Executive Summaries for FY2024-25 Infrastructure Program Project

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Project Background

The Agoura Hills Storm Water Diversion Project aims to divert approximately 1 MGD of dry weather and 2 MGD of the first flush storm event for treatment and reuse at Tapia Water Reclamation Facility (WRF).

The goal of the Project is to address drainage quality throughout the City of Agoura Hills, which will benefit receiving waters including Malibu Creek and the North Santa Monica Bay while providing a local source of water to Las Virgenes Municipal Water District (LVMWD) for treatment and reuse.

Project Status: Construction Ready

Total Funding Requested: \$2,972,448.80

Project Overview

- The 10 Project locations were selected based on the proximity of the storm drain and sewer, the ability to accommodate gravity flow, and visual inspections of regular dry weather flows.
- The regional water management plan included in this project is the Malibu Creek Enhanced Watershed Management Program (EWMP).
- Improve water quality in local receiving waters and downstream water bodies.
- A reduction in stormwater and urban runoff pollution.
- The Project's largest area will improve the numerous receiving waterbodies that contribute to the Malibu Creek.

Project Details

- A precast diversion structure will divert low-flow drainage from various existing LACFCD storm drains by an installed adjustable weir.
- The Project will be a gravity operated system that will not rely on pumps or other complex mechanical systems to operate.
- An electric actuator will be installed to provide the capability of working remotely to "turn off" diversion flow to the sanitary sewer.
- A flow meter will be installed to confirm the system is operating as expected and collect data on diverted flows.



Figure 1 Typical Low Flow Diversion Structure Diagram



Figure 2 Low Flow Piping Diversion Profile

Project Location









Preliminary Score							
Bene	fit	Score	Descri	otion			
Water Q	uality	40	 Prin 100 Trib Varia 	nary mechanisms that achieve Water Quality and Water Supply Benefits claimed % Dry Weather Collection and Treatment outary Area: 1696 acres ious Pollutant Reduction as Associated with Dry Weather			
Water Si	upply	25	AnnWat	ter Supply Use (irriga	er Supply Use (irrigation, water storage, and water recycling)		
Commu Investn	inity nent	2	VisuRec	al Improvements to reational Enhancem	Storm Drain Ou ents at Lake Lin	utfalls dero Golf Course	
Nature B Solutio	Based ons	0					
Leveraged	l Funds	3	 Port 42% 	tion of Construction 6 funding matched	Funding Acquir	ed through IRWMP Grar	nt
Commu Suppo	inity ort	4	LocaNur	al Community, State nerous In-person an	, and Las Virgen d Virtual Outrea	es Municipal Water Dist ach Events to Inform the	rict Support Community
TOTA	AL	74					
				Project Co	ost & Schedule		
Phas	e			Description		Cost	Completion Date
Design		Awarde	ed Contra	ict for Design		\$359,810.00	08/2023
Constructio	on	Engine	ers Const	ruction Estimate for	Project	\$2,221,953.27	07/2024
ΤΟΤΑ	TOTAL \$2,581,763.27						
				Fundir	ng Request		
Year	SCW Fi	unding R	equest	Phase	• · · · ·	Efforts during Phase an	id Year
1	\$970,50	3.27		Construction	Cost estimate by the Prop 1	includes the remaining l grant for construction co	balance not covered osts.
1	\$380,21	.9.22		0&M	Operation and	Maintenance for the Fi	rst Year of Operation
1	\$18,060	.00		Monitoring	Sampling, Test	ting, and Analysis of dive	erted stormwater.
2	\$380,54	4.21		0&M	2 nd Year O&M Inflation on LVN	Request with 2% Inflation Rates)	on (Does not include
2	\$18,421	.20		Monitoring	2 nd Year Monit	toring Request with 2% I	nflation
3	\$381,45	9.36		0&M	3 rd Year O&M Inflation on LVN	Request with 2% Inflatic /IWD Collection Rates)	on (Does not include
3	3 \$18,789.62		Monitoring	3 rd Year Monit	oring Request with 2% I	nflation	
4	\$382,39	2.82		0&M	4 th Year O&M Request with 2% Inflation (Does not include Inflation on LVMWD Collection Rates)		
4	4 \$19,165.42 Monitoring 4 th Year Monitoring Request with 2% Inflation		nflation				
5	\$383,34	4.94		0&M	5 th Year O&M Inflation on LVN	Request with 2% Inflatic /IWD Collection Rates)	on (Does not include
5	\$19,548	3.72		Monitoring	5 th Year Monitoring Request with 2% Inflation		
TOTAL	\$2,972,4	448.80					

• A future potential SCW funding request could potentially be for O&M over the Project's life cycle.

SAFE CLEAN WATER PROGRAM

Project Background

Multi-benefit project around Coliseum Street designed to capture and treat stormwater runoff using drywells, bioswales, and trees.

Project objectives include:

- ✓ Improve water quality by removing stormwater pollutants using drywells and bioswales.
- ✓ Improve flood management and flood conveyance.
- ✓ Increase nature-based solutions by adding 450 SF of bioswales with California native landscape and 40 street trees.
- Increase shade, decrease the heat island effect, and reduce air pollution.
- Provide educational displays to engage the local community regarding the City SCW Program and the benefits of stormwater treatment.

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

Total Funding Requested: \$9,076,647

Project Overview

The Project drainage area is located within the City of Los Angeles in the Ballona Creek Watershed. The Project will capture and treat surface runoff to reduce pollutants that otherwise will deposit in downstream receiving waters. Sediments, metals, trash, and bacteria will be removed before reaching Ballona Creek.

The Project benefits the residents and businesses of the City of Los Angeles. Furthermore, safety, pedestrian, and recreational improvements will benefit all residents that use these local streets.

The Project area east of La Brea Avenue is located within a DAC. The Project will enhance stormwater quality which benefits the entire community including DAC areas. The proposed green infrastructure will help alleviate flooding, thus resulting in more walkable sidewalks and fewer vehicle accidents during and after storm events.



The Project site is owned and maintained by the City of Los Angeles (City) and is located within the Ballona Creek area of the Central Santa Monica Bay Watershed. The Project is located within the Baldwin Vista and Baldwin Village neighborhoods and includes greening elements along Coliseum Street from Hauser Blvd to Nicolet Ave and adjacent streets. Project Details figure to the left indicates the 135-acre drainage area and proposed locations for drywells, bioswales, and trees. Source: NavigateLA



The following illustrations provide an example of a bioswale and street trees within a street parkway on Coliseum Street.



Source: Cordoba



Project Location





Source: Safe, Clean Water Program Digital Library





Preliminary Score					
Benefit	Score	Description			
Water Quality	50	 Project includes 23 double drywells and one single drywell (total of 47 single drywells) to achieve water quality and supply benefits Wet weather project with a 24-hour BMP capacity of 14.24 AF Captures and infiltrates 97.3 AF annually of surface runoff from 135-acres Achieves a pollutant load reduction of 100% for trash and 80% for zinc 			
Water Supply	0	 Water quality cost-effectiveness is greater than 1 AF per \$Million Cost-effectiveness is greater than \$2,500 per AF 			
Community Investment	5	 Project improves flood management, flood conveyance, and flood risk mitigation Restores natural habitat along local streets Shade will increase with the addition of 40 new street trees Project increases greening through the addition of 40 trees and 450 SF of bioswales New vegetation will reduce the impact heat island effect, and improve air quality 			
Nature Based Solutions	10	 Project will maximize nature-based solutions by utilizing natural processes including: ✓ Addition of 23 double drywells and one single drywell (total of 47 single drywells), 450 SF of bioswales, and 40 street trees will provide stormwater filtration and vegetated areas ✓ Natural materials will be used in bioswales to filter and infiltrate stormwater 			
Leveraged Funds	0	 LASAN has committed \$1,892,861 of leveraged funds for the Project Leveraged funds are 17% of total Project cost 			
Community Support	4	 Project has strong support from the council district and community 			
TOTAL	69				



Project Cost & Schedule						
Phase	Description	Cost	Completion Date			
Planning	Planning, Public Outreach, CEQA, Permitting	\$820,728	YR1-FY24/25			
Design &CM	Design, Construction Management	\$2,644,594	YR5-FY28/29			
Bid & Award (1)	Bid & Award	\$571,804	YR3-FY26/27			
Construction	Construction	\$6,575,745	YR4-FY27/28			
0&M	Operations and Maintenance	\$214,426	Continued after project construction			
Monitoring	Three (3) years of post-construction monitoring	\$142,211	Continued after project construction			
	TOTAL	\$10,969,508				

Notes:

Abbreviations: CM-construction management; ELA- Engineering, Legal, & Administrative; FY- fiscal year; YR- year

(1) Bid & Award is 0.8% if Total Estimated Project Construction Cost. This value is accounted for within the construction contingencies.

The Project has an annualized cost of \$662,668.25 and a life cycle of 50 years.

