Safe, Clean Water Program

Fiscal Year 2021-2022

WASC Review Sheet



Project Name
Project Load
Project Lead
Total SCW Funding
Requested
Phases for which SCW
Funding is being requested

Question	Yes/No	Notes
Does this project assist in achieving compliance with MS4 permit? If Yes, explain how.		
Does the project provide DAC benefits (refer to the ordinance for definition)? If Yes, explain how.		
Does the project provide benefits to the municipality? If Yes, explain how.		
Does the project prioritize nature- based solutions? If Yes, explain how.		
Does this meet the goals of the program stated in the ordinance (refer to Section 18.04)		
Does the project/scientific study have a nexus to stormwater and urban runoff capture and pollution reduction? If yes, explain how.		

Safe, Clean Water Program

Fiscal Year 2021-2022

WASC Review Sheet



Question	Yes/No	Notes
What is the plan for community engagement and what efforts have been made to date?		
What is the anticipated CEQA and permitting needs and how is this incorporated in the cost and schedule?		
Why is this the best location for this type of project?		
Were other alternatives considered? Why is this the best solution?		
How was the Project developed? (ie IRWMP/EWMP process, community engagement, etc)		
If awarded partial funding by the WASCs, could the project fulfill their stated scope and benefits? If not funded, would the WASC lose the opportunity to fund this project at future rounds?		
General Notes (and follow up questions regarding any topic in the feasibility study/project submittal)		
Public Comments		

East Los Angeles College Northeast Drainage Area and City of Monterey Park Biofiltration Project

Funding Program (IP/TRP)

Project Lead: Los Angeles Community College District & Build ACCD

Presenter: Daniel Apt, Olaunu (LACCD Stormwater Consultant)



Project Overview

The project integrates biofiltration systems into existing landscaped planters in the northeast part of ELAC campus and ELAC Transit Center.

- Description of Primary and Secondary Objectives
 - Primary: Water Quality: Assist in compliance with the Small MS4 Permit
 - Secondary: Water Quality: Helps to meet compliance with downstream TMDLs
- Project Status Phases for which SCW funding is being requested
 - Design & Construction
- Total Funding Requested
 - \$ 532,618.00

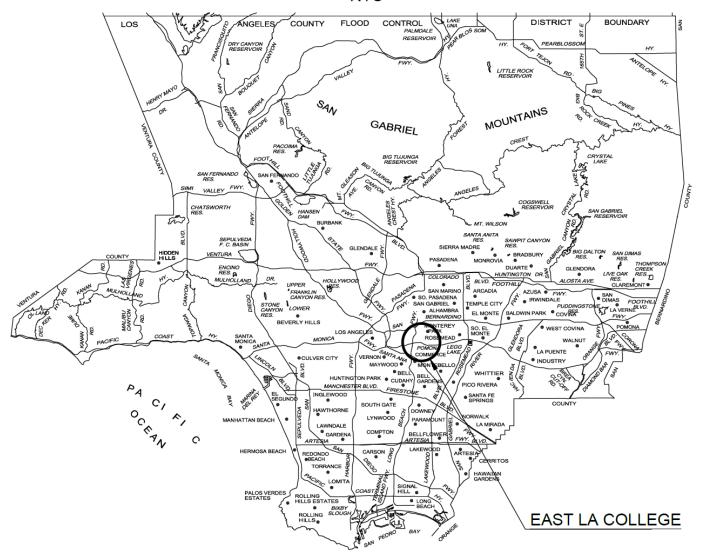




Project Location

VICINITY MAP

NTS



- Project Location:

 East Los Angeles College &
 ELAC Transit Center
 (City of Monterey Park)
- Watershed Area: Rio Hondo
- Capture Area: 6.56 acres
- Municipality Benefits
 - Water Quality improvement
 - Helps to meet compliance with downstream TMDLs through capture and biofiltration of the 85th percentile storm event for the projects' drainage area.

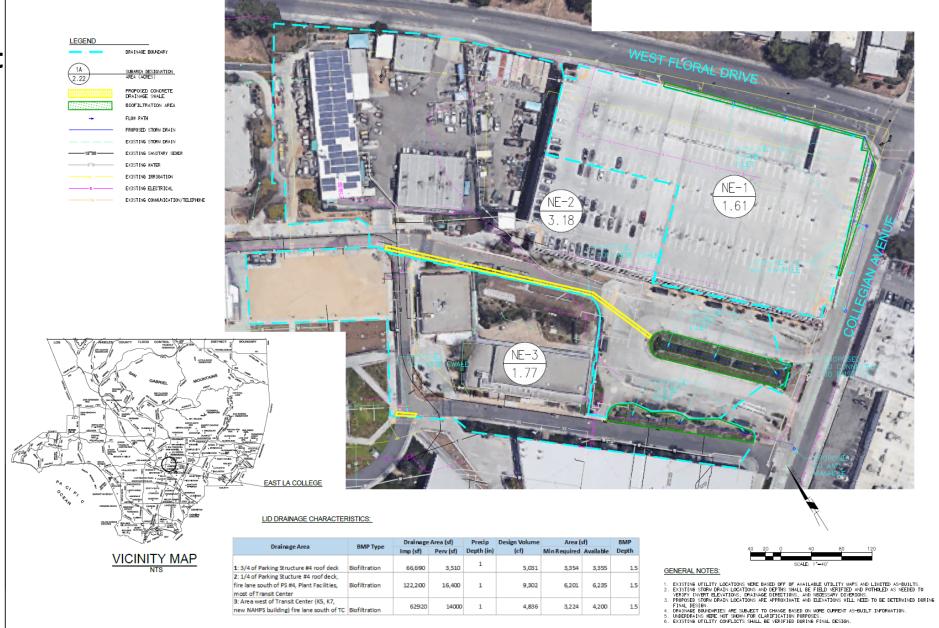


Project Background

- Why was the Project Location selected?
 - Limited space on ELAC campus for integration of retrofit biofiltration systems and so collaboration with City of Monterey Park for use of Transit Center.
- How was the Project developed?
 - LACCD is developing stormwater projects for all of its 9 campuses
 - ELAC and Transit Center existing vegetated areas identified for biofiltration as infiltration was not feasible
- Which regional water management plan includes the proposed project?
 - Not currently, but plan to submit the project to the Upper Los Angeles Watershed EWMP
- Description of benefits to municipality/municipalities
 - Water quality improvement
 - Assistance in meeting downstream TMDLs
 - Enhance public vegetated areas
- Description of how the Feasibility Study or Project Concept will provide Disadvantaged Community (DAC) Benefits –
 - Beautify existing planter areas in the northeast limits of campus with frontage off campus
 - Providing functional benefit of treating stormwater discharges



Project Concept Design



new NAHPS building) fire lane south of TC Biofiltration

CLIENT

COMMUNITY COLLEGE DISTRICT

LACCD PROJECT NAME

1301 AVENIDA CESAR CHAVEZ, MONTEREY PARK, CA 91754

LACCD PROJECT NUMBER

BUILDER

PROGRAMMING CONSULTANT



REGISTRATION STAMP

AGENCY APPROVAL

MARK DATE DESCRIPTION DESIGNED:

DATE: DRAWN:

PROJ. NO.: APPROVED:

SHEET TITLE

DRAINAGE EXHIBIT

SHEET NUMBER



Project Details



December 5, 2018

LACCI

1055 Corporative Center Drive Monterey Park, CA 91754

Attention: Mr. David Trav

Subject: Percolation Study/Storm Water Implementation Projects

East Los Angeles College 1301 Avenida Cesar Chavez Monterey Park, CA 91754

Dear Mr. Travers

Presented herein are the results of percolation testing performed by Koury Engineering & Testing, Inc. (Koury) for the proposed storm water implementation projects at East Los Angeles College located at 1301 Avenida Cesar Chavez, Monterey Park, California. (See Figure A-1 for Vicinity Map showing the site with respect to adjacent streets). This study was performed to provide information for BMP stormwater project planning from a geotechnical standpoint.

The recommendations provided within this submittal are based on the results of our literature research, field exploration, laboratory testing and engineering analyses. Our services were performed in general accordance with our proposal No. 18-0869, dated September 19, 2018.

