



Downtown Lomita Multi-Benefit Stormwater Project

Infrastructure Program

Fiscal Year 2022-2023

South Santa Monica Bay Watershed Committee

City of Lomita

Presented by

Carla Dillon, City of Lomita

Jennifer Coryell, CDM Smith



Project Overview

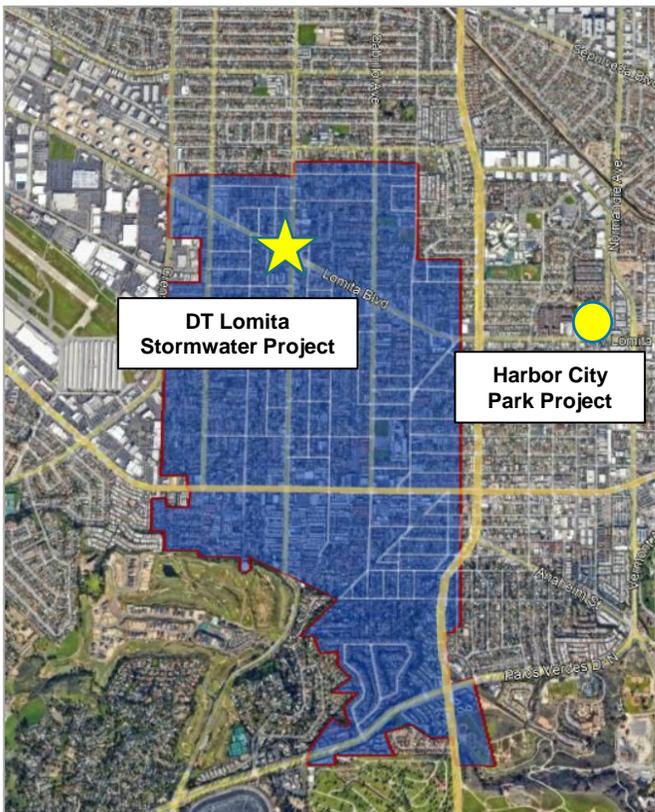
Project located in Downtown Lomita that will include an infiltration gallery, 34 drywells, increased green space, and new bike lanes.

- Primary and Secondary Objectives:
 - Improve water quality within the Wilmington Drain watershed (tributary to the Machado Lake Watershed)
 - Increase green space and decrease the local heat island effect
 - Encourage sustainable modes of transportation
- Project Status: conceptual design and feasibility study completed
- Total Funding Requested to Complete Design: \$449,300
 - Year 1 Funding Requested: \$300,000
 - Year 2 Funding Requested: \$149,300



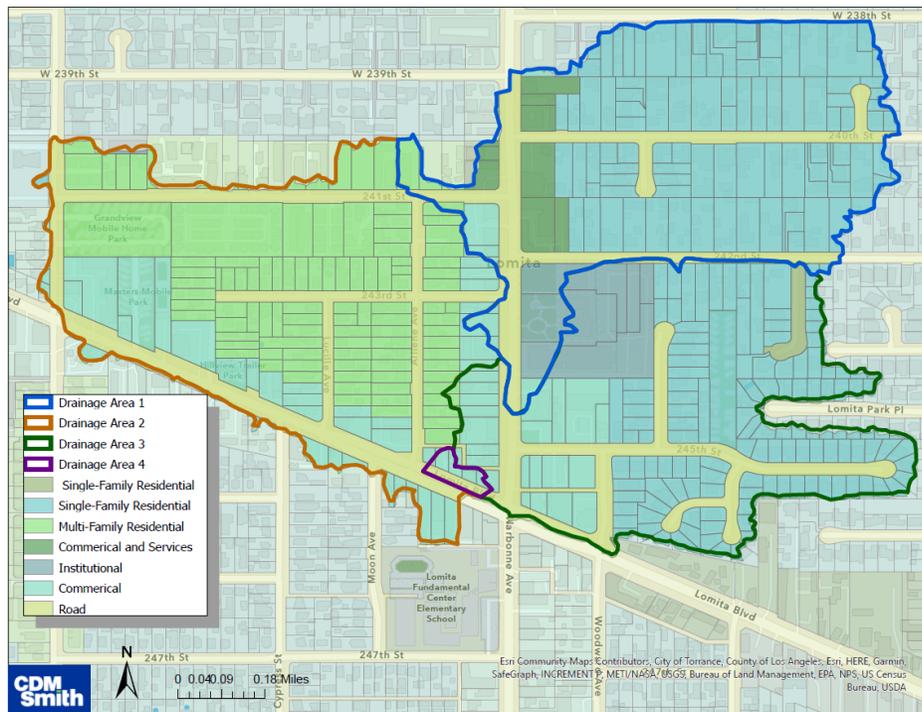


Project Location

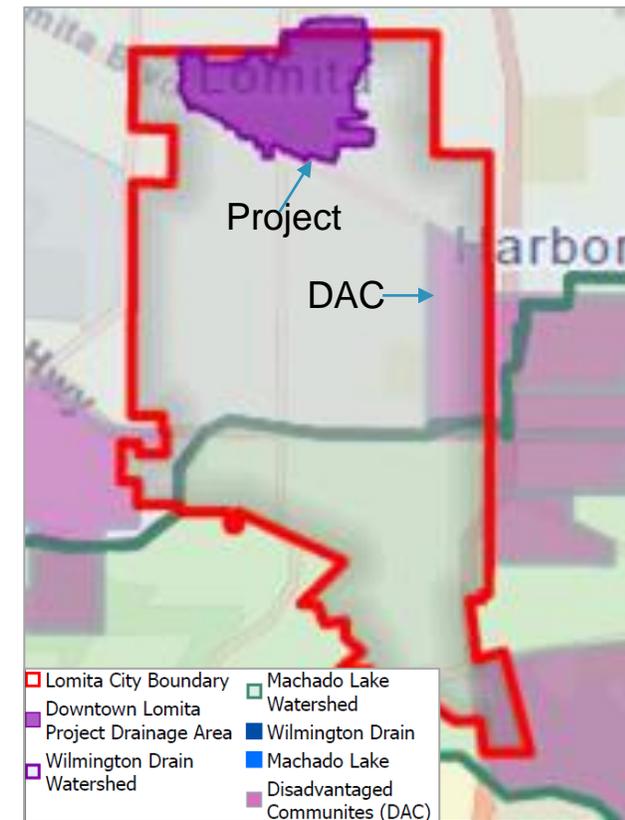


The City of Lomita is part of the Dominguez Channel WMG, within the South Santa Monica Bay WASC.

The project is upstream of the Harbor City Park Project currently funded through the TRP Program.



The project has a total capture area of 110.5 acres, with 72.5 acres of impervious area.

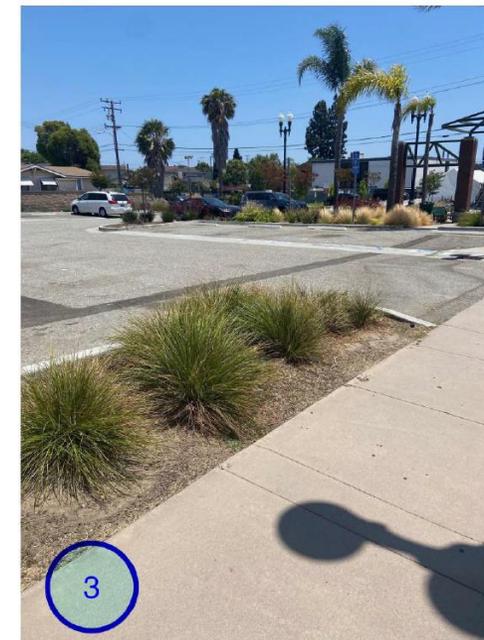


The project is located 0.6 miles from the nearest DAC (located within City boundary); DAC likely to benefit from improvements to their downtown area.



Project Background

- The need for a **stormwater quality project** in the Downtown Area of Lomita was identified during the development of the 2021 EWMP
- Project area is **highly impervious** and **lacks** green space, shade, pedestrian facilities, and a designated, safe bicycle lane
- Area frequently experiences localized **flooding**
- As the stormwater quality project was developed, **additional amenities** to residents fit seamlessly into the design (e.g., rebuild better goals; multi-benefit features)
- Project provides **stormwater capture, downstream water quality improvement, beautification, and recreational/transportation benefits** to the community.
- Goal is to tailor surface features to **meet the needs of the community**.
- City began engaging local businesses, stakeholders, and government representatives of the district, and will facilitate **two-way communication** and **workshops** during design.



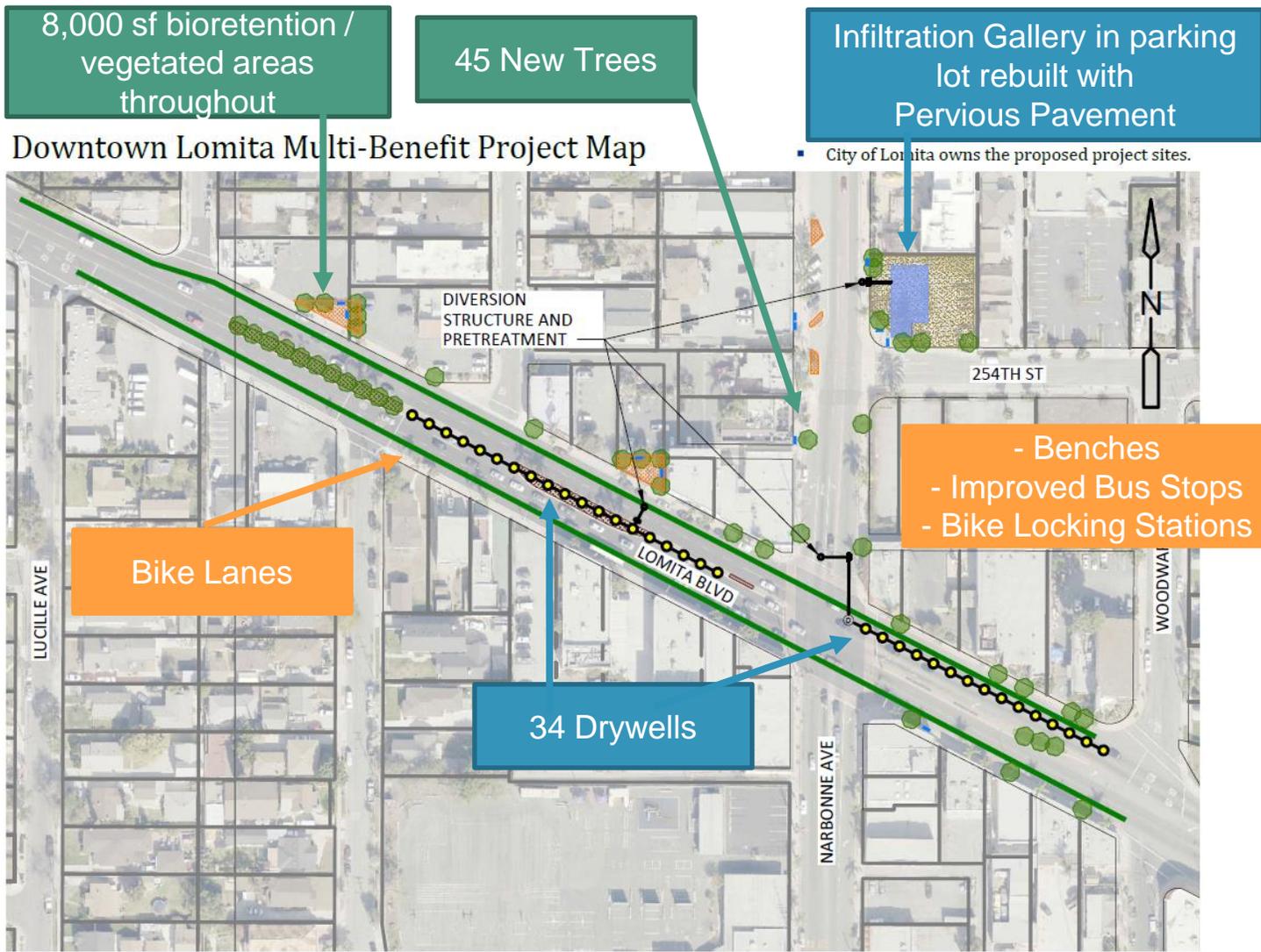
Narbonne Ave. Parking Lot Site Conditions