Funding Request					
Year	SCW Funding Request	Phase	Efforts during Phase and Year		
1	\$500,328	Planning	Public outreach, environmental planning (CEQA) and permitting – FY24/25		
2	\$464,591	Design & CM	Design – FY25/26		
3	\$4,109,841	Design & CM, Construction, Bid & Award	Design & CM, Construction, Bid & Award – FY26/27		
4	\$1,822,625	Design& CM, Construction	Design & CM, Construction – FY27/28		
5	\$2,179,262	Construction, O&M, Monitoring	CM, Construction, Monitoring, O&M – FY28/29		
TOTAL	\$9,076,647				
Notes:					

Abbreviations: CM-construction management; FY- fiscal year



Infrastructure Program Executive Summary

Upper Los Angeles River Watershed Area, The Nature Conservancy, FY 24-25

Project Background

The Project is a multi-benefit storm water management and habitat enhancement demonstration project along the LA River.

Project Objectives:

- Improve stormwater quality
- Enhance L.A. River habitat
- Provide benefits to both nature and people
- Complement existing and planned projects improving water quality and restoration of the L.A. River

Project Status: Currently in Design phase. Requesting SCW funding for long-term operation and maintenance.

Total Funding Requested: \$1,833,790

Project Overview

• Why was the Project Location selected? How was the Project developed?

The project location was one of ten sites analyzed in a conceptual study led by The Nature Conservancy in 2016. The Bowtie Demonstration Project's location was most ideal for demonstrating how habitats along the LA River can be enhanced while providing co-benefits of stormwater management and increased public access to the River. The project concept was developed by Studio MLA and Geosyntec with The Nature Conservancy and State Parks. The project design is being developed by Stantec Consulting Services, under The Nature Conservancy.

Project Overview (continued)

• Which regional water management plan includes the proposed project?

The project was approved for the Upper Los Angeles River subregion of Integrated Regional Water Management Plan (IRWMP) in August 2020.

The project has received support from the ULAR EWMP Watershed Management Group for its contribution towards the compliance efforts of the EWMP.

Description of benefits to municipality/municipalities

The project will capture and treat dry-weather stormwater flows from a highly industrial and commercial area within the Upper Los Angeles River watershed area. The project will address the primary and secondary pollutants of concern: bacteria (fecal coliform), copper (dissolved and total) and zinc (dissolved and total).

Description of how the Feasibility Study or Project Concept will provide Disadvantaged Community (DAC) Benefits

The project is in and surrounded by disadvantaged and severely disadvantaged communities. The project will improve urban runoff water quality entering the Los Angeles River. The project will provide the following benefits to the community.

- Creates, enhances, and restores park space, habitat, and wetland space
- Improves public access to waterways
- Creates and enhances new recreational opportunities
- Reduces heat local island effect and increase shade
- Increases shade and the number of trees and vegetation at the site location



Infrastructure Program Executive Summary

Upper Los Angeles River Watershed Area, The Nature Conservancy, FY 24-25



The Bowtie Demonstration Project is a 3.4-acre portion of the 18-acre Bowtie Parcel. The Bowtie Parcel is an undeveloped industrial land within Taylor Yard, the former headquarters of the Southern Pacific Railroad. The rail operations shut down in the 1980s and in 2003, California State Parks bought the Bowtie Parcel to preserve the land for nature conservation and support efforts to restore the Los Angeles River. The Bowtie Demonstration Project is being led by The Nature Conservancy and California State Parks.

The proposed project will treat dry-weather flows from a 2,775-acre drainage area across the City of Los Angeles and Glendale. The project will divert from a Los Angeles County Flood Control District Storm Drain, and includes pretreatment systems, including a hydrodynamic separator and a media filter System, and a constructed wetland. The project will utilize native plants, boardwalks, and educational signage to encourage public access to the Los Angeles River.

Completed site investigations include site surveys, a geotechnical investigation, a hydrologic analysis, and a preliminary utility search.



Infrastructure Program Executive Summary

Upper Los Angeles River Watershed Area, The Nature Conservancy, FY 24-25

Project Location



er: This document has been prepared based on information provided by others as cited in the Neles section. Stantes has not writted the accuracy and/or completeness of this information and shall not be responsible for any errors is withon may be incomposed before as a new. Stantes assumes no responsible for any errors in the incomposed beforem as a new. Stantes assumes no responsible for any errors in the incomposed beforem as a new. Stantes assumes no responsible for any errors the incomposed beforem as a new. Stantes assumes no responsibility for advections tormat, and the responsible for any errors the incomposed beforem as a new. Stantes assumes no responsibility for advections tormat, and the responsibility for writhing the accuracy and completeness of the dat.



Infrastructure Program Executive Summary

Upper Los Angeles River Watershed Area, The Nature Conservancy, FY 24-25

Preliminary Score				
Benefit	Score	Description		
Water Quality	40	 Primary mechanisms will include divert, capture, treat and either reuse or release 100% of Dry Weather Flows and part of the Wet-Weather Flows will be treated Drainage Area = 2,775-Acres Water supply benefits are not claimed as part of the proposed project. 		
Water Supply	N/A	• Treated stormwater will be reused onsite as irrigation.		
Community Investment	5	The project will provide the following community investment benefits: 1. create, enhance, or restore park space, habitat, or wetland space, 2. improve public access to waterways, 3. enhance or create new recreational opportunities, 4. improve public health by reducing local heat island effect and increasing shade, 5. improve public health by increasing the number of trees and/or other.		
Nature Based Solutions	10	The project will implement 1. The Use of Native Vegetation 2. The Creation & Restoration of Riparian Habitat and Wetland 3. The Enhancement of Soil.		
Leveraged Funds	3	• 31.53% of funding was matched		
Community Support	4	 Outreach involves sharing information and maintaining project transparency through active participation of neighborhood council meetings and engaging with community organizations. Engagement will include an amenities survey in the design phase. 		
TOTAL	62			

Project Cost & Schedule					
Phase	Description	Cost	Completion Date		
Planning	Includes Feasibility Studies and Concept Designs and Planning Phase Community Outreach & Engagement	\$305,631.00	04/2022		
Design	Includes Engineering Design Drawings, Permitting and Design Phase Community Outreach & Engagement	\$1,494,369.00	09/2023		
Bid/Award	Includes Bid and Award Process (5% of construction costs)	\$450,000.00	11/2023		
Construction	Includes Mobilization/Demobilization, Construction of Project Components, Construction Management, Escalation Costs and Unallocated Contingencies.	\$9,000,000.00	12/2025		
TOTAL		\$11,250,000			

• Annual Maintenance Cost = \$240,251, Annual Operation Cost = \$90,000, Annual Monitoring Cost = \$46,151

Project Life Span = 30 years

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	\$376,402	0 & M	Operation and Maintenance of Project, 2025 - 2026
2	\$375,953	0 & M	Operation and Maintenance of Project, 2026 - 2027
3	\$349,222	0 & M	Operation and Maintenance of Project, 2027 - 2028
4	\$356,933	0 & M	Operation and Maintenance of Project, 2028 - 2029
5	\$375,280	0 & M	Operation and Maintenance of Project, 2029 - 2030
5+			
TOTAL	\$1,833,790		



DRAINAGE AREA CHARACTERISTICS

REGIONAL WATER MANAGEMENT PLAN	Upper San Gabriel River Watershed
TOTAL DRAINAGE AREA	1512 AC Glendora: (97.3%) Unincorporated LA County: (2.7%)
INFILTRATION RATE	1.2 in/hr
APPROX. DEPTH TO GROUNDWATER	100 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	266 acre-ft



PROJECT DESCRIPTION

LOCATION Finkbiner Park, 160 North Wabash Ave, Glendora, CA 91741, (34.13786, -117.86044)

REGIONAL WATER MANAGEMENT PLAN Upper San Gabriel River Watershed

BRIEF DESCRIPTION

Finkbiner Park is owned and operated by the City of Glendora and has been identified as a key Regional Project in the Upper San Gabriel River Enhanced Watershed Management Program (USGR EWMP). Runoff within this corridor drains through the upstream storm drain system, into the Little Dalton Wash, and ultimately the San Gabriel River. The proposed project includes a 20 CFS diversion from Little Dalton Wash and a 5 CFS diversion from MTD 1129. The diversions go to a pretreatment unit and then to the 5.28 ac-ft subsurface storage where it can be pumped through a recirculation stream and eventually either infiltrates or exits through a 5.76 CFS filter system back into Little Dalton Wash. The project seeks to improve the water quality of stormwater runoff flows conveyed through capture, storage, and filtration before returning flows back to the Little Dalton Wash.