Our professional services have been performed using the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared exclusively for Los Angeles Community College District and their consultants for the subject project. The

Koury Engineering & Testing, Inc. · (909) 606-6111 · www.kouryengineering.com

Chino · Gardena · San Diego



East Los Angeles College

Northeast Drainage Area & City of Monterey Park
Biofiltration Project
(ELAC Stormwater Project No. 3)

Programming Report





October 15, 2020

repared by:



- Current site conditions Existing vegetated planter areas and impervious areas
- Completed studies/analysis Geotechnical report & Concept design/programming report
- Description of any alternatives considered Evaluated infiltration and capture and use



Considered Alternative

LID DRAINAGE CHARACTERISTICS:

Drainage BMP Type	Drainage Area (sf)		I 0/	Precip Depth	Design Volume	Areq (sf)		BMP	
	виг туре	Imp (sf)	Perv (sf)	Imp %	(in)	(cf)	Min Required	Avaliable	Depth (ft)
Northeast	UG Infiltration	170,145	18,905	90%	1	12,918	4,306	7,400	3.0

Assumptions:

Infiltration Rate =	0.5 in/hr		
Draw Down for Above Ground System	48 hours		
Draw Down for Underground System	72 hours		



VICINITY MAP



BUILDER

CLIENT

LOS ANGELES CITY COLLEGE
855 NORTH VERMONT,
LOS ANGELES CITY, CA 90029

LACCD PROJECT NAME

LACCD PROJECT NUMBER

OLAUNU SAN CLEMENTE, CA 9287

REGISTRATION STAMP

DESIGN CONSULTANT

AGENCY APPROVAL

EGNATION ...

MARK DATE DESCRIP
DESIGNED:

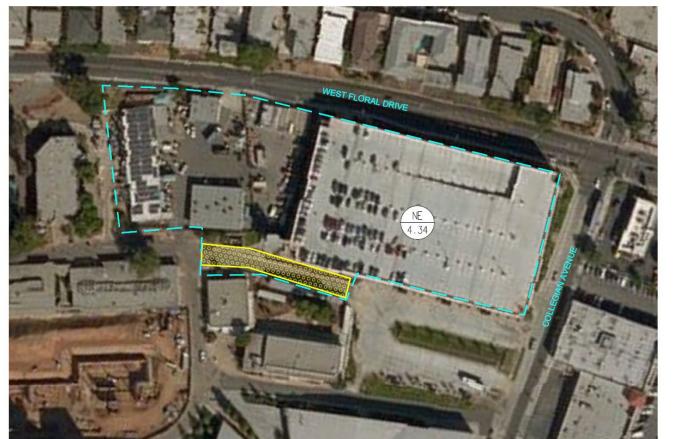
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APPROVED:

SHEET TITLE

SHEET NUMBER

DRAINAGE EXHIBIT

DRAINAGE BOUNDARY





Cost & Schedule

Phase	Description	Cost	Completion Date	
Planning/Feasibility Analysis	Concept Designs, Site Investigations, and Feasibility Study	\$47,604.00	10/2020	
Design	Engineering Design and associated Costs	\$121,049.00	10/2021	
CEQA Compliance/ EIS	CEQA compliance and environmental impact studies	\$12,080.00	10/2021	
Permitting	Permitting	\$6,080.00	10/2021	
Construction	Construction of the project	\$1,210,495.00	10/2022	
Inspections/Audits	Intermediate and project completion inspections/audits	\$7,360.00	10/2022	
TOTAL		\$1,404,668.00		

- Description of Annual Costs: Maintenance, operation, and monitoring costs
- Project Lifespan & Lifecycle Cost: \$1,655,278.69



Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$60,524.00	Design	Engineering Design for project.
2	\$472,094.00	Construction	Construction of project
3			
4			
5			
TOTAL	\$532,618.00		

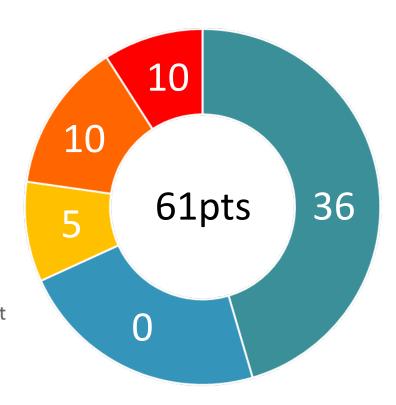
- Leveraged Funding amount and percent: \$798,927.00 and 56.88%
- Description of future potential SCW funding requests, if applicable:
 - Potential funding requests for O & M of the ELAC Northeast project, potential for other LACCD stormwater projects



Preliminary Score

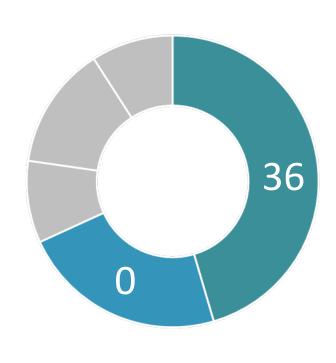


- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





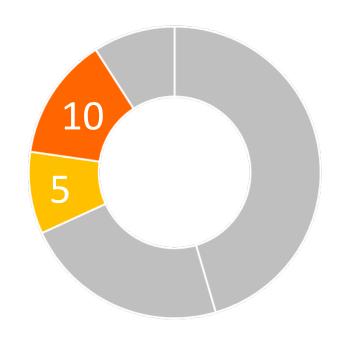
Water Quality & Water Supply Benefits



- Primary mechanisms that achieve Water Quality and Water Supply Benefits claimed:
 - Biofiltration of the design storm volume (DSV), which is based on the 85th percentile 24-hour storm event.
- Wet/Dry runoff captured (no measured dry weather runoff)
- Tributary Area: 6.56 acres
- Capacity: 0.7250 ac-ft
- Pollutant Reduction
 - Primary Pollutant: Total Zinc: 95.6%
 - Secondary Pollutant: Bacteria: 59.3 %
- Annual Water Supply Volume: 2.018 ac-ft
- Water Supply Use: irrigation of biofiltration systems
- Water Supply Cost Effectiveness: \$48,884 per ac-ft



Community Investment Benefits and Nature Based Solutions



Community Investment Benefits

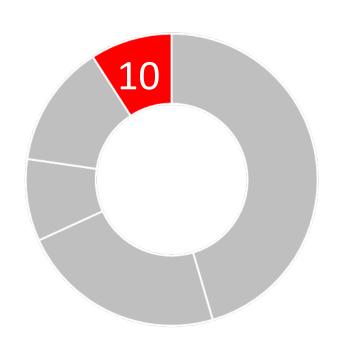
- Reduces stormwater volumes (0.7250 ac-ft) associated with ELAC to the City storm drain system.
- The biofiltration systems enhance the aesthetic of the area by including enhanced vegetation.
- The project will enhance existing green spaces in a school environment with biofiltration systems
- Reduces heat local island effect through integration of native vegetation associated with the biofiltration areas

Nature Based Solutions

- Project implements natural processes through vegetated biofiltration areas
- Project uses natural materials such as an engineered soil matrix and native plant species in the biofiltration areas



