

El Monte Norwood Elementary School Stormwater Capture Project

Funding Program: Infrastructure Program

Fiscal Year 2023-2024

Watershed Area: Rio Hondo

Project Lead: Trust for Public Land

Presenter: Edna Robidas

Previously Awarded TRP: No



Project Overview

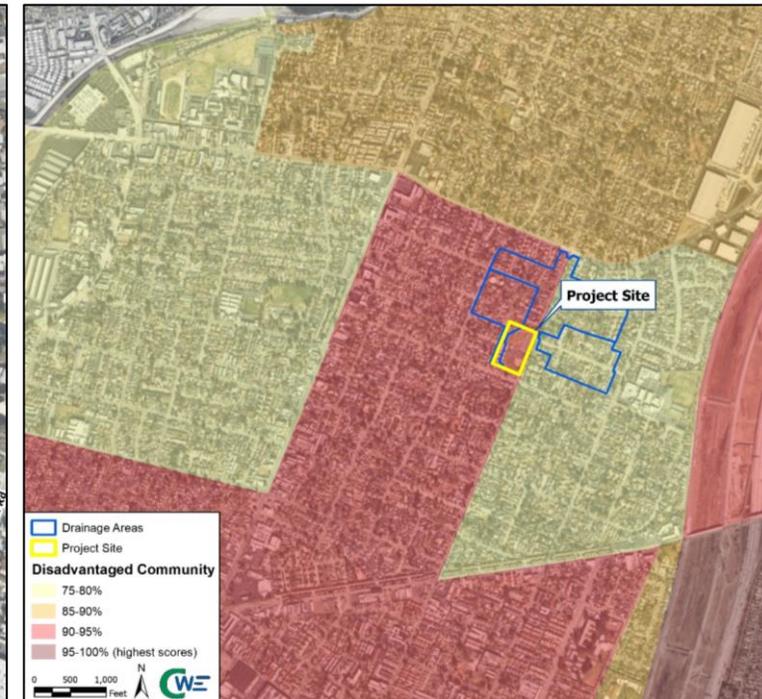
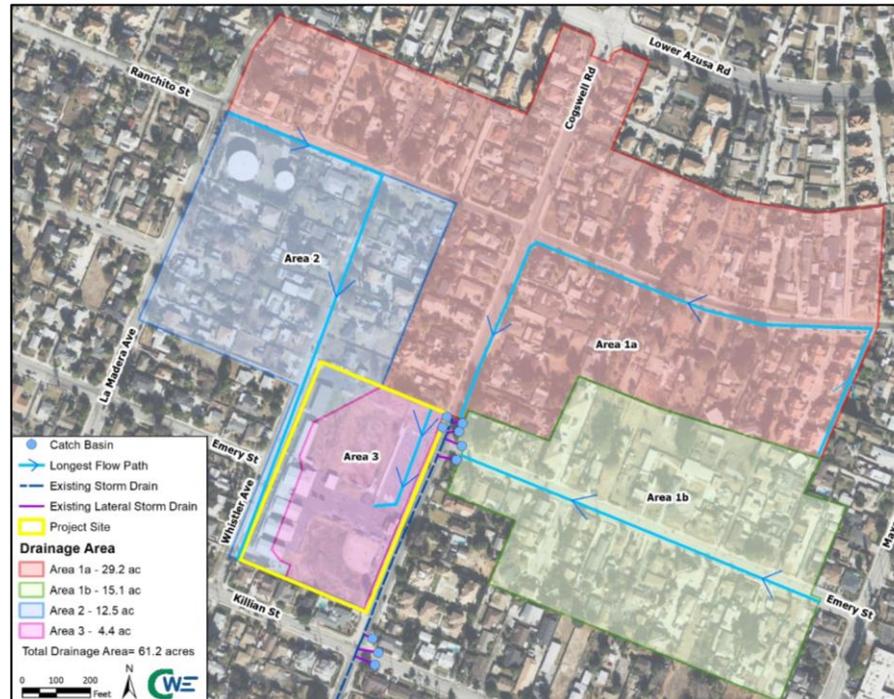
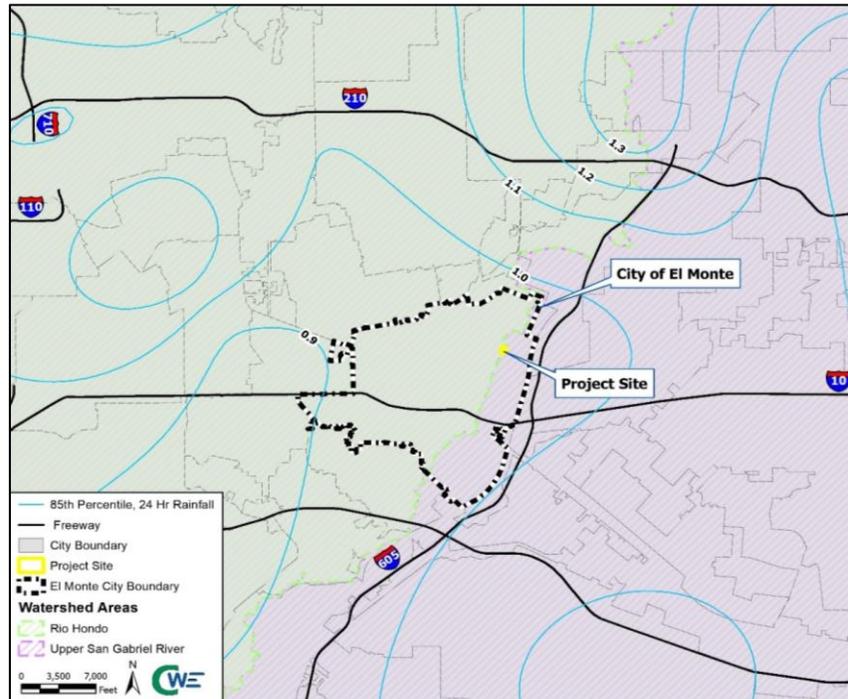
Creation of multi-benefit park with playground, native and drought tolerant plants, edible garden, & bioretention/ biofiltration BMPs.

- **Primary Objective:** Improve water quality locally, downstream, and within the Rio Hondo and San Gabriel River by reducing metal discharges
- **Secondary Objective:** Reducing bacterial discharges to downstream water bodies
- **Project Status:** SCW funding is being requested for Planning, Design, & Construction
- **Total Funding Requested:** \$9,828,559





Project Location



- The Project is in the City of El Monte. It is located within the Rio Hondo Watershed Area and borders the Upper San Gabriel Watershed Area.

- Total Capture Area: 61.2 acres
- Impervious Area: 28 acres

- Project and Project drainage area is in a DAC.
- Nearly 6,900 people live within a 10 minute walk of the Project, 25% of which are children under 20 years old.
- There are no other public green spaces within a half mile radius.



Project Background

- **Project Location Selection:** The site was identified through public outreach as a top priority for conversion to public open space.
 - It is a decommissioned school that has been closed to the public for over a decade besides for use of the softball fields by a local youth sports team.
 - It is in a residential area (4565 Cogswell Rd, El Monte) with no other public space within walking distance.
 - The surrounding disadvantaged community lacks public green space, trees, shade, and recreational facilities.



Project Background

- **Project Development:** Active San Gabriel Valley (ASGV) and Trust for Public Land (TPL) are partnering on public engagement and project development, along with the El Monte City School District (EMCSD).
 - ASGV will lead engagement.
 - TPL will lead design and construction; TPL is the SCWP applicant.
 - EMCSD is the property owner, and has been involved throughout project development.
- **Water Management Plan:** El Monte has an Individual Watershed Management Program and the Project aligns with its water quality objectives.



Project Background

- Project benefits:
 - Stormwater capture & infiltration (rain gardens)
 - Downstream water quality improvement
 - Beautification
 - Recreational improvements
 - Shade and increasing pervious area
- Benefits to Disadvantaged Communities:
 - Reduce heat island effect
 - Improve walkability
 - Provide health benefits from recreation
 - Improve air quality (through new trees)



Rain Garden Example



Norwood Elementary School



Partners

- Implementation partners
 - Active San Gabriel Valley (ASGV)
 - Trust for Public Land (TPL)
- Non-profit groups supporting the project:
 - Council for Watershed Health
 - Day One
 - Eco Urban Gardens
 - Nature for All
 - San Gabriel Valley Conservation Corps
- Letter of support - El Monte City School District (property owner)
- No junction connection to Los Angeles County Flood Control District facilities