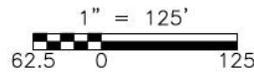
Lomita Blvd. Site Conditions ⁴



Project Details



- DRYWELL
- MANHOLE
- SHADE TREE
- BENCH
- NEW BIKE LANE
- POTENTIAL BIORETENTION AREA
- PLANTING WITH NATIVE, DROUGHT TOLERANT VEGETATION
- PERVIOUS PAVEMENT
- INFILTRATION GALLERY



- The proposed BMPs will capture and infiltrate **5.6 ac-ft** of runoff over the 110-acre drainage area.
- Infiltration rate of **16.9 inches/hour** assumed based on recently **completed geotechnical testing** done directly adjacent to infiltration gallery; measured values were further reduced by a factor of safety (factor based on LA County LID manual). Additional geotechnical investigations to be conducted during design to confirm.
- Proposed **community amenities** will increase shade, reduce heat island effect, encourage physical activity and alternate modes of transportation, provide seating, and promote socialization in Downtown Lomita.
- **City commits over 50% of total cost, equaling \$449,500**, for the pre-design and design phases.



Cost & Schedule

Phase Costs			
Phase	Description	Cost	Completion Date
Design	Pre-design (conceptual design and feasibility study already completed)	\$ 102,000.00	07/2021
Design	Geotechnical Investigations	\$ 150,000.00	06/2023
Design	Permitting (CEQA, environmental permits, right-of-way permits, agency agreements)	\$ 107,800.00	08/2023
Design	Design (30%, 60%, 90%, 100%, and Geotechnical Investigations)	\$ 539,000.00	10/2023
Construction	Infiltration gallery, drywells, bioretention area, permits and insurance, contingency	\$ 5,390,000.00	10/2025
Total Funding:		\$ 6,288,800.00	

Annual Cost Breakdown	
Annual Maintenance Cost:	\$ 25,000.00
Annual Operation Cost:	\$ 25,000.00
Annual Monitoring Cost:	\$ 25,000.00
Project Life Span:	50 years

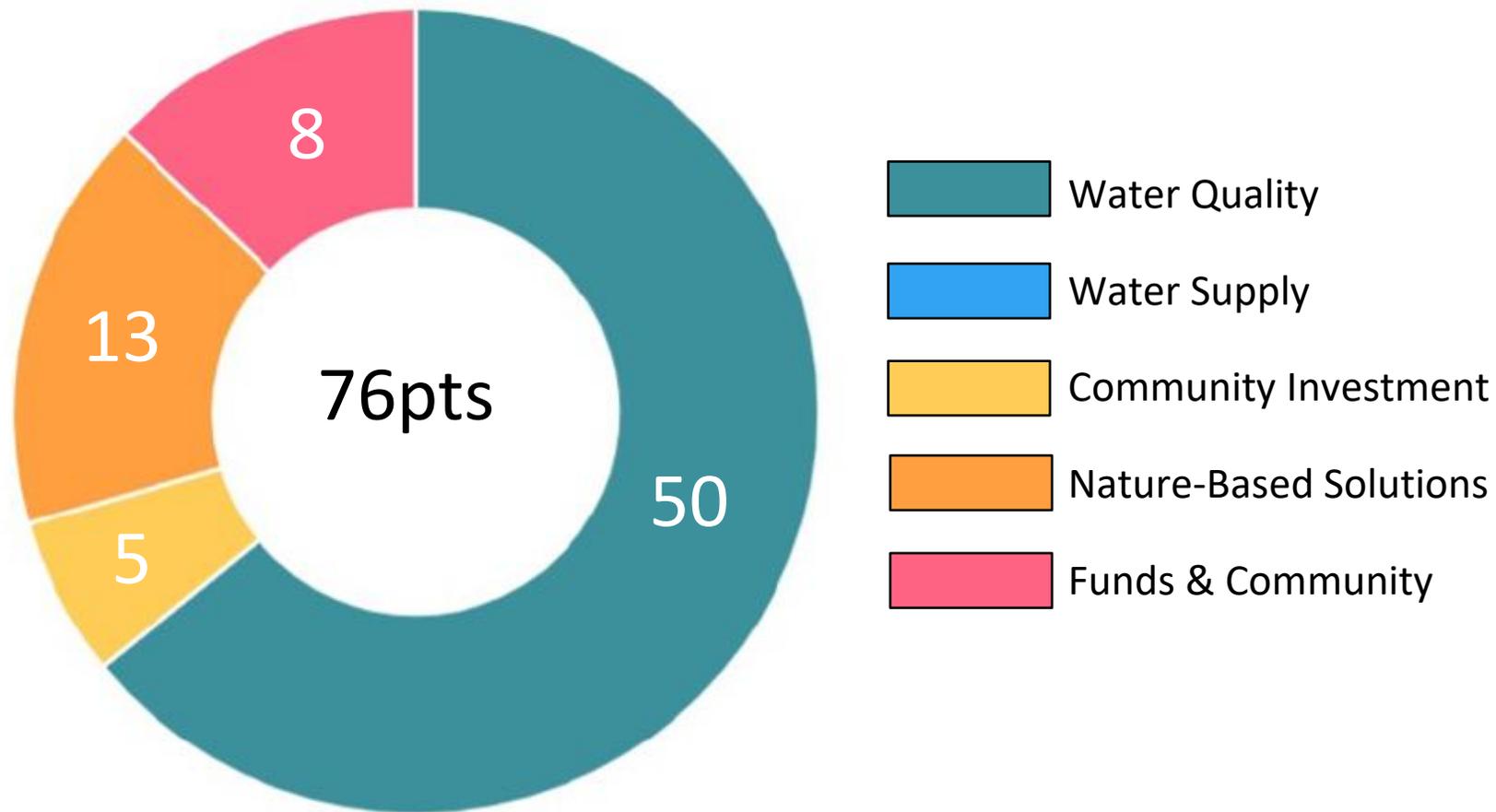


Funding Request

Funding Requested by Year & Phase			
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
Year 1	\$ 300,000.00	Design	Year 1 (Geotechnical Investigation, CEQA, and Design)
Total Year 1	\$ 300,000.00		
Year 2	\$ 149,300.00	Design	Year 2 (Design (60, 90, 100) and Permitting)
Total Year 2	\$ 149,300.00		
Total Funding:	\$ 449,300.00		



Scoring Committee Score





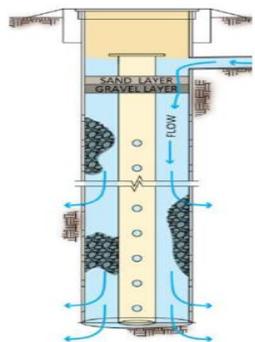
Water Quality Benefits



- **Water quality benefits** achieved through removal of pollutants via capture, infiltration, and filtration of 5.6 ac-ft of stormwater (85th percentile, 24-hour storm)
- Multiple **pollutants removed** including nitrogen (Machado Lake Nutrients TMDL) as the primary pollutant, and zinc (DC and LA/LB Harbor Toxic Pollutants TMDL) as the secondary pollutant.
- **Load reductions** estimated to be: 92% for nitrogen and 85% for zinc.

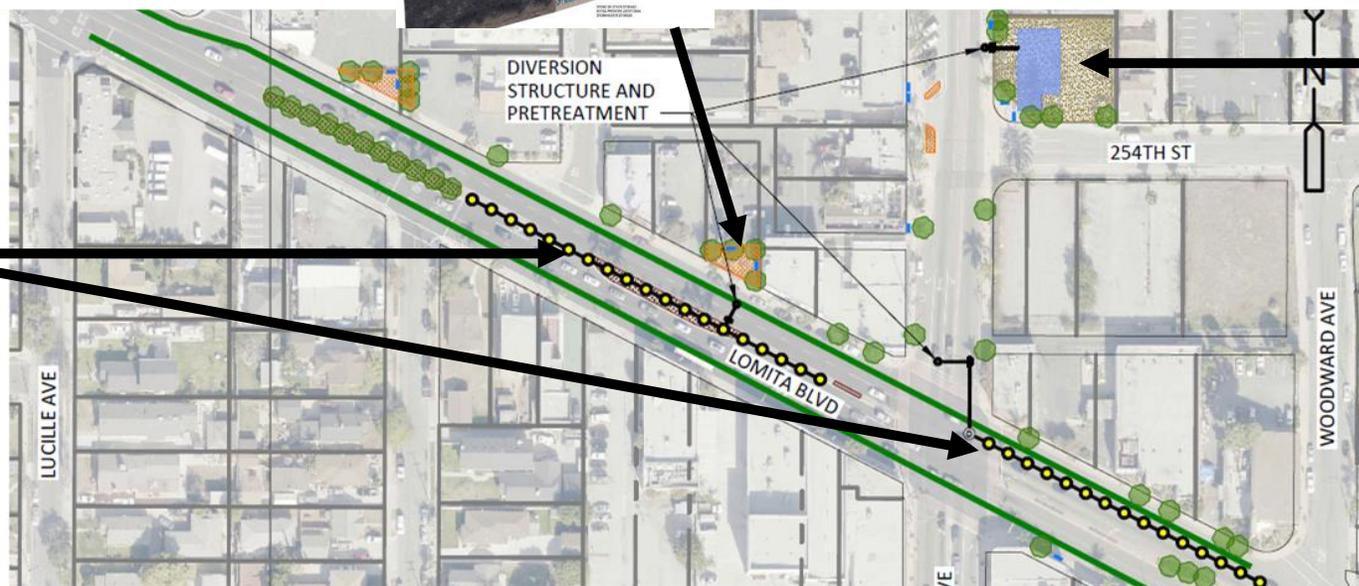


Area 4: 0.03-ac-ft to bioretention.