Leveraging Funds and Community Support



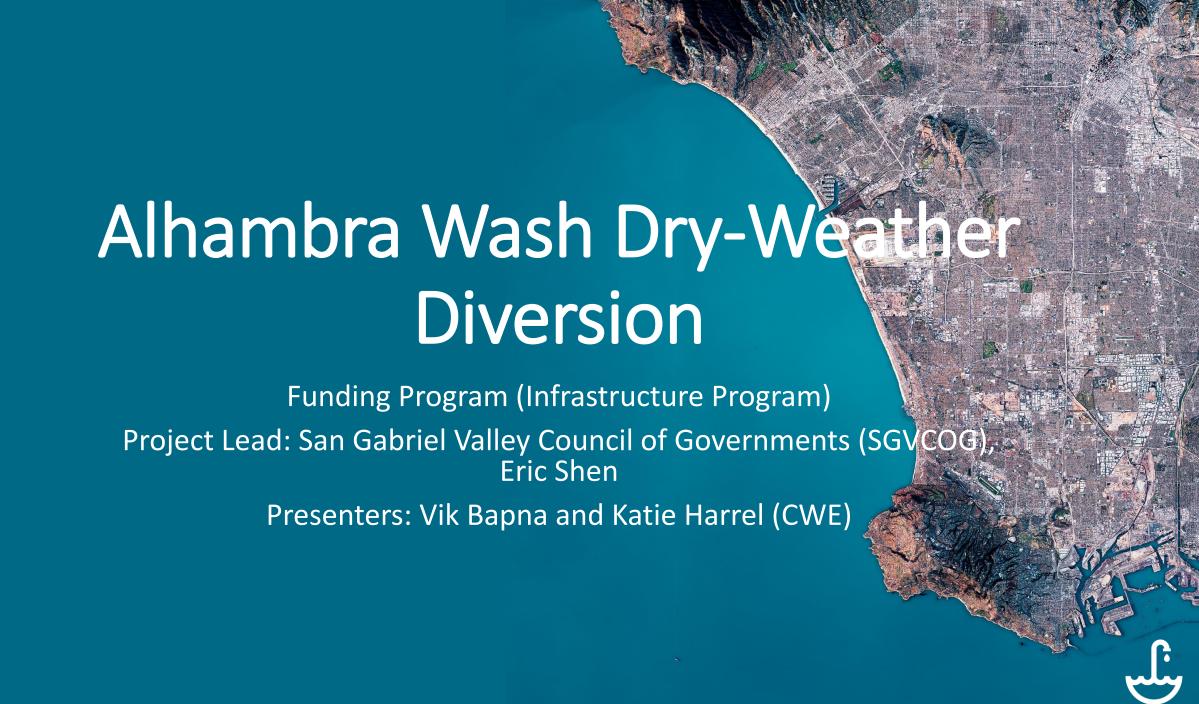
Leveraging Funds

- The LACCD sustainable building program is funded mainly through bond measures
- Most recently, Bond Measure CC was approved in 2016 for \$3.3 billion allocated to improvement of facilities throughout the nine LACCD colleges
- Leveraged funding amount: \$798,927.00
- Leveraged funding status: Commitment Received
- 56.88% funding matched

Community Support

- Supported by the City of Monterey Park
- Council for Watershed Health letter of support
- Planned outreach:
 - Coordination with ELAC faculty and student groups on campus to help develop educational signage for the project
 - Coordination with the City of Monterey Park and East Los Angeles College Citizens' Oversight Committee for targeted outreach of users of the ELAC Transit Center





Project Overview

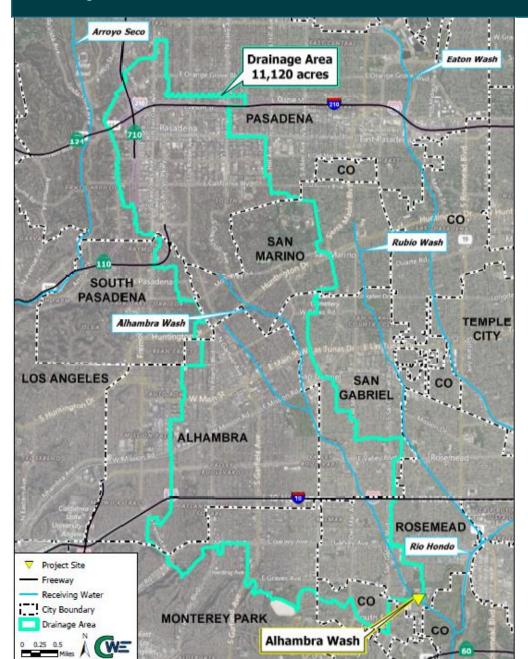
A collaboration between SGVCOG, LA County, and 7 Cities. This multi-benefit project will treat dry-weather runoff from Alhambra Wash upstream of Rio Hondo to address bacteria.

- Primary objective: improve water quality
- Secondary objective: incorporate nature-based solutions/community enhancements
- Currently in design phase
- Requesting funds for design and construction
- Requesting \$2,572,180





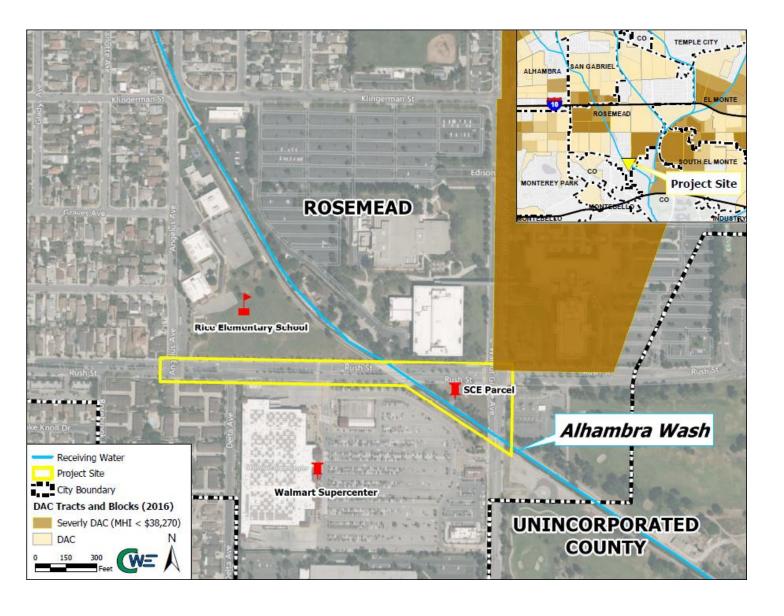
Project Location



- Within the Rio Hondo Watershed (Alhambra Wash Subwatershed)
- 11,120 acres
- Major land uses:
 - 67% single-/multi-family residential
 - 17% commercial



Project Location



- Intersection of Rush Street and Walnut Grove Avenue
- City of Rosemead
- Across the street from Rice Elementary School
- Surrounded by DAC

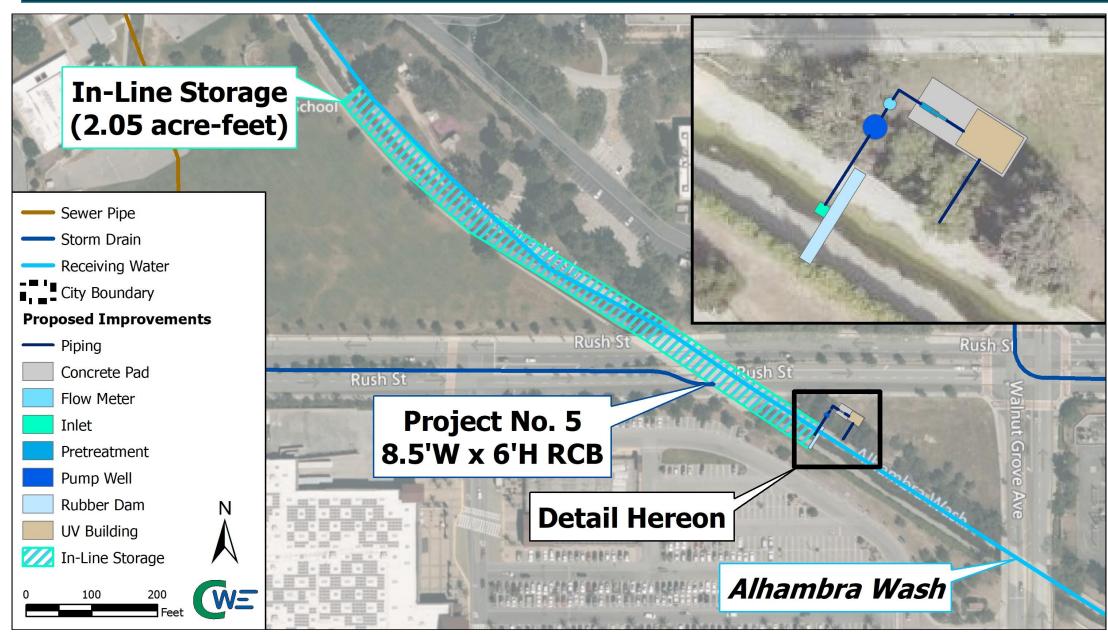


Project Background

- Upper Los Angeles River (ULAR) Enhanced Watershed Management Plan (EWMP) identified need for low flow diversions
- Rio Hondo Load Reduction Strategy (LRS) and amendments
- Project is needed to address bacteria loading to Rio Hondo (Los Angeles River Bacteria TMDL)
- Feasibility Study completed selected preferred alternative
- Improves DAC community:
 - Enhances local environment with trees + shade
 - Includes educational signage for community engagement
 - Creates 3,000 square-feet of bioswale