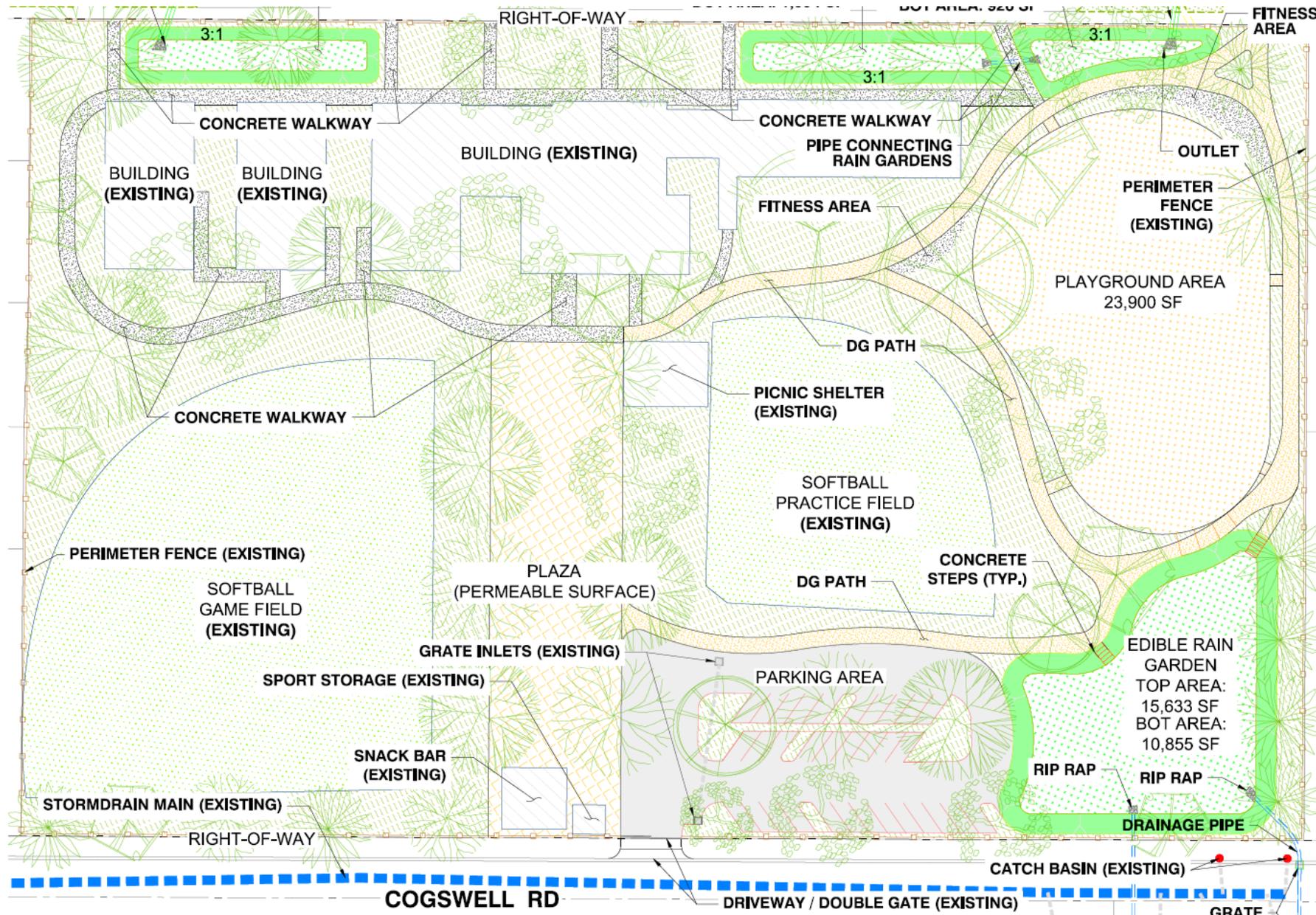
Project Details: Current Site Conditions



- The existing site consists predominantly of asphalt and turf. There are no shade trees throughout the 6 acre site.
- A geotechnical study was conducted in Spring 2022 and indicates soils and infiltration rates conducive for on-site infiltration.

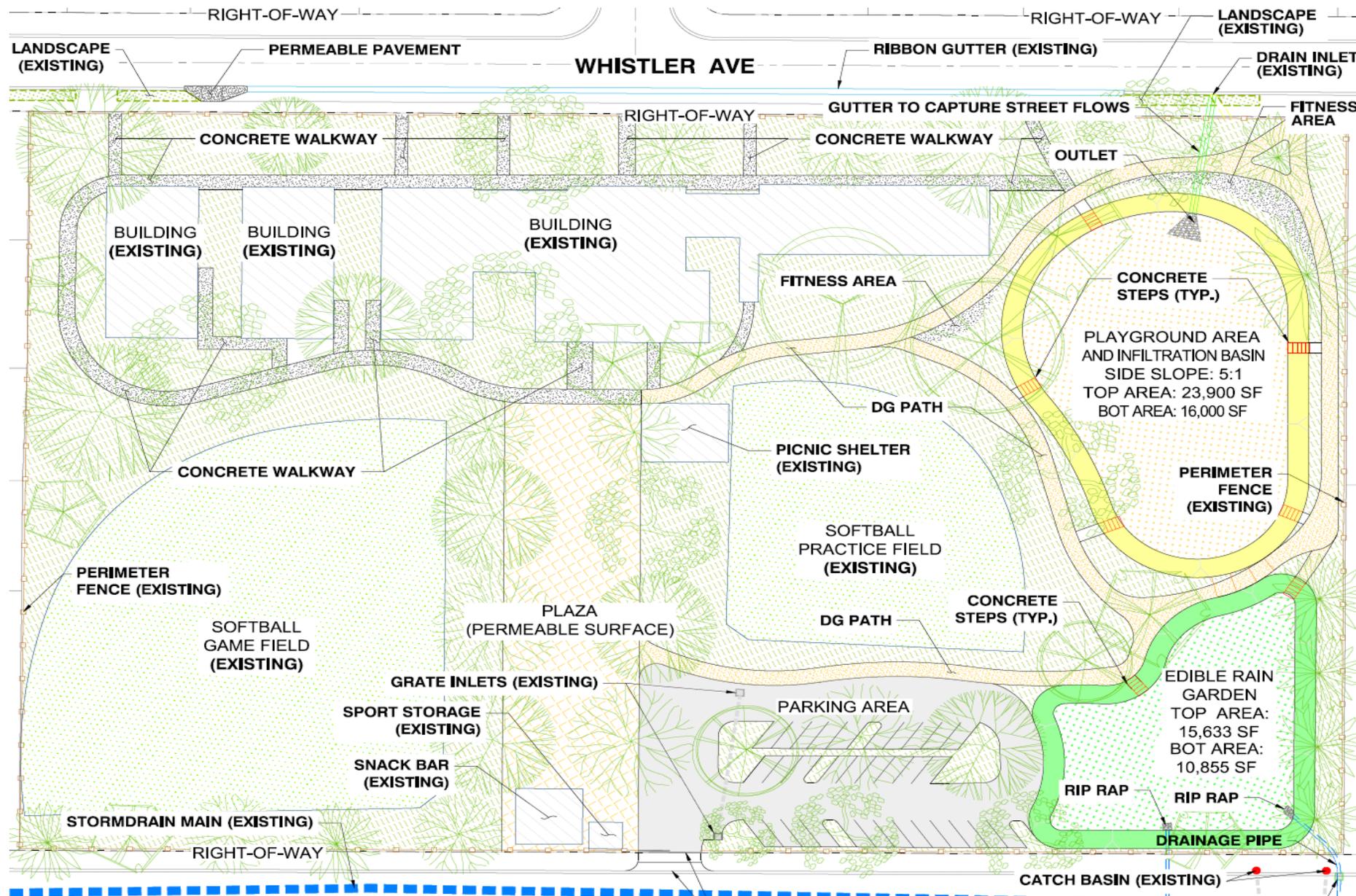


Project Details: Alternative 1





Project Details: Alternative 2





Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Environmental Documentation and Permitting	\$378,022	06/2024
Design	Design plans, estimates, specifications	\$756,043	06/2024
Construction	Construction costs	\$7,560,430	10/2025
Bid/Award	Construction Administration	\$1,134,065	10/2025
TOTAL	-	\$9,828,560	-

- Annual Costs for maintenance (\$23,540) and monitoring (\$10,000)
- Project Lifespan: 30+ years
- Lifecycle Cost (module-generated): \$10,455,204



Funding Request

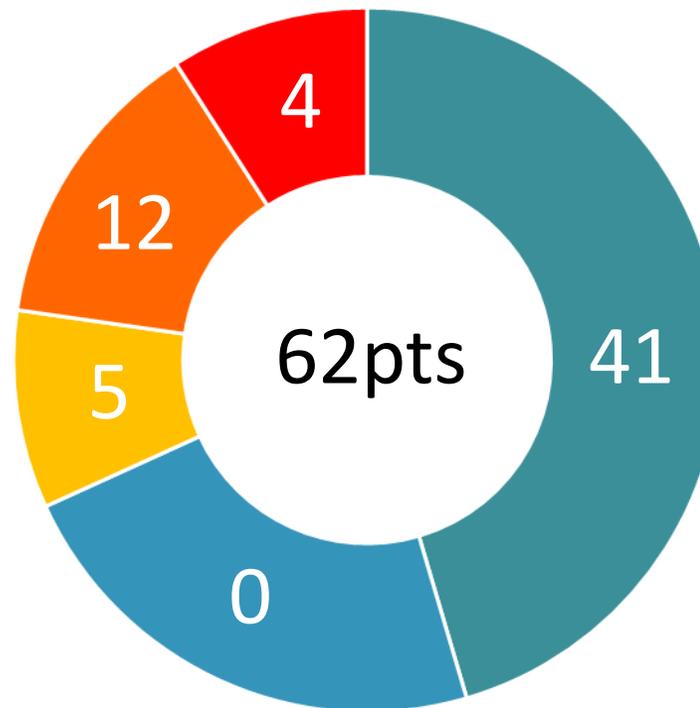
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$642,637	Design	Design, Permitting, and Environmental Documentation
2	\$3,024,172	Design	Design Plans, Specifications, and Estimates
3	\$3,515,600	Construction	Construction and Construction Administration
4	\$2,835,161	Construction	Construction and Construction Administration
5	-	-	-
TOTAL	\$9,828,559		



Score as confirmed by the Scoring Committee

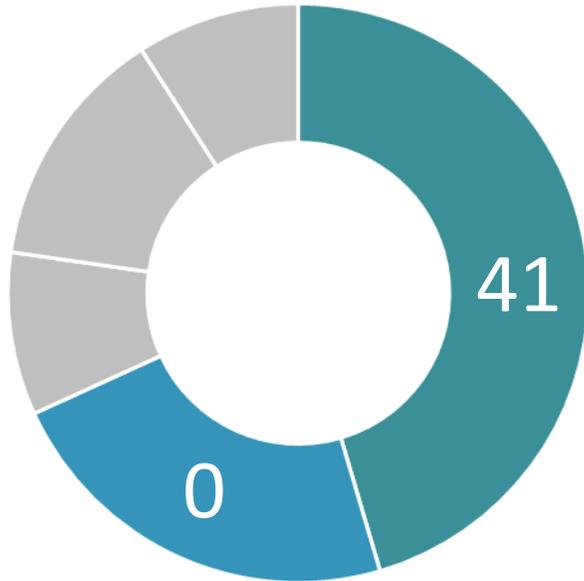
The Scoring Committee confirmed this score on December 1, 2022.