POLLUTANT (ZINC) LUTANT REDUCTION	102.00 lb/yr (91.4%)
NDARY POLLUTANT (LEAD) LUTANT REDUCTION	15.53 lb/yr (86.7%)
IN DIVERSION RATE	25 CFS
AGE CAPACITY FOR SURFACE STORAGE STRUCTRE	5.28 acre-ft (1.72 MG)
24-HOUR CAPACITY	18.81 acre-ft
INSTRUCTION COST ESTIMATE	\$18,376,246



DISADVANTAGED COMMUNITY MAP

COMMUNITY INVESTMENT BENEFITS





Serving Our Community Since 1929

Rotary Club of Glendora





NATURE BASED SOLUTION







SCHEDULE FUNDING BY YEAR			
Year	SCW funding Request	Project Phase	
Year 1	\$6,152,082	Construction	
Year 2	\$6,112,082	Construction	
Year 3	\$6,112,082	Construction	
Year 4	\$310,800	O&M + Monitoring	
Total	\$18,687,046	-	

PRELIMINARY SECTIO A.1 Wet We A.1.1 Water Quality Cost Effe A.1 B. Signi B1. Wat B2. Wat C. Cor Creation/enha **Reducing local heat island** Enhanced/ne Increasing the number of shade/veg E. Leveraging Fu Strong loca TOTAL SCO





SCW SCORING		
N	Score	
eather Water Quality Benefits ectiveness > 1.0 AF/\$ Million .2 Pollutant Reduction . 80%	20 30	
ificant Water Supply Benefits ter Supply Cost Effectiveness ter Supply Benefit Magnitude	0 0	
nmunity Investment Benefits Improved flood management ncement/restoration of parks I effect and increasing shade w recreational opportunities getation for carbon reduction	10	
D. Nature-Based Solutions	10	
Inds and Community Support II, community-based support	4	
DRE	74	

Green Street Demonstration Project on Main Street Infrastructure Program Executive Summary Upper Los Angeles River, City of Alhambra, FY 24-25



Project Background

This Project is a sustainable stormwater streetscape project in the City of Alhambra that will bring multiple benefits to the community.

Project Objectives: The project will beautify Main Street; reduce stormwater runoff volumes and pollutant loads; enhance open space, include native plantings and habitat; and demonstrate to the public the benefits of green infrastructure.

Project Status: Project is requesting funds for Design and Construction phases.

Total Funding Requested: \$ 2,027,000

Project Overview

- The Green Street Demonstration Project on Main Street is in the City of Alhambra on Main Street between Hampden Terrace and North Fremont Avenue, as well as small portions of Grand Avenue and Birch Street north of Main Street.
- The Project is a first of its kind within the City of Alhambra and will provide multiple benefits to the neighborhood and the surrounding environment while also reducing stormwater runoff volumes and pollutant loads to receiving waters.
- The Project will beautify Main Street; reduce stormwater runoff volumes and pollutant loads; enhance open space, include native plantings and habitat; and demonstrate to the public the benefits of green infrastructure.



- Green streets mimic the natural processes of pre-developed landscapes by detaining and slowing flows, filtering
 runoff through soils, and infiltrating captured water into native soils, potentially replenishing natural
 groundwater resources. The Project will implement these treatment mechanisms primarily through the
 installation of two types of stormwater Best Management Practices (BMPs): (1) bioretention and (2) dry wells.
- Currently, the wide center medians consist of lawn and six (6) large heritage trees. Large bioretention facilities
 will be installed in the center median to make use of excess space while preserving the heritage trees. A series of
 smaller bioretention cells will be placed along the southern edge of Main Street next to the sidewalk. A total of
 seven (7) dry wells will be installed in the residential streets north of Main Street.
- BMPs will be implemented within the City right of way.

Green Street Demonstration Project on Main Street Infrastructure Program Executive Summary Upper Los Angeles River, City of Alhambra, FY 24-25





Page 2 of 4

Green Street Demonstration Project on Main Street



Infrastructure Program Executive Summary Upper Los Angeles River, City of Alhambra, FY 24-25

Benefit Score Description	
 Wet Weather Project Primary mechanisms that achieve Water Quality and Water Supply Benefits claimed: The Project will detain and slow flows, filter runoff through soils, and infiltrate captured water into native soils through the installation of two types of the project Water Quality and Water Supply Benefits and the installation of two types of the project will detain and slow flows, filter runoff through soils, and infiltrate captured water into native soils through the installation of two types of the project Water Quality and Water Supply Benefits and the installation of two types of the project will detain and slow flows. 	f
 Water Supply 10 Water Supply Water Supply Use: Because the Project sits on top of a managed and unconfine groundwater basin (Main San Gabriel), infiltrated stormwater is expected to replenish groundwater supplies. Water Supply Cost Effectiveness: Over the 50-year lifespan the Project would provide 936 acre-feet of recharge. Given an annualized life cycle cost of \$243,0; the water supply benefit is \$12,982 per acre-foot, which earns the Project four points under the Water Supply Benefits Alternative Scoring Pilot. 	ant eet of oply d
Community Investment 5 Through the greening, recreational, and pedestrian enhancements, the Project achieve: • Creation, enhancement, or restoration of parks, habitat, or wetlands • Enhanced or new recreational opportunities • Reducing local heat island effect and increasing shade • Increasing the number of trees increase and/or other vegetation at the site locat that will increase carbon reduction/sequestration and improve air quality.	t will tion
 Nature Based Solutions 10 Through the incorporation of bioretention and dry wells, the Project will mimic natural processes to slow, detain, capture, and infiltrate water in a manner that protects, enhances, and restores habitat, green space, and usable open space, earning five (5) points. The Project will also utilize natural materials such as soils and vegetation with a preference for native vegetation, earning an additional five (5) points. 	
Leveraged Funds 6 • The City will leverage an awarded Urban Greening Grant as match for 60% of th total capital costs, which earns the Project six (6) points.	e
 Community Support 4 The Project has strong local, community-based support. Stakeholders participated in the Design Options Workshop and contributed to t development of Project elements. The Project plans to continue engagement w the local community and its members to maintain and further develop support. 	he ith

Green Street Demonstration Project on Main Street

Infrastructure Program Executive Summary Upper Los Angeles River, City of Alhambra, FY 24-25



TOTAL	85

	Project Cost & Schedule		
Phase	Description	Cost	Completion Date
Design	Design, geotechnical support, surveying, permit document and fees, project administration and grant reporting (includes a 30% contingency).	\$ 985,000	April 2025
Construction	Construction costs, construction inspector, construction testing, consultant support for bidding, construction, admin, and closeout, and record drawings (includes a 30% contingency).	\$ 4,047,000	April 2026
TOTAL		\$5,032,000	

The Project is expected to have a lifespan of 50 years. Annual operation and maintenance (O&M) is expected to cost \$21,000 per year, for a total of \$1,060,000 over the projects lifespan. Annual O&M costs include city staff time, equipment, mulch replacement, trash removal, and truck usage. In addition to annual O&M costs, the project also planned for a 3-year monitoring period, with the possibility of long-term monitoring, to begin when construction is complete. Monitoring costs for the 3-year period total to \$130,000 and include equipment, labor, and lab fees. Considering both the capital costs outlined in the table above as well as the O&M and monitoring costs, the anticipated total life cycle cost for the Project is \$6,222,000.

Funding Request			
Year	SCW Funding Request	Phase	Efforts during Phase and Year
1	\$ 985,000	Design	Geotechnical studies, project surveying, Design 60%, permitting, Safe Clean Water reporting, project administration
2	\$ 1,042,000	Construction	Project administration, design 100%, design report, final bid package, final O&M plan, permitting, Storm Water Pollution Prevention Plan (SWPPP), advertising, bidding, and contracting, construct project. Construct project, final inspection and acceptance, Safe Clean Water reporting.
τοται	\$ 2 027 000		

• The funding requested was calculated as 40% of the total capital costs. No additional SCW funding requests are expected for design or construction. Project applicant may apply for SCW funds for O&M in the future.