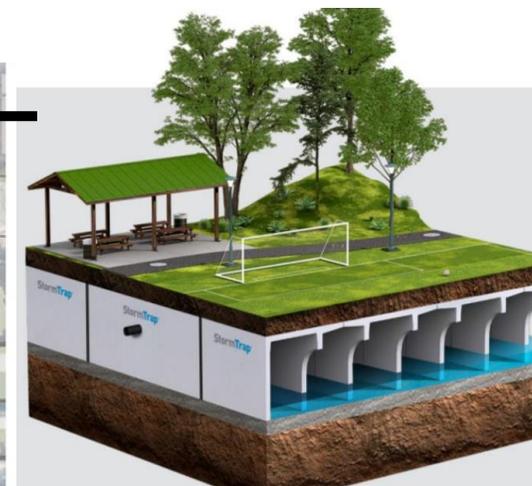


Area 2: 40-ac tributary
2.2-ac-ft to 19 drywells

Area 3: 33-ac tributary
1.7 ac-ft to 15 drywells



Pretreatment at all three diversion points



Example subsurface storage under parking lot

Area 1: 1.7 ac-ft to subsurface infiltration gallery (3,100 sf, 5' depth); 37-ac drainage area



Community Investment Benefits and Nature-Based Solutions

- **Community Investment Benefits (5 pts)**

- **Flood management:** Reduced flooding in Downtown Lomita by infiltrating 5.6 ac-ft of stormwater
- **Enhance recreational opportunities:** Bicycle lane installed along north and south sides of Lomita Blvd from Woodward Ave. to Lucille Ave. with bike lock stations. Provides the opportunity for cyclists to safely navigate this stretch of roadway. Promoting alternatives to vehicular travel will also reduce air pollution and potentially increase foot traffic to Downtown Lomita. Pedestrian-friendly benches will encourage walking and socializing.
- **Reduced local heat-island effect and increased shade:** Conceptual design include a total of 45 trees and 8,000 sf of drought-tolerant native bioretention areas along the sidewalk and medians. This will result in the reduction in ambient air temperature by 0.02 degrees Celsius.

- **Nature-Based Solutions (13 pts)**

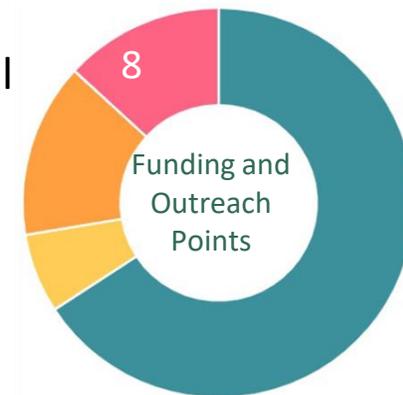
- Natural processes and natural materials are implemented through **infiltration** via infiltration galleries, drywells and pervious pavement, and **biofiltration** via vegetated bioswales and tree wells. Treatment through vegetation and addition of trees has the added benefit of reducing the heat island effect.
- 12,300 SF of pervious area is **converted to impervious** (65% of project footprint)





Leveraging Funds and Community-Based Outreach

- **Cost Share:** City commits **\$449,500** in matching municipal funds, which exceeds **50%** of the total cost (\$51,000 total for pre-design and \$398,500 for design).
- **Community-Based Outreach:**
 - Engagement with local businesses and communities began during the feasibility study
 - Community stakeholders, businesses, and local representatives provided initial letters of support
 - A comprehensive **Outreach and Engagement Plan** will be developed during the design phase to expand on this initial effort to facilitate two-way communication and ensure the final design includes elements with strong public support.
 - Stakeholder workshops will be held on days/times when the **highest number of community members** are expected to attend. Workshops will inform as well as engage the local community.
 - Local organizations, such as the Chamber of Commerce, will be **partnered** with to notify the community about the project and upcoming workshops. Social media and other means will be used as well.





Questions?



West Rancho Dominguez – San Pedro Street Green Improvement Project

Infrastructure Program
Fiscal Year 2022-2023
South Santa Monica Bay
Los Angeles County Public Works
Haris Harouny, P.E.



Project Overview

Project will divert and capture stormwater runoff through the implementation of best management practices (BMPs) within road right of way.

- Primary Objective: Water Quality
- Secondary Objectives: Community Enhancements
- Project Status: Requesting funds for Design
- Total Funding Requested: \$800,000





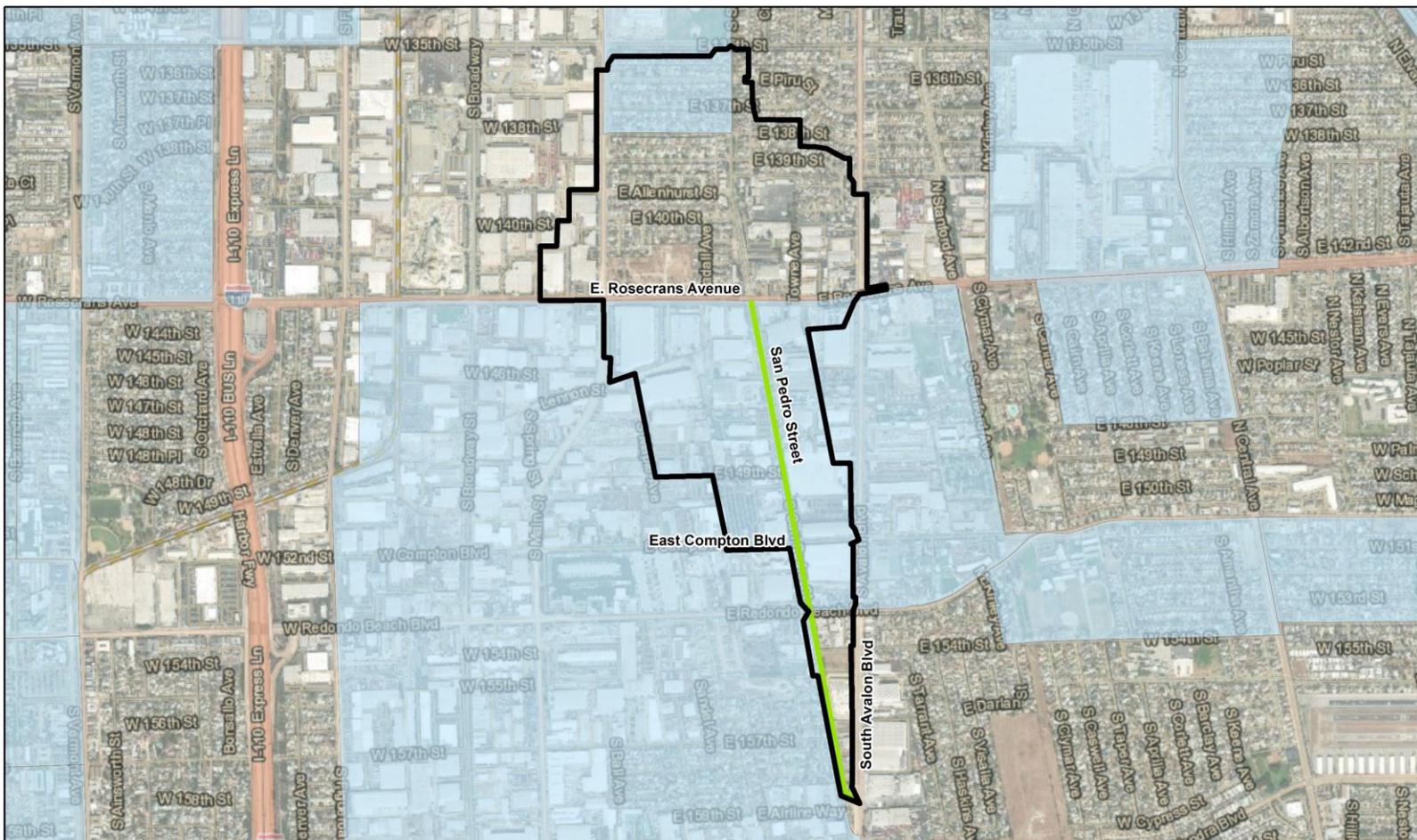
Project Location



- Dominguez Channel Watershed
- South Santa Monica Bay Watershed Area Steering Committee
- Unincorporated Area of Los Angeles County: West Rancho Dominguez



Project Location



- San Pedro Street between Rosecrans Ave and Avalon Blvd
- Capture Area = 278 Acres
- Project limits are within Disadvantage Communities

San Pedro Street Green Improvement Project (GS.025)

- Project Drainage Area
- Green Street Project Site
- Disadvantaged Communities (Census Block Group)



County of Los Angeles

Prepared by Larry Walker Associates, Inc.