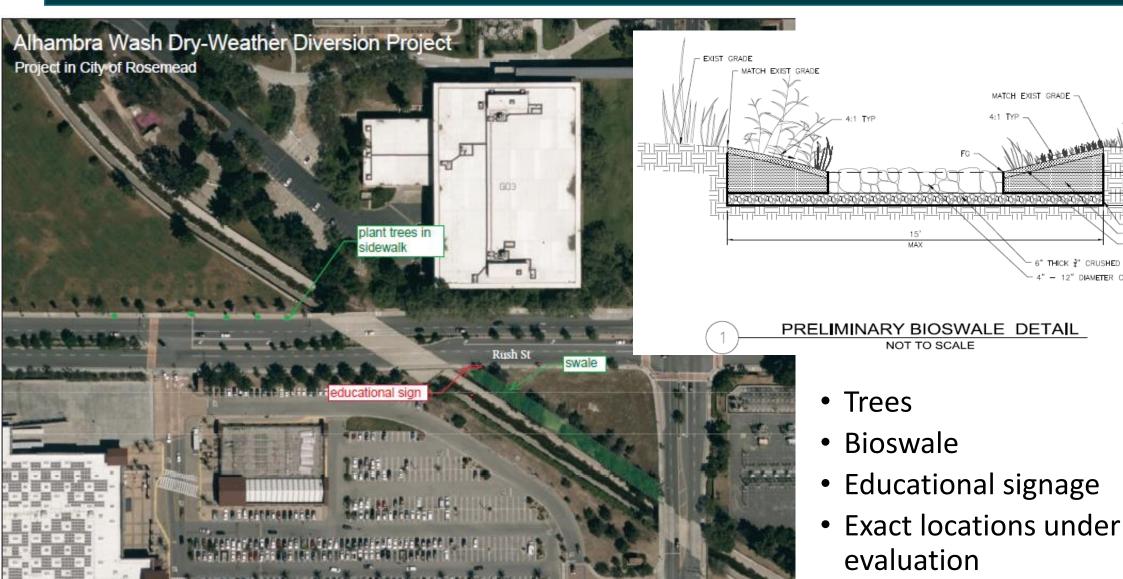


Project Details





Project Details



Amenities shown are under review with local jurisdictions and will be finalized (size, location, and quantity) during the design process



- Other alternatives evaluated:
 - Diversion to sanitary sewer
 - In-line storage vs. off-line storage
 - Regional treatment facility
 - Groundwater injection
- Site currently vacant and owned by SCE
- Groundwater expected 50 feet beneath surface
- Infiltration rates observed: 0.11 inches/hour



Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Preliminary Engineering and Feasibility Study	\$125,000	06/2020
Design	Acquisition (purchase full/partial property or coordinate for easement)	\$1,303,000	12/2021
Design	Design and Permitting	\$550,600	04/2023
Construction	Construction and Construction Management	\$3,165,800	08/2024
TOTAL		\$5,144,400	

- Annual maintenance: \$81,000; annual operation: \$34,000; annual monitoring: \$50,000 (total annual cost = \$165,000)
- Project lifespan and lifecycle cost: 30 years, \$8,227,177.67



Funding Request

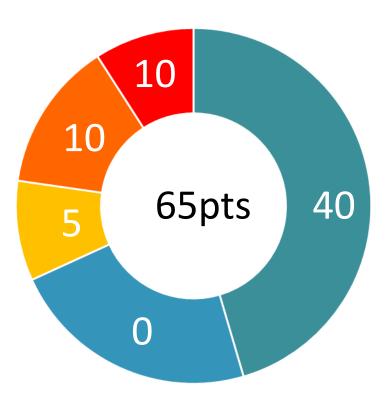
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$275,300	Design	Design and Permitting (half the expected cost)
2	\$651,500	Design	Anticipated acquisition costs to be refined during design and negotiation (half the expected cost)
3	\$822,690	Construction	Construction and Construction Management (25% of expected cost)
4	\$822,690	Construction	Construction and Construction Management (25% of the expected cost)
TOTAL	\$2,572,180		

- Leveraged funding: 50% (existing MOU)
- May request annual costs in the future (to be determined)



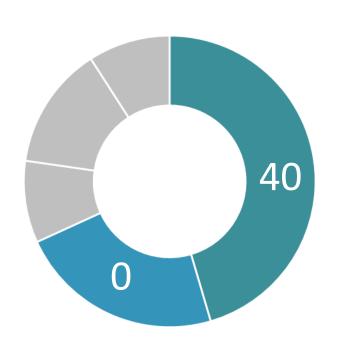
Preliminary Score

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





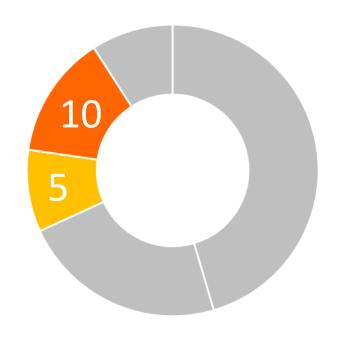
Water Quality & Water Supply Benefits



- Diversion, pretreatment, advanced treatment (UV), and discharge back to channel
- Dry-weather capture (100%) = 20 points
- Over 11,000 acres of tributary area = 20 points
- 2.23 cfs flow rate capacity
- 1.38 cfs estimated average inflow
- 100% pollutant reduction in dry-weather
- No recharge or water supply benefits



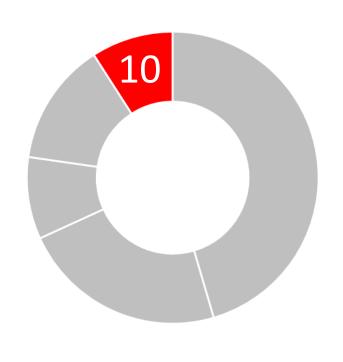
Community Investment Benefits and Nature Based Solutions



- Community Investment Benefits
 - Install 5 trees and 3,000 SF of bioswale
 - Include educational signage and outreach
 - Enhances recreational activities/walking
 - Increase shade for pedestrians/improve walkability
 - Reduce heat island effect
- Nature Based Solutions
 - Perforations in pump housing will allow infiltration to continue to occur, mimicking the natural process
 - A bioswale will also support the natural process of treatment through biological process



Leveraging Funds and Community Support



Leveraging Funds

- MOU, funding agencies have paid for the planning phase of the project, including the feasibility study
- 50% funding matched

Community Support

- Project partners include SGVCOG, LADPW, and Cities of Alhambra, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, and South Pasadena
- Local support from Amigos De Los Rios
- On-going outreach with government agencies and stakeholders
- Plan for outreach at various project milestones





Project Overview

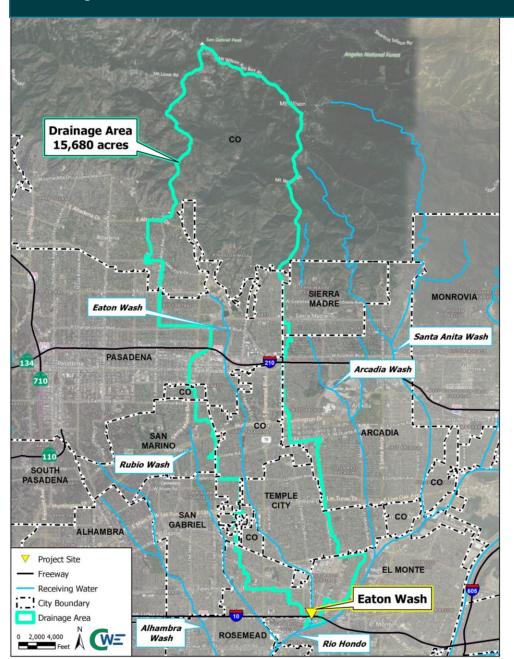
A collaboration between SGVCOG, LA County, and 3 Cities. This multi-benefit project will treat dry-weather runoff from Eaton Wash upstream of Rio Hondo to address bacteria.