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





Water Quality & Water Supply Benefits

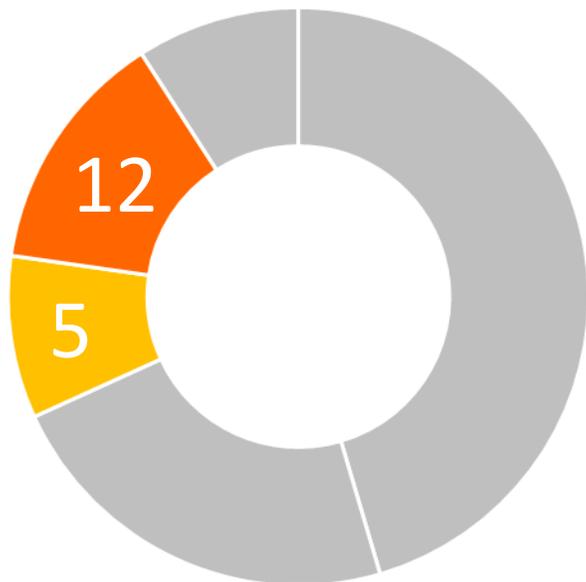


The Scoring Committee confirmed this score on December 1, 2022.

- Wet weather water quality benefits
- Tributary Area: 61.2 acres
- 24-hour storm capacity: 5.12 ac-ft
- Calculated 10-year Pollutant Reduction
 - Phosphorous = 89% and bacteria = 86.2%
 - They are considered priority pollutants for the San Gabriel River TMDL
- Annual Water Supply Volume: 25.76 ac-ft
- Water Supply Use (Main San Gabriel Groundwater Basin)



Community Investment Benefits and Nature Based Solutions

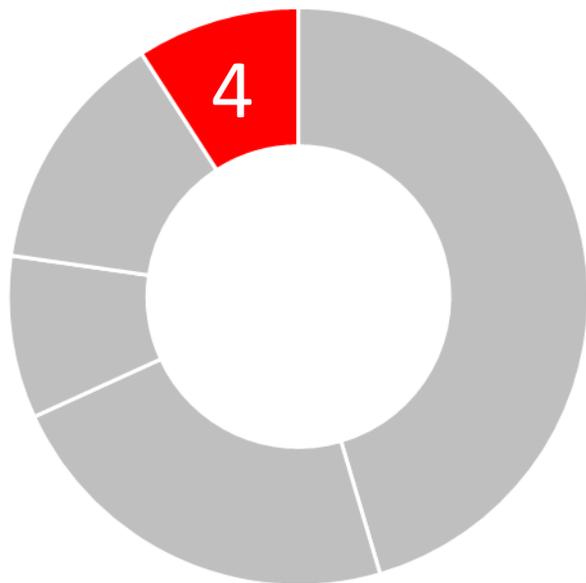


The Scoring Committee confirmed this score on December 1, 2022.

- **Community Investment Benefits**
 - Creating habitat and enhancing a park space.
 - Enhanced recreational opportunities.
 - Reduced local heat-island effect and increased shade.
 - Public health improvements.
- **Nature Based Solutions**
 - Natural processes implemented through infiltration.
 - Vegetation and addition of trees reduces the heat island effect.
 - Pervious pavement in lieu of impermeable blacktop.



Leveraging Funds and Community Support



The Scoring Committee confirmed this score on December 1, 2022.

- Community Support
 - Ongoing Community engagement since summer 2021
 - Conversations, surveys, stakeholder interviews, and an interactive community input web map.
 - ASGV collected over 500 surveys and 100 youth-oriented surveys
 - Letters were received from several non-profits
 - Day One
 - Eco Urban Gardens
 - Nature for All
 - ASGV and TPL will continue outreach as the Project progresses



Questions?

Edna Robidas

Trust for Public Land (TPL)

Larry Tortuya

CWE

Burke Heritage & Marengo Yard Stormwater Capture Project

Funding Program - Infrastructure Program

Fiscal Year 2023-2024

Rio Hondo Watershed

Project Lead: City of Alhambra

Presenter: Merrill Taylor (Craftwater Engineering)

Previously Awarded TRP? - No



City of
Alhambra

craftwater
engineering, inc.



Project Overview

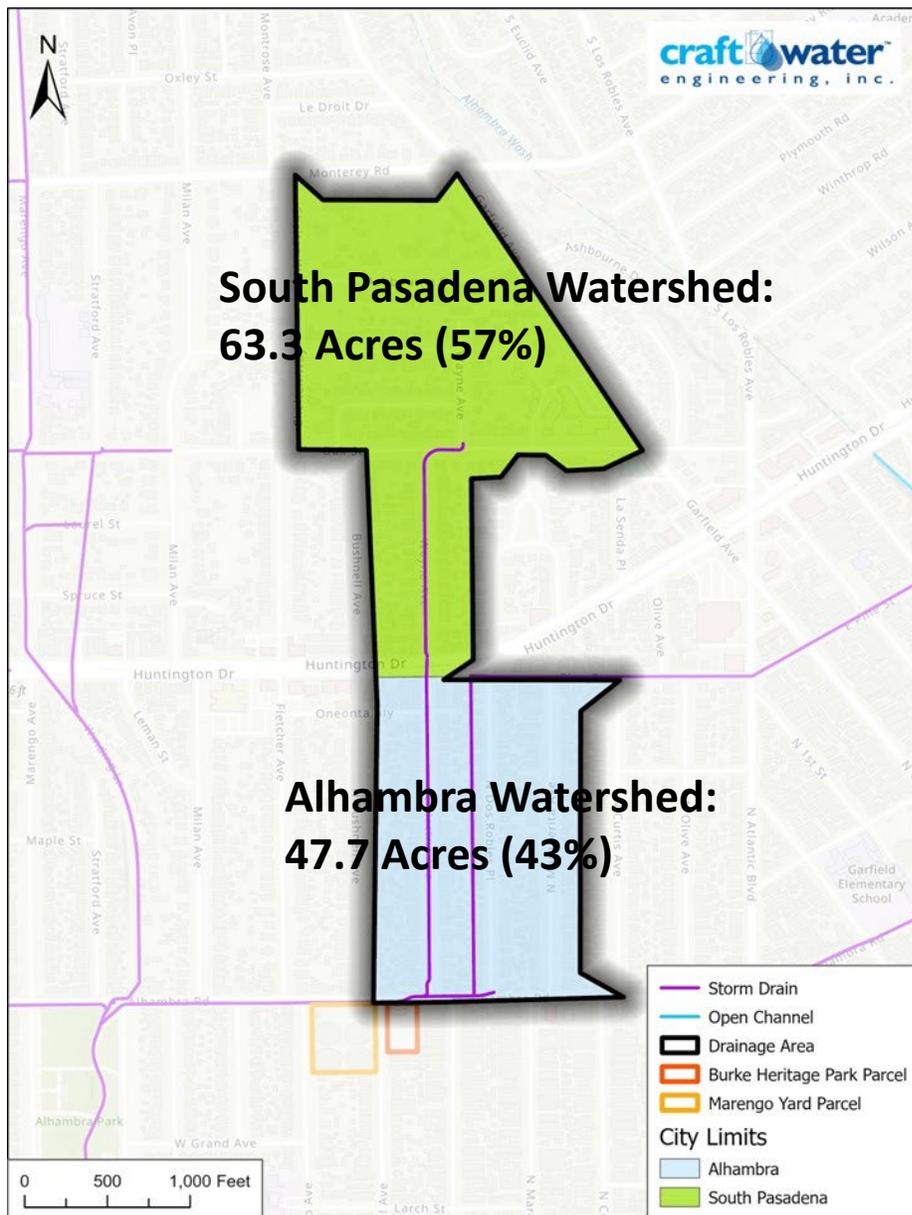
Regional and onsite stormwater capture and infiltration facility located beneath open space at Burke Heritage Park and Marengo Yard

- **Primary Objective:** Restore/rehabilitate park facilities while improving WQ within the Rio Hondo through nature-based stormwater management solutions
- **Secondary Objectives:** Incorporate onsite LID & public education
- **Project Status:** SCW funding request for Design & Construction
- **Total Funding Requested:** \$4,424,118





Project Location – Watershed Map



- Capture area jurisdiction:
 - City of Alhambra
 - City of South Pasadena
- Watershed Capture Area:
 - 111 acres

Land-use	Area (acres)	% of Impervious
Single Family Residential	35.7	76%
Commercial	0.4	0.8%
Institutional	2.6	5.6%
Secondary Roads & Alleys	8.3	17.6%
TOTAL	111	100%



Project Background

- Why was the Project Location selected?
 - Alhambra Stormwater Master Plan, passive park improvements, yard needs
- How was the Project developed?
 - Nature-based surface solutions and previous park plans/grants
- Which regional water management plan includes the proposed project?
 - IRWMP
- Description of benefits to municipality/municipalities
 - New park facilities, additional tree canopy, treat 85th percentile storm
- Description of benefits to Disadvantaged Communities
 - Not applicable



Partners

- Who are the implementation partners already identified?
 - [City of Alhambra](#)
- What communities or groups have expressed support for the project?
 - [ActiveSGV](#)
- Have you received a letter of concurrence from the municipality (if needed)
 - [Yes. Led by the City of Alhambra](#)
- Have you received a letter of concurrence from the Flood Control District (if needed)
 - [Yes](#)
- Have you yet engaged the appropriate vector control district about the project concept?
 - [Yes](#)



Project Details- Existing Conditions

Burke Heritage Park



Existing Conditions

- Infiltration Rate: 1.45 in/hr
- Depth to Groundwater: > 50 ft BGS
- Owner: City of Alhambra

