2022
Construction	Construction Costs, Contingency, Surveying, Project Management	$17,487,971	06/2028
Construction	Construction Administration	$1,425,157	06/2028
TOTAL		**$19,805,111**	

Funding Request

Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$9,456,564.00	Construction	Construction Costs, Surveying, Contingency, Administration, Agency Project Management
2	$5,673,938.40	Construction	Construction Costs, Surveying, Contingency, Administration, Agency Project Management
3	$2,836,969.20	Construction	Construction Costs, Surveying, Contingency, Administration, Agency Project Management
4	$945,656.40	Construction	Construction Costs, Surveying, Contingency, Administration, Agency Project Management
TOTAL	**$18,913,128**		

2

Spane Park | City of Paramount - Infrastructure Program

SCW Preliminary Scoring

Benefit	Score	Description
Water Quality	50	• Wet weather project • Capture area of 1,338 acres • Storage volume of 8.6 acre-feet • Primary pollutant: Zinc (90.3% reduction over 10-years) • Secondary pollutant: Bacteria (98.1% reduction over 10-years)
Water Supply	15	• Connected to the Central Basin of the Coastal Plain, Los Angeles aquifer • The project will infiltrate and augment groundwater supply by approximately 28 ac-ft on an average annual basis
Community Investment	10	• Improved flood management • Creation/enhancement/restoration of parks • Enhanced/new recreational opportunities • Reducing local heat island effect • Increasing number of trees and/or vegetation
Nature Based Solutions	10	• A stream containing bioswales will be installed throughout the park and will further treat flows from the stormwater storage unit • Removes 15,246 square feet of impervious surface
Leveraged Funds	N/A	
Community Support	4	• Letters of Support received from Paramount Youth Soccer Organization (PYSO) & Mujeres Unidas Sirviendo Activamente (MUSA) • City has engaged with the community regarding the project at the Paramount Eco-Friendly Fair (April 22, 2022) • City has held two (2) community meetings at the Spane Park Community Center (April 26, 2022, and June 22, 2022) • Additional community meetings will be held during the construction phase
TOTAL	89	

Sylmar Channel Project

Infrastructure Program Executive Summary

Upper Los Angeles River Watershed, City of Los Angeles Sanitation and Environment, 2023-2024 Fiscal Year

SAFE CLEAN WATER PROGRAM

Project Background

The project proposes improvements to the existing Sylmar Channel (SC) and the implementation of green street elements within the drainage area.

The objective of the project is to improve water quality in Sylmar and increase water supply within the Upper Los Angeles River Watershed (ULAR).

Safe, Clean Water (SCW) funding is being requested for the following project phases:

Planning, Design, Construction

Total Funding Requested: $5,005,515

Project Overview

The project location was selected because the Sylmar neighborhood has a history of water quality concerns, is located within a Disadvantaged Community (DAC), and the existing area has minimal stormwater and green infrastructure. The Project was developed considering water quality and water supply needs for the area, in addition to community investment needs.

<u>The project will benefit municipalities by</u>:

- Capturing and infiltrating 206.2 acre-feet (AF) of runoff annually.
- Removing 80.3 percent zinc and 100 percent trash from captured runoff.
- 82.4 percent of stormwater infiltrated to aquifer anticipated over 20-year period.

<u>The project will provide DAC Benefits by</u>:

- Reducing pollutants in local runoff and the Upper Los Angeles Watershed.
- Providing localized flood mitigation benefits.
- Increase shade, improve air quality, and reduce heat island effect.