- Primary objective: improve water quality
- Secondary objective: incorporate nature-based solutions/community enhancements
- Currently in design phase
- Requesting funds for design and construction
- Requesting \$1,729,220





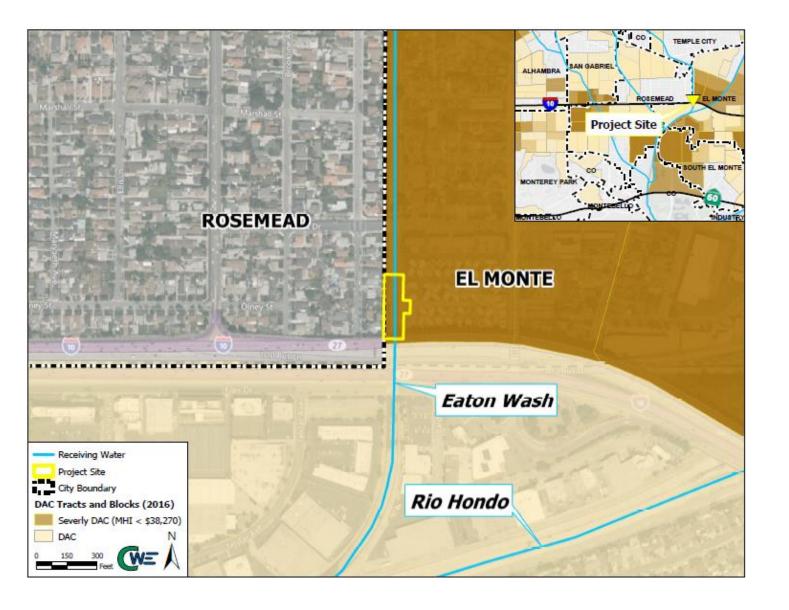
Project Location



- Within the Rio Hondo Watershed (Eaton Wash Subwatershed)
- 15,680 acres
- Major land uses:
 - 45% single-/multi-family residential
 - 41% vacant



Project Location



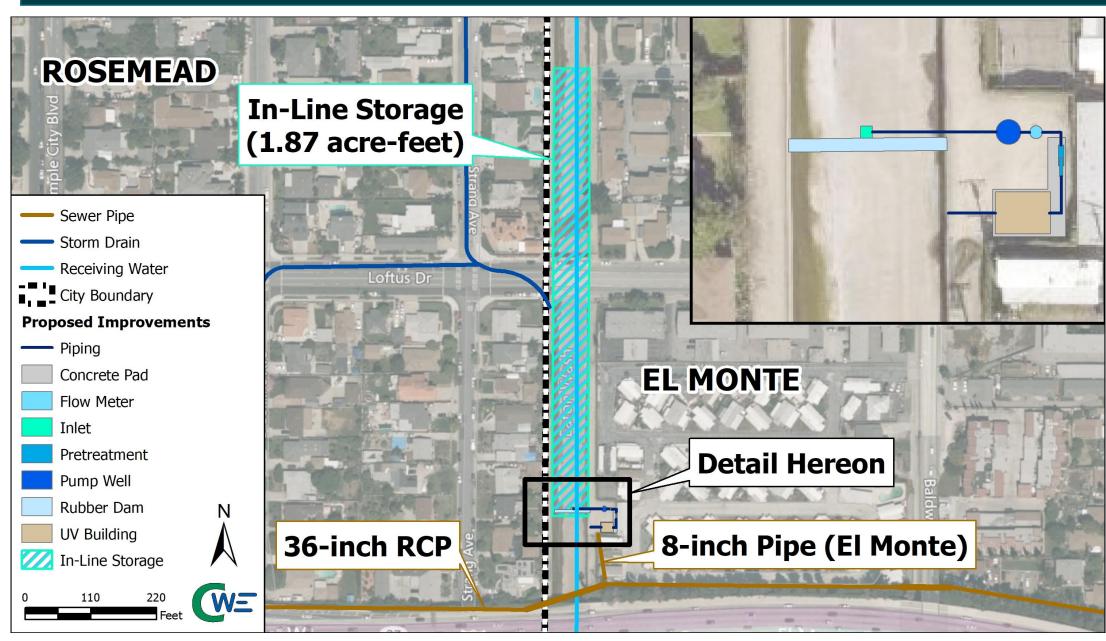
- Eaton Wash near Loftus Drive
- City of El Monte
- Located in residential area
- Within and surrounded by DAC



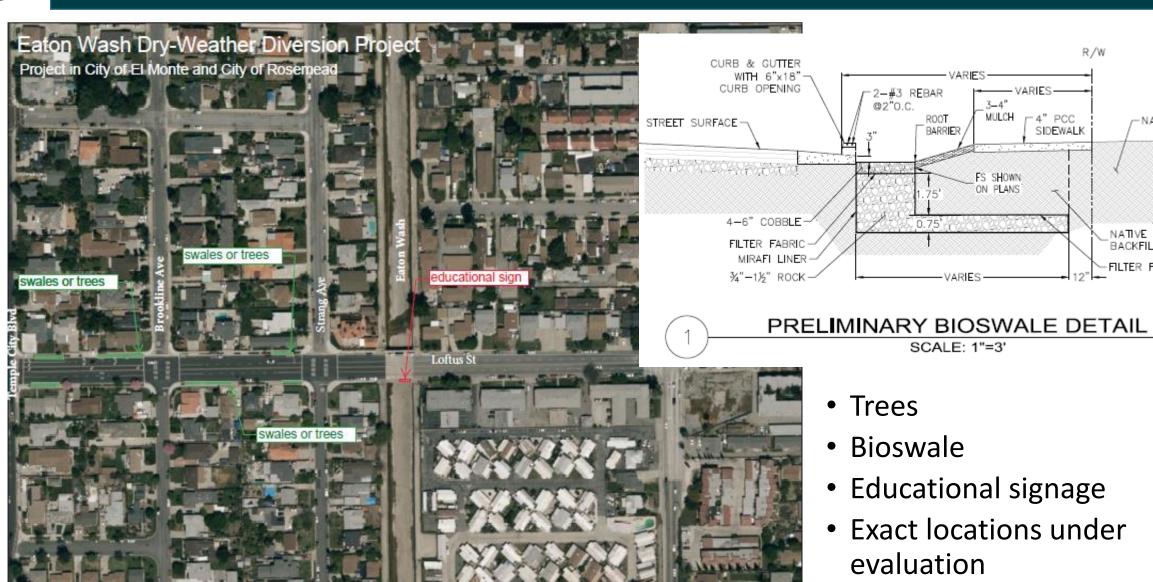
Project Background

- Upper Los Angeles River (ULAR) Enhanced Watershed Management Plan (EWMP) identified need for low flow diversions
- Rio Hondo Load Reduction Strategy (LRS) and amendments
- Project is needed to address bacteria loading to Rio Hondo (Los Angeles River Bacteria TMDL)
- Feasibility Study completed selected preferred alternative
- Improves DAC community:
 - Enhances local environment with trees + shade
 - Includes educational signage for community engagement
 - Creates 3,500 square-feet of bioswale









Amenities shown are under review with local jurisdictions and will be finalized (size, location, and quantity) during the design process

/-NATIVE

NATIVE

BACKFILL

-FILTER FABRIC



- Other alternatives evaluated:
 - Diversion to sanitary sewer
 - In-line storage vs. off-line storage
 - Regional treatment facility
 - Groundwater injection
- Site within LACFCD property extra space in this area without impeding access road
- Groundwater expected 28 feet beneath surface
- Infiltration rates observed: 0.06 inches/hour



Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Preliminary Engineering and Feasibility Study	\$125,000	06/2020
Design	Design and Permitting	\$494,000	12/2021
Construction	Construction and Construction Management	\$2,839,500	08/2024
TOTAL		\$3,458,500	

- Annual maintenance: \$115,000; annual operation: \$50,000; annual monitoring: \$50,000 (total annual cost = \$215,000)
- Project lifespan and lifecycle cost: 30 years, \$7,475,452.72



Funding Request

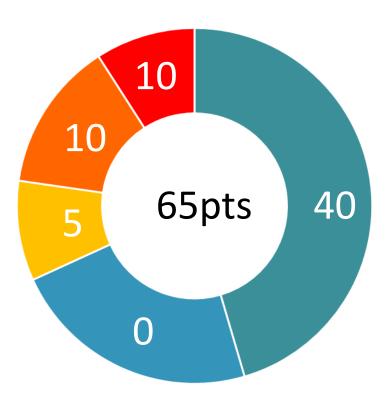
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$247,000	Design	Design and Permitting (half the expected cost)
2	\$444,665	Construction	Construction and Construction Management (15% of expected cost)
3	\$444,665	Construction	Construction and Construction Management (15% of expected cost)
4	\$444,665	Construction	Construction and Construction Management (15% of the expected cost)
TOTAL	\$1,729,220		

- Leveraged funding: 50% (existing MOU)
- May request annual costs in the future (to be determined)