*Feasibility, Geotechnical Investigation, and Stormwater Capture review done

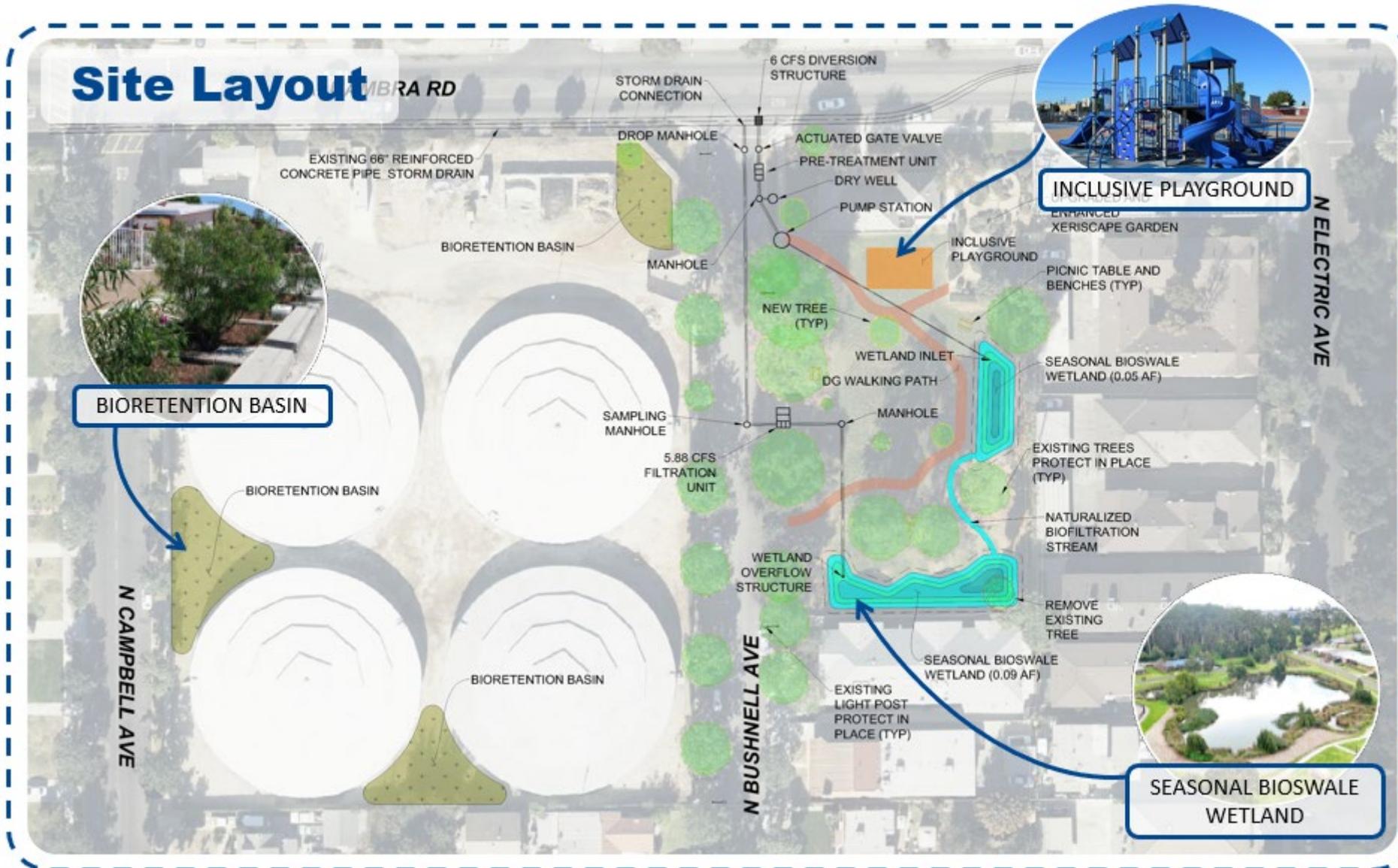
*Alternative footprint sizes and diversion rates examined

Marengo Yard



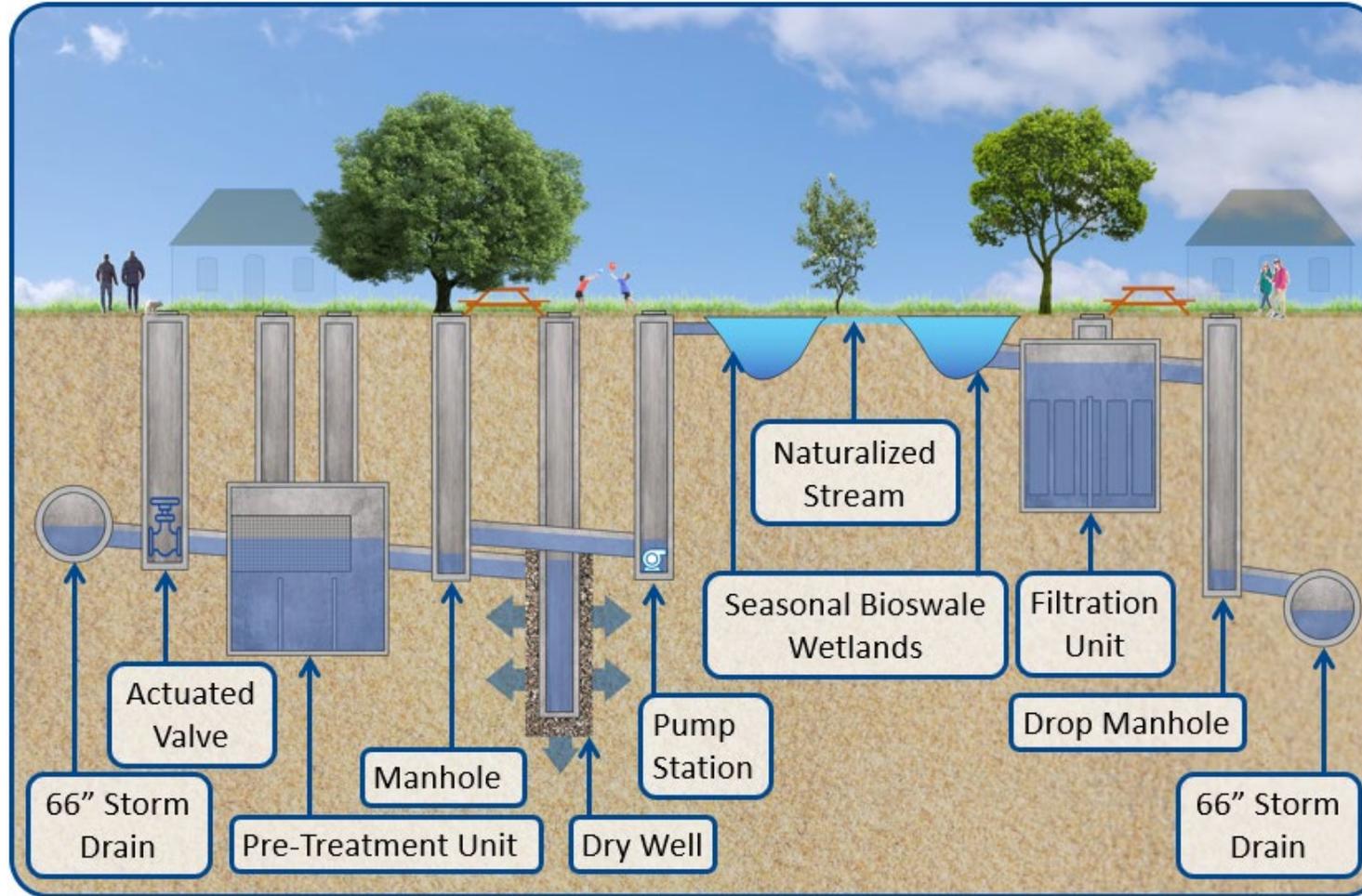


Project Details- Site Plan





Project Details – Schematic Diagram



Diversion Rate	Storage Capacity	24-Hour Capacity	Primary Pollutant Reduction (Zinc)	Secondary Pollutant Reduction (Copper)
6 cfs	0.14 ac-ft (46k Gal)	11.37 ac-ft	99.9% (17.2 lbs/yr)	99.9% (6.4 lbs/yr)



Project Benefits

Community Investment Benefits



Reduce Heat Island Effect

New Recreation Opportunities



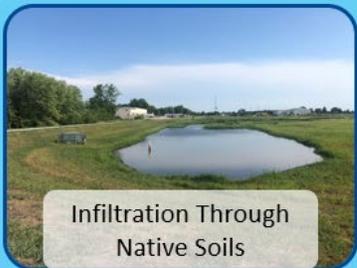
Enhance Park Space



Increase Tree Canopy Coverage



Nature Based Solution



Infiltration Through Native Soils



Native Vegetation



Biofiltration Basins

- **Water Quality** improvement in the RH by treating stormwater and urban runoff
- **Nature-Based** creation of infiltrating bioretention and native vegetations
- **Park Recreational Enhancements** creating a new playground, paths, and picnic areas
- **Reduced Heat Island** native vegetation and 4 new shade trees throughout the park.



Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	\$90,254	07/2022
Design	Environmental Planning (CEQA/NEPA) and Permitting, Public Outreach during design, Final Design (30/60/90/100), Project Management	\$787,896	12/2023
Construction	Construction capital costs, survey, administration and design support, construction management	\$3,636,222	02/2026

Annualized Costs

Maintenance Cost:	\$280,000
Operation Cost:	\$50,000
Monitoring Cost:	\$25,000
Project Life Span:	50

