

Safe, Clean Water Program

Fiscal Year 2021-2022

WASC Review Sheet



Project Name	
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		

An aerial photograph of a coastal city, likely El Monte, California, showing a dense urban grid, a large body of water (likely a reservoir or bay), and surrounding hills. The image is partially obscured by a dark teal overlay on the left side where the text is located.

Zamora Park Renovation Project

Funding Program: (IP)

Project Lead: City of El Monte

Additional Project Collaborators: The Trust for Public Land

Presenter: Ed Suher, P.G., CASC Engineering



Project Overview

The Zamora Park Renovation Project proposes to significantly enhance Zamora Park, a 4.48-acre public park located in the densely populated City of El Monte. During construction, the Project will support workforce development through a partnership with the Los Angeles Conservation Corps, providing hands-on training to at-risk and school-aged youth in landscaping, tree planting, and other green construction skills. The Zamora Park amenities currently exhibit significant deterioration and major safety concerns. This Project incorporates years of community input with plans to remove most existing recreation features and create new amenities based on community desires, including green infrastructure that will promote open space and recreation while improving Water Quality and Air Quality.

- Description of Primary and Secondary Objectives
 - Renovation and upgrading of much-needed park space and amenities
 - Improved safety, water quality, air quality, and reduced heat island effects
- Project Status: Construction (finalizing design and drawings now)
- Total Funding Requested: \$2,000,000





Project Location



Project Location

Zamora Park Renovation Project
Location Map | Statewide Park Development & Community Revitalization Program



Capture Area

Zamora Park Capture Area

• Other Information:

- Watershed Area – USGR
- Disadvantaged Community (DAC) – entire project area.
- Municipality Benefits –
 - Community-desired recreational features
 - Stormwater capture and recharge
 - Increased tree canopy coverage
 - Enhancements to bus stop used by children and adults



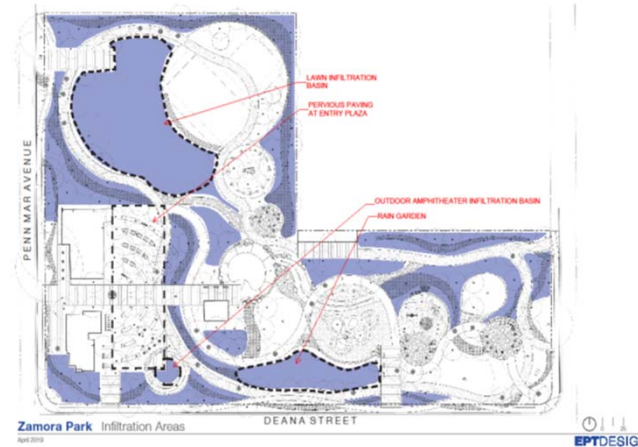
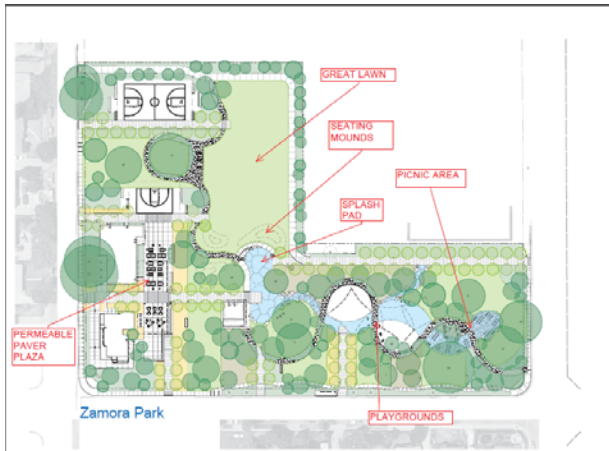
Project Background

- Project Location was selected by the Community and was developed through Community Engagement with City and TPL Collaboration.
- The project is part of El Monte's Watershed Management Program (Individual) and is also listed in the IRWMP/OPTI Database
- Benefits to Municipality:
 - Assists with achievement of Water Quality Objectives for MS4 Permit
- Disadvantaged Community (DAC) Benefits:
 - Upgraded recreational opportunities and improved health
 - Improved Water Quality
 - Improved Air Quality
 - Increased Safety



Project Details

Project schematics/site plans shown with labeling of key features



- Current site conditions and completed studies/analysis:
 - Preliminary Geotechnical Engineering Report – no potential constraints or limitations
 - Test Borings and Percolation Tests – very feasible for infiltration
- Alternatives considered:
 - Possible addition of tree wells near curbs to infiltrate portion of stormwater runoff from streets



Cost & Schedule

Phase	Description	Cost	Completion Date
Construction	Soft Costs (Planning, Meetings, etc.)	\$945,230.00	03/2022
Construction	Hard Costs (Materials, Installation, etc.)	\$5,110,598.55	03/2022
TOTAL		\$6,055,828.55	

- Annual O&M and monitoring costs: approximately \$25,000
- Project Lifespan is 50 years; Lifecycle cost: \$6.6M



Funding Request

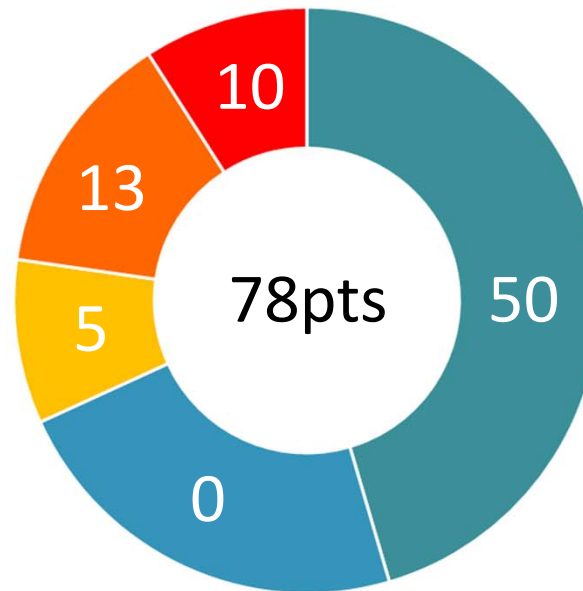
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$700,000.00	Construction	Engineering, design, and preparation for stormwater BMPs and site components
2	\$1,300,000.00	Construction	Demolition, grading, construction, landscaping, drainage infrastructure
TOTAL	\$2,000,000.00		

- Leveraged Funding amount > 50 percent



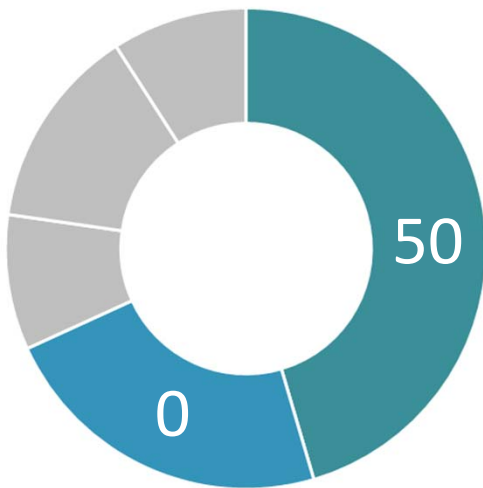
Preliminary Score

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





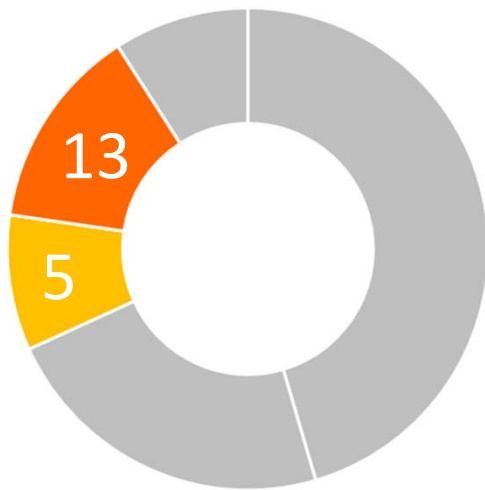
Water Quality & Water Supply Benefits



- Primary mechanism to achieve Water Quality Benefits is load reduction of primary and secondary pollutants through infiltration:
 - pervious surfaces, bioswales, subterranean infiltration basins
 - wet weather flows; no dry weather flows
- Pollutant Reduction: estimated to be 100%
- Tributary Area: ~ 3.5 acres of pervious surfaces
- Annual Water Supply Volume - minimal
- Water efficient irrigation system planned; drip irrigation where possible; drought tolerant landscaping and turf replacement with native plants