PROJECT DESCRIPTION

LOCATION: Heartwell Park At Clark Ave – 5230 E Carson St. Long Beach, CA (LAT: 33.831284/ LONG: -118.128831)

REGIONAL WATER MANAGEMENT PLAN

Los Cerritos Channel Watershed

BRIEF: The Heartwell Park at Clark Avenue 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 Clark Avenue Channel, the Los Cerritos Channel, the Los Cerritos Estuary, and ultimately the Pacific Ocean. The proposed project includes a 100 CFS stormwater drop-inlet diversion from the LACFCD Los Cerritos Channel, Unit 3, Line A, a pretreatment unit, and a combination of a 30 acrefoot underground subsurface storage reservoir and dual 7.8 CFS filter system (15.6 CFS total). The project seeks to improve the water quality of stormwater runoff flows conveyed within the Clark Avenue Channel through capture, storage, and filtration before returning flows back to the channel via the proposed wetland revitalization of the existing lake and newly introduced stream. An additional alternative endpoint is the stormwater harvesting and reuse via irrigation. 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, CITY OF LONG BEACH HEARTWELL PARK AT CLARK CHANNEL STORMWATER CAPTURE PROJECT FACT SHEET

DRAINAGE AREA CHARACTERISTICS

REGIONAL WATER MANAGEMENT PLAN	Los Cerritos Channel Watershed
TOTAL DRAINAGE AREA	1,881 acres Lakewood (62.2%) Long Beach (37.8%)
INFILTRATION RATE	0.14 in/hr
APPROX. DEPTH TO GROUNDWATER	35 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	635 acre-ft



Heartwell Park Stormwater Capture Project | SCHEMATIC DIAGRAM

Los Cerritos Channel at Clark Ave

Heartwell Open Field BMP location

Heartwell Park Lake







Primary Po Zinc Reduction

Secondar Copper Re reduction

<u>Design Di</u>

Storage C Storage St

24-Hour

Construct



WATER QUALITY IMPROVEMENT

r <u>ollutant</u> liction Achieved (% Zn l)	111 lb/yr (92.5%)
<u>y Pollutant</u> eduction Achieved (% Cu)	26.6 lb/yr (90.5%)
version Rate	100 CFS
apacity for Subsurface tructure	30.0 ac-ft (9.78 MG)
Capacity	61.10 ac-ft
ion Cost Estimate	\$42,833,433

LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM, CITY OF LONG BEACH HEARTWELL PARK AT CLARK CHANNEL STORMWATER CAPTURE PROJECT

FACT SHEET

DISADVANTAGED COMMUNITY MAP



This project will provide improved parkland facilities for use by residents of Long Beach and adjacent cities. Abundant recreational opportunities along with ample parking make it a worthwhile destination for park lovers from miles around. Long varying backgrounds to the area. The existing lake will be revitalized by and areas for rest.







COMMUNITY INVESTMENT BENEFITS



LOS CERRITOS CHANNEL WATERSHED MANAGEMENT PROGRAM, CITY OF LONG BEACH IEARTWELL PARK AT CLARK CHANNEL STORMWATER CAPTU FACT SHEET

SCHEDULE FUNDING BY YEAR			
Year	SCW funding Request	Project Phase	
Year 1	\$2,864,472	Design	
Year 2	\$11,990,360	Construction (Phase 1)	
Year 3	\$11,970,360	Construction (Phase 1)	
Year 4	\$11,858,028	Construction (Phase 2)	
Year 5	\$11,838,028	Construction (Phase 2)	
Year 6	\$293,000	O&M/Monitoring	
Total	\$50,814,248	-	

PRELIMINARYS

SECTION

A.2 Dry Weather Water Quality Benef

- A.2.1 Capture of 100% of all tributary
- A.2.2 Drainage Area > 200 acres

B. Significant Water Supply Benefits

- B1. Water Supply Cost Effectiveness
- B2. Water Supply Benefit Magnitude

C. Community Investment Benefits

- Improved flood management
- Creation/enhancement/restoration of
- Reducing local heat island effect and
- Enhanced/new recreational opportu
- Improved public access to waterways
- Increasing the number of trees increation vegetation at the site location that we reduction/sequestration and improve

D. Nature-Based Solutions

E. Leveraging Funds and Community S

Strong local, community-based supplication

SCOR SCORINGits y dry weather flowsScore20 200 20 20 2of parks d increasing shade nities s ase and/or other vill increase carbon e air quality10ities ort10ities ase and/or other vill increase carbon e air quality20ities ase and/or other ort10ities ase and/or other other10ities ase and/or other other10ities ase and/or other other10ities ase and/or other other10ities ase and/or other other10ities ase and/or other other10	REPROJECT	
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Support ort10Description2TOTAL SCORE64	of parks d increasing shade nities s ase and/or other vill increase carbon e air quality	10
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	TOTAL	SCORE 64

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INDEPENDENCE PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

DRAINAGE AREA CHARACTERISTICS

REGIONAL WATER MANAGEMENT PLAN	Lower San Gabriel River Watershed
TOTAL DRAINAGE AREA	560 AC Downey (100%)
INFILTRATION RATE	0.5 in/hr
APPROX. DEPTH TO GROUNDWATER	52 ft BGS
MODELED AVERAGE ANNUAL RUNOFF VOLUME	223.7 acre-ft



PROJECT DESCRIPTION

LOCATION Independence Park, 12334 Bellflower Blvd, Downey, CA 90242, (33.919378, -118.123461)

REGIONAL WATER MANAGEMENT PLAN Lower San Gabriel River Watershed

BRIEF DESCRIPTION

Independence Park is owned and operated by the City of Downey and has been identified as a key Regional Project in the Lower San Gabriel River Watershed Management Program (LSGR WMP). Runoff within this corridor drains to the Bellflower Blvd Storm Drain, the San Gabriel River, and ultimately the Pacific Ocean. The proposed project includes two individual projects on the same site: a 25 CFS stormwater drop-inlet diversion from the LACFCD BI 0615 storm drain in Bellflower Blvd that flows through a pretreatment unit and into a 4.2 acre-foot underground subsurface storage reservoir and either infiltrates or exits through a 7.84 CFS filter system; and a 3.34 CFS stormwater drop-inlet diversion from the LACFCD BI 3150 Line A storm drain in Dunrobin Ave that instead flows through a pretreatment unit into a 0.25 acre-foot bioretention basin that either infiltrates or exits through a 2.88 CFS filter system. The project seeks to improve the water quality of stormwater runoff flows conveyed through capture, storage, and filtration before returning flows back to the storm drain network.







John L. Hunter

1 of 4





IARY	POLLU	TANT	(ZINC)
POLL	UTANT	REDU	ICTION



INDEPENDENCE PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

DISADVANTAGED COMMUNITY MAP

COMMUNITY INVESTMENT BENEFITS











NATURE BASED SOLUTION







INDEPENDENCE PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

SCHEDULE FUNDING BY YEAR		
Year	SCW funding Request	Project Phase
Year 1	\$1,310,458	Design
Year 2	\$3,992,354	Construction
Year 3	\$3,972,354	Construction
Year 4	\$3,997,354	Construction
Year 5	\$514,800	O&M/Monitoring
Total	\$13,787,320	-

PRELIMINARY SECTIO A.1 Wet We A.1.1 Water Quality Cost Effe A.1 B. Signi B1. Wat B2. Wat C. Cor **Creation/enha** Reducing local heat island Enhanced/ne Increasing the number of shade/veg E. Leveraging Fu Strong loca

TOTAL SCO



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SCW SCORING		
N	Score	
eather Water Quality Benefits ectiveness > 1.0 AF/\$ Million .2 Pollutant Reduction . 80%	20 30	
ificant Water Supply Benefits ter Supply Cost Effectiveness ter Supply Benefit Magnitude	0 0	
mmunity Investment Benefits Improved flood management ncement/restoration of parks I effect and increasing shade w recreational opportunities getation for carbon reduction	5	
D. Nature-Based Solutions	13	
Inds and Community Support al, community-based support	4	
ORE	72	



LOWER LOS ANGELES RIVER WATERSHED MANAGEMENT GROUP, CITY OF LYNWOOD LYNWOOD PARK STORMWATER CAPTURE PROJECT FACT SHEET

DRAINAGE AREA CHARACTERISTICS

Lower Los Angeles River Watershed
955 AC Lynwood (36.8%) South Gate (63.2%)
0.3 to 1.03 in/hr
43 ft BGS
647 acre-ft/yr



PROJECT DESCRIPTION

LOCATION Lynwood Park, 11301 Bullis Road, Lynwood, CA 90262, (33.927929, -118.202117)

REGIONAL WATER MANAGEMENT PLAN Lower Los Angeles River Watershed

BRIEF DESCRIPTION

The Lynwood Park site is owned and operated by the City of Lynwood and is located within the Lower Los Angeles River watershed. The project seeks to improve water quality discharged to the Lower Los Angeles River and will restore and rehabilitate areas of the park. The project proposes two stormwater diversion structures from two branches of the LACFCD East Compton Creek storm drains. The water captured will be filtered by hydrodynamic separators and infiltrated into a 10.3 AF underground storage reservoir. Additional features include parking lot enhancements (native landscaping, permeable pavement, and bioswales), an ephemeral stream, and a butterfly garden.

The treatment drainage area for the project at 955 acres captures runoff from the jurisdictions of Lynwood and South Gate. 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.