Life-Cycle Costs

Life-Cycle Cost for Project:	\$13,032,207
Annualized Cost for Project:	\$543,147



Funding Request

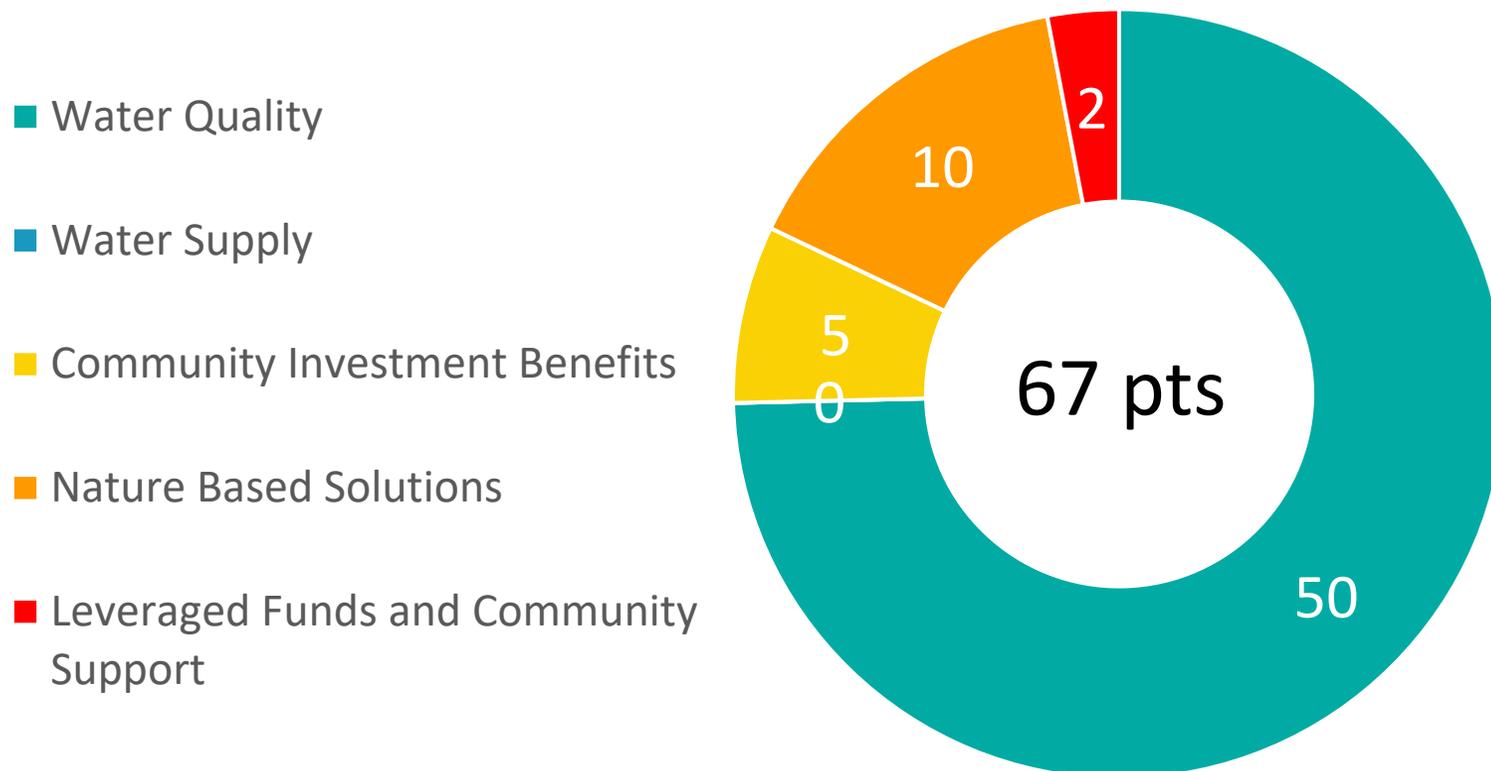
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$787,896	Design	Environmental Planning (CEQA) and Permitting, Community Outreach, Agency Project Management, and Professional Design Services (30/60/90/100)
2	\$1,225,408	Construction	Construction capital costs, construction administration, and agency management
3	\$1,205,407	Construction	Construction capital costs, construction administration, and agency management
4	\$1,205,407	Construction	Construction capital costs, construction administration, and agency management
TOTAL	\$4,424,118		

- Cost Share = \$250,000 (Statewide Park Program)
- Future funding requests
 - \$3,636,222 for Construction – Year 2 and beyond



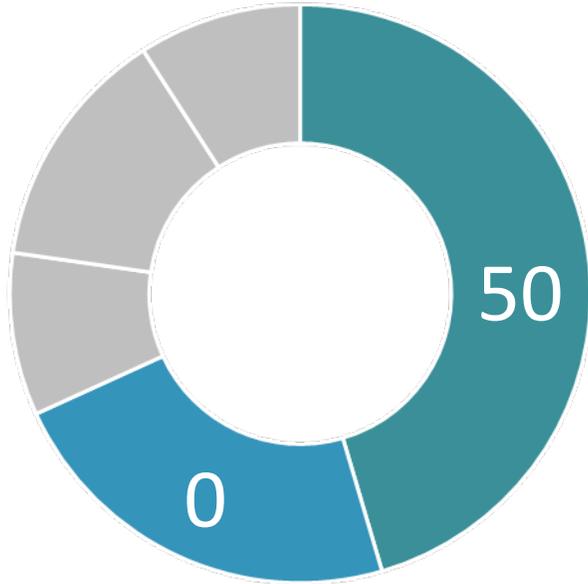
Score as confirmed by the Scoring Committee

The Scoring Committee confirmed this score on 9 Nov 2022.





Water Quality & Water Supply Benefits

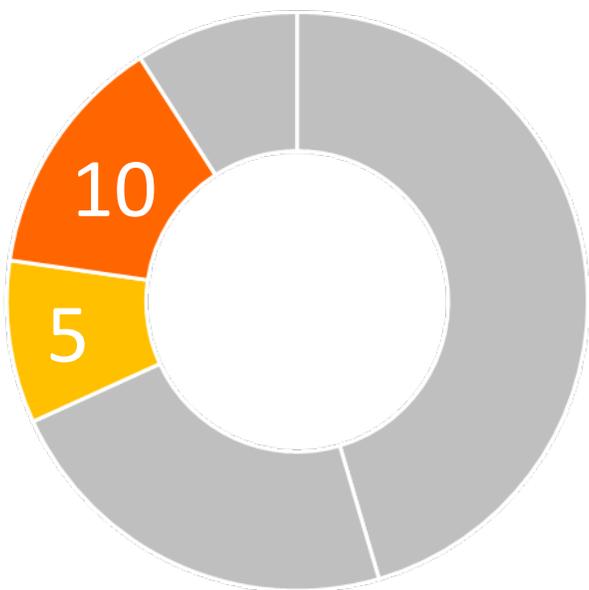


The Scoring Committee confirmed this score on 9 Nov 2022

- **Primary Mechanisms**
 - Runoff/pollutant capture
 - Infiltration/Filtration
- **Wet weather project**
- Tributary Area: **111 acres**
- 24 Hours Capacity: **11.37 ac-ft**
- Pollutant Load Reduction
 - Primary Pollutant (Zinc) – **99.9% (17.2 lbs-annual avg)**
 - Secondary Pollutant (Copper) – **99.9% (6.4 lbs-annual avg)**
- Average Annual Capture for Water supply: **6 ac-ft**
- Water Supply Use :
 - **Groundwater recharge**
- Water Supply Cost Effectiveness: **\$90,524 per ac-ft**



Community Investment Benefits and Nature Based Solutions



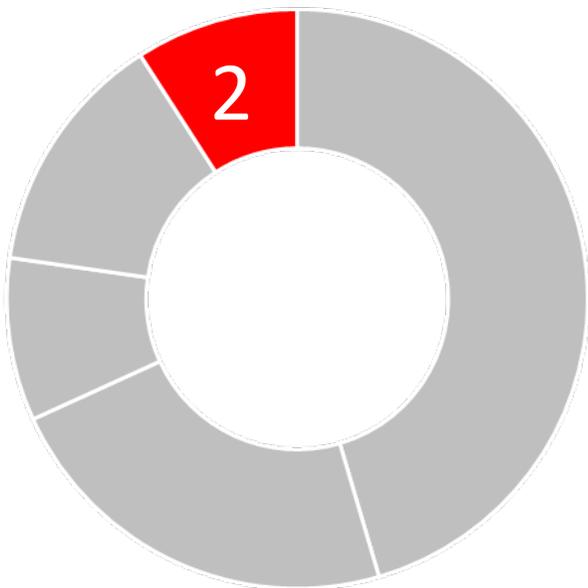
The Scoring Committee confirmed this score on 9 Nov 2022

- **Community Investment Benefits**
 - Creation of parks and wetlands
 - Enhanced recreational opportunities
 - Reduced heat island effect and increased shade
 - Increase the number of trees and vegetation
- **Nature Based Solutions**
 - Project creates surface bioretention basins to mimic natural hydrology and infiltration
 - Post construction plans include 4 additional native trees, various native shrubs, native compacted soil, and grasses



Leveraging Funds and Community Support

- Leveraging Funds
 - \$250K – Statewide Park Program
- Community Support
 - City of Alhambra to continue to lead an active community outreach effort
 - Strong, local, community-Based Support
 - ActiveSGV



The Scoring Committee confirmed this score on 9 Nov 2022

Questions?



City of
Alhambra

craft  **water**
engineering, inc.

Merrill Taylor, PE

Merced Avenue Stormwater Capture Project

Funding Program - Infrastructure Program

Fiscal Year 2023-2024

Rio Hondo Watershed

Project Lead: City of El Monte

Presenter: Oliver Galang (Craftwater Engineering)
on behalf of the City of El Monte