Project Details

Figure 1 Channel Improvements Layout

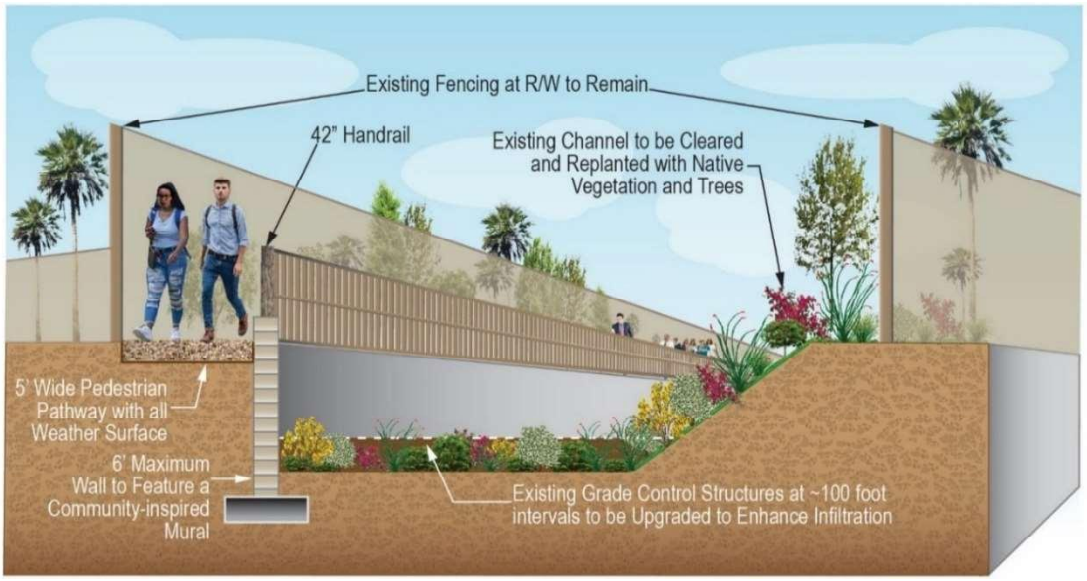


Figure 2 Conceptual Typical Cross-Section of Project's Channel Improvements (Looking Upstream)

Project Key Elements:

- Improved channel with enhanced infiltration, improved through clearing and revegetation, and will include modifications to existing grade control structures to reduce erosion.
- Proposed green street elements within the watershed, which include added vegetation, drywells, and bioswales, will improve air and water quality and provide aesthetically appealing green spaces for residents to enjoy year-round.
  The addition of about 45 trees in the area will provide shade, reduce heat island effect, and cool the area for pedestrians and people engaged in active recreation. 700 square feet of bioswales and vegetation will replace impervious surfaces in the neighborhood, increasing greenery.

Project Location

Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	50	• Primary mechanisms – infiltration, sedimentation. • 75.0 AF/year wet weather runoff capture. • 131.2 AF/year dry weather runoff capture. • 271.5-acre Tributary Area. • 24-hour capacity of 26.2 AF.
Water Supply	15	• 80.3 percent zinc and 100 percent trash reduction. • 206.2 AF/year annual average capture. • Water to supply ULAR Aquifer. • Water quality effectiveness of 3.96 AF/$-Million. • Water supply cost effectiveness of $1,537/AF.
Community Investment	5	• Channel improvements and green street elements will provide local flood mitigation. • Creation of pedestrian trail or horse rest area will enhance community recreation activities. • Landscaping components of the project (e.g., revegetation, bioswales, tree planting) will increase overall aesthetics. • Increased carbon sequestration and air quality improvements through natural processes resulting from revegetation, bioswales and tree planting.
Nature Based Solutions	10	• Channel improvements will enhance channel infiltration resulting in improved channel water quality. • The drywells and bioswales will capture water for supply and use natural process of infiltration. • The Project will use largely native California plants for landscaping the green street features.
Leveraged Funds	6	• $3.3 Million from LADWP for Construction, operations and maintenance (O&M), and Monitoring during YR3-FY25/26 thru YR4-FY26/27. • LADWP funding along with City services matching funds results in $5 Million Total Matching Funds. • 50 percent of funding expected to be matched.
Community Support	4	• The Project demonstrates strong local, community-based support.
TOTAL	**90**	

Sylmar Channel Project

Infrastructure Program Executive Summary

Upper Los Angeles River Watershed, City of Los Angeles Sanitation and Environment, 2023-2024 Fiscal Year

Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Planning	Engineering, Legal, & Administrative (ELA)	**$332,067**	YR1-FY23/24
Design & Construction Management (CM)	ELA and CM	**$2,831,135**	YR2-FY24/25
Construction	Including Contingencies	**$6,609,551**	YR4-FY26/27
O&M	50-Year Design Life Span	**$101,864**	YR4-FY26/27
Monitoring	Monitoring planning, hydrology-based modeling and water quality sampling	**$140,000**	YR1-FY23/24, YR4-FY26/27, and Post-Construction
TOTAL		**$10,014,617**	

Funding Request			
Year	**SCW Funding Requested**	**Phase**	**Efforts during Phase and Year**
1	**$790,584**	Planning, Design, and Monitoring	Planning, preliminary design and baseline monitoring, YR1-FY23/24
2	**$688,517**	Design	Final design, construction management, YR2-FY24/25
3	**$1,654,775**	Construction	Start of construction YR3-FY25/26
4	**$1,871,639**	Construction and Monitoring	Construction completion, project effectiveness monitoring, YR4-FY26/27
TOTAL	$5,005,515		

Via Princessa BMP & Park Project

Infrastructure Program Executive Summary

Upper Santa Clara River, City of Santa Clarita, FY23-24

SAFE CLEAN WATER PROGRAM

Project Background

The proposed project, located in the City of Santa Clarita, will include an underground infiltration BMP system and a new park.