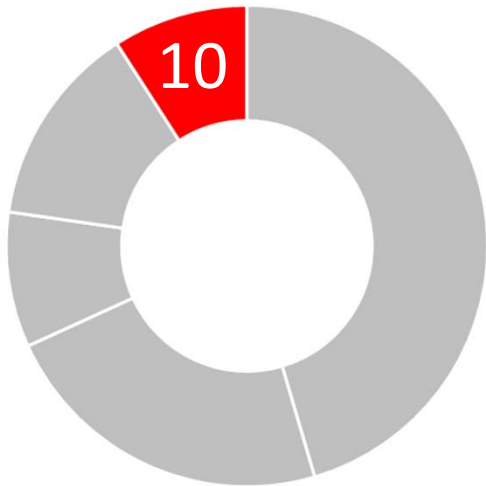
Community Investment Benefits and Nature Based Solutions



- **Community Investment Benefits**
 - Walking paths and fitness equipment to promote exercise
 - New playgrounds and resurfaced basketball court
 - Splash Pad, picnic areas, community art, Plaza area, Amphitheater
 - Open space for passive recreation; areas for all ages
 - Increased security through lighting and cameras
 - LID features and water conservation elements
 - 5 points out of 10 possible
- **Nature Based Solutions**
 - Approximately 112 new trees to be planted
 - Pervious walkways, bioswales, infiltration areas planned
 - Landscaping to mimic natural processes to control runoff
 - Removal of 1.4 acres of turf; replacement with native plants
 - Drought tolerant and non-invasive plants to be selected
 - 13 points out of 15 possible



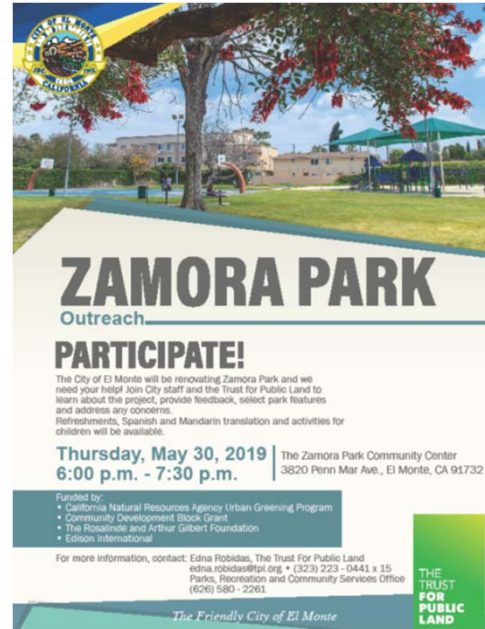
Leveraging Funds and Community Support



- Leveraging Funds
 - Urban Greening Grant: \$3.7M, committed
 - Community Development Block Grant: \$880,436, committed
 - City contribution: \$100,000 committed
 - > 50% funding matched
 - 10 points out of 10 possible
- Community Support and Involvement
 - Community initiated project, with First 5 LA's Best Start Program
 - Community brought need of renovations to City via photo assessment
 - Community involved early and at each step of project
 - Workshops held to gather feedback for design
 - Community fully engaged and connected to local project
 - Senior residents and schools excited about renovations
 - City Council, Parks and Rec, TPL, Best Start working together



Community Engagement



- Community Engagement Meetings well attended; translation provided
- Community members provided input and priorities for amenities
- Outreach and Engagement started in 2017 with over 11 meetings to date
- Two virtual Engagement Meetings planned for January 2021

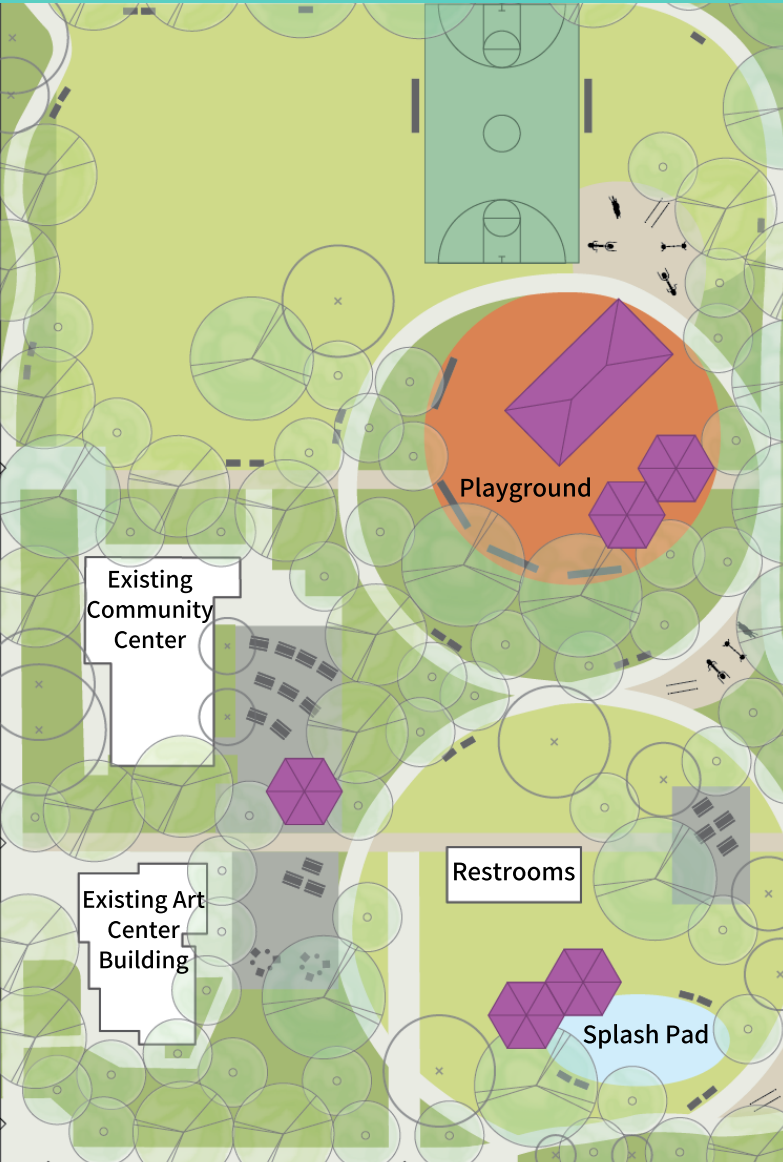


Questions?

Zamora Park Renovation



Renovación del Parque Zamora Zamora 公園改造項目 Chương Trình Tu Bổ Zamora Park



Online Community Meeting & Feedback: Thursday, February 25, 6 pm - 8 pm

Reunión de la comunidad y comentarios:
Jueves 25 de Febrero, de 6 p.m. a 8 p.m. por internet

(網上) 社區會議和反饋：2月25日，星期四，下午
6:00-8:00

Buổi hội họp cộng đồng & ý kiến trên mạng:
Thứ Năm, ngày 25, tháng 2, lúc 6 - 8 giờ chiều

Register for meeting here: <http://bit.ly/3tfxXzn>

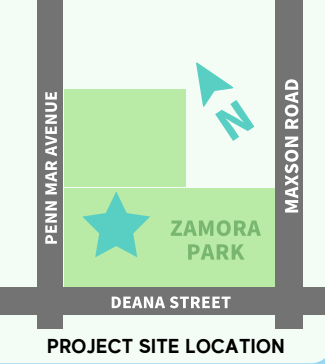
Park Renovations - Renovaciones del Parque - 公園改造項目 - Chương Trình Tu Bổ Công Viên

Open Park Space - Espacio de Parque Abierto 公園空間 - Không Gian Mở Dành cho Công Viên

- New outdoor fitness equipment area
- Resurfaced basketball courts
- Splash pad water play area
- Integrated walking path
- 新型戶外健身器
- 翻新的籃球場
- 防濺墊和水上游樂場
- 新的步行道
- Nueva área de ejercicio al aire libre
- Nueva superficie para la cancha de baloncesto
- Almohadilla de salpicadura
- Sendero para caminar
- Máy tập luyện thể dục thể thao mới ngoài trời
- Tái tạo lại sân chơi bóng rổ
- Sân chơi nước
- Nâng cấp đường đi bộ

Conservation - Conservación 環境保護 - Bảo Tồn

- Stormwater capture and permeable surfaces
- Drought-tolerant planting area and turf
- New canopy trees and understory trees
- Superficies permeables y captura de aguas pluviales
- Césped y plantas resistente a la sequia
- Nuevos arboles frondosos y arboles de baja altura
- 雨水收集和滲透性瀝青地面
- 新的耐旱植物和草皮
- 新的冠層樹和下層植被
- Thu hoạch nước mưa và bề mặt thấm nước
- Khu vực trồng cây chịu hạn và cỏ
- Những cây có tàn lớn và nhỏ