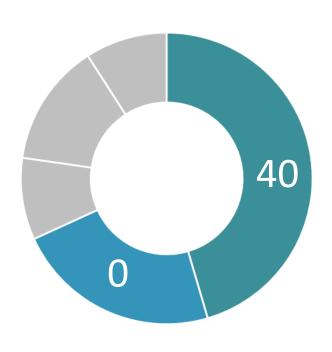
Preliminary Score

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





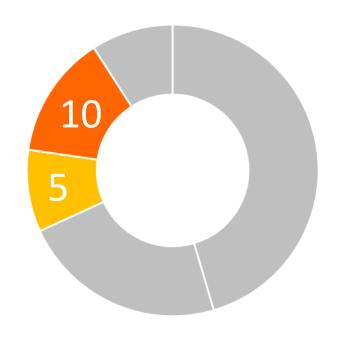
Water Quality & Water Supply Benefits



- Diversion, pretreatment, advanced treatment (UV), and discharge back to channel
- Dry-weather capture (100%) = 20 points
- Over 15,000 acres of tributary area = 20 points
- 1.40 cfs flow rate capacity
- 0.34 cfs estimated average inflow
- 100% pollutant reduction in dry-weather
- No recharge or water supply benefits



Community Investment Benefits and Nature Based Solutions



Community Investment Benefits

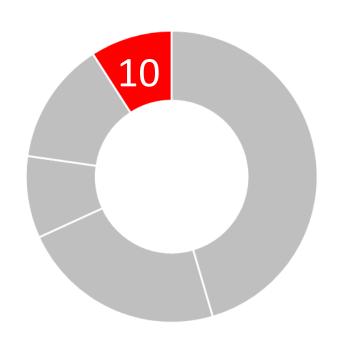
- Install trees and 3,500 SF of bioswale
- Include educational signage and outreach
- Enhances recreational activities/walking
- Increase shade for pedestrians/improve walkability
- Reduce heat island effect

Nature Based Solutions

- Perforations in pump housing will allow infiltration to continue to occur, mimicking the natural process
- Bioswales will also support the natural process of treatment through biological process



Leveraging Funds and Community Support



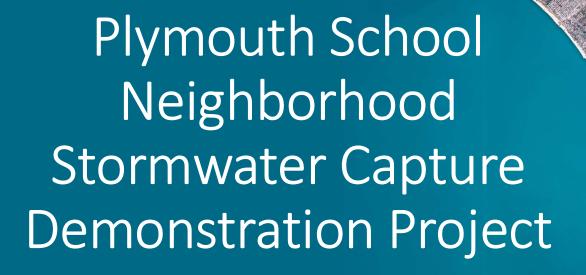
Leveraging Funds

- MOU, funding agencies have paid for the planning phase of the project, including the feasibility study
- 50% funding matched

Community Support

- Project partners include SGVCOG, LADPW, and Cities of Pasadena, San Marino, and Temple City
- Local support from Amigos De Los Rios
- On-going outreach with government agencies and stakeholders
- Plan for outreach at various project milestones





Safe, Clean Water Program
Claire Robinson, Amigos de los Rios
Managing Director - claire@amigosdelosrios.org



Site Photographs



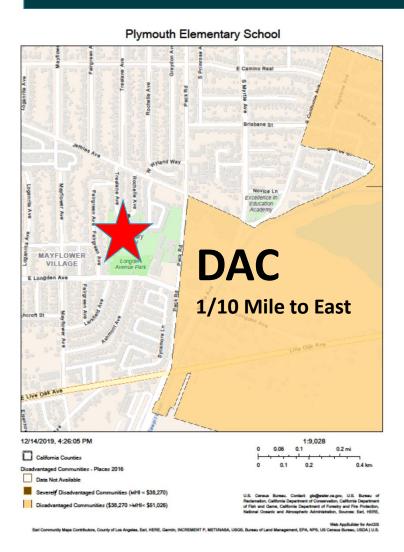
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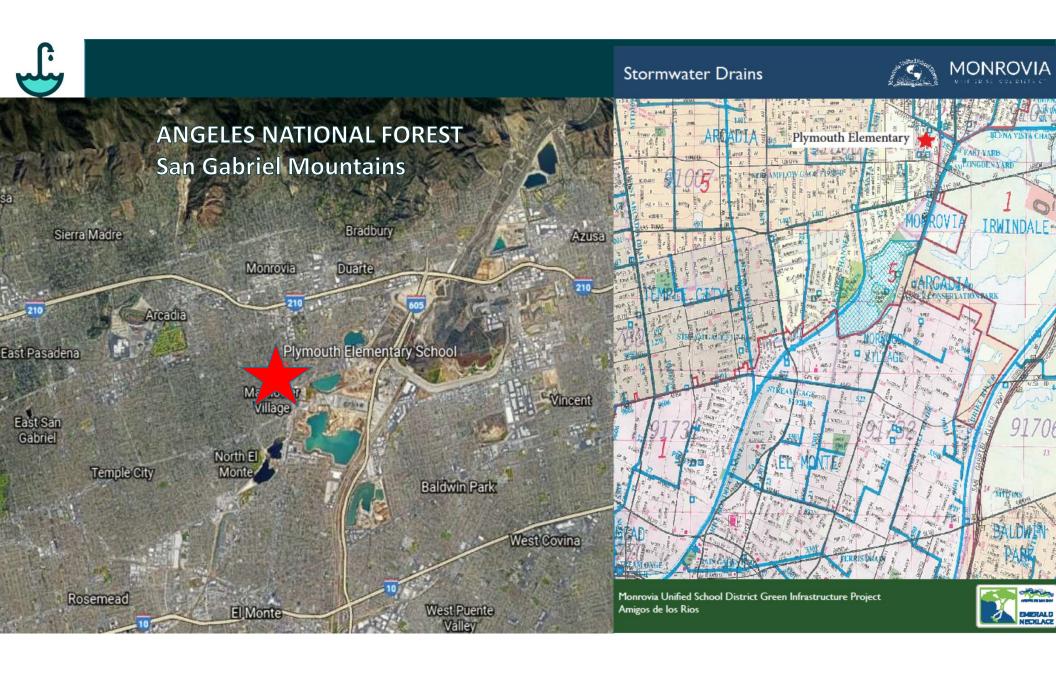
Project Location

Plymouth School Neighborhood Stormwater Capture Demonstration Project









Project Overview

Project protects water quality and supply, prevents flooding and enhances drainage for Plymouth School/Surrounding Community.

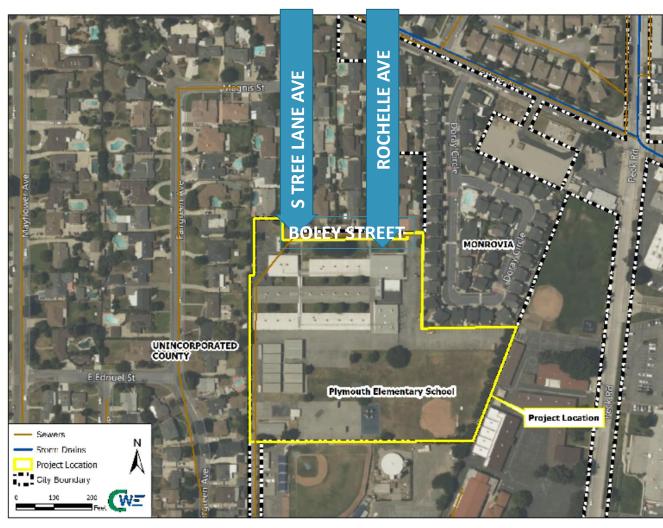
- MS4 Compliance Multi-Objective Green Infrastructure/LID Project will manage MS4 Stormwater from upstream at School site, address TMDLs to protect water quality
- Community Benefits / Urban Greening Benefits Prevent Flooding, Enhance Drainage, Address Vector Issues, Reduce Urban Heat Island, Enhance Air Quality, Create Shade, Habitat and COVID-Safe Outdoor Education Spaces
- Design Prioritizes Nature Based Solutions LID Planters, Pervious Surfaces w/ Infiltration, Tree Wells, Soil Health & related Water Resources Interpretive Elements
- Project Status SCW funding requested for Design & Construction
- Total SCW Funding Requested: \$559,162