Project Objectives: Reduce pollutants reaching the Santa Clara River, improve water supply in the Santa Clara River Valley East Groundwater Subbasin, sustain nearby production wells, and to meet the park/recreational needs of the surrounding community.

Project Status: Initial planning & design completed. Final design, construction, and O&M not yet completed. Funding being requested for construction and O&M.

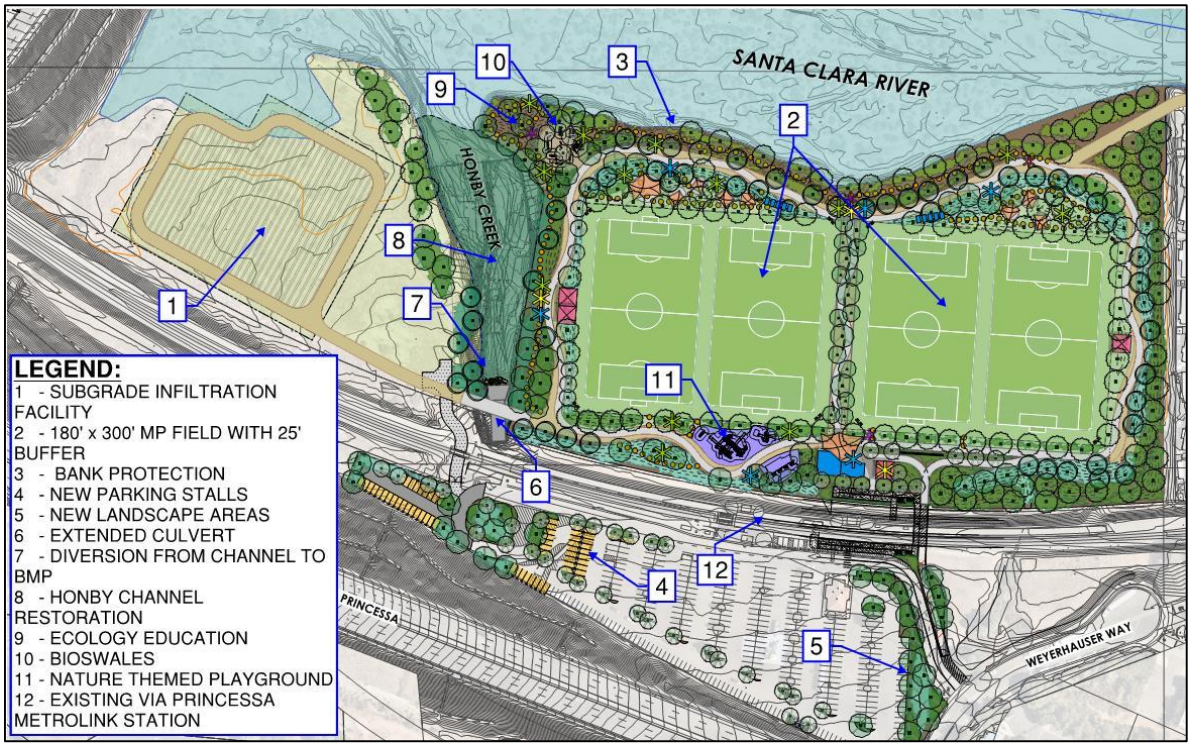
Total Funding Requested: $ 20,079,768:

- $19,998,768 for construction
- $81k for operations, maintenance, & monitoring
- $30k annual costs, over span of 50yrs