Previously Awarded TRP? - No



Project Overview

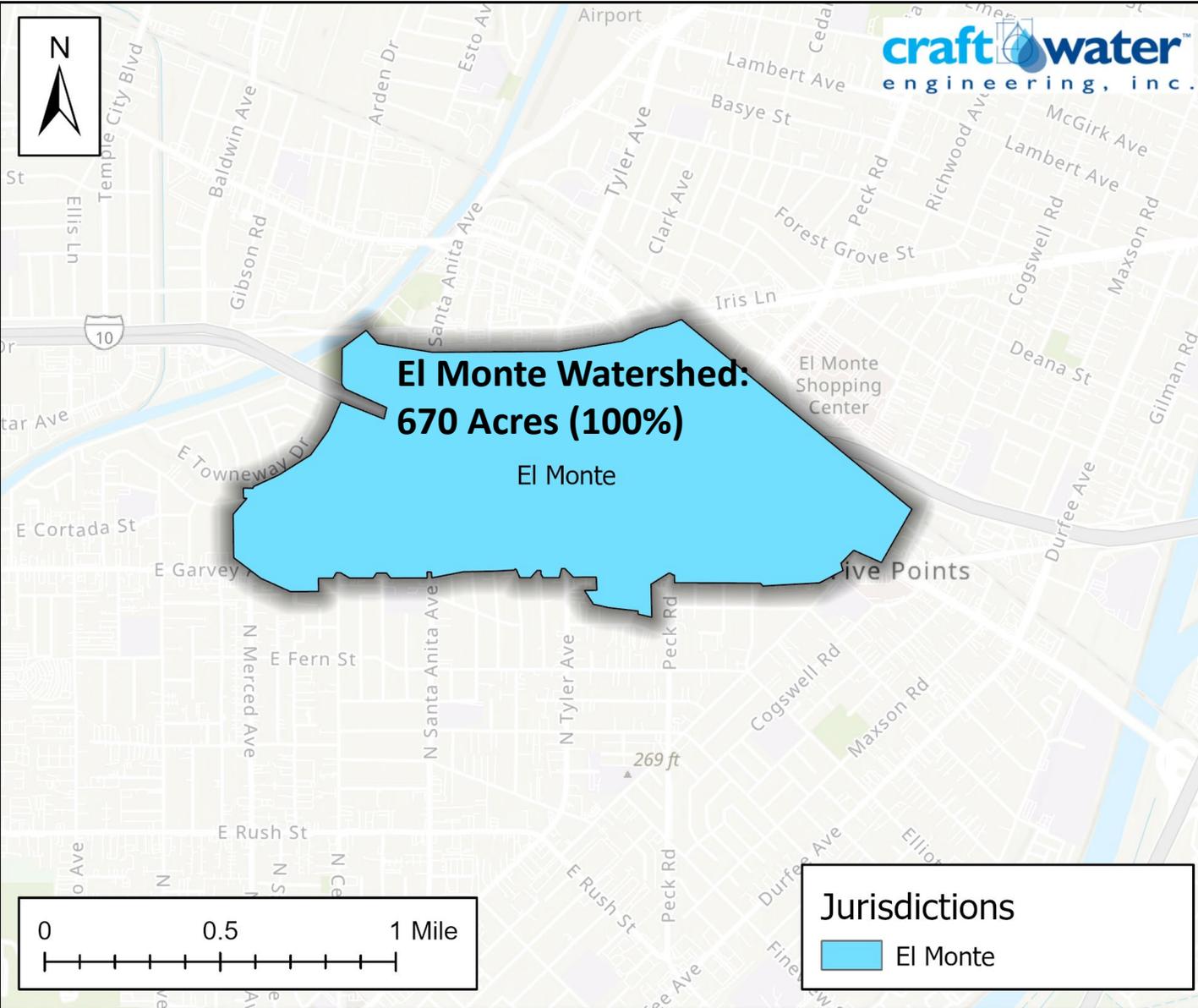
New bicycle/pedestrian path and subsurface culvert & infiltrating bioswale starting at Merced Ave and ending at the Rio Hondo confluence

- **Primary Objective:** Improve WQ within the Rio Hondo watershed through nature-based stormwater management solutions with improving a channel corridor with bicycle/pedestrian facilities and adjacent green street
- **Secondary Objectives:** Public education & decreased impervious surfaces
- **Project Status:** SCW funding request for Design & Construction
- **Total Funding Requested:** \$9,799,210





Project Location – Watershed Map

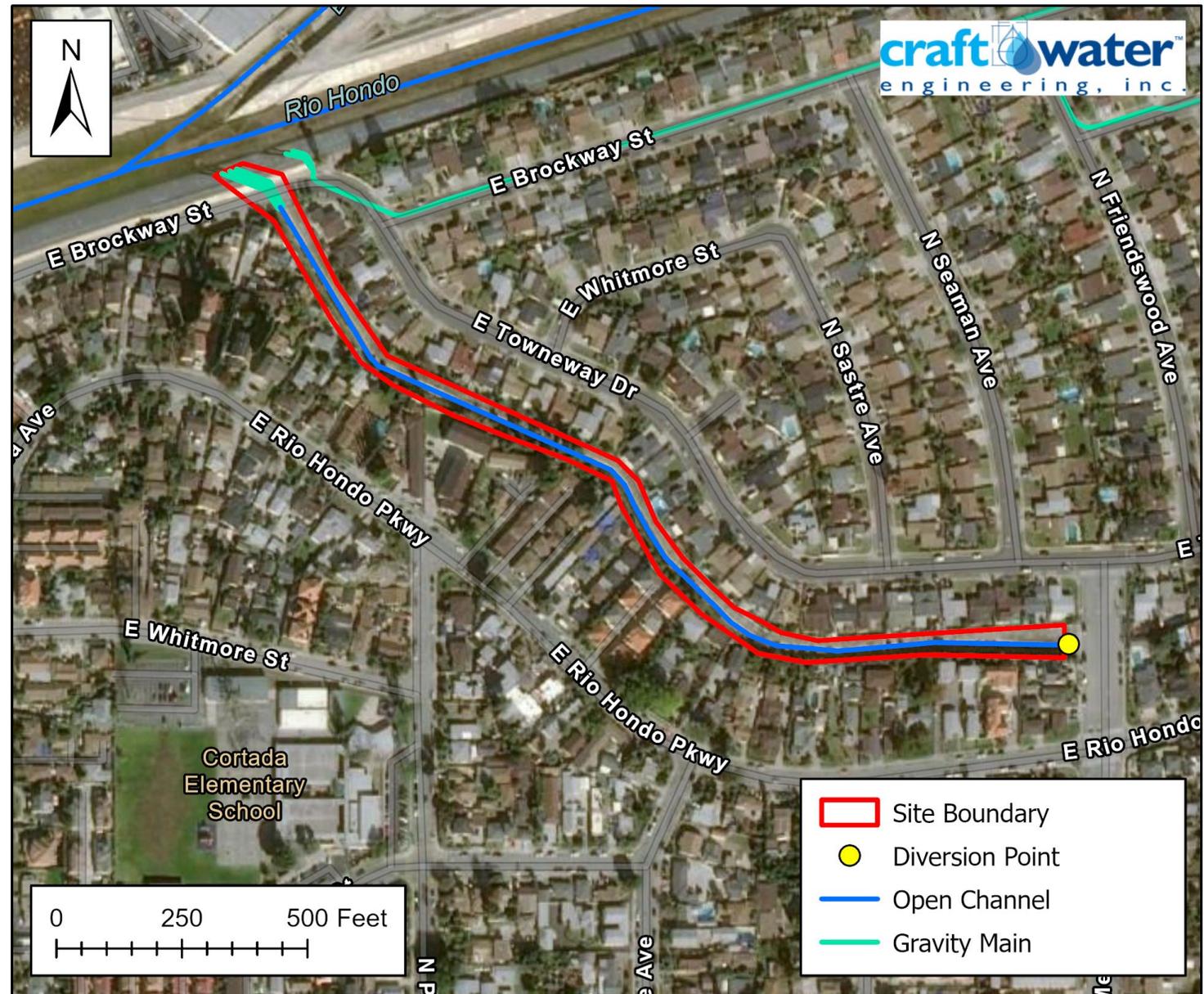
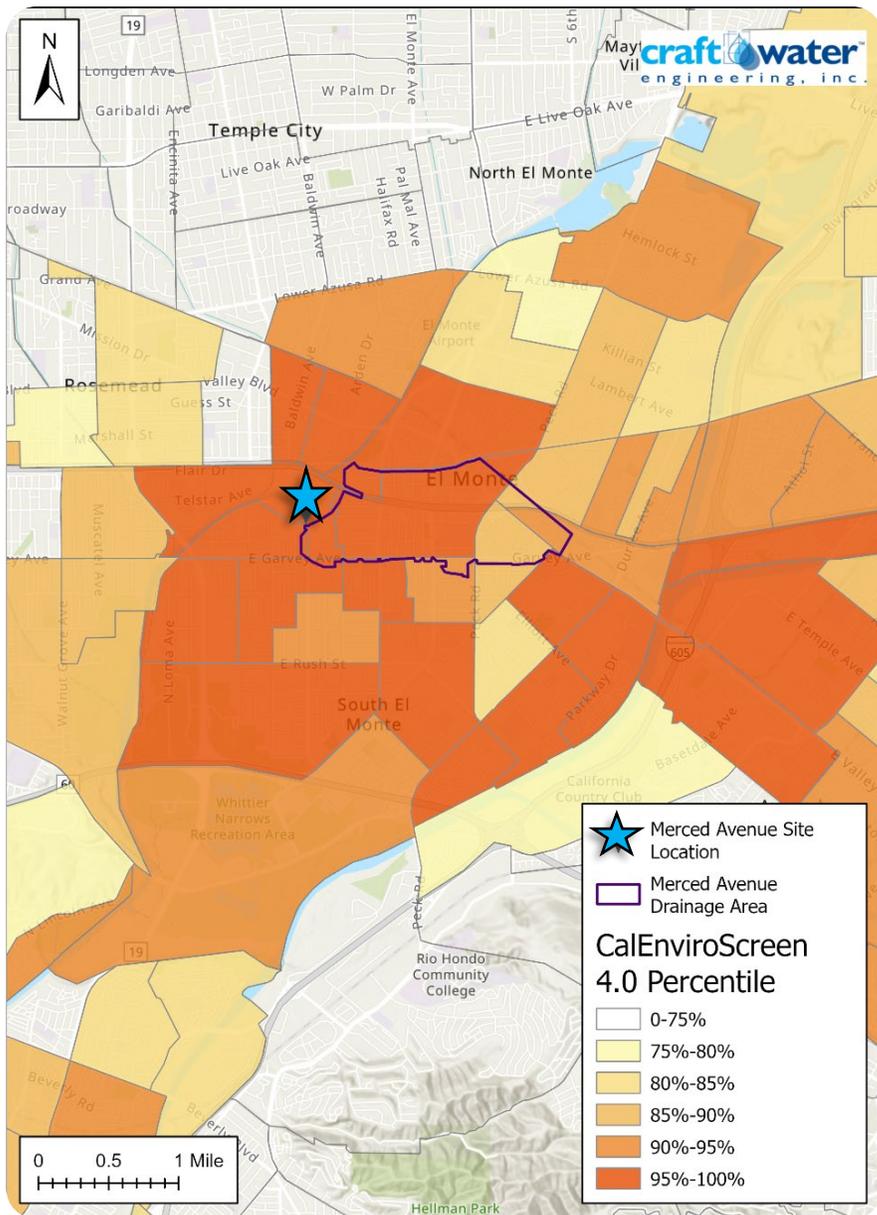


- Capture area jurisdiction:
 - City of El Monte
- Watershed Capture Area:
 - 670 acres

Land-use	Area (acres)	% of Impervious
Single Family Residential	67.8	14.9%
Multi-Family Residential	35.9	7.9%
Commercial	126.0	27.7%
Institutional	85.1	18.7%
Industrial	4.1	0.9%
Highways & Interstates	32.3	7.1%
Secondary Roads & Alleys	103.7	22.8%
TOTAL	455	100%