1 of 4

LOWER LOS ANGELES RIVER WATERSHED MANAGEMENT GROUP. CITY OF LYNWOOD LYNWOOD PARK STORMWATER CAPTURE PROJECT FACT SHEET









WATER QUALITY IMPROVEMENT

RY	POLL	JTANT	(ZINC)
)LL	UTAN1	r Redu	ICTION

127 lb/yr (80%)

SECONDARY POLLUTANT (BACTERIA) POLLUTANT REDUCTION

DESIGN DIVERSION RATE

STORAGE CAPACITY FOR SUBSURFACE STORAGE **STRUCTRE**

24-HOUR CAPACITY

2.7 x 10¹⁴ MPN (98%)

Birch Diversion: 20 cfs Bullis Diversion: 25 cfs

10.3 acre-ft (3.35 MG)

27.3 acre-ft

CONSTRUCTION COST ESTIMATE

\$19,632,446



LYNWOOD PARK STORMWATER CAPTURE PROJECT FACT SHEET

DISADVANTAGED COMMUNITY MAP



COMMUNITY OUTREACH & SUPPORT



COMMUNITY INVESTMENT BENEFITS







Reduce Heat Island Effect

Improve Water Quality



E Improve Park Facilities

Improve Flood Management



Improved Public Access to Waterways



NATURE BASED SOLUTION



3 of 4



LYNWOOD PARK STORMWATER CAPTURE PROJECT FACT SHEET

SCHEDULE FUNDING BY YEAR

Year	SCW funding Request	Project Phase
Year 1	\$8,850,000	Construction
Year 2	\$8,000,000	Construction
Year 3	\$3,000,000	Construction
Year 4	\$2,350,000	Construction
Total	\$22,200,000	-

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 . 80%	20 30
B. Significant Water Supply Benefits B1. Water Supply Cost Effectiveness B2. Water Supply Benefit Magnitude	0 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 Increasing the number of shade/vegetation for carbon reduction Improved Public Access to Waterways	10
D. Nature-Based Solutions	12
E. Leveraging Funds and Community Support Strong local, community-based support	4
TOTAL SCORE	76



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LOS CERRITOS CHANNEL WATERSHED MANAGEMENT GROUP, CITY OF SIGNAL HILL RESERVOIR PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

DRAINAGE AREA CHARACTERISTICS

REGIONAL WATER MANAGEMENT PLAN	Los Cerritos Channel Watershed
TOTAL DRAINAGE AREA	183.6 AC Signal Hill (42.8%) Long Beach (57.2%
INFILTRATION RATE	0.3 in/hr
GROUNDWATER BASIN BELOW SITE:	Central Basin
MODELED AVERAGE ANNUAL RUNOFF VOLUME	78.6 acre-ft



Garden and Pathway Location



Subsurface Infiltration Gallery Location



Northeast Picnic Area

PROJECT DESCRIPTION

LOCATION Reservoir Park, 3315 Gundry Ave, Signal Hill, CA 90755, (33.81800, -118.17480)

REGIONAL WATER MANAGEMENT PLAN Los Cerritos Channel Watershed

BRIEF DESCRIPTION

Reservoir Park is owned and operated by the City of Signal Hill and has been identified as a key Regional Project in the Los Cerritos Channel Watershed Management Program (LCC WMP). Runoff within this corridor drains through the upstream storm drain system, into the Los Cerritos Channel, and ultimately the Pacific Ocean. The proposed project includes an 8 CFS diversion from BI 0633 – Line B, a 66" reinforced concrete pipe (RCP) that follows E. Wardlow Rd. The diverted flow travels to a pretreatment unit and then to a wet well pump station and check valve vault where flow direction then depends on the type of weather flow. During dry weather flows, the flow is then pumped to a dry well and returns to the 0.5 acre-foot underground subsurface infiltration gallery. During wet weather flows, the flow is instead pumped directly to the subsurface infiltration gallery, and eventually either infiltrates or exits through a 7.84 CFS filter back into BI 0633 – Line B. The project seeks to improve the water quality of stormwater runoff flows conveyed through capture, storage, and filtration before returning flows back to the storm drain network.





RESERVOIR PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET





MARY POLLUTANT (ZINC) POLLUTANT REDUCTION	36.
SECONDARY POLLUTANT (COPPER) POLLUTANT REDUCTION	9.2



LOS CERRITOS CHANNEL WATERSHED MANAGEMENT GROUP, CITY OF SIGNAL HILL RESERVOIR PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

DISADVANTAGED COMMUNITY MAP

COMMUNITY INVESTMENT BENEFITS



NATURE BASED SOLUTION

RESERVOIR PARK RUNOFF CAPTURE AND INFILTRATION FACILITY FACT SHEET

SCHEDULE FUNDING BY YEAR				
Year	SCW funding Request	Project Phase		
Year 1	\$951,384	Design		
Year 2	\$1,918,345	Construction		
Year 3	\$1,903,345	Construction		
Year 4	\$1,903,345	Construction		
Total	\$6,676,878	-		

PRELIMINARY SECTIO A.1 Wet We A.1.1 Water Quality Cost Effe A.1 B. Signi B1. Wat B2. Wat C. Cor **Creation/enha Reducing local heat island** Enhanced/ne Increasing the number of shade/veg E. Leveraging Fu Strong loca

TOTAL SCO

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SCW SCORING			
Ν	Score		
eather Water Quality Benefits ectiveness > 1.0 AF/\$ Million .2 Pollutant Reduction . 80%	20 30		
ificant Water Supply Benefits ter Supply Cost Effectiveness ter Supply Benefit Magnitude	0 0		
mmunity Investment Benefits Improved flood management ncement/restoration of parks I effect and increasing shade ew recreational opportunities getation for carbon reduction	5		
D. Nature-Based Solutions	10		
Inds and Community Support al, community-based support	2		
ORE	67		

Infrastructure Program Executive Summary Lower San Gabriel River, Los Angeles County Public Works, 2024-2025

Project Background

The Project will divert stormwater runoff and dryweather flow from nearby storm drains to an underground stormwater capture facility at Sorensen Park to be pre-treated and infiltrated.

<u>Project Objectives</u>: Divert stormwater runoff and dryweather flow into an underground infiltration gallery to recharge groundwater supply. Provide high quality green and recreational space to surrounding communities. Enhance park with nature-based low impact development (LID) features. Reduce turf area and use of water-efficient irrigation to lessen burden on water supply.

<u>Project Status</u>: Phases for which SCW funding is being requested: Half of Total Design Cost.

Project Overview

- Why was the Project Location selected? How was the Project developed? The project is included in the approved Lower San Gabriel River (LSGR) Watershed Area Stormwater Investment Plan (SIP).
- Which regional water management plan includes the proposed project? Upper San Gabriel River
 Watershed Enhanced Watershed Management Plan (E/WMP).
- <u>Description of benefits to</u> <u>municipality/municipalities</u>: Enhancement of park space, habitat, and recreational opportunities; reduction of the urban heat island effect; increased vegetation and trees to provide carbon sequestration and air quality benefits.
- <u>Description of how the Feasibility Study or Project</u> <u>Concept will provide Disadvantaged Community</u> (DAC) Benefits: Improvements to public health and quality of life and enhanced green and park space.

• <u>Description of current site conditions, land ownership/right-of-way, and completed studies/analysis:</u> Sorensen Park is approximately 11.4 acres and is owned by Los Angeles County. The property consists of parks and open space and institutional land use. A scientific study and a feasibility study have been completed.

Page 1 of 4

Total Funding Requested: \$1,616,592

Infrastructure Program Executive Summary Lower San Gabriel River, Los Angeles County Public Works, 2024-2025

Infrastructure Program Executive Summary

Lower San Gabriel River, Los Angeles County Public Works, 2024-2025

Preliminary Score				
Benefit	Score	Description		
Water Quality	44	 Underground stormwater storage and infiltration gallery with pre-treatment device. Wet/Dry: Wet weather BMP. Tributary Area: 617 acres. Storage volume of 27.58 acre-feet. 100% pollutant reduction for the 85th perceptile design storm. 		
Water Supply	16	 100% pointrain reduction for the 85° percentile design storm. 118 acre-feet of annual water supply volume. Stormwater diverted from the storm drains to the infiltration gallery will infiltrate to the Central Groundwater Basin. Water Supply and Water Quality Cost Effectiveness: 0.85 acre-feet/year/\$M. 		
Community Investment	5	• Native plants and trees enhance the park and provide wildlife habitat. Additional tree plantings mitigate shade and the local urban heat island effect. Additional trees and native vegetation will also be planted to sequester carbon and improve local air quality. LID in the form of biofiltration and vegetated filter strip features filter surface water and provide a biodiverse planting area. The existing basketball courts will be resurfaced, the existing sports fields will be enhanced with new turf, and fitness and playground equipment will be upgraded within construction limits.		
Nature Based Solutions	10	• Vegetation/Green Space (Better): 10-15% of green space covered by native, eco- friendly, climate appropriate vegetation. Increased Permeability (Better): 25% of paved area is removed, asphalt parking lot removed and replaced with permeable pavement. New Landscape Elements (Best): A biofiltration area and vegetated filter strip LID is proposed to capture runoff via sheet flow from adjacent planting areas and impermeable hardscape areas. The biofiltration area will promote water quality by capturing and filtering runoff. Soil Enhancement (Best): Addition of bushes and trees will enhance and protect the soils. Use of soil amendments such as mulch and compost that are locally generated, maintenance practices that support humus production through the preservation of leaf litter. Potential on-site composting programs will contribute to soil fertility, and planting of new climate-appropriate vegetation will enhance soil organic matter.		
Leveraged Funds	3	 The LSGR Watershed is estimated to receive up to \$16.7 million annually from the SCWP tax return. The funding is strategically allocated in the SIP each fiscal year with a 5-year projection. No efforts have occurred to date to leverage Municipal Safe Clean Water Funds from potential participating municipalities. Each year, the Unincorporated Area Stormwater and Urban Runoff Quality Program Capital Project account receives varying funds from a combination of the County of Los Angeles general fund and grants for multi-benefit stormwater projects. <u>% funding matched</u>: Unknown at this time. 		
Community Support	0	• A planning-level program is in place to engage and garner support from the community, including plans for: conducting community outreach/engagement meetings, leveraging community-based organizations/non-governmental		