Project Overview

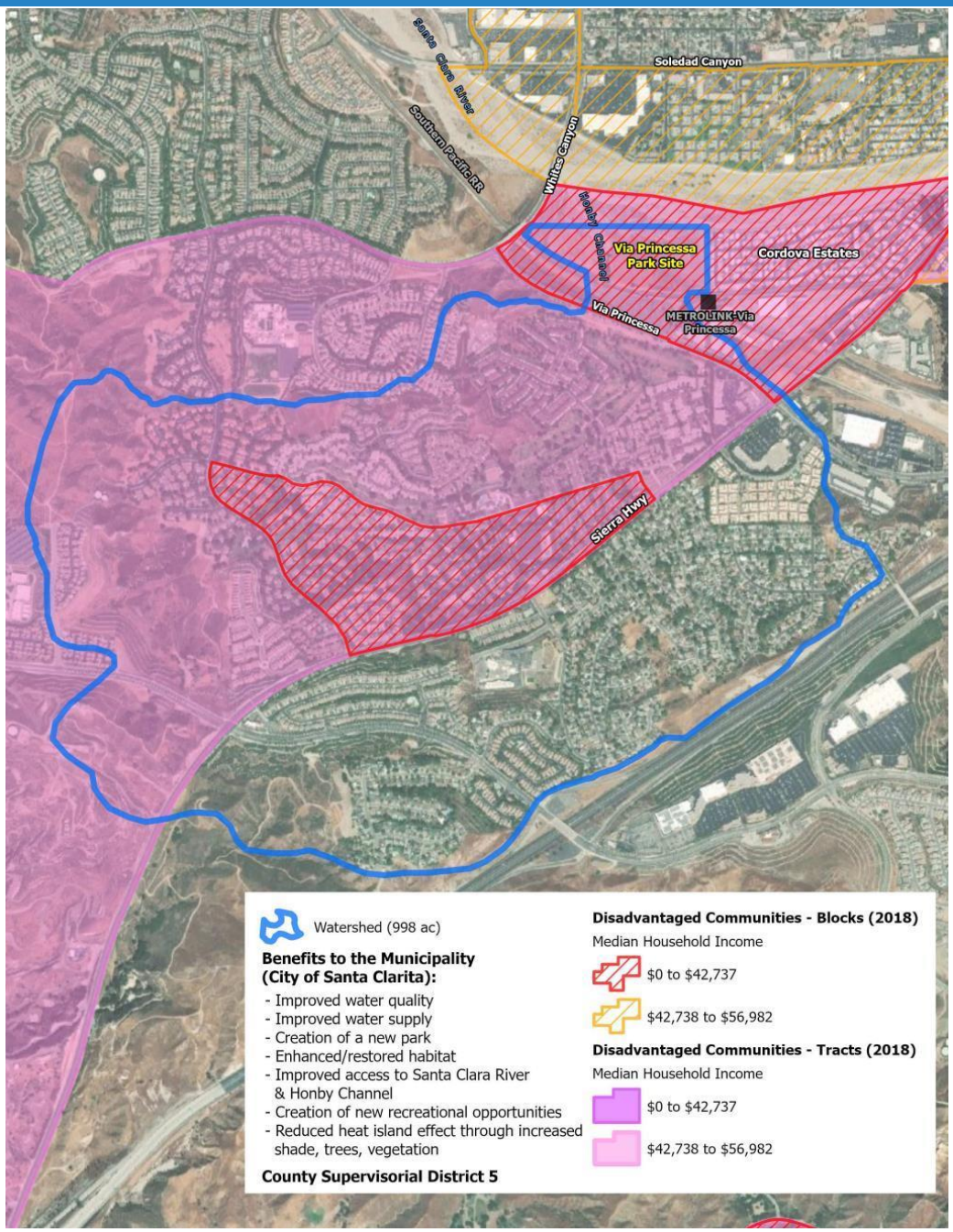
- The project site is ideally located over the East Subbasin of the Santa Clarita Valley Groundwater Basin for recharge, in support of existing infrastructure. The site is also located within and near several DAC block groups and is ideally situated to benefit them. This location has also been recognized by several studies as being a park-poor area.
- The project is included in the Upper Santa Clara River Enhanced Watershed Management Program (EWMP) and Upper Santa Clara River Integrated Watershed Management Plan (IRWMP).
- The project will benefit the community through water quality & supply improvements, increased park space, enhanced/restored habitat, improved access to the Santa Clara River and Honby Channel, creation of new recreational opportunities, and reducing heat island effect through increased shade, planting of trees, and other vegetation.
- Project will benefit the DAC by providing the aforementioned benefits within a ½ mile radius of 351 community members who are living in poverty and 71 households who do not have access to a car.

Project Details



- BMP type: wet / subterranean, perforated, corrugated metal pipe (CMP) gallery.
- Description of current site conditions: The 26-acre site is currently undeveloped and vacant.
- Land ownership/right of way: The site was purchased from the County by the City in 2016. The area between the park and parking lot is owned by SCRRA. Ownership of the Honby Channel culvert is held by SCRRA. LACFCD owns/maintains the bank protection to the north of Cordova Estates (which lies immediately to the east of the park site).
- Completed studies/analysis: Geotechnical investigation, topographic and utility survey, as-built research, hydrology analysis, Phase I study, and groundwater model.