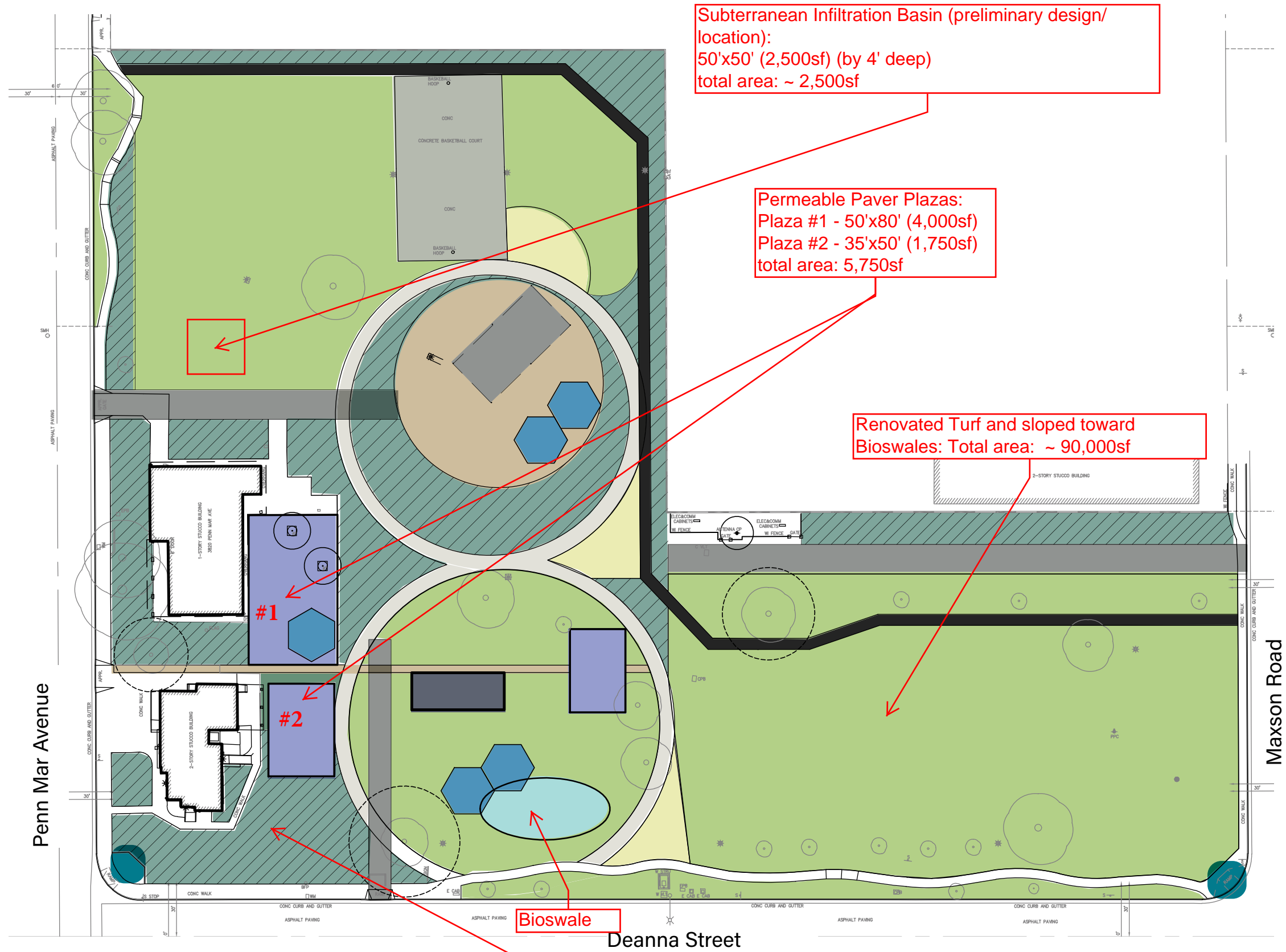


Project Background - Antecedentes del Proyecto - 項目信息 - Thông Tin Nền Về Dự Án

- Zamora Park, located at 3820 Penn Mar Ave in El Monte has been underused due to outdated amenities. In February 2017, community members partnered with First 5 LA and presented an assessment of Zamora Park to City officials documenting the biggest concerns that create unsafe conditions for park users.
- El Parque Zamora, localizado en 3820 Penn Mar Ave en El Monte, ha sido infrutilizado debido a instalaciones de poco uso. En Febrero de 2017, los miembros de la comunidad y First 5 LA presentaron una evaluación del parque Zamora a los funcionarios de la ciudad que documentaron las mayores preocupaciones que crean condiciones inseguras para los usuarios del parque.
- Zamora公園位於El Monte的3820 Penn Mar Ave，由於設施陳舊，公園的使用率不高。2017年2月，社區居民與First 5 LA合作，向市政官員提出使Zamora公園不安全的最大擔憂。
- Zamora Park, tọa lạc ở 3820 Penn Mar Ave ở El Monte đã không được tận dụng vì có những tiện nghi lỗi thời. Vào tháng 2 năm 2017, các thành viên cộng đồng hợp tác với First 5 LA để giới thiệu một sự đánh giá về Zamora Park cho những viên chức thành phố. Đánh giá này báo cáo những mối quan tâm lớn nhất của những người sử dụng công viên về điều kiện không an toàn ở công viên.

Legend

- Playground
- Planting Areas
- Fitness Areas
- (3) Turf Fields
- (5) Shade Structures
- (2) Signage at Entry
- Basketball Court
- Access Roads
- Walkway
- Walking Paths
- Perimeter Path
- (3) Plazas
- Restroom w/Utility
- Existing Shade Canopy



ZAMORA PARK CONCEPTUAL DESIGN

The Trust for Public Land



Finkbiner Park Multi-Benefit Stormwater Capture Project

Safe, Clean Water Infrastructure Program Project
Fiscal Year 2021-22 Call for Projects
City of Glendora

Presenters: Alison Sweet, Director of Public Works, City of Glendora
Oliver Galang, Craftwater Engineering



Project Overview

Regional stormwater capture and infiltration facility located at Finkbiner Park beneath the open space of the existing park surface.

- **Phases used from SCW Funding:** Design
- **Total SCW Funding Requested:** \$2,581,286

Project Objectives

PRIMARY OBJECTIVES

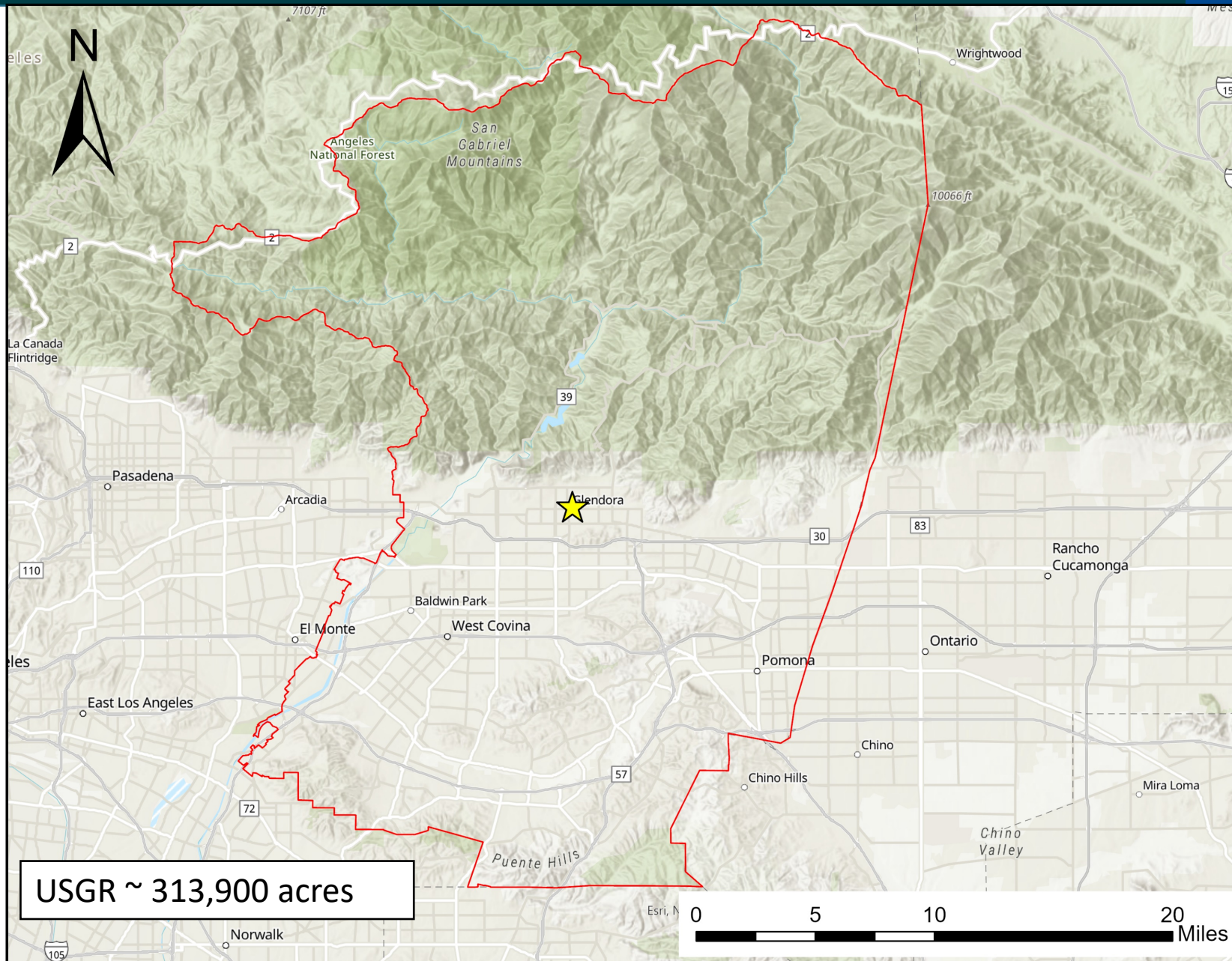
- Improve the water quality within the Upper San Gabriel River
- Maintain the public recreational space