Infrastructure Program Executive Summary Lower San Gabriel River, Los Angeles County Public Works, 2024-2025

		 organizations, providing online media outreach, providing mailers and handouts, collecting, reviewing, and incorporating community comments, and documenting community support. Initial community outreach was performed on November 17, 2022, at Sorensen Park. Informational poster boards were displayed and public opinion on project plans was solicited. Contact information was gathered from community members wishing to learn more about the project. Future meetings may be held at one or more of the public buildings such as the Sorensen Library, a municipal Los Angeles County building, or outdoors at Sorensen Park. Online meetings may be used to reach a broader audience. At least three in-person meetings will take place, in addition to the initial meeting. 		lers and handouts, 5, and documenting 2022, at Sorensen pinion on project ommunity members be held at one or unicipal Los Angeles gs may be used to vill take place, in
TOTAL	78			
		Project Cost & Schedule	9	
Phase		Description	Cost	Completion Date
Planning	Includes planning kickoff.	s Project Feasibility Study and any g necessary up to the design phase	\$300,000	October 2024
Design	Includes	s surveying and other field work, \$3,223,183 July 2026		

		obtaining permi communication documents, Wa drainage study, Monitoring Plar due diligence.	its, stakeholder mee s, 60%, 90%, 100% c ter Quality Manager specifications, O&M n, cost estimate, bid	tings and onstruction nent Plan, Plan, support, and		
Constructi	on	Construction of inflow, outflow,	underground storag and landscaping/LI	e facility, D.	\$32,231,833	December 2027
Operation Maintenar Monitorin	s, nce, and g Phase	Operations, ma years following	intenance, and moni construction comple	toring for 50+ tion.	\$266,552 per year	N/A
TOT	AL				\$48,782,616	
Funding Request						
Year	SCW F	unding Request Phase Efforts during Phase and Year			nd Year	
1	\$1,616,	592	Design	Funding will b	e used for the design ph	lase.
TOTAL	\$1,616,	592				

EXECUTIVE SUMMARY

PROJECT BACKGROUND

The proposed South El Monte High School Stormwater Improvement Project is a multi-benefit project that consists of nature-based solutions distributed throughout the campus to treat and detain the tributary runoff. The stormwater facilities include bioretention, pervious pavement, and tree trenches.

Primary Objective

The primary objective of this project is to improve water quality and contribute to attainment of water quality requirements.

Secondary Objective

The secondary objective of this project is to improve flood management of the school.

Additional Objectives

Additional project objectives include the following:

- 1. Improve public health by increasing access to open space, providing additional recreational opportunities, and helping communities mitigate and adapt to the effects of climate change.
- 2. Provide multiple benefits.
- 3. Prioritize nature-based solutions.
- 4. Provide Disadvantaged Community (DAC) benefits.

Project Status

SCW funding is being requested for Design, Construction, and Operation phases.

Flooding

Total Funding Requested for Design, Construction, Monitoring, and O&M:

\$8,867,600

PROJECT OVERVIEW

Why was the Project Location selected?

South El Monte High School was selected to improve water quality, conserve water supply, and reduce flooding that occurs in the ball fields.

How was the Project developed?

The Stormwater Investment Plan for the Rio Hondo Watershed Area identified a Technical Resource Program to develop a feasibility study for the South El Monte High School Stormwater Improvement Project.

Project Location

SOUTH EL MONTE HIGH SCHOOL STORMWATER IMPROVEMENT PROJECT

EXECUTIVE SUMMARY

PROJECT LOCATION

South El Monte High School | 1001 Durfee Ave | South El Monte, CA 91733

Capture Area (Tributary Area)

AREA	ACRES	
Capture Area	65.9	
Impervious Area	29.7	
Pervious Area 36.2		
Capture Area Summary		

Capture Area
The Project captures
and treats the
65.9-acre drainage
area.

MUNICIPALITY	TRIBUTARY PERCENT	ACRES				
South El Monte	60.3	39.7				
Unincorporated Los Angeles County	39.7	26.2				
Municipal Jurisdictional Areas within the Project Capture Area						

Municipalities

The Project tributary area is within the City of South El Monte and unincorporated Los Angeles County.

Watershed Area

The Project is part of the Rio Hondo watershed.

Disadvantaged Communities Map

Jacobs

Disadvantaged Communities (DAC) The Project is within a DAC area listed in the 90th to 95th overall percentile based on the CalEnviroScreen 4.0.

EXECUTIVE SUMMARY

PROJECT DETAILS

Design Elements

The project consists of nature-based BMPs distributed throughout the school campus to treat and detain the tributary runoff. BMPs include bioretention around the ball fields and throughout the campus, pervious pavement along the school blacktop and parking lot, and tree trenches near the staff parking lot. An optional stormwater harvesting component could also be added to the project if EMUHSD is able to obtain additional funding.

Water Supply Benefits

The distributed BMPs are intended to detain runoff; no supply benefit is provided by the proposed layout. However, the optional stormwater harvesting component would provide a water supply benefit if implemented. The optimal cistern size would provide 700,000 gallons of storage capacity and provide an approximate average of 7.2 ac-ft of annual stormwater reuse through irrigation. This facility is not sized to retain the full 85th percentile runoff event but is sized to maximize cost-effectiveness. The additional construction cost for the optional cistern is \$5.5 million.

Community Investment and Local Support Benefits

Community Investment Needs:

Jacobs

- The South El Monte High School campus is covered with a large proportion of pavement, with limited shade provided.
- Significant flooding occurs during storm events at the ball fields.
- Localized flooding also occurs in the student drop-off parking lot and on the perimeter road. The neighborhood community north of the school also contributes uncontrolled runoff.
- The project is within an area designated for low air guality due to high rates of vehicle traffic.

Improve Flood Management by incorporating BMPs to detain stormwater runoff and provide peak flow attenuation.

Enhance Open Space by reducing the flooding that occurs after storm events and increasing native vegetation and tree cover within the school campus.

Enhance Recreational Opportunities through the reduction of flooding at the ball fields.

Create Green Spaces at Schools with proposed tree trenches at the east parking lots.

Improve Public Health by carbon sequestration and improved air quality by implementing trees in bioretention and tree trenches. The design proposes up to 28 trees to be planted.

Bioretention

Project Area

Proposed BMP

Note: 1)Storage sized for the 85th% Runoi

Parking Lot Pervious

Pavement

Project BMP Site Plan

City/County Boundary Line

Water Quality Benefits

Average Annual Pollutant Loading Reduction

POLLUTANT Constituent	% POLLUTANT REDUCTION	POLLUTANT VOLUME CAPTURED/REMOVED
Zinc	95.6%	13.79 lb/yr
Copper	95.5%	2.83 lb/yr
Lead	95.6%	1.75 lb/yr
Nitrogen	85.5%	97.16 lb/yr
Phosphorus	85.2%	15.07 lb/yr
E. Coli	84.7%	5.23e+12

Estimated Pollutant Reduction

Rio Hondo Watershed Area | El Monte Union High School District [EMUHSD] | FY24-25

Pervious Pavers and Pavement

EXECUTIVE SUMMARY

PRELIMINARY SCORE

SECTION	SCORE	DESCRIPTION
Wet & Dry Weather Water Quality	11	24-hour BMP Capacity Cost in \$Millions = 4.17 acre-feet / \$6.33 Million = 0.66
	30	Primary Pollutant: 96% load reduction in zinc (13.8 lb) Secondary Pollutant: 85% load reduction in E. coli (5.23e+12)
Water Supply	0	Annual Life-Cycle Cost per Water Supply Benefit = N/A
	0	Yearly additional water supply volume = N/A
Community Investment	10	Provides 6 community investment benefits: (1) Improves flood management; (2) enhances open park space; (3) enhances recreational opportunities; (4) provides greening of schools; (5) reduces heat island effect/increases shade; (6) increases carbon reduction/sequestration and improves air quality
Nature-Based Solutions	10	 Mimics natural processes to slow, detain, and capture water in a manner that protects and enhances habitat and usable open space Utilizes natural materials including soils and native vegetation
Leveraged Funds	0	Cost Share: N/A
Community Support	4	Local Support: strong local, community-based support
TOTAL	65	

COMMUNITY OUTREACH

On November 17, 2022, the project team conducted a community outreach/engagement meeting to introduce the Safe, Clean Water Program (SCWP) grant opportunity for the South El Monte High School campus, present information about the proposed project elements, and solicit community input and feedback from the community. Feedback to minimize construction impacts to the sports fields, parking, and the swap meet has been incorporated into the construction phasing schedule.