Project Location



Preliminary Score		
Benefit	**Score**	**Description**
Water Quality	50	• Primary mechanisms that achieve Water Quality and Water Supply Benefits claimed: ○ 997.8 ac tributary area ○ 30.1 ac-ft infiltration capacity (in 41.5 hrs) ○ 84.3% bacteria removed ○ 89.5% Copper removed ○ Wet Facility ○ 674.5 ac-ft/year ○ 1.2 (acre-ft capacity / $-Million) ○ $1,747/ac-ft
Water Supply	18	
Community Investment	5	• Description of community investment benefits provided: ○ Improve water quality ○ Improve water supply ○ Create park space ○ Improve access to waterways ○ Create new recreational opportunities ○ Reduce heat island/increase shade ○ Increase shade/trees/vegetation
Nature Based Solutions	10	• Description of how the project implements nature-based solutions ○ Use of infiltration BMP/soil to infiltrate and treat water ○ Use of native vegetation and bio-swales to naturally treat runoff ○ Increased vegetation & trees to enhance soil & provide shade ○ Enhance/restore vegetation and habitat in Honby Channel
Leveraged Funds	3	• Cost share funding = $10,000,000 • Percent Funded Cost Share = 33.09%
Community Support	4	• Meeting materials from community engagement meetings (June Cordova Estates meeting and July community-wide meeting) • Letters of support from NGO's • Letters of support from individual community members • Planned outreach: TBD
TOTAL	**90**	

Project Cost & Schedule			
Phase	Description	Cost	Completion Date
Construction	Above-ground park components (i.e. trees, shrubs, irrigation, picnic tables, play structures, wayfinding art, bike racks, benches, etc.)	$8,943,149.00	08/2024
Construction	CMP, diversion line, diversion structure, pretreatment (incl. materials, labor, tax, overhead/profit, contingency)	$11,055,619.00	08/2024
TOTAL			

- Annual maintenance costs = $27,000
- Annual monitoring costs = $3,000
- Project life span = 50 yrs

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$11,055,619.00	Construction	Construct diversion, BMP, and hydrodynamic separators.
2	$8,943,149.00	Construction	Construct above-ground park components (i.e. trees, new shrubs, irrigation, picnic tables, play structures, wayfinding art, bike racks, benches, etc.)
3	$27,000.00	O&M	Maintain the diversion structure, hydrodynamic separators, BMP, and restored Honby Channel. Frequent inspections to take place the first year, as stated in the O&M Plan, to establish a recurrence interval for future inspections and maintenance.
4	$27,000.00	O&M	Maintain the diversion structure, hydrodynamic separators, BMP, and restored Honby Channel. Frequent inspections to take place the first year, as stated in the O&M Plan, to establish a recurrence interval for future inspections and maintenance.
5	$27,000.00	O&M	Maintain the diversion structure, hydrodynamic separators, BMP, and restored Honby Channel. Frequent inspections to take place the first year, as stated in the O&M Plan, to establish a recurrence interval for future inspections and maintenance.
TOTAL	**$20,079,768.00**		

Wilmington-Anaheim Green Infrastructure Corridor Project

Infrastructure Program Executive Summary

South Santa Monica Bay, City of Los Angeles Sanitation and Environment, Fiscal Year 2023 - 2024

Executive Summary

Project Background

Diversion Project designed to treat runoff from a 173-acre area and provide water resilience using captured water for irrigation and further treatment.

Project objectives include:

- ✓ Improve water quality in the East Basin Channel by removing bacteria, trash, and secondary pollutants
- ✓ Improve flood management and flood conveyance
- ✓ Increase water supply by capturing more than 160 AF of surface runoff each year.
- ✓ Capture stormwater for recycling by means of irrigation and/or treatment at the Terminal Island Water Reclamation Plant.
- ✓ Redefine aesthetic character through the addition of bioswales and tree wells to provide greener routes for pedestrians and bicyclists

The Project is requesting SCW funding for the following phases: Planning, Design, Construction, O&M, and Monitoring.