July 27, 2021



Project Background

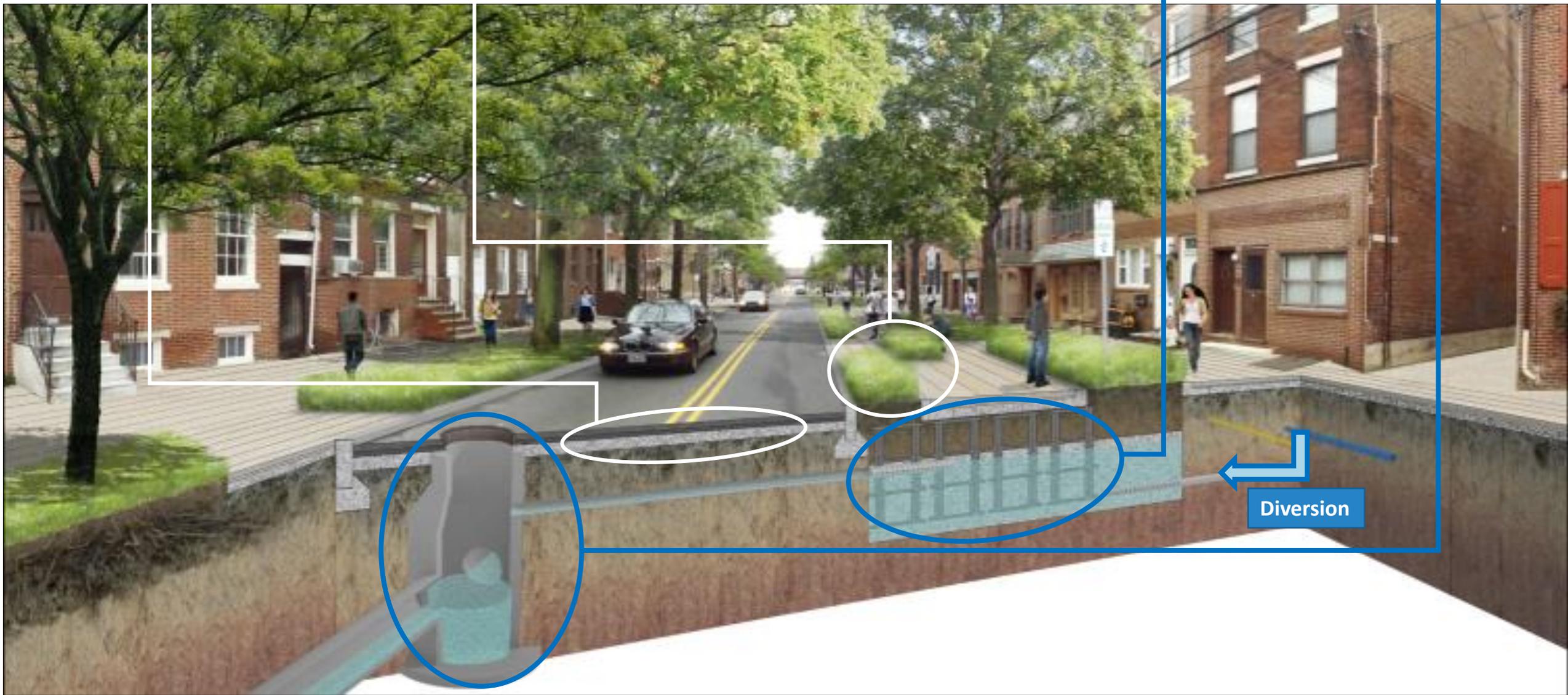
Road resurfacing:
improve road conditions

Bioswales: remove pollutants,
improve traffic safety

**Trees, vegetation,
ground cover**

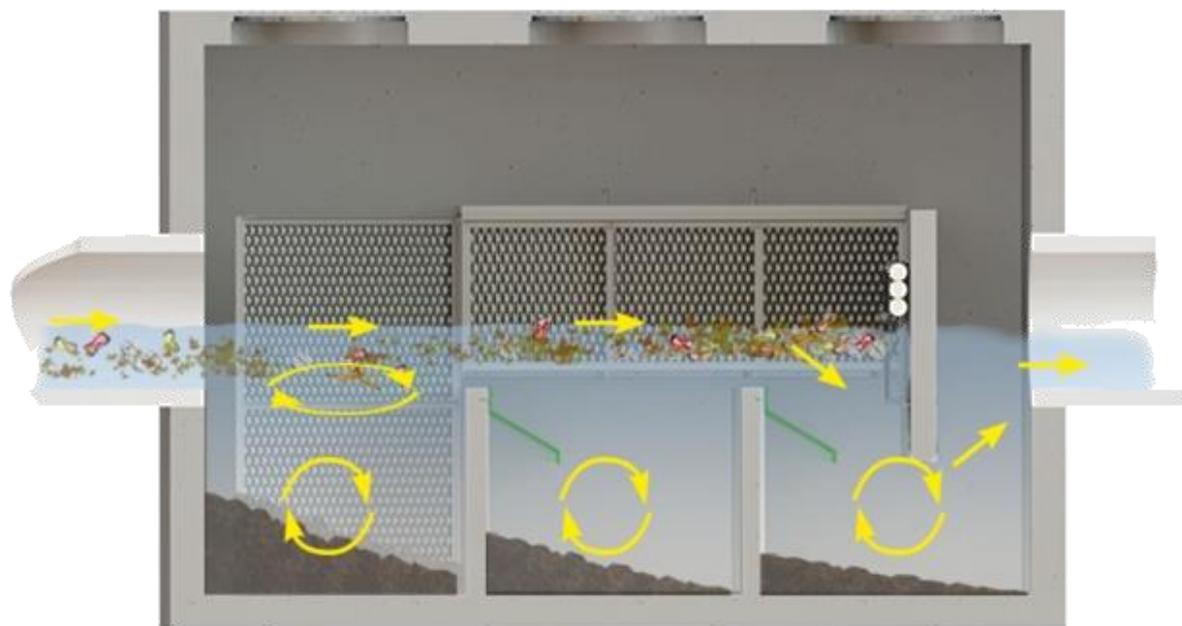
Pretreatment: remove
pollutants/trash

Drywells: capture and
infiltrate stormwater



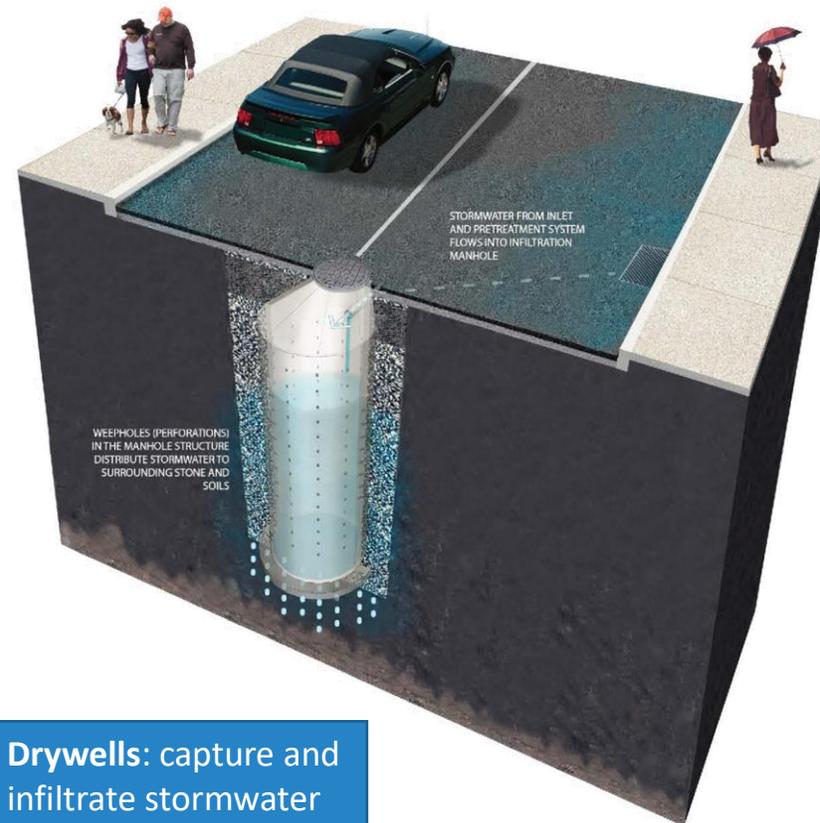


Project Details



Pretreatment Device:
remove pollutants/trash

Figure 2.7: Three-Dimensional View of a Stormwater Drainage Well



Drywells: capture and infiltrate stormwater



Project Details

Figure 2.2: Three-Dimensional View of a Stormwater Bump-out



Mid-block Stormwater Bump-out

Figure 2.1: Three-Dimensional View of a Stormwater Planter





Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Geotechnical investigation, design concept alternatives development, 30% design, project concept report	\$ 387,000.00	Completed
Design	60%, 90%, and final design plans and specifications	\$ 1,600,000.00	Mid 2023
Construction	Construction, contract administration	\$ 16,800,000.00*	Late 2025
TOTAL		\$ 18,787,000.00	

- Operation & Maintenance Cost: \$50,000
- Project Lifespan & Lifecycle Cost: 50 years - \$20M

*Amount to be finalized after design is complete.



Funding Request

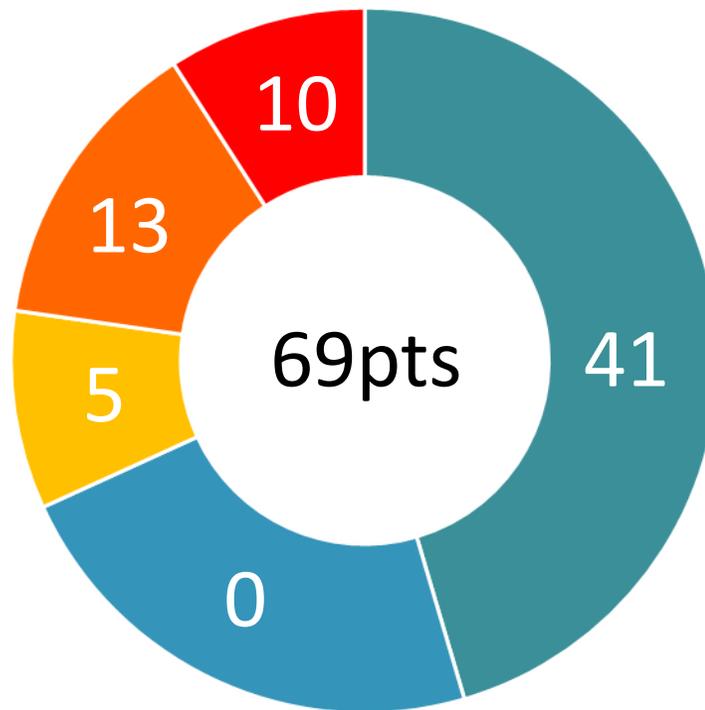
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$800,000	Design	60%, 90%, and final design plans & specifications
TOTAL	\$800,000		

- Leveraged Funding amount and percent: \$800,000 (50%)
- Potential Future funding request for Construction
 - County will match at the minimum 50%