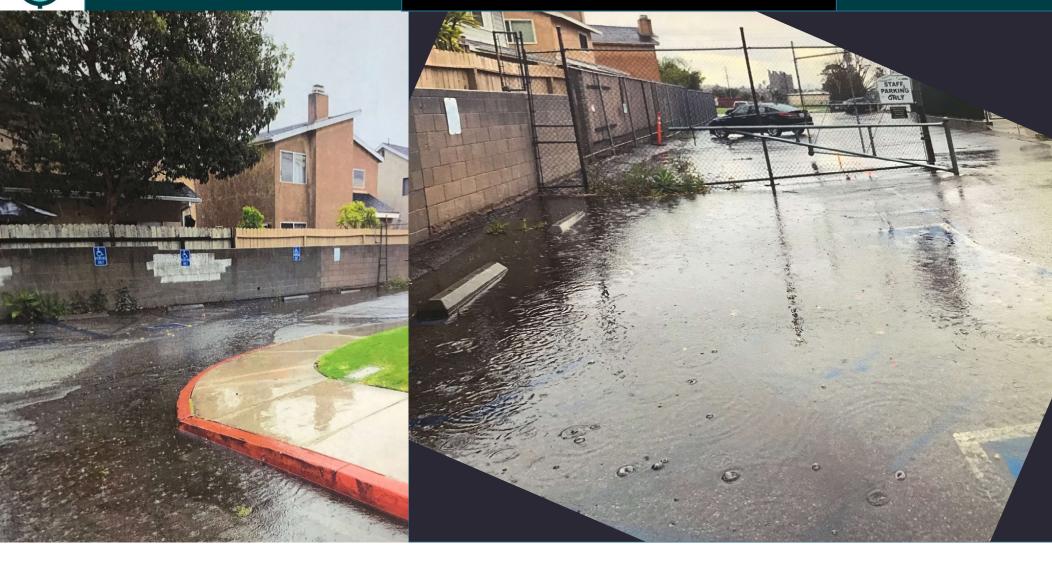
Project Location







Site Photographs

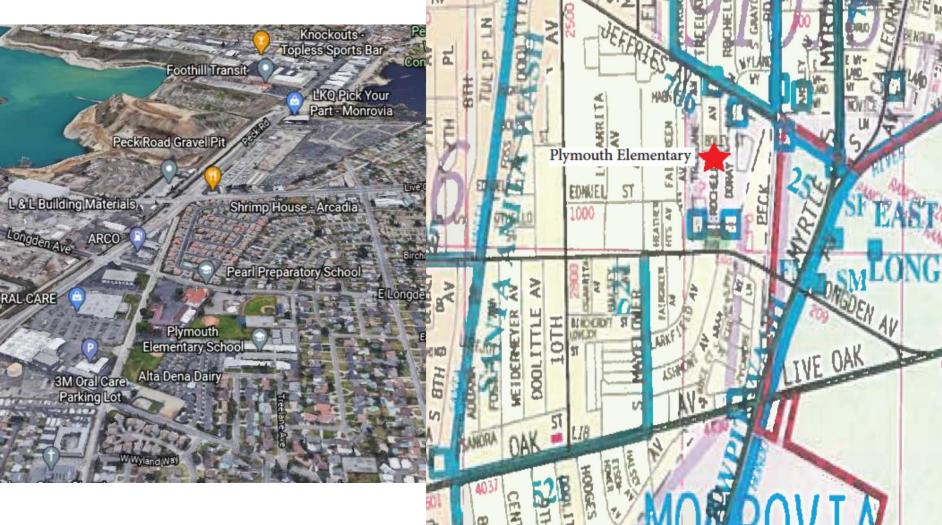




Project Location

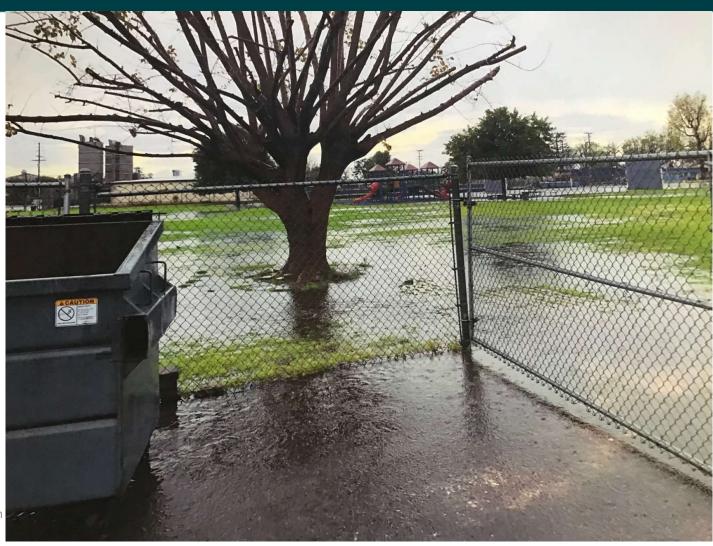
Stormwater Drains







Site Photographs



Internal SCW Program



SITE LOCATION

Plymouth Elementary School







Safe Clean Water Program

- TMDL Compliance manages runoff from upstream MS4 areas on school property – 12.4 acres
- Helps meet Total Maximum Daily Load requirements for copper, bacteria and other pollutants through retention and infiltration of stormwater in the livable environment
- Helps implement SCW's goals of capturing water, protecting coast from contaminants, protecting public health, ensuring safe, greener, healthier, and more livable spaces for all, and ensures community oversight



Site Photographs



Internal SCW Program



Project Benefits

Nexus Stormwater & Urban Runoff Capture & Pollution Reduction

- MS4/TMDL Compliance Improve Water Quality w/ LID & Natural Infrastructure Solutions
- Stormwater Capture Capacity 3.1 acre-feet per storm event
- Treatment Technologies Infiltration using natural media & bioretention

Serves City of Monrovia & DAC Community w/in 0.1 mi. Community Benefits:

- Prevent Flooding, Enhance Drainage, Address Vector Issues (Mosquitoes), Urban Heat Island Reduction, Shade, Habitat, Air Quality Enhancement,
- COVID-Safe Outdoor Education Spaces
- Celebrate Water Resources Stewardship w/Plymouth School Community/Educate Future Water Stewards