Total Funding Requested: $10,274,500

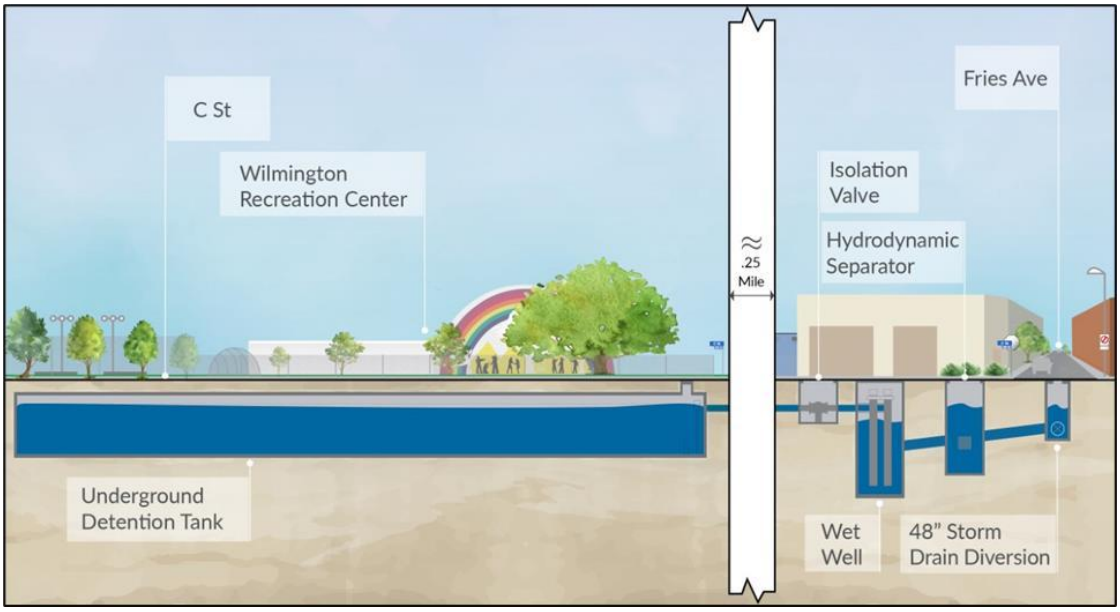
Project Overview

This Project location was selected because of the many environmental challenges faced by the community. The community is highly urbanized, which causes poor water quality of surface runoff. In addition, it has a high cumulative exposure burden, is in a DAC area, and lacks green spaces. The area is in high need of community investment benefits to improve flooding issues, water quality, and public infrastructure.

The Project drainage area is located within the City of Los Angeles in the Dominguez Channel Watershed. Water quality and community investment benefits will address the needs of the community and contribute to pollutant load reductions in this watershed.

The Project is located within a DAC area and will provide multiple benefits to the community, including alleviating flooding, which will reduce traffic and the possibility of an accident. Furthermore, it will add green spaces to residential streets and alleys, provide water quality benefits, and increase stormwater supply for irrigation at the Wilmington Recreation Center through recycling.

Project Details



The project site is located within the Wilmington neighborhood in the Harbor region of the City of Los Angeles. The Wilmington area is highly urbanized, while characterized by a heavy concentration of industries, including a large oil field. Moreover, the Project's drainage area is within DAC community that faces many challenges due to high urbanization, including poor water quality, heat island effect, deterioration of public infrastructure, and poor pedestrian safety.

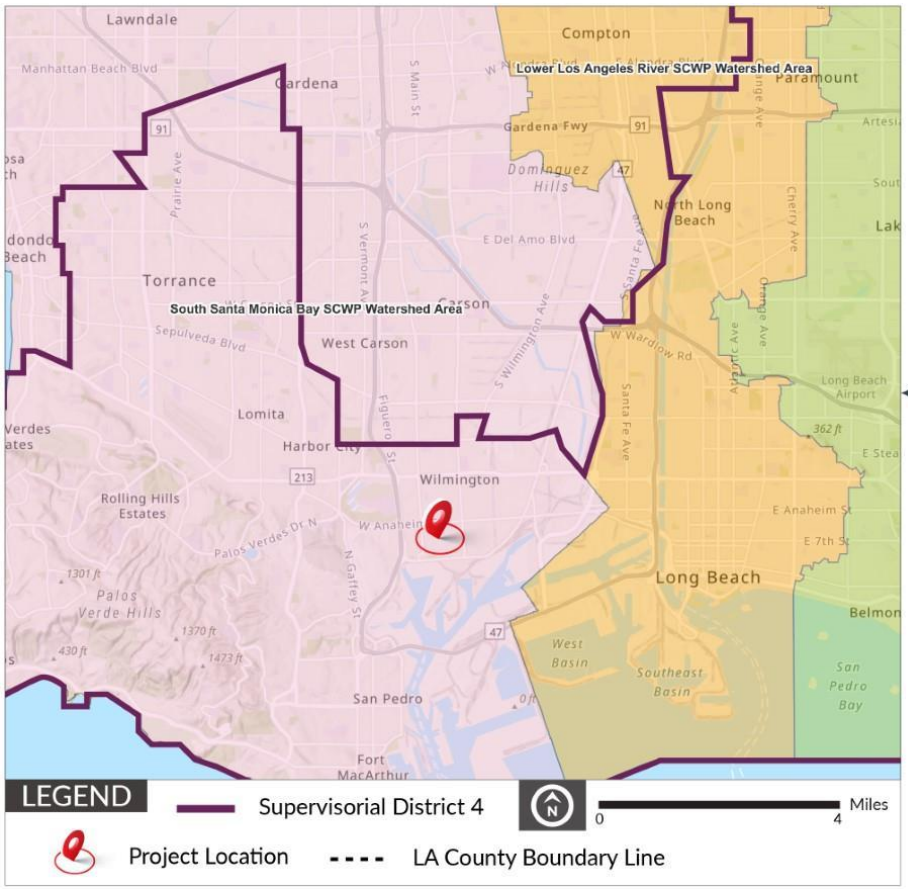
Wilmington-Anaheim Green Infrastructure Corridor Project