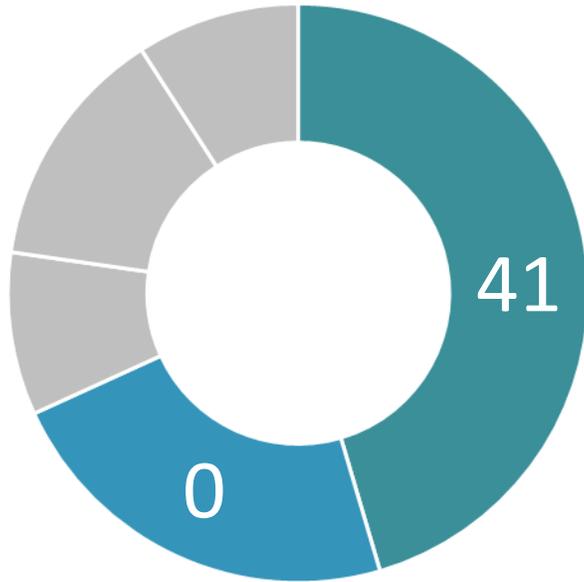
Preliminary Score

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





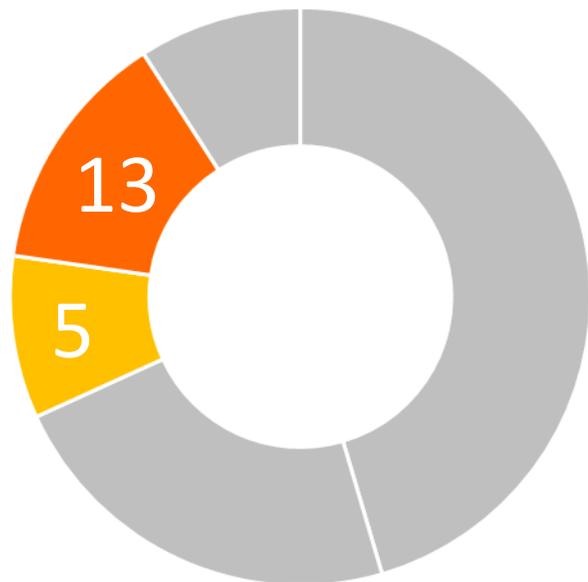
Water Quality & Water Supply Benefits



- Project will divert and treat wet and dry weather runoff via diversion structure, pretreatment device, settling wells, and drywells.
- Tributary Area = 278 Acres
- Capacity = 12.8 AF (24-hour BMP Capacity)
- Primary Pollutant (Zinc) Reduction: 81%
- Secondary Pollutant (Cu) Reduction: 81%



Community Investment Benefits and Nature Based Solutions



- Community Investment Benefits

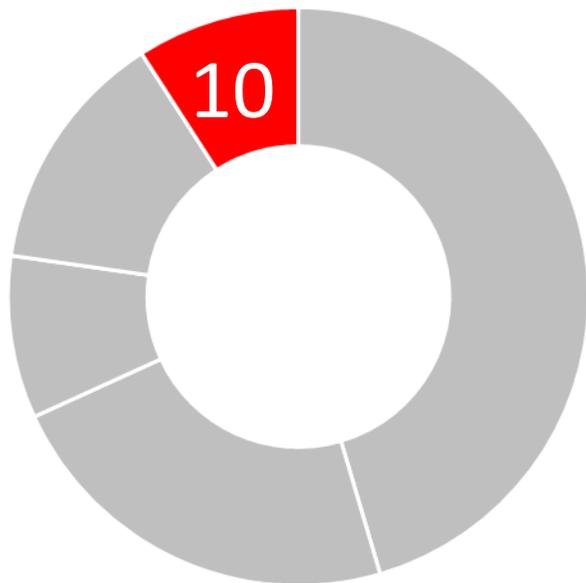
- Improves localized flood management
- Creates new habitat and wetlands
- Reduces heat local island effect and increase shade
- Enhance traffic safety

- Nature Based Solutions

- Implements natural processes (bioretention planters)
- Utilizes natural materials (bioretention planters)
- Removes 75% of impermeable area



Leveraging Funds and Community Support



- Leveraging Funds
 - \$800,000 in leveraging funds from LA County General Funds
 - 50% funding matched
- Community Support
 - Coordination with LA Walks
 - Willowbrook and West Rancho Dominguez Pedestrian Plan Community Advisory Committee Meeting
 - Community outreach planned for February 23 at the Willowbrook Community Action for Peace (CAP) meeting



Questions?

Machado Lake Rehabilitation Operation and Maintenance

Infrastructure Program

Fiscal Year 2022-2023

South Santa Monica Bay Watershed

Project Lead: Wing Tam, City of LA Sanitation and Environment

Presenter: Gordon Haines, City of LA Sanitation and Environment



Project Overview – Machado Lake O&M



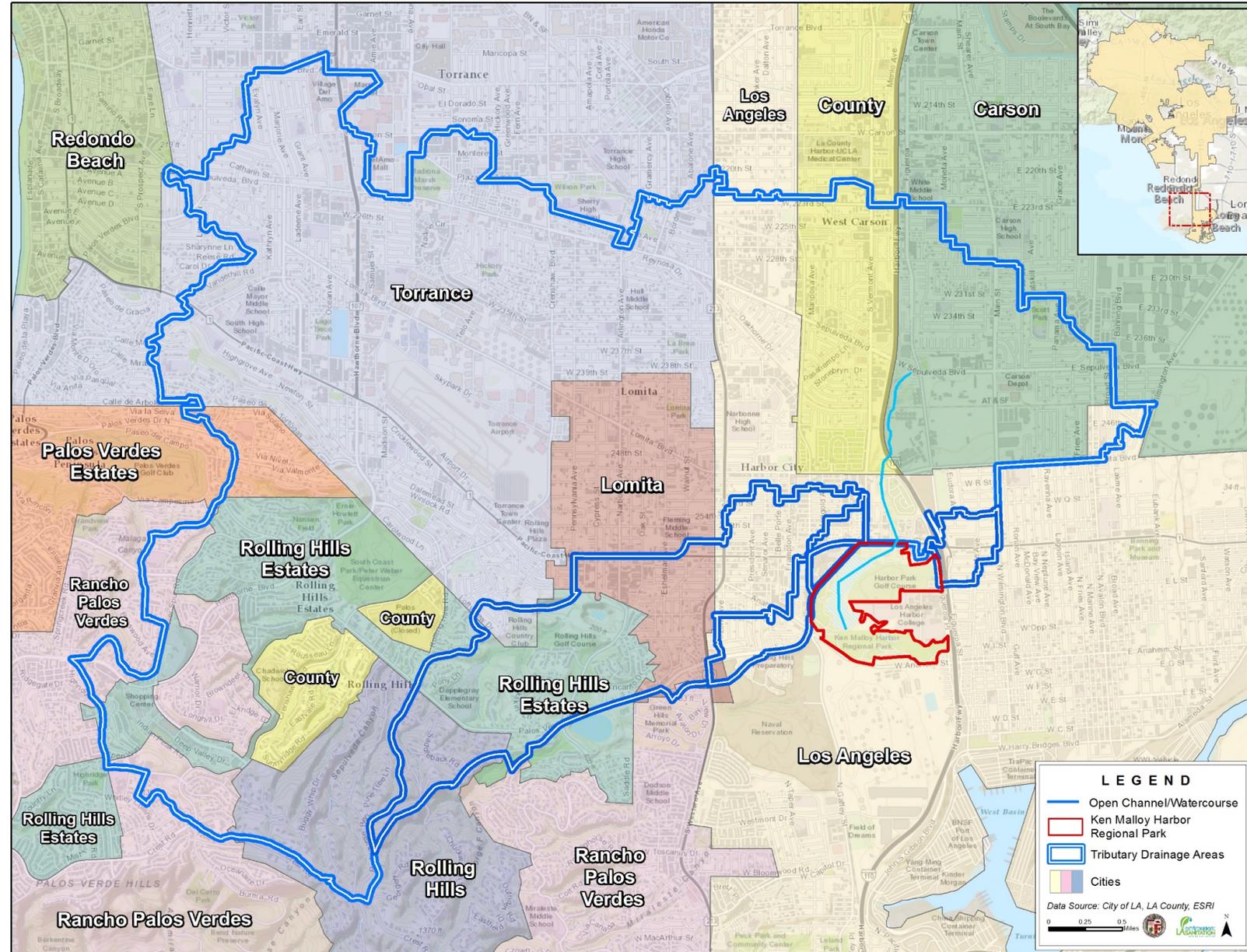
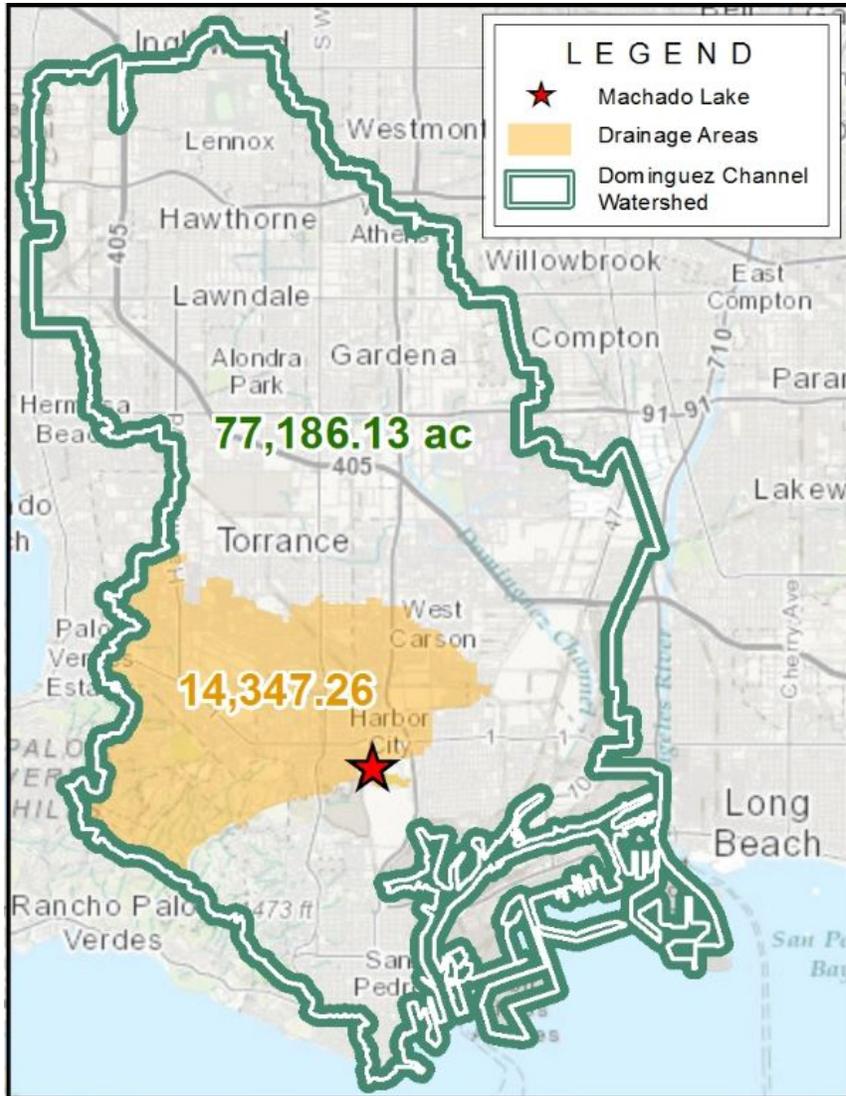
Operation and maintenance of 40-acres of lake and 4 acres of treatment wetlands at a vital regional multi-purpose City of Los Angeles facility.