If the project is awarded SCWP funding and moves to final design, additional community meetings will be conducted through the project design and construction phases to solicit, address, and incorporate input from community members.

PROJECT COST & SCHEDULE

TASK		FY 2021-2022			FY 2022-2023		FY 2023-2024		24	FY 2024-2025			25	FY 2025-2026			26	FY 2026-2027			27	FY 2027-2028			28			
		0ct	Jan	Apr	Jul	0ct	Jan	Apr	Jul	0ct	Jan	Apr	Jul	0ct	Jan	Apr	Jul	0ct	Jan	Apr	Jul	0ct	Jan	Apr	Jul	0ct	Jan	Apr
Feasibility Study																												
Safe Clean Water Program Review																												
Design																												
Construction																												
Monitoring, Operations, and Maintenance (ongoing)																												>>

PHASE	DESCRIPTION	COST	COMPLETION DATE
Planning	Feasibility Study	\$300,000	11/23
Design	Final Design (30/60/90/100); Public Outreach; Environmental Planning (CEQA) and Permitting; Agency Management; Pre-Construction Monitoring	\$ 1,264,800	6/11/26
Construction	Construction; Construction Administration and Design Support; Agency Management	\$ 6,333,200	11/11/27
Total		\$ 7,898,000	11/11/27
Annual 0 & M	Operations and maintenance activities and equipment	\$ 403,200	
Annual Monitoring	Water quality monitoring	\$ 20,000	
Life-Cycle Cost (50 years)	Total Discounted Project Cost, Calculated with SCWP Module	\$ 18,052,219	

The project cost and annualized costs consist of a 5% escalation factor of year 2020 prices. Costs and schedule do not include future optional underground storage and harvested stormwater.

FUNDING REQUEST

YEAR	SCW FUNDING REQUEST	PHASE	EFFORTS DURING PHASE AND YEAR
1	\$ 1,264,800	Design	Final Design (30/60/90/100), Public Outreach, CEC
2	\$ 6,333,200	Construction	Construction, Construction Administration and De
3	\$ 423,200	Operation	Monitoring, Operations and Maintenance
4	\$ 423,200	Operation	Monitoring, Operations and Maintenance
5	\$ 423,200	Operation	Monitoring, Operations and Maintenance
TOTAL	\$ 8,867,600		

A and Permitting, Agency Management, Pre-Construction Monitoring

sign Support, Agency Management

Rio Hondo Watershed Area | El Monte Union High School District [EMUHSD] | FY24-25

Torrance Airport Stormwater Basin Project 📿

Project Description

Stormwater capture and sewer diversion facility below Torrance Airport to improve water quality in Machado Lake and increase water supply.

- **Project Objectives:** Improve Machado Lake water quality, increase regional water supply, comply with MS4 Permit **Project Status:** In-design
- Total Funding Requested: \$19.2 million

Project Overview

Project Stakeholders:

- City of Torrance (lead agency & infrastructure project developer), City of Rolling Hills Estates, City of Rancho Palos Verdes, City of Palos Verdes Estates, County of Los Angeles unincorp.
- Design team collaborating with Airport stakeholders on design How was Project developed?
- High priority in Palos Verdes Peninsula WMP
- Included in Machado Lake WMP and 2017 Greater LA IRWMP
- Diversion to sanitary sewer due to existing groundwater plume Why was Project Location selected?
- City-owned property, open space
- Confluence of several major storm drains
- Sizable drainage area (3,334 acres)

Project Location: 3301 Airport Drive, Torrance, CA 90505, 4th Supervisorial District

SDAC

DAC

Machado

Lake

craft 🕘

water

SAFE CLEAN WATER PROGRAM

Torrance Airport Stormwater Basin Project

Project Design

- Dry weather and stormwater diversion from LACFCD storm drain
- Pre-treatment and storage in underground reservoir
- Controlled release to sanitary sewer for treatment/recycling

Project Schedule

Funding Request

Year	Funding	Phase	Description
Year 1 \$9,211,201 Co		Construction	Construction Contract
Year 2	r 2 \$9,211,201 Construction		Construction Contract
	\$206,000	0 & M	O&M Cost for the System
tear 3	\$50,000	Monitoring	Monitoring Cost
	\$206,000	0 & M	O&M Cost for the System
rear 4	\$50,000	Monitoring	Monitoring Cost
	\$206,000	0 & M	O&M Cost for the System
rear 5	\$50,000	Monitoring	Monitoring Cost
Total	\$19,190,402		

Regional Interconnectedness

Torrance Airport Stormwater Basin Project

Nature-Based Solutions

New Shade Tree Locations

Existing Drainage

Ditch

Water Quality Improvement

- Removes trash, PCBs and DDT, metals, bacteria
- Reduces Total Nitrogen by 96% (544lbs) and Total Phosphorus by 92.6% (150lbs) annually
- Diverts 85th%, 24-hr runoff volume from PVP targeted drainage area (2,281 acres)

Water Supply Enhancement

 Supplies average of 131.8 AF/year for recycling/reuse

Community Investment Benefits

- Direct water quality benefits to DAC and SDAC
- Improves flood management
- Reduces local heat island effect
- Increases carbon seguestration
- Improves air quality

Leveraged Funds

• Leverages \$1.4M for planning/design/construction Protects \$110M City of LA Prop O investment

Safe Clean Water Preliminary Score – 65 or 74 Points

Alternate Water Supply Scoring Pilot

SAFE CLEAN WATER PROGRAM

ratio of the project's life-cycle cost to the magnitude of annual capture of stormwater for augmenting water supply.

Project Background

The Project includes installation of a diversion pipe, a subsurface infiltration gallery, two bioswales, an ephemeral infiltration/retention basin, pervious pavement, and other green infrastructure elements.

Project Objectives:

The Primary Project objectives include (1) improving local water quality in the City of Pasadena Eastside Storm Drain and the downstream Rio Hondo River, (2) restoration, rehabilitation, and new vegetation will provide park recreational enhancements that will include a bioretention garden area, additional shade trees and native vegetation, and (3) provide flood control management at the southeast portion of the park.

Additional, Project objectives include, (1) providing supplemental stormwater and urban runoff for groundwater recharge, (2) provide habitat, educational opportunities, and diverse vegetation to the existing space, (3) educate the public on integrated systems and sustainable water resources practices, and (4) provide improved site stormwater management by installing permeable pavement in the parking lot.

Project Status: Phases for which SCW funding is being requested (Planning, Design, Construction, O&M).

Phase	Description	Cost	Start Date	Completion Date
Planning	Planning & Engineering	\$1,440,900.00	09/2024	06/2025
Planning	Utility Research & Coordination	\$192,200.00	10/2024	06/2025
Planning	Permitting & CEQA Compliance	\$480,300.00	10/2024	12/2025
Design	Geotechnical Report	\$96,100.00	05/2025	01/2026
Design	Hydrology Study	\$96,100.00	05/2025	05/2026
Bid/Award	Contingency	\$1,600,975.00	06/2026	08/2026
Design	Pre-Project Monitoring	\$96,100.00	02/2025	08/2026
Construction	Mobilization and Demobilization	\$640,390.00	08/2026	08/2027
Construction	Construction Management	\$960,585.00	08/2026	08/2027
Construction	On-site Construction	\$6,403,900.00	08/2026	08/2027
Total		\$12,007,550.00		

Annual Costs Annual Maintenance Cost						
\$ 444501						
Annu	al Operation Cost					
\$	8100					
Annu	Annual Monitoring Cost					
\$	94560					

Total Funding Requested:

The City is requesting approximately **\$12.6 Million** for the purposes of planning, design, construction, and operation for over a 5-year period. The project is requesting 50% of Operation & Maintenance (O&M) costs.

Project Overview

Why was the Project Location selected? How was the Project developed?

The Project site is owned and operated by the City of Pasadena and is located within the SCWP's Rio Hondo watershed. This project was identified as medium priority project under Pasadena's Stormwater Master Plan that is now actively being enrolled into the Upper Los Angeles River EWMP. The EWMP, was developed as an alternative compliance approach that addresses the MS4 Order No. R4-2012-0175 (Permit) requirements for Los Angeles County. It is noted that the purpose of the MS4 Permit is to protect the beneficial uses of the receiving waters in the Los Angeles County region by regulating municipal stormwater and non-stormwater discharges from the permittees' MS4s, of which the City of Pasadena (City) is a permittee.

Which regional water management plan includes the proposed project?

The Upper LA River EWMP developed by the Upper Los Angeles River Watershed Management Group.