SECONDARY OBJECTIVES

- Restore/rehabilitate park facilities and irrigation system for improved coverage
- Educate the public on the local water supply and demands

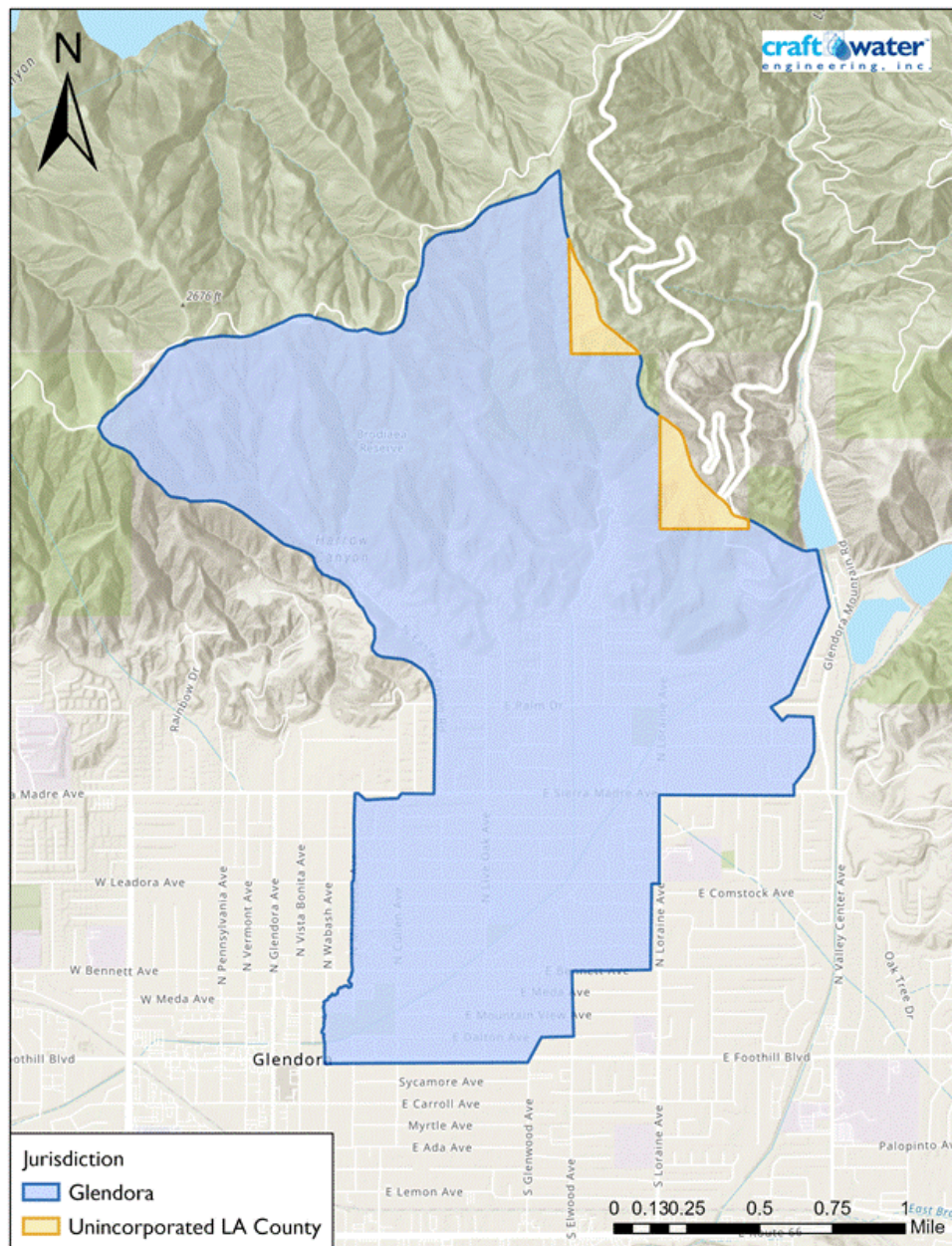


Project Location – Watershed Map





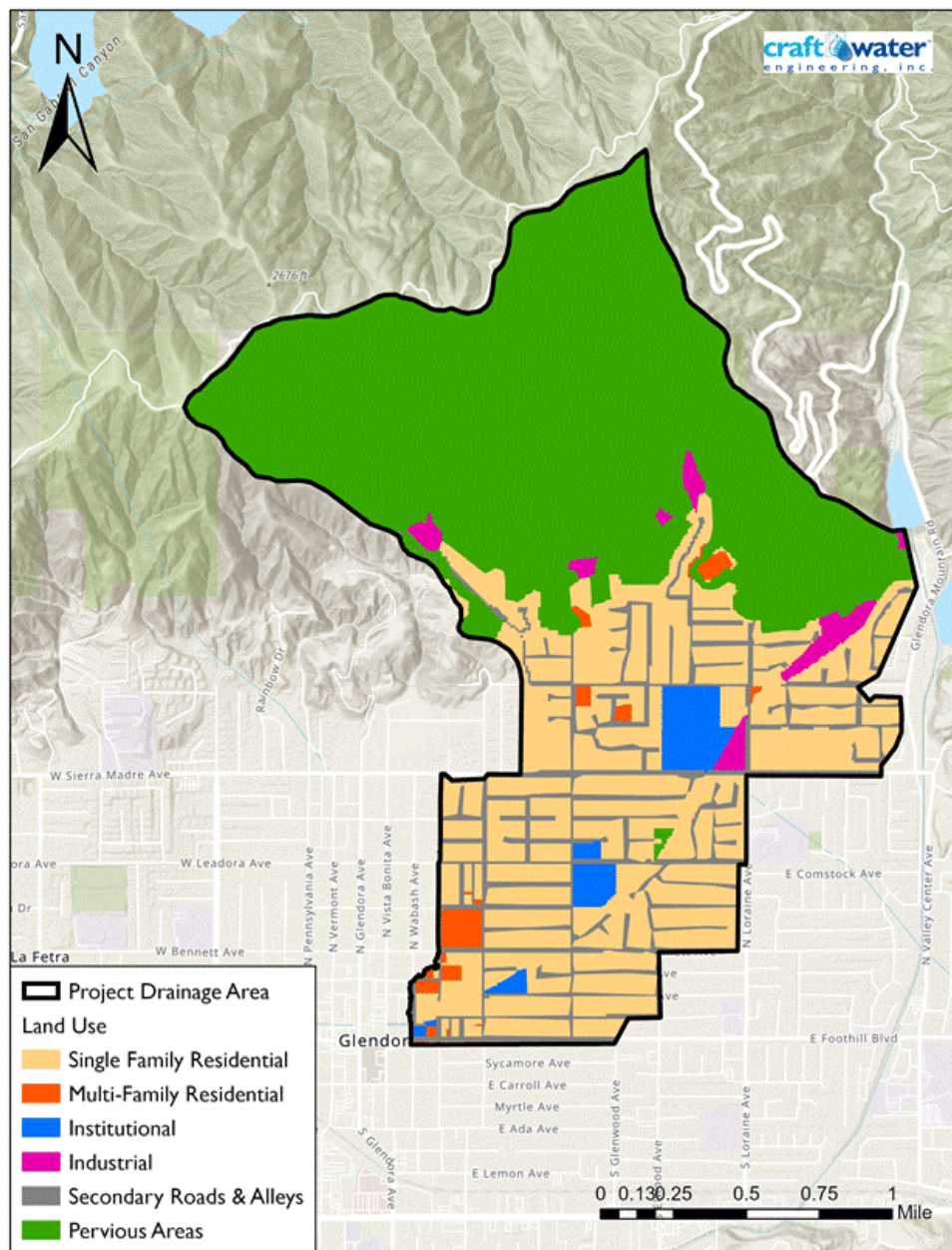
Project Location - Total Capture Area



Jurisdiction	Area (acres)	% Watershed
Glendora	1,556	97.5%
Unincorporated LA County	40	2.5%
TOTAL	1,596	100%