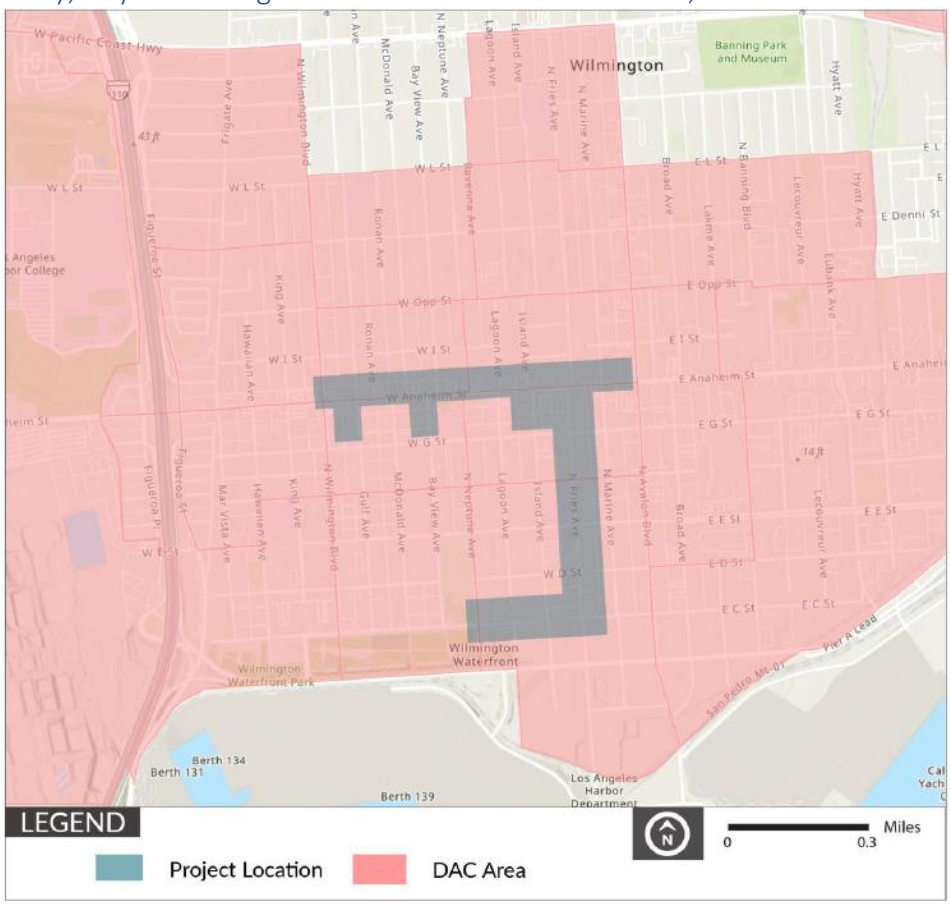
Infrastructure Program Executive Summary