Project Location – Project Area & DAC Communities





Project Background

- Why was the Project Location selected?
 - Identified for City efforts to increase access to recreational opportunities while providing new WQ improvements to Rio Hondo & disadvantaged community support
- How was the Project developed?
 - Site diversion and layout alternatives, community input, and incorporation of potential stormwater features
- Which regional water management plan includes the proposed project?
 - IRWMP
- Description of benefits to municipality/municipalities
 - New bicycle/pedestrian path, increased tree canopy and habitat, treat wet-weather flows
- Description of benefits to Disadvantaged Communities
 - Better community connectivity and recreational facilities



Partners

- Who are the implementation partners already identified?
 - City of El Monte
- What communities or groups have expressed support for the project?
 - ActiveSGV, El Monte School District, Southern California Association of Governments, Los Angeles County Metropolitan Transportation Authority, Los Angeles County Bicycle Coalition, City of South El Monte, Congressman Grace Napolitano
- Have you received a letter of concurrence from the municipality (if needed)
 - Yes. Led by the City of El Monte
- Have you received a letter of concurrence from the Flood Control District (if needed)
 - City of El Monte channel, therefore, LACFCD concurrence is **not required**
- Have you yet engaged the appropriate vector control district about the project concept?
 - Yes



Project Details- Existing Conditions

Existing Condition



Existing Conditions

- Dry-Weather Flow = 0.017 cfs
- Infiltration Rate: 1.0 in/hr
- Owner: City of El Monte

*Feasibility and Stormwater Capture review done

*Alternative footprint sizes and diversion rates examined

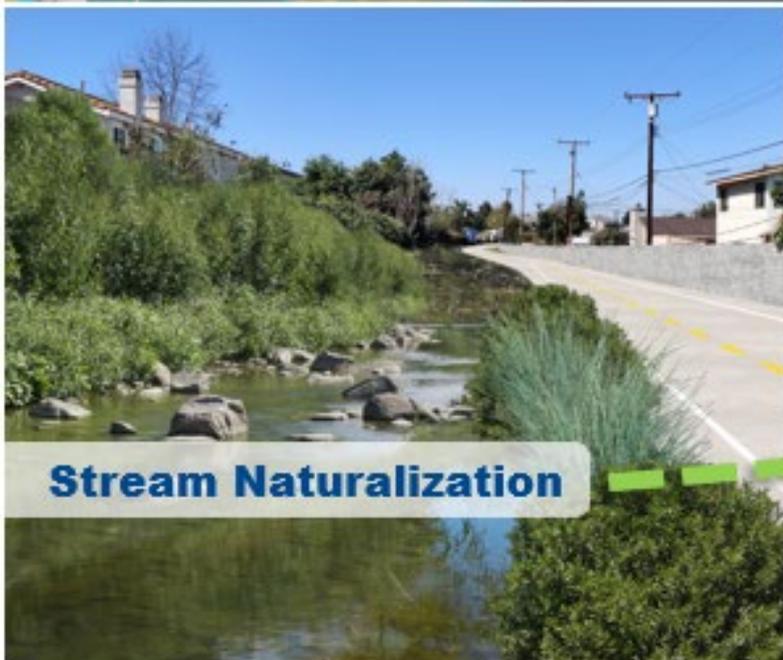




Project Details- Site Plan



Merced Ave Linear Park

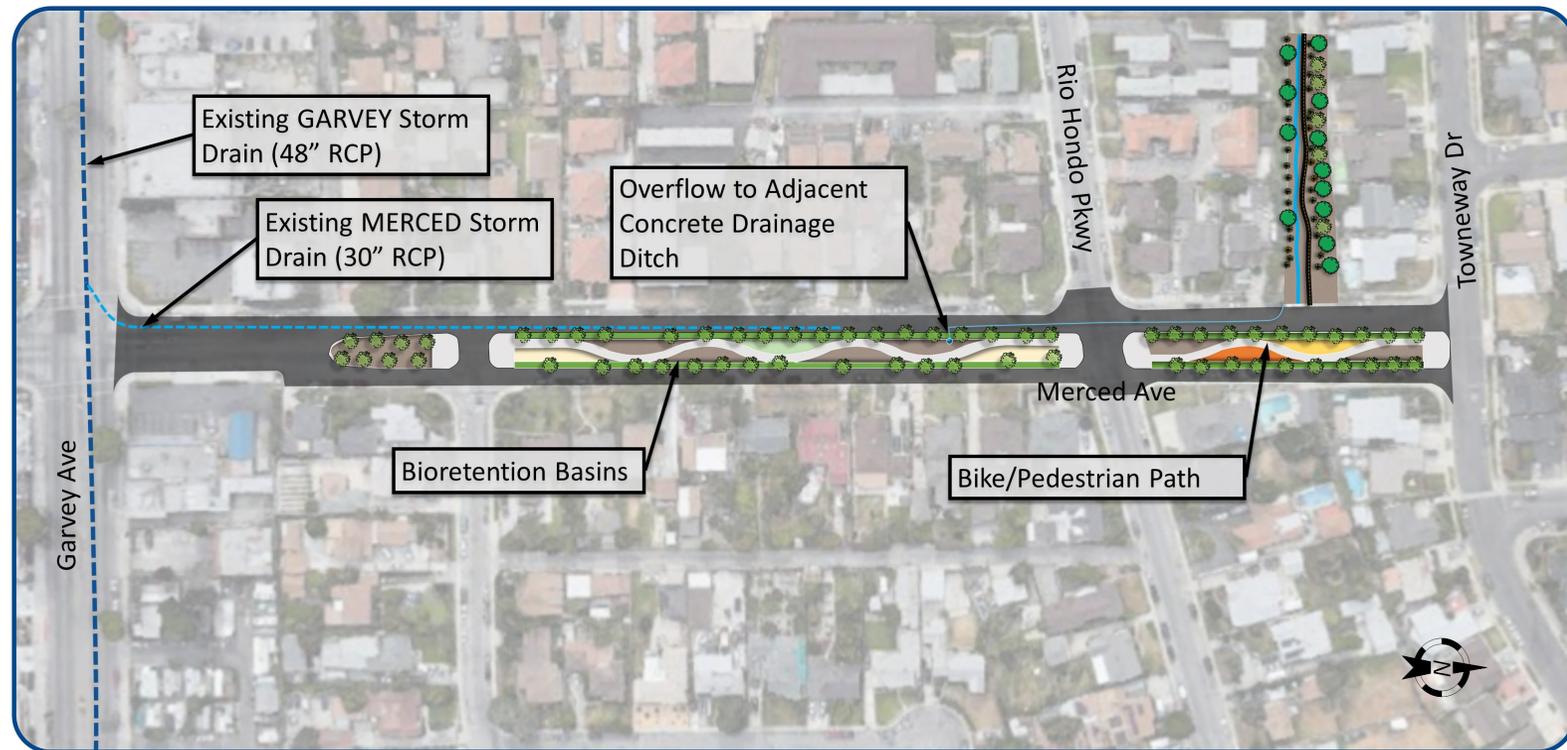


Stream Naturalization





Project Details | Linear Park Schematic Diagram

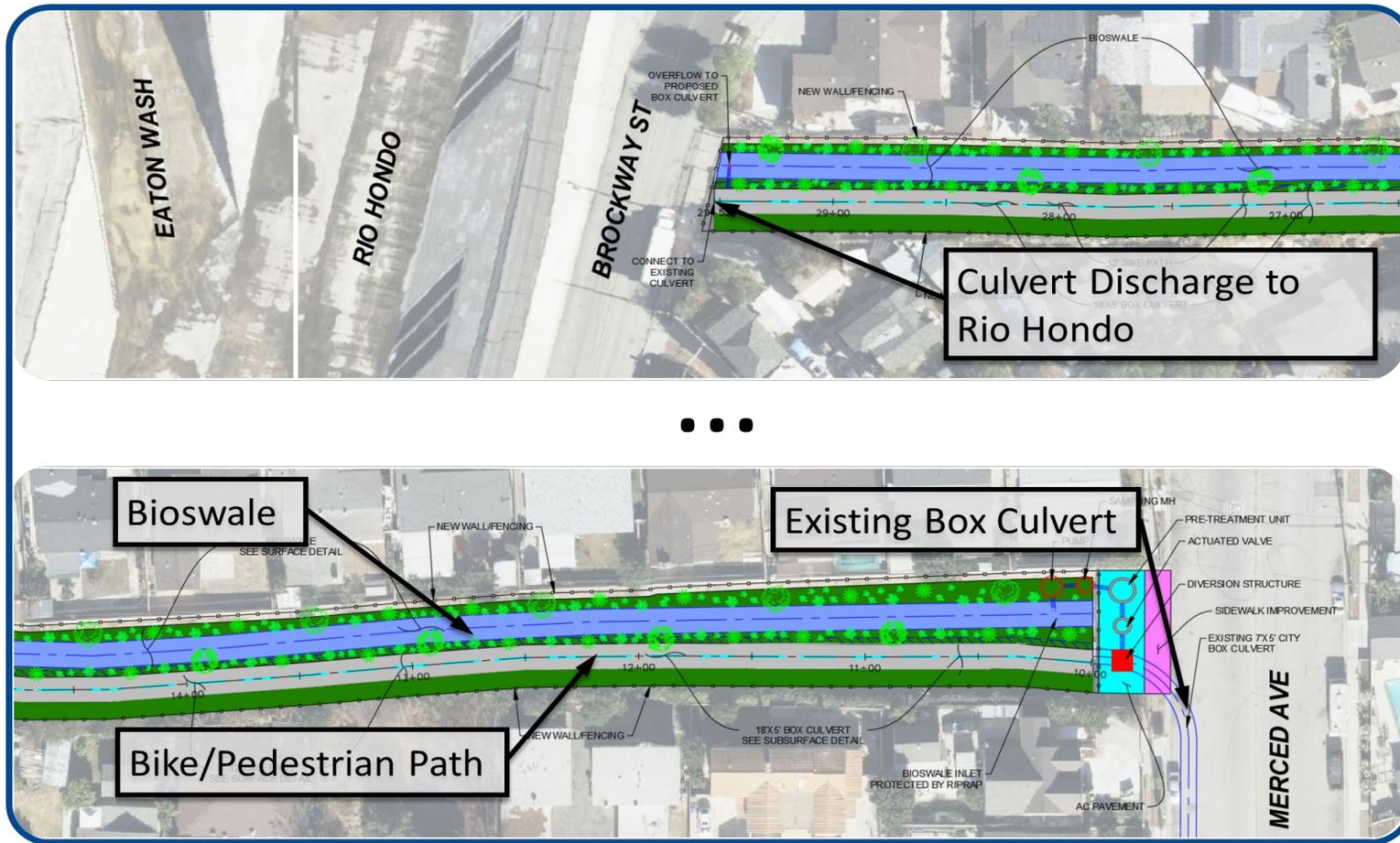




Project Details | Schematic Diagram, Stream Naturalization



Stream Naturalization



Diversion Rate	Storage Capacity	24-Hour Capacity	Primary Pollutant Reduction (Zinc) Dry-Weather	Secondary Pollutant Reduction (Copper) Dry-Weather
1.2 cfs	0.17 ac-ft (55k Gal)	0.97 ac-ft	100%	100%