Project Location – Land Use



- **Drainage Area**
 - Impervious: 272 acres
 - Pervious: 1,324 acres

Land-use	Area (acres)	% of Impervious
Single Family Residential	142	52.1%
Multi-Family Residential	9	3.3%
Institutional	34	12.3%
Industrial	25	9.3%
Secondary Roads & Alleys	62	22.9%
TOTAL	272	100%



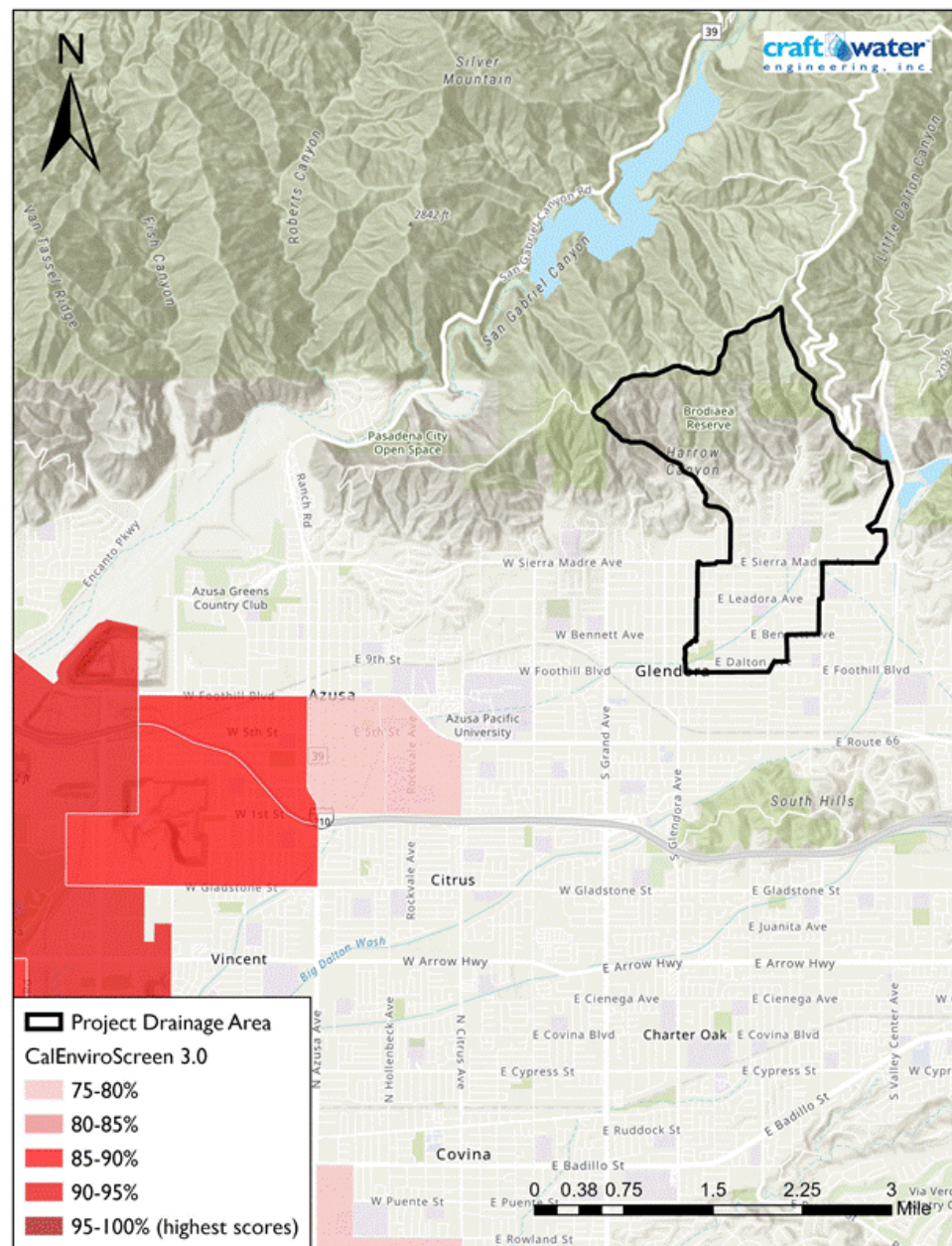
- **Site** was identified in Upper San Gabriel River (USGR) Enhanced Watershed Management Program (EWMP) in April 2016.
- **Project Selected due to**
 - Large drainage area size (1,596 acres)
 - Proximity to Little Dalton Wash and storm drain
 - Opportunity to revitalize and introduce new public spaces in Finkbiner Park
 - Pollutant treatment capacity



- **Water Quality** Improvement in the Upper San Gabriel River by removing trash, metals, and nutrients in stormwater and urban runoff
- **Park Recreational Enhancements** with maintaining a public play space, restoring park facilities and irrigation system for improved coverage
- **Public Education** on local water supply and demands



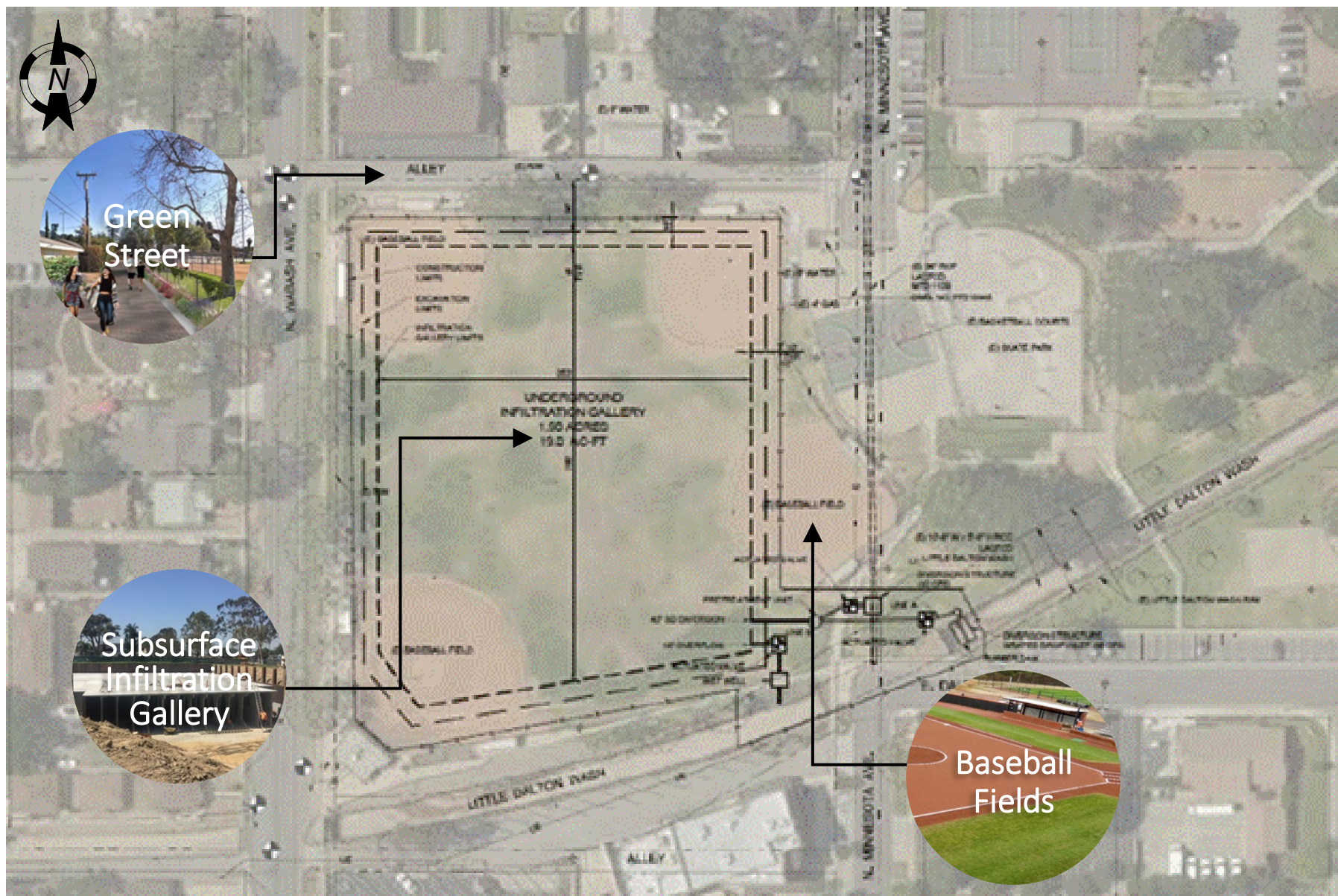
Project Background – DAC



- **Benefits to DAC:**
 - None available to nearest DAC (2.12 miles)