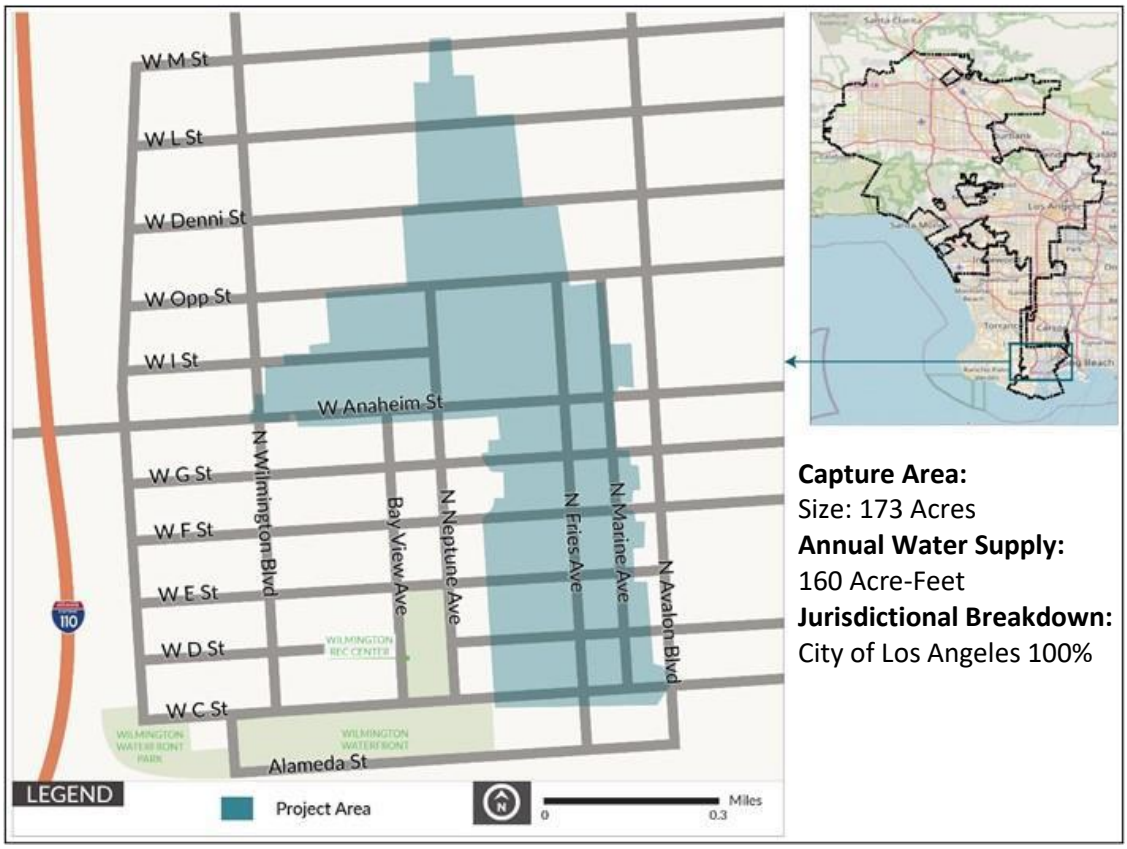
South Santa Monica Bay, City of Los Angeles Sanitation and Environment, Fiscal Year 2023 - 2024

The following fact sheet is illustrative summary that outlines the primary components of the proposed Project.

Project Maps







Capture Area:
Size: 173 Acres
Annual Water Supply:
160 Acre-Feet
Jurisdictional Breakdown:
City of Los Angeles 100%

Preliminary

Benefit	Score	Description
Water Quality	44	• The Project will use a storm drain diversion, pretreatment device and underground storage • It is a wet weather Project with a 24-hour BMP capacity of 6 AF • It will capture and infiltrate 160 AF annually of surface runoff from a 173-acre drainage area • It achieves a pollutant load reduction of 86% for Zinc and 100% for trash
Water Supply	5	• Water quality cost effectiveness is 0.8 AF per $Million • Water supply cost effectiveness is $5,974 per AF
Community Investment	5	• The Project will address a significant number of flooding complaints that have been reported at the intersections of Anaheim/Gulf, Anaheim/McDonald, and Anaheim/Neptune • This Project will improve and protect the habitat. The addition of the trees and landscaping will provide a more inviting aesthetic and add appeal to public areas • Shade will be increased by the addition of 50 new street trees. The trees will reduce the impact of radiation, creating a cooler environment around them • The Project includes 50 trees and 1,000 LF of bioswales
Nature Based Solutions	11	• The Project will maximize nature-based solutions by utilizing natural processes including: ✓ The addition of 1,000 LF of parkway bioswales will provide vegetated area through which stormwater will be filtered ✓ Replace about 813 SF of impervious surface with green space to reduce heat island effect
Leveraged Funds	0	• LASAN has allocated $2,012,000 • The funding match is 16.3%
Community Support	4	• The Project has received strong community support
TOTAL	**69**	

Project Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Planning, Public Outreach, CEQA, Permitting, Construction Management	$766,200	06/2024
Design	Design, Construction Management, and Monitoring	$3,576,000	
Construction	Construction	$7,481,200	06/2027
O&M	Operations and Maintenance	$463,100	
	TOTAL	**$12,286,500**	

The Project has an annualized cost of $5,974 and a life cycle of 50-years.

Funding Request

Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	$513,200	Planning, Design & CM, Monitoring	Public outreach, environmental planning (CEQA), monitoring, and permitting - 2024
2	$1,362,400	Design & CM	Design support - 2025
3	$2,014,900	CM and Construction	Construction & CM- 2026 to 2027
4	$5,755,400	CM and Construction	Construction – 2027
5	$628,600	Monitoring and O&M	First year O&M - 2028
TOTAL	**$10,274,500**		