Project Benefits



Merced Ave Linear Park



Stream Naturalization

- **Water Quality** improvement in the Rio Hondo by treating stormwater and urban runoff
- **Nature-Based** creation of filtering bioretention and native vegetation
- **Improved Access to Waterways** adding a new natural stream in channel location
- **Park Recreational Enhancements** creating new pedestrian and bicycle path
- **Reduced Heat Island** native vegetation and 104 new shade trees throughout the park



Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Feasibility Study	\$74,757	02/2023
Design	Environmental Planning (CEQA/NEPA) and Permitting, Public Outreach during design, Final Design (30/60/90/100), Project Management	\$1,529,990	02/2024
Construction	Construction capital costs, survey, administration and design support, construction management	\$12,902,545	04/2026

Annualized Costs

Maintenance Cost:	\$280,000
Operation Cost:	\$50,000
Monitoring Cost:	\$25,000
Project Life Span:	50

Life-Cycle Costs

Life-Cycle Cost for Project:	\$23,025,087
Annualized Cost for Project:	\$959,622



Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$1,068,059	Design	Environmental Planning (CEQA) and Permitting, Community Outreach, Agency Project Management, and Professional Design Services (30/60/90/100)
2	\$2,923,717	Construction	Construction capital costs, construction administration, and agency project management
3	\$2,903,717	Construction	Construction capital costs, construction administration, and agency project management
4	\$2,903,717	Construction	Construction capital costs, construction administration, and agency project management
TOTAL	\$9,799,210		

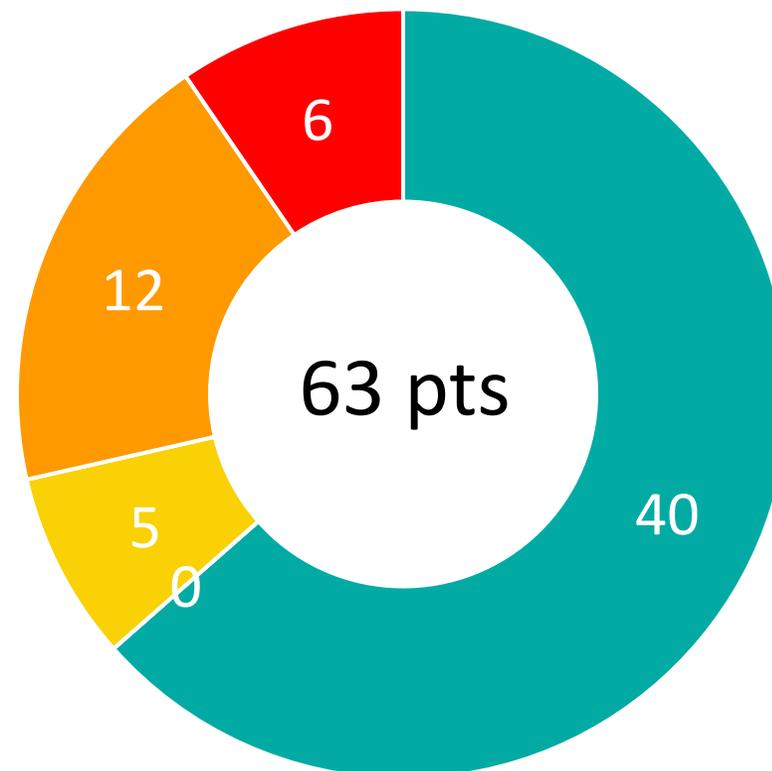
- **Cost Share** = \$4,633,284 (Caltrans Clean California Local Grant) - **>25%**
- Future funding requests
 - \$355,000 for Operations & Maintenance – Year 5 and beyond



Score as confirmed by the Scoring Committee

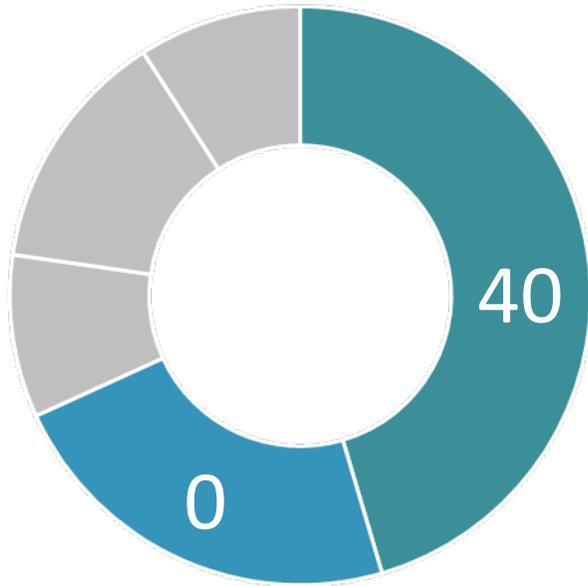
The Scoring Committee confirmed this score on 9 Nov 2022.

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





Water Quality & Water Supply Benefits

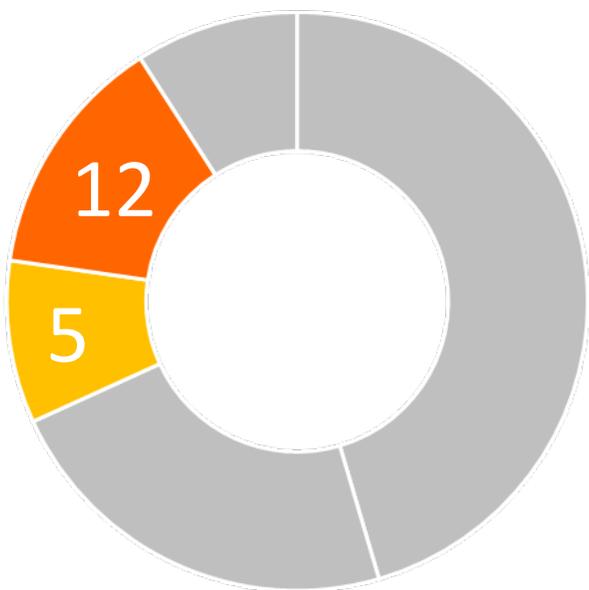


The Scoring Committee confirmed this score on 9 Nov 2022

- **Primary Mechanisms**
 - Runoff/pollutant capture
 - Infiltration
- **Dry weather project**
- Tributary Area: **670 acres**
- 24 Hours Capacity: **0.97 ac-ft**
- Pollutant Load Reduction (Dry-Weather)
 - Primary Pollutant (Zinc) – **100%**
 - Secondary Pollutant (Copper) – **100%**
- Average Annual Capture for Water supply: **0 ac-ft**
- Water Supply Use :
 - **N/A**
- Water Supply Cost Effectiveness: **N/A**



Community Investment Benefits and Nature Based Solutions

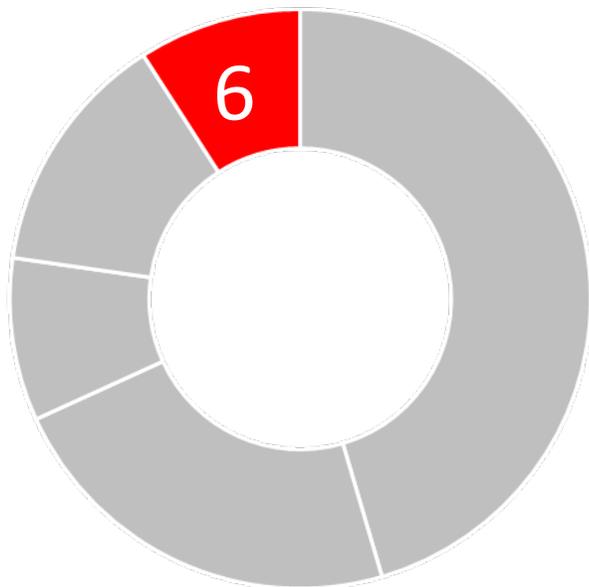


The Scoring Committee confirmed this score on 9 Nov 2022

- Community Investment Benefits
 - Creation of parks and wetlands
 - Enhanced recreational opportunities
 - Reduced heat island effect and increased shade
 - Increase the number of trees and vegetation
- Nature Based Solutions
 - Project utilizes infiltration to put runoff into soils
 - Project creates surface bioswale to mimic natural hydrology
 - Post construction plans include 104 additional native trees, various native shrubs, native compacted soil, and grasses



Leveraging Funds and Community Support



The Scoring Committee confirmed this score on 9 Nov 2022

- Leveraging Funds
 - \$4.6M from Caltrans Clean California Grant Program
 - >25% Cost Share
- Community Support
 - City of El Monte to continue to lead an active community outreach effort
 - Participated in community events w/ storyboards, animations, and multi-lingual fact sheets
 - City's Farmers Market
 - Strong, local, community-Based Support
 - ActiveSGV
 - El Monte City School District
 - Southern California Association of Governments
 - Los Angeles County Bicycle Coalition
 - Los Angeles County Metropolitan Transportation Authority
 - City of South El Monte
 - Congressman Grace Napolitano



Questions?
Oliver Galang, PE
Craftwater Engineering, Inc
On behalf of the City of El Monte