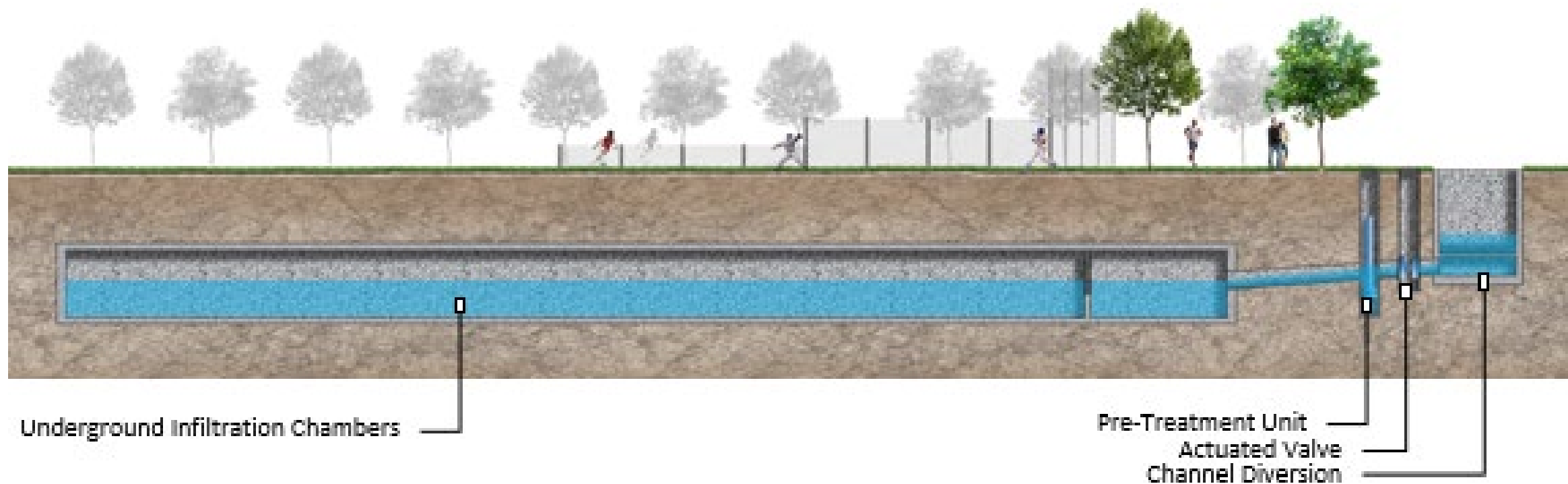


Project Details – Site Plan





Project Details – Site Plan



Diversion Rate	Storage Capacity	24-Hour Capacity	Primary Pollutant Reduction (Zinc)	Secondary Pollutant Reduction (Copper)
75 cfs	19.0 ac-ft (6.2 MG)	26.2 ac-ft	91.1% (139 lbs)	85.8% (41 lbs)



Existing Conditions

- Infiltration Rate: 1.9 in/hr
- Groundwater Depth: > 70 ft BGS
- Current Use: Park Space
- Owner: City of Glendora

*Feasibility and stormwater capture studies done

*Alternative footprint sizes and diversion rates examined



- **Water Quality Modeling**
 - Potential for significant portion of EWMP compliance target for city of Glendora
 - Based on modeling and assumptions from the Reasonable Assurance Analysis (RAA)

	Recommended BMP Storage	24-Hr Volume Managed
EWMP Recommendation - City of Glendora	122 ac-ft	145 ac-ft
Project Contribution – Finkbiner Park	16%	17%
Additional Contribution to USGR EWMP	0 ac-ft	0 ac-ft



Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Final Design (60/90/100)	\$1,952,611	09/2023
Design	Community Outreach during Design	\$50,000	09/2023
Design	Environmental Planning (CEQA) and Permitting	\$195,261	09/2023
Design	Agency Management (Design)	\$383,414	09/2023
Construction	Construction Cost	\$19,526,111	09/2025
Construction	Construction Management and Design Support	\$1,952,611	09/2025
Construction	Construction Survey	\$20,000	09/2025
Construction	Agency Management (Construction)	\$300,000	09/2025
TOTAL		\$24,380,008	

Annual Costs

Maintenance Cost:	\$105,000
Operation Cost:	\$25,000
Monitoring Cost:	\$15,000
Project Life Span:	50

Life-Cycle Costs

Life-Cycle Cost for Project:	\$27,859,123.60
Annualized Cost for Project:	\$1,161,091.89



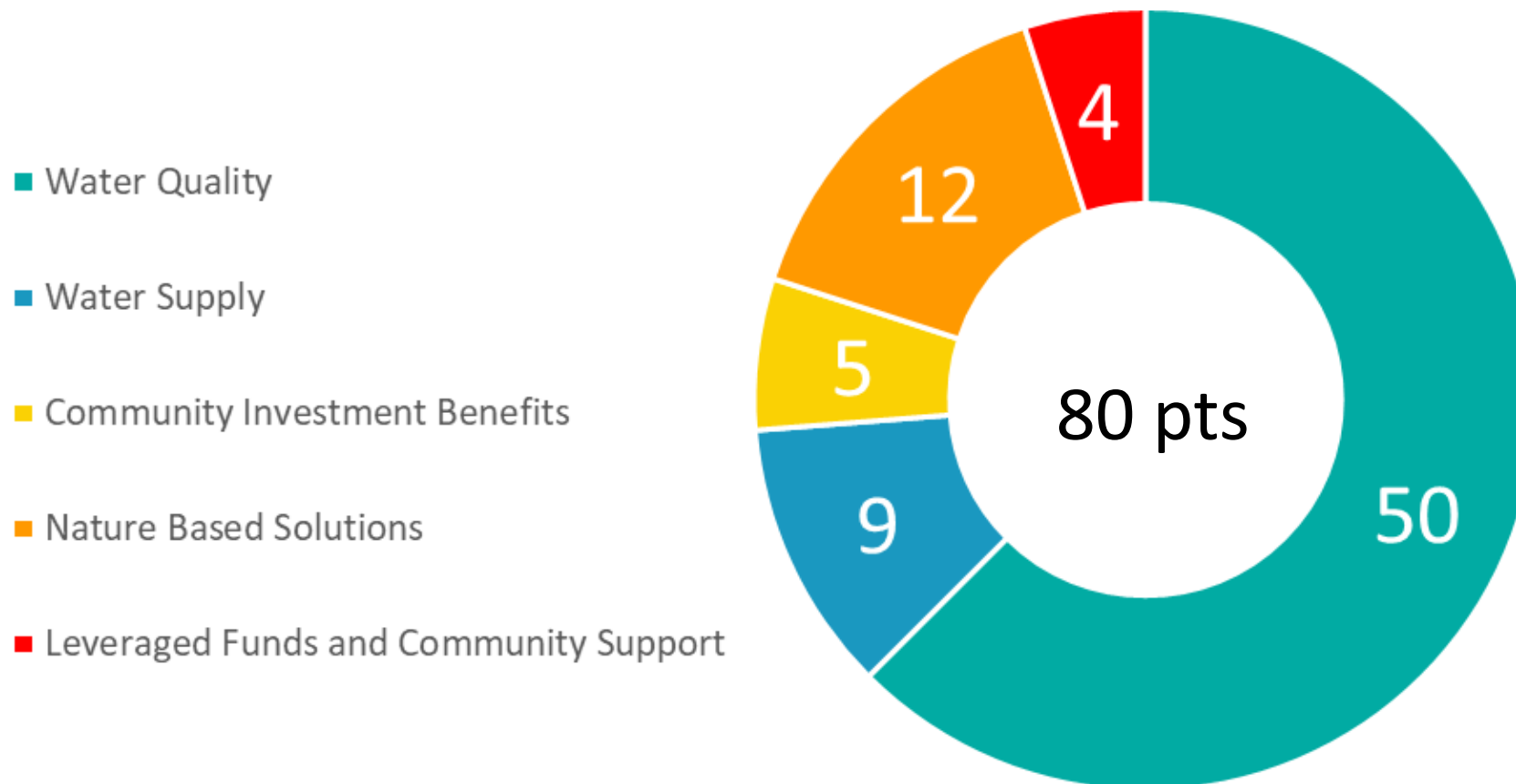
Funding Request

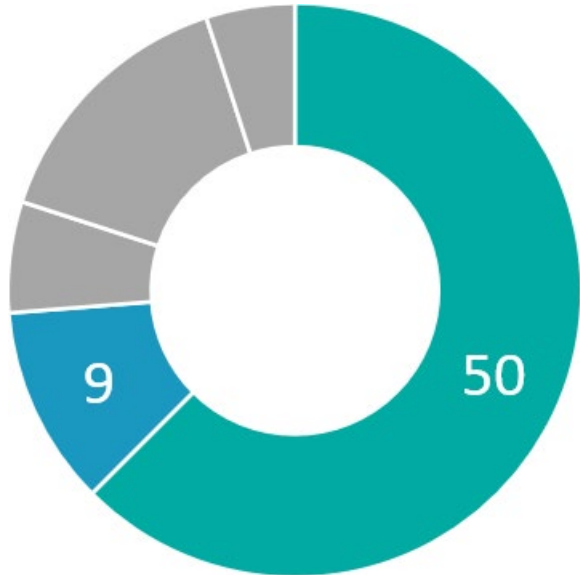
Year	SCW Funding Requested	Phase	Description
1	\$1,290,644	Design	Environmental Planning (CEQA) and Permitting, Professional Design Services, Community Outreach, Agency Project Management
2	\$1,290,642	Design	Environmental Planning (CEQA) and Permitting, Professional Design Services, Community Outreach, Agency Project Management
Total	\$2,581,286		