SITE PHOTOS



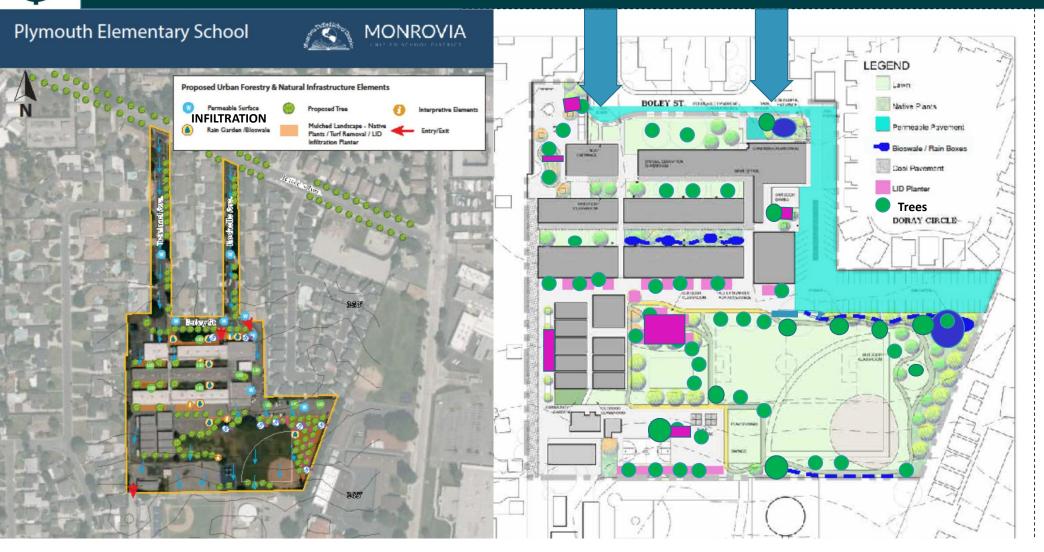
Internal SCW Program

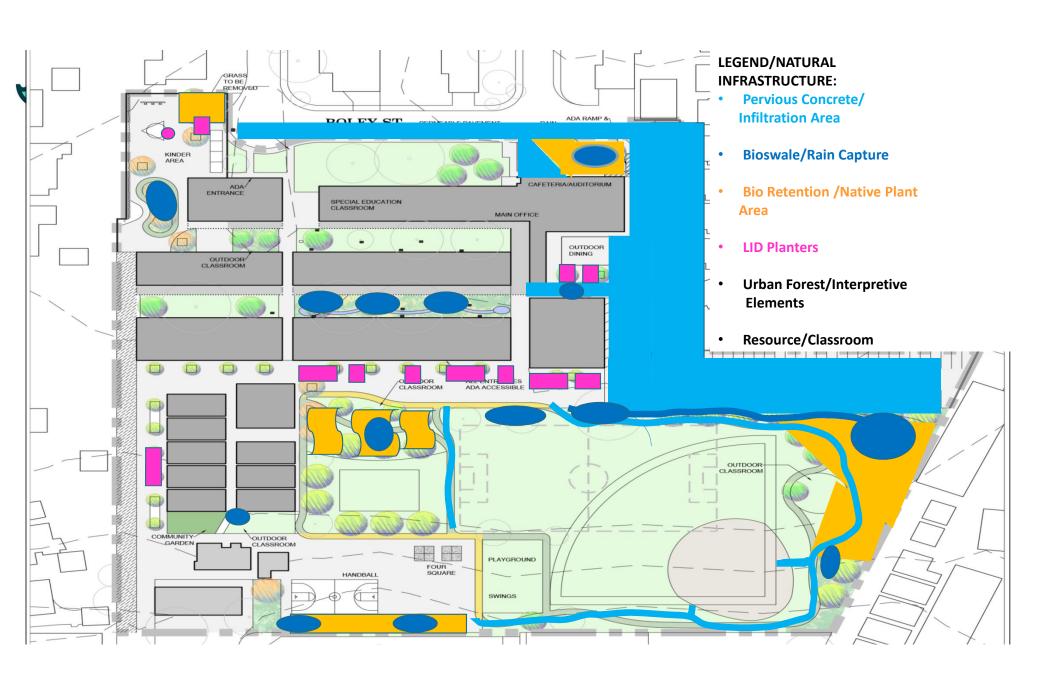


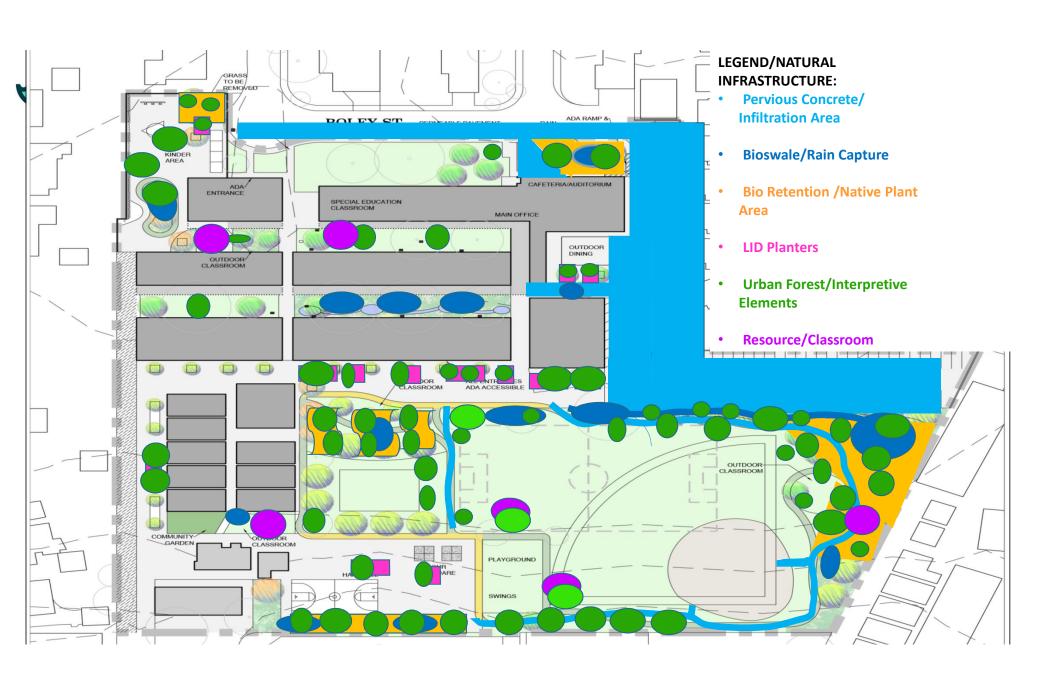
Community Engagement

- Community Project in development since 2018, part of Monrovia Unified School District enhancing school campuses for improved student body/ joint-use community mental health, physical health, and academic performance.
- 25 Letters of Support from Local Organizations, Residents, Businesses, and Institutions – presentation to School District; City of Monrovia; DAC School Communities; Families /Residents /local CBOs w/hands on EN Watershed Events
- Best Location for Project No storm drain services at this site
- Community is asking for this Green Campus/Natural Infrastructure Development & myriad benefits

















Cost & Schedule

Phase Costs					
Phase	Description	Cost	Completion Date		
Design	Project Management and Engineering Design	\$ 209,253.00	12/2021		
Construction	Construction phases a) Site Prep, b) Urban Forestry, with adjust factor for contingencies.	\$ 564,234.00	06/2022		
Construction	Construction Phase c) Interpretive Elements with adjust factor for contingencies.	\$ 52,265.00	12/2022		
Construction	Operation and Maintenance First year after Implementation	\$ 18,000.00	06/2023		
Total Funding:		\$ 843,752.00			

Annual Cost Breakdown

Annual Maintenance Cost: \$ 4,500.00

Annual Operation Cost: \$ 4,500.00

Annual Monitoring Cost: \$ 1,500.00

Project Life Span: 30 years

REQUEST \$559,162

MATCH \$284,590





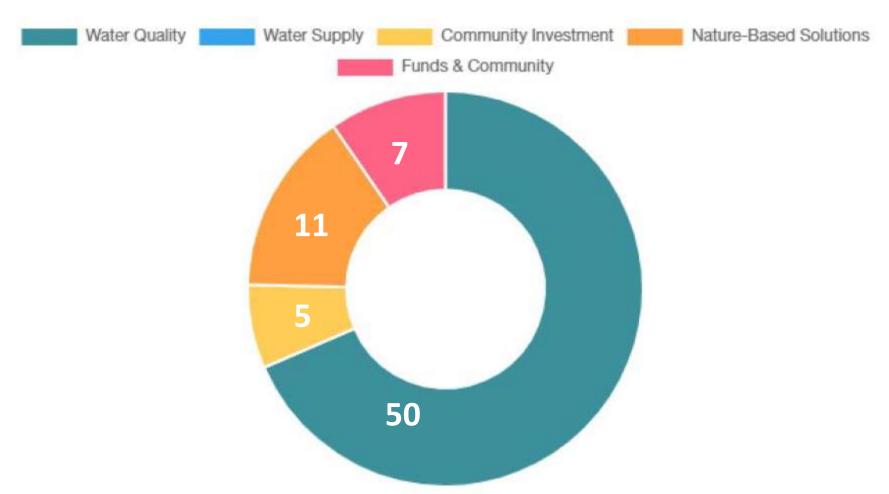


Funding Request

Funding Requested by Year & Phase					
Year	SCW Funding Requested	Phase	Efforts during Phase and Year		
Year 1	\$ 143,616.00	Design	Project Management and Design (adjusted to include contingencies in cost estimate)		
Year 1	\$ 405,046.00	Construction	Construction Phases a and b (adjusted for contingencies)		
Total Year 1	\$ 548,662.00				
Year 2	\$ 9,000.00	O & M	Operation and Maintenance for first year after implementation.		
Year 3 Year 3	\$9,000.00 \$ 1,500.00	Monitoring	Monitoring for first year after implementation.		
Total Year 3	\$ 10,500.00				
Total Funding:	\$ 559,162.00				



Preliminary Score: 73





Community Investments Benefits Scoring Question

Community Investment Benefits: 10 Points

- 1. Improved flood management, flood conveyance, or flood risk mitigation 🗸
- 2. Creation, enhancement, or restoration of parks, habitat, or wetlands (900 native shrubs, 90 trees)
- 3. Improved public access to waterways XNO
- 4. Enhanced or new recreational opportunities <
- 5. Greening of schools ✓
- 6. Reducing local heat island effect and increasing shade
- 7. Increasing the number of trees increase and/or other vegetation at the site location that will increase carbon reduction/sequestration and improve air quality

 90 Trees