- Primary Objective: Sustain improvements of City of LA Clean Water Bond (Prop O) project: Regionally improved open space and recreational amenities, flood mitigation, improved water quality, MS4 compliance and reduced water supply demand
- Secondary Objectives: Ensure recreation and habitat beneficial uses, public health protection
- Project Status: O&M
- Total Funding Requested: \$5,700,000





Project Location – Machado Lake O&M





CalEnviroScreen – Machado Lake O&M



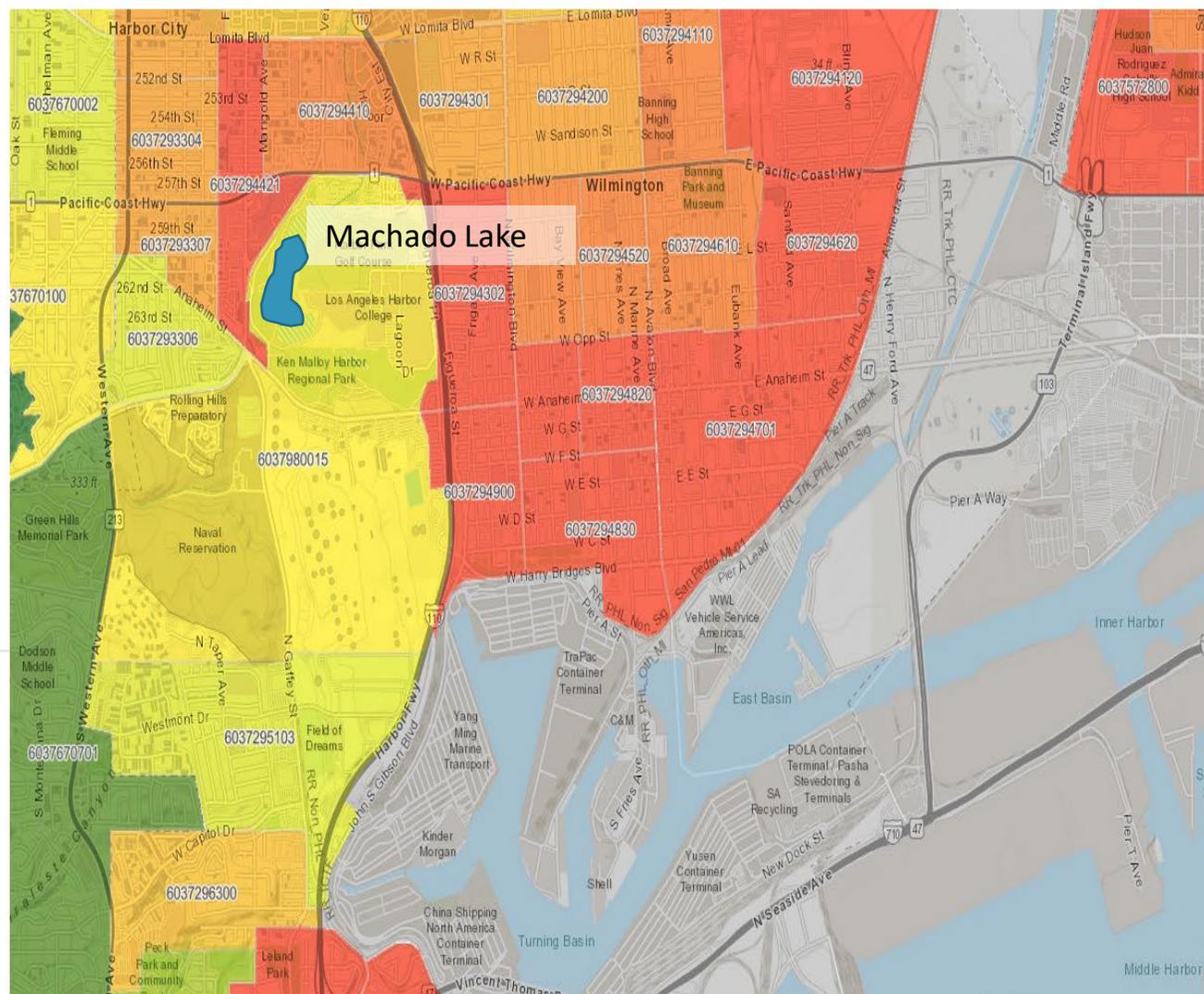
Machado Lake area DACs

Legend

CalEnviroScreen 4.0 Results

- > 90 - 100 (Highest Scores)
- > 80 - 90
- > 70 - 80
- > 60 - 70
- > 50 - 60
- > 40 - 50
- > 30 - 40
- > 20 - 30
- > 10 - 20
- 0 - 10 (Lowest Scores)

CalEnviroScreen 4.0 High Pollution, Low Population



- Harbor City and Wilmington communities 2 miles from Ports of LA/LB
- Over 100,000 people live within 2 mile radius of lake
- 20,000 of those are disproportionately burdened by multiple sources of pollution (90-95th percentile per CalEnviroScreen4.0).



Project Background – Machado Lake O&M



- The \$99 million Machado Lake Rehabilitation Project was constructed under the City of LA's Prop O program and completed in 2018. Located within Ken Malloy Harbor Regional Park in City of Los Angeles, Council District 15.
- The Machado Lake Watershed was identified as one of the impaired watersheds in the EWMP for the Dominguez Channel Watershed Management Area Group (2016).
- The Machado Lake Ecosystem Rehabilitation Project was developed from impairments identified in the 2013 GLAC IRWMP, a Regional Water Management opportunity.
- Funding for the Machado Lake O&M project is necessary to sustain the capital improvements and environmental benefits.



Project Background – Machado Lake O&M



- Benefits to the region and receiving waters include water quality improvements, MS4 compliance and a healthy environment
- Improved flood management and water supply benefits
- Open space, recreational park facilities, wetlands, riparian and aquatic habitat for wildlife
- DAC – 1 in 5 residents in local area disproportionately burdened
- Neighborhoods in Harbor City and Wilmington have some of the highest pollution burdens in the state
 - Park and lake are the prime recreational facility for many in the area, with habitat and park amenities for public to enjoy
 - On a daily basis, scores of individuals, families, schools and groups use the park for recreation, exercise and social and educational activities.



Project Overview – Machado Lake O&M

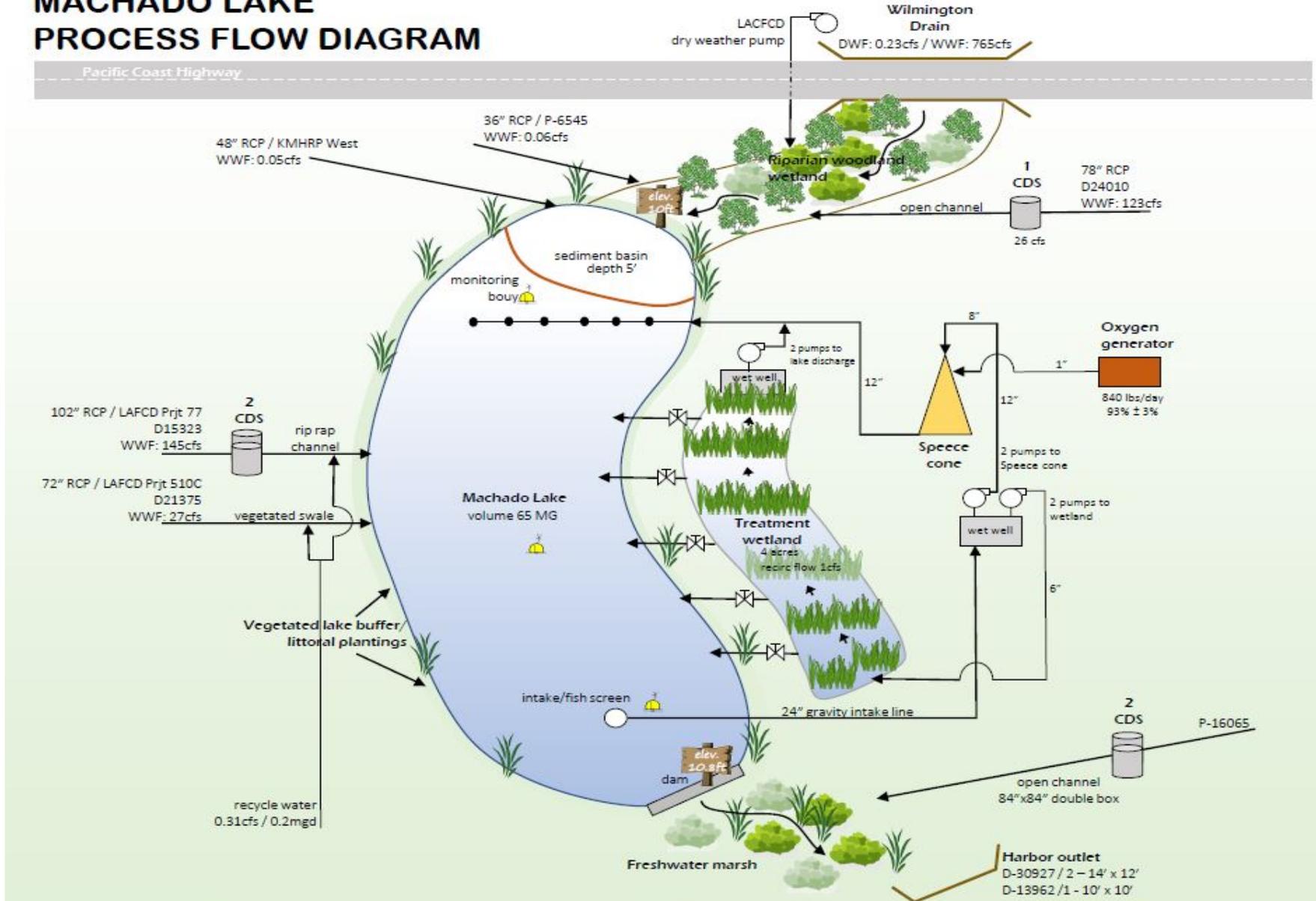




Project Schematic – Machado Lake O&M



MACHADO LAKE PROCESS FLOW DIAGRAM





Project Photos – Machado Lake O&M



BEST OF
SOUTH
BAY



Project Photos – Machado Lake O&M



Trash, debris and overgrown vegetation



Algae, cyanobacteria blooms



Erosion and sedimentation



Invasive species



Project Photos – Machado Lake O&M



Structural BMPs – HDSs, outfalls, riprap



Mechanical and instrument controls: Pump stations, oxygenation, recirculation, monitoring