- \$645,322 matched funds from City of Glendora Municipal Funds
- Future funding requests
 - \$7,279,574 for Construction (Year 3)
 - \$7,259,574 for Construction (Year 4)
 - \$7,259,574 for Construction (Year 5)



Preliminary Score





- **Primary Mechanisms**
 - Runoff/pollutant capture
 - Infiltration
- **Wet** weather project type
- Tributary Area: **1,596 acres**
- 24 Hour Capacity: **26.2 ac-ft**
- Pollutant Load Reduction
 - Primary Pollutant (Zinc) – **91.1% (139 lbs – annual avg)**
 - Secondary Pollutant (Bacteria) – **85.8% (41 lbs – annual avg)**
- Average Annual Capture for Water Supply: **258 ac-ft**
- Water Supply Use
 - **Aquifer Recharge** to the Main San Gabriel Basin
- Water Supply Cost Effectiveness : **\$4,502/ac-ft**

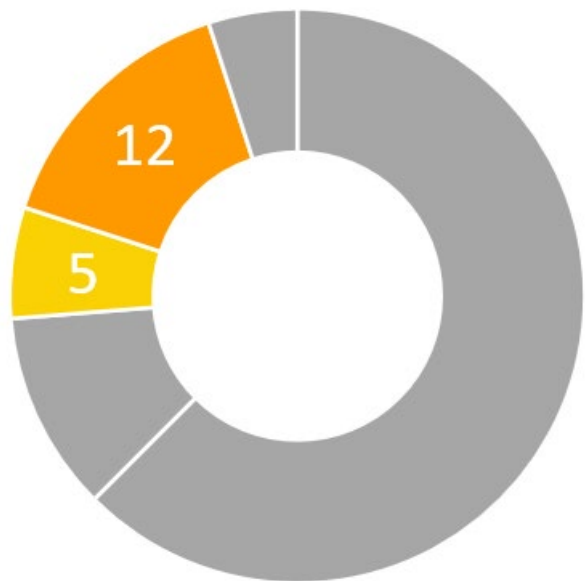


- Community Investment Benefits

- Improves flood management, flood conveyance, or flood risk mitigation
- Creates parks, habitat or wetland
- Reduces heat island effect
- Increases shade and tree counts

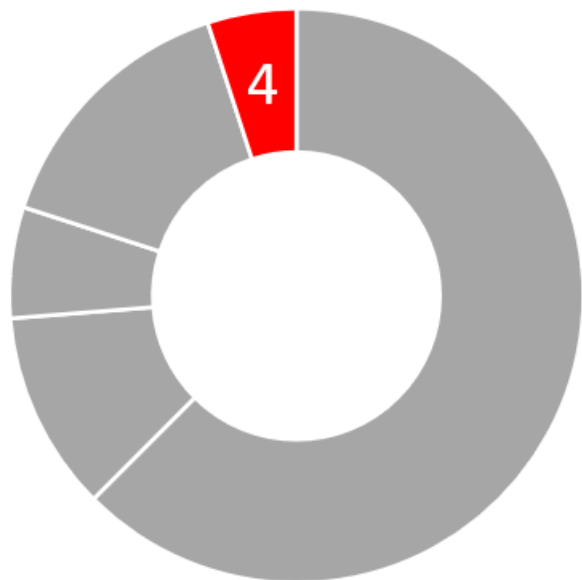
- Nature Based Solutions

- Project implements natural processes and utilizes natural materials
 - Installation of permeable pavement and vegetation in alley way
 - Post-construction landscaping includes native trees, shrubs and grasses





- Leveraging Funds
 - Awarded funds from City of Glendora Municipal Funds
 - >25% funding matched (\$645,322)



- Community Support
 - City of Glendora will conduct an active Public Outreach effort
 - Strong local, community-based support from
 - Community Services

Questions?





Overview of Pathogen Reduction Study

Presented by Richard Watson, Richard Watson & Associates, Inc. (RWA)

Project Lead: Gateway Water Management Authority

Presentation to the Upper San Gabriel River WASC

25 March 2021

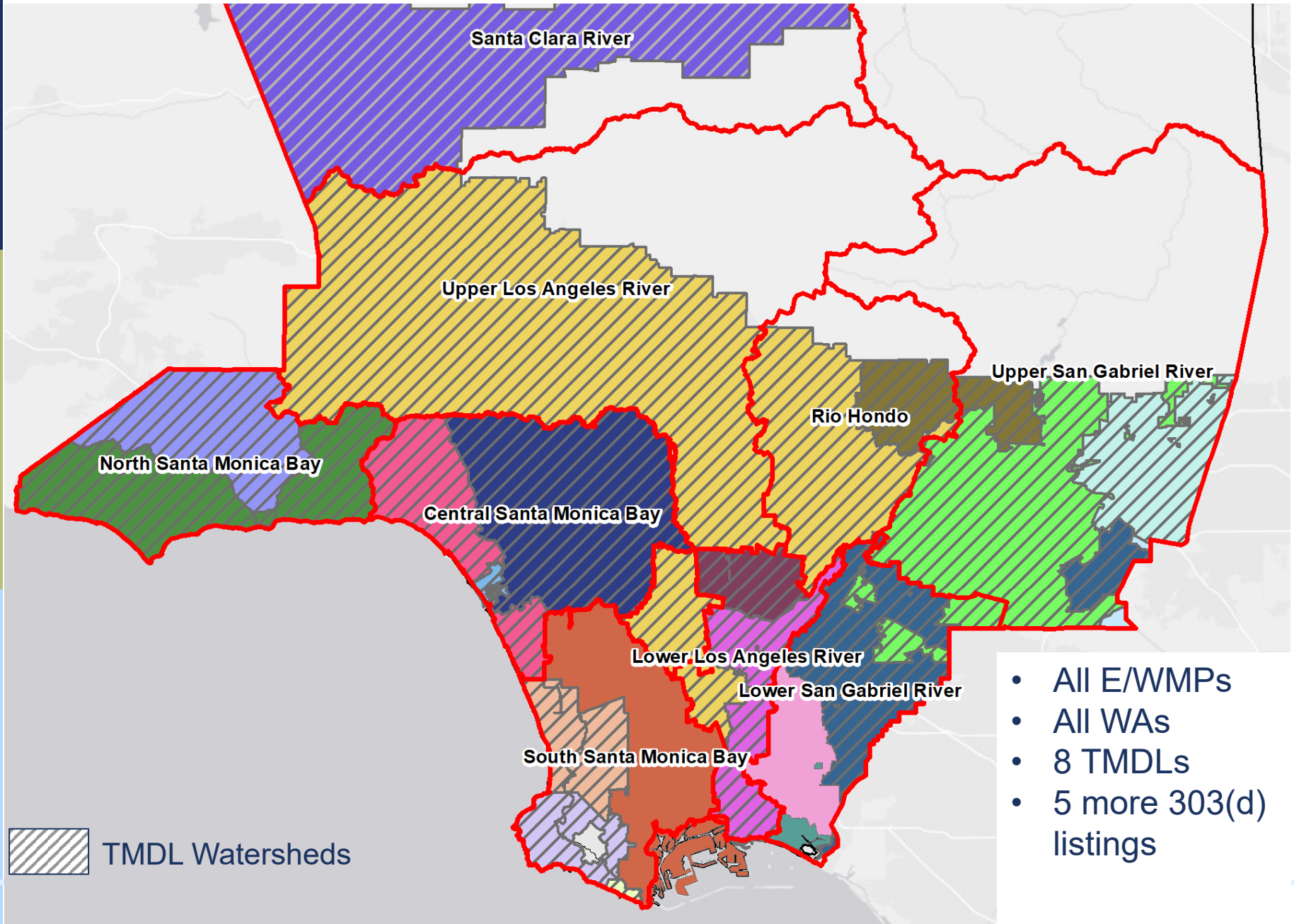
Summary of Study

- This Study aims to use the latest available science to measure water-borne pathogens across watersheds. It will help identify key sources of human health risk, and develop cost-effective protective strategies
- USEPA and academia agree not all sources of bacteria are equally risky, but we do not have the information we need to focus limited resources on the riskiest sources first.
- Objectives of Study
 - Leverage recent USEPA, academic, and stakeholder driven research
 - Produce strategies for incorporation into Program Plans
 - Support informed decisions that help us protect more people sooner