Description of benefits to municipality/municipalities

Based on the 10-year Watershed Management Modeling System (WMMS), the subsurface infiltration gallery can achieve over 97 percent reduction in pollutant loads for the Primary Pollutant Zinc and over 96 percent reduction for the secondary pollutant, Copper. Based on the 10year Watershed Management Modeling System (WMMS), over 95% load reduction was achieved for metals [Total Zinc (97.5%); Total Copper (96.6 %); Total Lead (95.5 %); Total Nitrogen (98 %); Total Phosphorous (97.3 %) and *E. coli* (92.9 %)].

The model generated a 96.6 % reduction for the secondary pollutant Total Copper. Another important feature is the sizing of the infiltration gallery which allows it to capture and infiltrate at least 67 percent of the 85th percentile storm event.

Additional benefits include the following:

- Increased resiliency to flooding by diverting storm water flows, thereby increasing downstream storm drain capacity during rain events.
- Enhanced habitat and aesthetic value through the planting of native vegetation within the two proposed bioswales. This will enhance the park's landscaping and will capture and treat surface runoff from within the park.
- Native vegetation, which includes the addition of approximately 12 trees in the park, will provide additional shade and habitat for native species. This will also contribute to the reduction of the heat island effect and provide for some carbon sequestration. Each tree would sequester approximately 1,800 pounds of carbon over a 50year lifespan which equates to 432 total pounds of carbon captured annually.
- Additional benches allow passive recreational uses to the park.

Educational signage to promote environmental stewardship and community awareness.

How the Feasibility Study or Project Concept will provide Disadvantaged Community (DAC) Benefits

The Project creates direct and indirect benefits for all park visitors including DAC residents. Direct benefits include increased educational opportunities on climate resiliency and environmental stewardship through the installation of display signs. Secondary benefits include the following.

- Increased resiliency to flooding by diverting storm water flows, thereby increasing downstream storm drain capacity during rain events.
- Enhanced habitat and aesthetic value through the planting of native vegetation within the two proposed bioswales. This will enhance the park's landscaping and will capture and treat surface runoff from within the park.
- Native vegetation, which includes the addition of approximately 12 trees in the park, will provide additional shade and habitat for native species. This will also contribute to the reduction of the heat island effect and provide for some carbon sequestration. Each tree would sequester approximately 1,800 pounds of carbon over a 50-year lifespan which equates to 432 total pounds of carbon captured annually.
- Additional benches allow park users to sit and enjoy the park.
- Educational display signs installed at the Park as part of the Project.

Project Details

The purpose of the Feasibility Study is to evaluate the possibility of implementing best management practices (BMPs) composed of a sub-surface pre-treatment facility and infiltration gallery for both dry weather and wet weather flows and water quality improvements (biofiltration, dry wells and permeable pavement).

In addition, the BMPs will recharge the local groundwater and reduce local runoff through distributed bioretention practices (dry wells, temporary detention through the ephemeral stream, and partial detention storage under the northwest "GREEN" area) by diverting stormwater runoff from the existing high-capacity culvert.

Figure 1: Project Layout

Description of current site conditions, land ownership/right of way, and completed studies/analysis

Washington Park (APN: 5730-030-903) is owned by the City of Pasadena. Therefore, no right-of-way acquisition is needed for construction of the Project. However, a construction easement may be required at the southeast portion of the property since the park is next to residential homes. As conditions warrant, all construction would take place within the boundaries of Washington Park.

Completed studies/ analysis includes a range of topics related to site characteristics including adjacent land use, soil characteristics, depth to groundwater and climate. Preliminary design criteria related to the diversion structure, treatment BMP sizing, and event-based design details are also included in the Project.

Project Location

Figure 2: Washington Park Location

[Washington Park Stormwater Capture Project]

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Watershed Area

• Capture Area

Figure 4: Capture Area

• Municipality Benefits (and a list of Municipalities)

Figure 5: Municipalities within Capture area and project layout

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Figure 6: Protected Trees Within Project Boundary

Figure 7: Typical Vegetation Swale Configuration and Details

Figure 8: Typical Permeable Pavement Configuration and Details

Supervisorial District ٠

Figure 9: Supervisorial District 5

Safe Clean Water Program - Digital Library 0 E Q. Legend ddress or place 2020 Disadvantaged Community Census Block Group Ŧ ø Disadvantaged Community Census Block Group (2020) 🙀 🔛 🗄 | Miles 🔻 Measurement Result 1.5 Miles Clear Press CTRL to enable snaps asadena

Disadvantaged Communities (DAC)

Figure 10: DAC relative to Washington Park

List of DAC Block Groups (Census Place: Pasadena) within 1.5 miles of project site

462100	461400	462302
461502	461300	461902
462002	461600	462202
462001	461901	462302
462201	462301	

[Washington Park Stormwater Capture Project]

Infrastructure Program Executive Summary [SCWP Rio Hondo Watershed], [City of Pasadena], [FY24-25]

Preliminary Score							
Benefit	Score	Description					
Water Quality	50	 Primary mechanisms that achieve Water Quality and Water Supply Benefits claimed Wet/Dry Tributary Area Capacity Pollutant Peduation 					
Water Supply	5	 Pollutant Reduction Annual Water Supply Volume Water Supply Use (irrigation, water recycling, water supply aquifer) Water Supply and Water Quality Cost Effectiveness Etc. 					
Community Investment	10	Description of community investment benefits provided					
Nature Based Solutions	14	Description of how the project implements nature-based solutions					
Leveraged Funds	4	 Description of leveraged funds, leveraged funding amount, and status % funding matched 					
TOTAL	83						

Project Cost & Schedule				
Phase	Description	Cost	Completion Date	
Planning	Planning & Engineering	\$1,440,900.00	Jun-25	
Planning	Utility Research & Coordination	\$192,200.00	Jun-25	
Planning	Permitting & CEQA Compliance	\$480,300.00	Dec-25	
Design	Geotechnical Report	\$96,100.00	Jan-26	
Design	Hydrology Study	\$96,100.00	May-26	
Bid/Award	Contingency	\$1,600,975.00	Aug-26	
Design	Pre-Project Monitoring	\$96,100.00	Aug-26	
Construction	Mobilization and Demobilization	\$640,390.00	Aug-27	
Construction	Construction Management	\$960,585.00	Aug-27	
Construction	On-site Construction	\$6,403,900.00	Aug-27	
TOTAL		\$12,007,550.00		

Description of Annual Costs & Project Lifespan

Annual Costs

 Components for the concept design is finalized, the team know that the following water quality elements will be incorporated into the final design. Therefore, based on industry standards the following O&M effort and expenditures are anticipated on an annual basis. It is noted that proprietary items will adhere to recommended O&M practices recommended by the manufacturer. Total Annual O&M Costs is determined to be \$452,601.00.

Life Cycle Cost

 Based on the evaluations that were conducted above, the capital cost for the project has been determined to be at \$12,007,550.00. The anticipated Annual Operations and Maintenance Costs is \$452,601.00, while the anticipated Annual Monitoring Costs is \$94,560.00. It should be noted that the applicant is only seeking 50% of the monitoring costs for this project. The Life Cycle Cost having a 50-year life span equates to approximately \$ 1,047602.76 annualized life-cycle cost, based on the SCWP module.

Funding Requests by Year				
Year	SCW Funding Request	Phase	Efforts during Phase and Year	
1	\$2,113,400.00	Planning	 Planning & Engineering 2024-2025 Utility Research & Coordination 2024-2025 Permitting & CEQA Compliance 2024-2025 	
2	\$288,300.00	Design	 Geotechnical Report 2025-2026 Hydrology Study 2025-2026 Pre-storm Monitoring 2025-2026 	
3	\$9,605,850.00	Bid/Award and Construction	 Project Release, Advertisement, Contingency Funds, 2026-2026 Mobilization & Demobilization 2026-2027 Construction Management 2026-2027 On-site Construction 2026-2027 	
4	\$320,860.50	O & M Monitoring	 Operation & Maintenance, 2027-2028 Post-storm Monitoring 2027-2028 	
5	\$320,860.50	O & M Monitoring	 Operation & Maintenance, 2028-2029 Post-storm Monitoring 2028-2029 	
TOTAL	\$12,649,271.00			

Description of future potential SCW funding requests, if applicable

The City plans to supplement funding for this Project through a combination of Federal and State grants, local funding options and stormwater fees, and through continued participation in stormwater funding advocacy efforts led by the League of California Cities and California Contract Cities. To date, the City has not established a budget to offset costs for the Project.

The City plans to pursue funding through grants and local programs once the feasibility phase of the Project is complete. At this time, the City would like to explore the following potential funding sources:

- State Revolving Fund (SRF)
- Water Infrastructure Finance and Innovation Act (WIFIA)
- Prop 1 R-2 Integrated Regional Water Management (IRWM) Implementation Grant Program
- FEMA Building Resilient Infrastructure and Communities funding