Cost & Schedule – Machado Lake O&M



Phase	Description	Cost	Completion Date
Planning	Concept report, planning reports and activities	\$ 1,058,851.00	06/2009
Design*	Pre-design Reports, Construction drawings, Specifications, Environmental review, Permits	\$ 7,425,000.00	05/2012
Design*	Right of Way, Bid and Award	\$ 2,450,731	01/2014
Construction *	Construction, Construction Management, Inspection, and Project Management	\$ 77,898,728	02/2018
Construction *	HRMMP, Post-construction and related activities	\$ 2,406,183	04/2022
Total Capital Costs funded:		\$ 91,239,493	
Life-Cycle Cost for Project	(Module-generated)	\$ 110,285,905	2027
Annualized Cost for Project	(Module-generated)	\$ 6,601,030	2027
O&M	Operation and Maintenance	\$1,140,000 / year	June 2027
TOTAL	Operation and Maintenance	\$5,700,000	June 2027

* Capital costs of project funded in whole or part by City of LA Clean Water Bond (Prop O)



Funding Request – Machado Lake O&M



Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$ 1,140,000	O&M	Lake and treatment wetlands trash and debris removal and disposal, invasive species control, algae and BGA control, diversions and trash separator inspections and cleanings, vegetation management, sediment removal, other tasks as needed.
2	\$ 1,140,000	O&M	Same as above
3	\$ 1,140,000	O&M	Same as above
4	\$ 1,140,000	O&M	Same as above
5	\$ 1,140,000	O&M	Same as above
TOTAL	\$5,700,000	O&M	

- Leveraged funding = \$2,295,000 from City of Los Angeles sources, includes costs incurred after 11/7/2018 and expected funding through FY 26-27
- 40% funding match



Preliminary Score – Machado Lake O&M



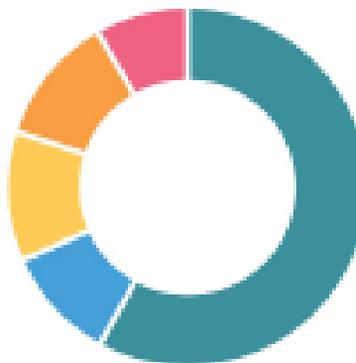
SAFE
CLEAN
WATER
PROGRAM

SAFE, CLEAN WATER PROJECT SCORE

Preliminary Estimated Project Score: **86 points**

The following graphics summarize the project scoring. The first graphic shows the components of the project score, based on the different scoring sections. The second graphic shows the percent of maximum score achieved by the project within each scoring section.

- Water Quality**
- Water Supply**
- Community involvement**
- Nature-Based Solutions**
- Funds and Community**

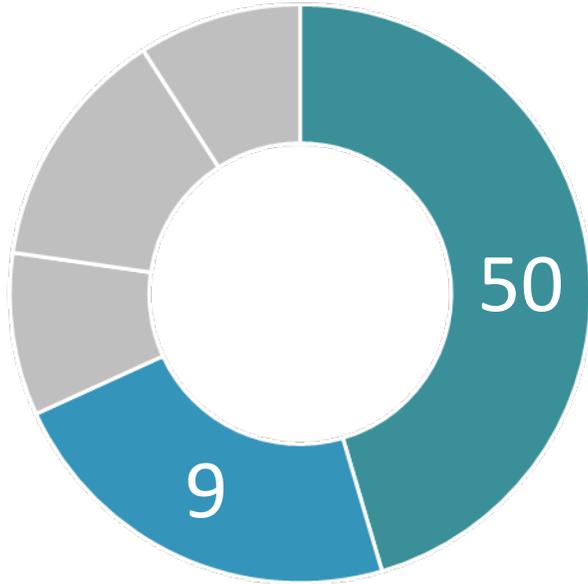


Score Breakdown

- Water Quality: 50
- Water Supply: 9
- Community Investment: 10
- Nature-Based Solutions: 10
- Funds and Community: 7



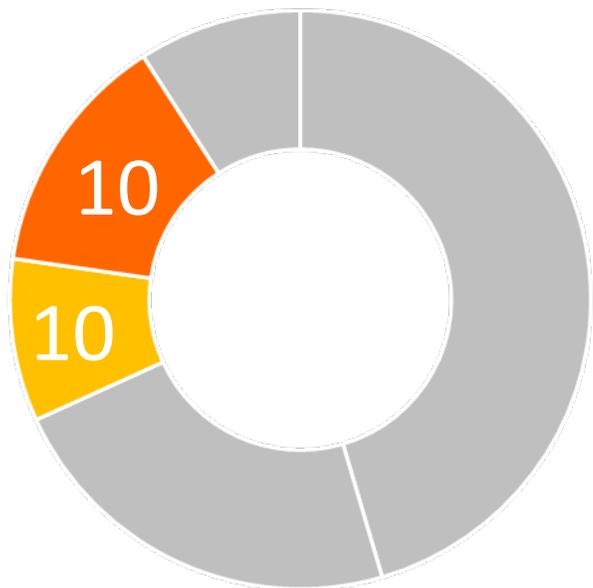
Water Quality & Water Supply Benefits



- Water Quality BMPs: 40 acre Lake improvements, Storm drain pre-treatment devices; Sediment basin, 4 acre treatment wetlands; Recirculation and oxygenation systems
- Wet and Dry weather runoff into the lake
- Tributary Area = 14,347 acres (22 sq miles)
- Capacity = 206 AF (24 hr storm)
- Pollutant Reduction: Total P (85%), Trash (98%)
- Annual Water Supply capture Volume: 244 AF
- Water Supply Use : Augmentation of lake level and sustaining wetland plants
- Water Supply Cost Effectiveness: \$ 27,048 per AF



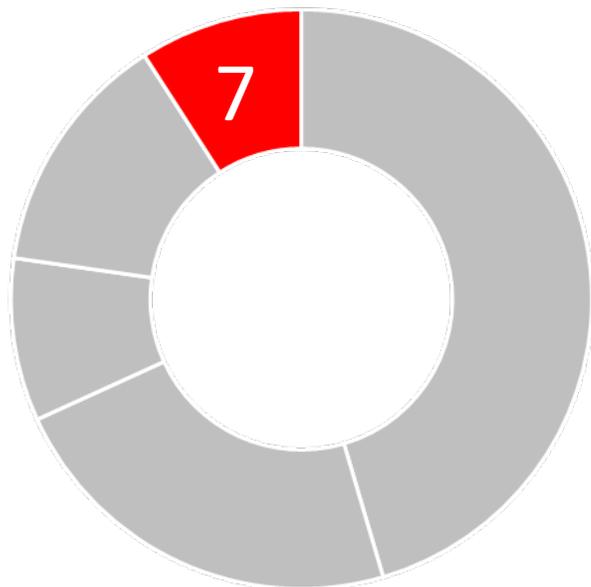
Community Investment Benefits and Nature Based Solutions



- Community Investment Benefits
 - Project will maintain the Flood management benefits of existing facility, reducing local flood risk
 - Maintain and enhance 44 acres of lake, wetlands habitat
 - Maintain improved access to Lake perimeter, wetlands
 - Project will maintain and/or enhance recreation and educational opportunities to provide regional access
 - Lake and wetlands reduces heat island effects
 - Maintain and manage plantings and vegetation
- Nature Based Solutions
 - Treatment wetland plantings and habitat, lake-edge plantings, in-lake improvements (lining) reduced invasive plants, natural processes for improved water quality



Leveraging Funds and Community Support



- Leveraging Funds
 - \$2,295,000 cost share utilizing City of LA Municipal funds 11/7/2018 through FY 26-27.
 - \$690,000 City of LA non-SCW funds
 - \$1,605,000 SCW Municipal funds
 - 40% funding match
- Community Support
 - Letters of Support from Community groups
 - Support of local NGOs, stakeholders and businesses
 - Utilization of local small businesses for maintenance contracted services
 - Outreach to community on O&M activities through social media



**Thank you.
Questions?**

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BAY

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South Santa Monica Bay Watershed Area Steering Committee

February 16, 2022

Agenda Item 6c(i): Presentation by Kiss the Ground

Project: “Regenerate LA: Nature-Based Solutions for Community Parks”





Context for this presentation

- The Regenerate LA Project
 - Submitted by Kiss the Ground
 - Located in Ken Malloy Harbor Regional Park
- Was submitted for consideration in the Technical Resources Program
- When presented to the WASC, Committee members asked about the proposed work being more like a Scientific Studies Program proposal.
 - In response, the District reviewed if the WASC has the authority to move the project from TRP to SS.
- Also based on the WASC's questions, the District reviewed the TRP application



Outcome of District Review

- The project as submitted does not qualify as a Technical Resources Program Project.
- This project can be moved from TRP to SS through an action by the WASC.
- In support of WASC decision-making, Kiss The Ground was given an opportunity to transfer the project into a Scientific Studies application.
 - This work was completed with support from the Watershed Coordinator, the Regional Coordination team, and the District.
 - The project scope has not changed
 - The value requested has not changed (\$300,000)



Today's discussion agenda item

- A presentation from Kiss The Ground about the effort as a scientific study proposal.
 - Ten-minute presentation
 - Ten minutes of Q&A about the project concept
- The decision item before the WASC today is:
 1. Elect to move the project from TRP to SS for consideration.
 2. Elect to not move the project from TRP to SS.

An aerial photograph of Los Angeles, California, showing the coastline, the city grid, and some green spaces. The image is partially obscured by a dark teal overlay on the left side where the text is located.

Regenerate LA: Nature-Based Solutions for Community Parks

Scientific Studies Program

Fiscal Year 2022-2023

South Santa Monica Bay Watershed Area

Project Lead: Kiss the Ground

Presenters: Callie Ham, Kiss the Ground

Jessica Chiartas, UC Davis and Soil Life Services



Study Overview

Summary of Study

(Nexus to stormwater, urban runoff and pollution)

Soil lies directly at the nexus of stormwater, urban runoff, and water supply management, as it is the literal skin of the earth, responsible for the infiltration, retention, and filtration of water. Soil structure and the amount of organic matter stored belowground is a direct driver of a given soil's ability to perform these functions, dictating a landscape's response to extreme weather events like drought and flood.