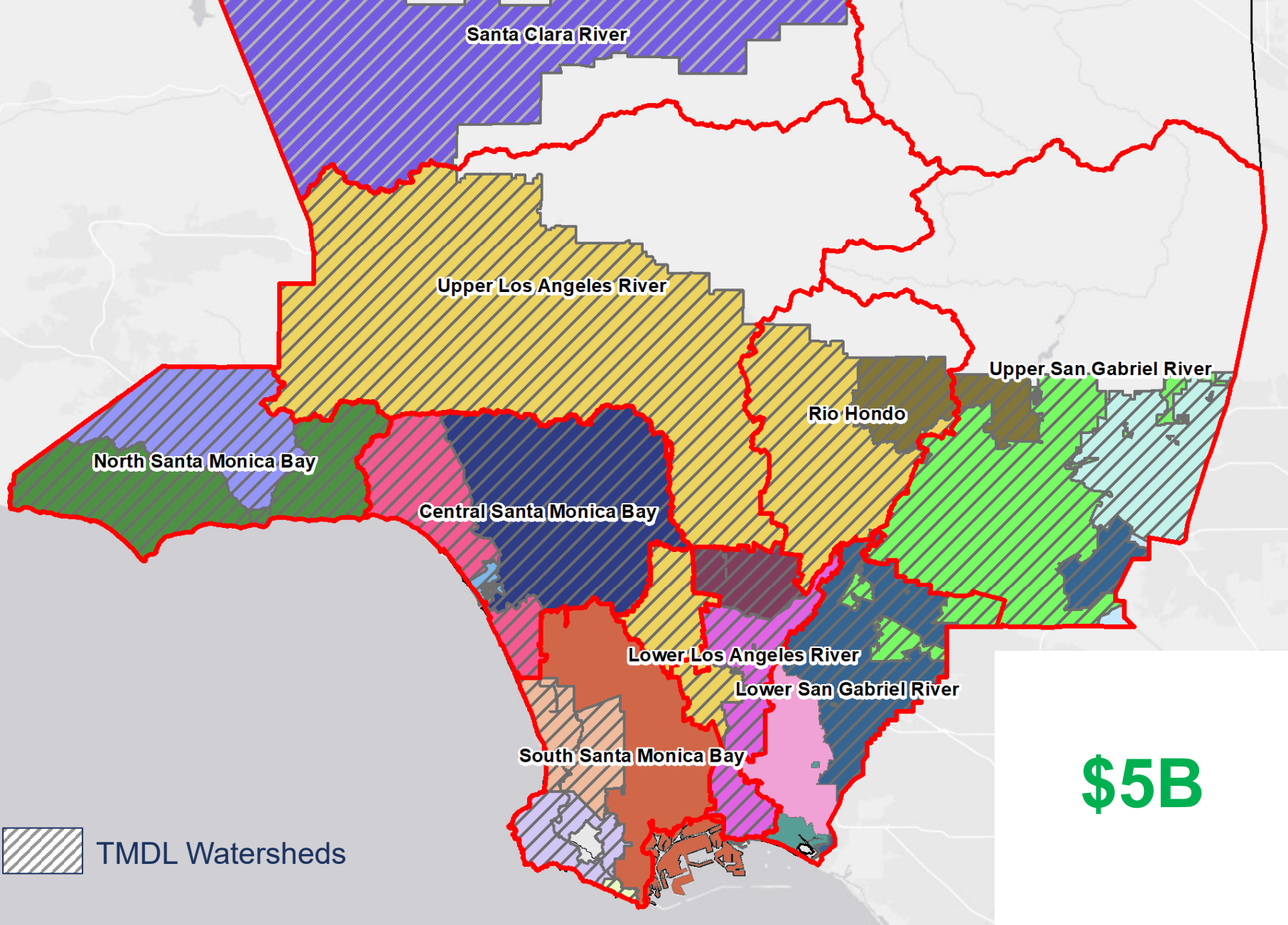
Study Overview

- Nexus to Stormwater and Urban Runoff Capture and Pollution Reduction
 - Study will facilitate improved targeting of pathogen sources and water to capture and/or treat
 - Study could reduce need to capture stormwater for bacteria compliance purposes while improving the protection of human health
 - Study may lead to partnering with various parties, such as wastewater agencies and homeless services agencies, to address human sources of pathogens.

Study Location



Study Location



Scientific Study Details

Problem Statement:

- Waterborne pathogens represent the most significant potential threat to the health of people recreating in and around the ocean and inland waters of Los Angeles County.
- Current standards are based on FIB (fecal indicator bacteria), which are used as proxies for pathogens.
 - FIB are ubiquitous; a vast network of structural control measures would need to be implemented to provide adequate control – projected cost over \$5 billion.
 - USEPA and academia agree that human sources of pathogens pose the greatest risk
 - Unless high-risk sources are targeted, water capture projects may receive large FIB loads, but miss the highest risk human sources.

(Continued)

Scientific Study Details (Continued)

Expected Outcomes

- Completion of a needed regional study in LA County to identify the sources of pathogens and the most effective BMPs to address them. Studies have been completed elsewhere identifying human sources of pathogens as the highest driver of risk to human health.
- The latest science will be used to support the reduction of human pathogens and protect human health.
- Combined with scientific advancements, the results will provide an opportunity to improve the current bacteria strategy using source-specific indicators, improved viral detection methods, and risk modeling frameworks.
- The study results will facilitate meaningful, appropriate, productive actions by Permittees that will effectively reduce human health risks.

Scientific Study Details (Continued)

Methodology:

- Study work plan will be developed through a stakeholder-led process with the input of technical experts, including academics.
 - Stakeholder engagement is at the forefront of the study to ensure that diverse viewpoints are incorporated.

- Study will collect samples from beaches and waterbodies. Samples will be analyzed for traditional bacterial indicators, viruses, and human markers during wet and dry weather.
 - Identify areas with highest risk to support a focus on those areas
 - Identify the sources causing the highest risk to focus on those sources

- Study will assess control measure effectiveness and efficiency
 - Identify the best BMPs to address the sources
 - Support planning, applying municipal funds, requests for SCWP funding, and actions by other parties

Scientific Study Details (Continued)

- *Regional collaboration efforts:*
 - Small Group Initiated Discussions and built a scope for a Safe, Clean Water Regional Program project
 - Presented Approach to E/WMP Groups
 - Discussed with proponents of watershed-specific studies
 - Discussed with Regional Board staff

- Revised study to address concerns
 - Clearly focused on human pathogens
 - Clarified that study is a component of overall strategy to protect human health
 - Clarified that implementation continues during the study
 - Recognized that we do not need to wait until the end of the study to take action
 - Reduced first year cost of study

Cost & Schedule

Phase	Description	Cost	Schedule
Task 1	Stakeholder Process	\$484,000	7/21 – 6/26
Task 2	Health Risk Assessment	\$5,816,208	7/21 – 9/25
Task 3	Risk Management	\$1,702,100	4/22 – 3/26
Task 4	Application of Study Findings	\$484,000	1/25 – 6/26
TOTAL		\$8,486,308	

Funding Request

WASC	Year 1	Year 2	Year 3	Year 4	Year 5
CSMB	\$45,659	\$333,041	\$322,298	\$319,612	\$53,716
LLAR	\$32,801	\$239,256	\$231,539	\$229,609	\$38,590
LSGR	\$42,810	\$312,259	\$302,186	\$299,668	\$50,364
NSMB	NA	NA	NA	NA	NA
RH	\$29,477	\$215,011	\$208,075	\$206,341	\$34,679
SCR	\$15,378	\$112,168	\$108,550	\$107,645	\$18,092
SSMB	\$47,156	\$343,964	\$332,869	\$330,095	\$55,478
ULAR	\$98,952	\$721,766	\$698,483	\$692,663	\$116,414
USGR	\$48,435	\$353,290	\$341,893	\$339,044	\$56,982
TOTAL	\$360,668	\$2,630,755	\$2,545,893	\$2,524,677	\$424,315

Summary of Benefits

- By developing a better understanding of pathogens present in the region's watersheds, the relative risk to human health they pose, and the effectiveness of various control measures, new or adapted BMPs can be established that improve water quality and reduce human health risks at our beaches and inland waterbodies.
- Short-term: results could be used to protect people from health risks that aren't currently known.
- Long-term: results will enable the targeted placement of BMPs in locations where they can maximize the prevention or treatment of key sources of human pathogens.

Questions and Thank You

Richard Watson
Richard Watson & Associates
rwatson@rwaplanning.com
(949) 394-8495