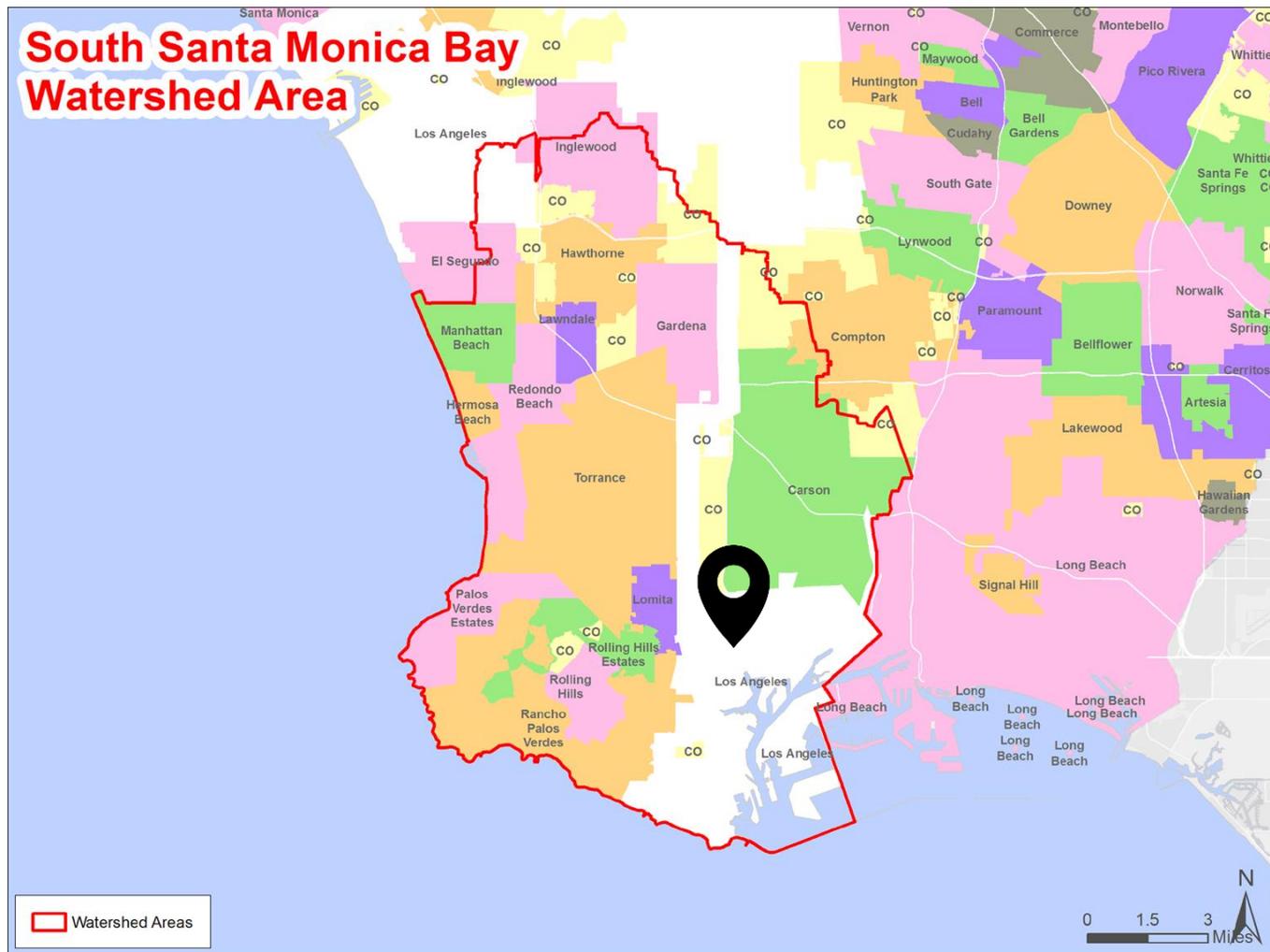
Above ground management, in turn, drives soil organic matter and overall structure. Rebuilding soil structure increases the total amount of pore space belowground where water can be held and improves aggregate stability, reducing the amount of sediment that can clog pores and seal off the surface and/or runoff into surrounding waters.

This study will test the impact of applying compost and other regenerative land management practices on soil organic matter and related hydrologic properties





Study Location



- Ken Malloy Harbor Regional Park
- South Santa Monica Bay Watershed Area
- High level of engagement with local residents

Problem Statement

Runoff of toxic chemicals

- Prolonged periods of drought necessitate reductions in water use/availability, and with increased frequency of heavy rain events, the lack of permeable surfaces in cities contributes to increased runoff of toxic chemicals to surrounding waterways.

Nitrate leaching

- Current lawn/facilities management in LA parks relies heavily on synthetic fertilizers, which contribute to nitrate leaching and production of N₂O, as well as pesticides, herbicides, and fungicides that contain heavy metals, threaten water quality and biodiversity, and provide an unnecessary hazard on the park staff applying them.

Reduction in soil organic matter

- Historic and current management practices have been shown to reduce soil organic matter; which is directly related to a soil's ability to infiltrate water (prevent floods), hold water (prevent drought), filter contaminants, and promote biodiversity.

Need for solutions to food waste diversion, biodiversity promotion, and GHG emission reduction

- The state and the city of LA have also set ambitious goals for diverting food waste, promoting biodiversity, and reducing GHG emissions and are in need of affordable, effective solutions to achieve those goals.



Study Details

Objectives

Overall objective: determine the potential for regenerative land management to promote key soil functions, or ecosystem services, such as infiltration and retention of water, filtration of contaminants, and promotion of biodiversity, while establishing Ken Malloy as a regeneratively managed park and hub for training and education for organic regenerative land management

Specifically, the scientific study aims to investigate the potential for regenerative land management to

- 1) reduce nitrate leaching
- 2) reduce runoff of urban contaminants (via improved infiltration rates and increased soil water holding capacity)
- 3) increase soil carbon and water holding capacity
- 4) contribute to GHG mitigation goals
- 5) reduce overall costs associated with land management



Study Details

Outcomes

Awareness

- Community engagement events raise awareness of community on the importance of organic regenerative land management
- White paper and a series of one-pagers produced for educating and raising interest in implementing regenerative land management at other parks in the LA area.

Roadmap

- Project comprehensively documented from planning to implementation to monitoring, and analysis
- Research findings, training tools and lessons learned used to scale up organic regenerative gardening and land management across LA and to other cities.
- Targets: 20% transition of LA Parks to regenerative land management at 20% by 2030; model adopted by park managers in San Francisco, Sacramento, and San Diego.

Policy

- Research, training tools, and program lessons used to drive local and state policies to create incentives to regenerate urban soils
- Opportunities to access state funding for programs related to park conservation, ecosystem restoration, and green jobs.



Study Details

Study Methodology

This study will test the impact of applying compost and other regenerative land management practices on soil organic matter and related hydrologic properties, while in parallel, establishing compost infrastructure and training and education channels for integrating organic regenerative practices into land management standards of practice.

Specific questions:

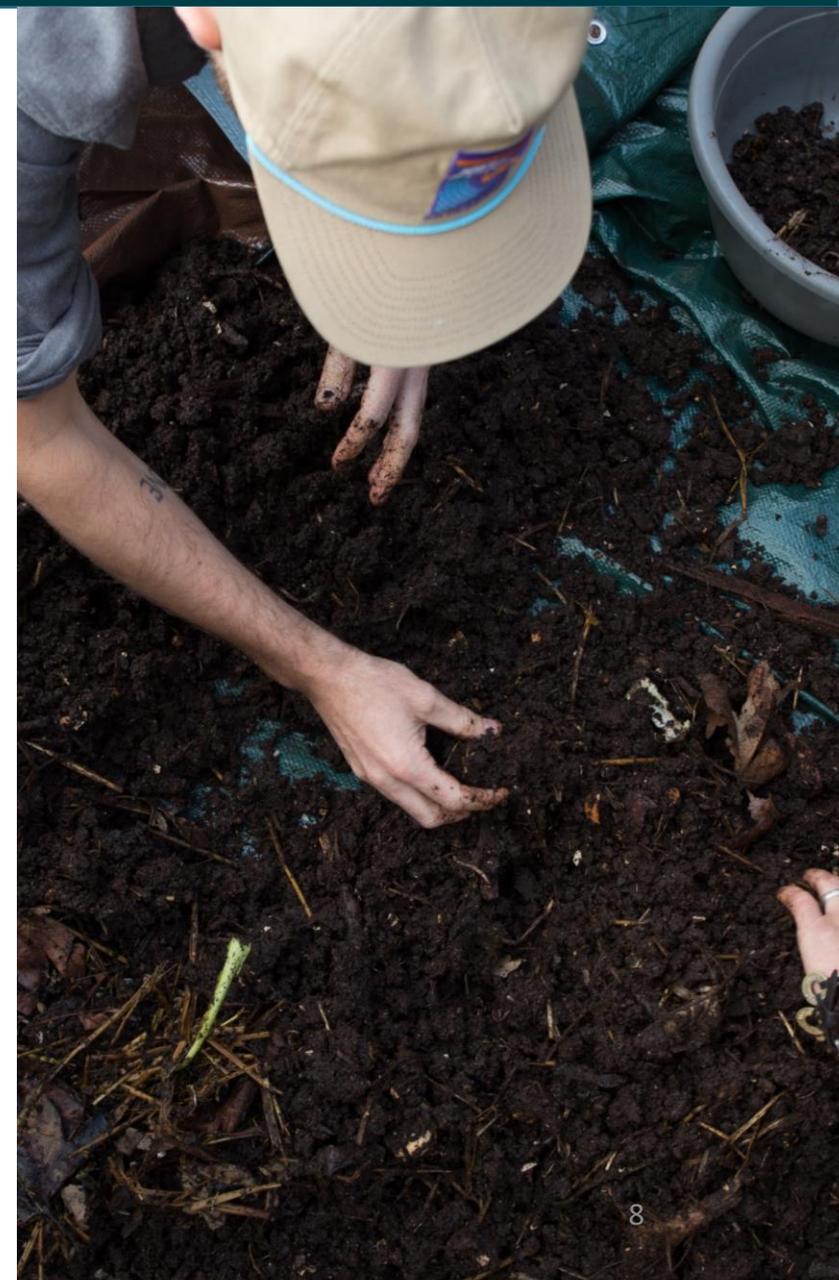
1. What is the potential for sequestering carbon in city parks using regenerative land management?
2. What is the impact of regenerative land management (across a range of land uses) on the hydrologic function of a city park?
3. What is the impact of regenerative land management on park staff, perception of visitors, and overall community engagement?



Study Details

Study Methodology

- Year 1: Samples collected to establish baseline for soil and hydrologic conditions across park, including soil organic carbon, bulk density, nitrate/ammonium, aggregate stability, water holding capacity, and hydraulic conductivity, as well as in-field infiltration rates (Year 1, repeated Year 3 and Year 5)
- Compost applied and hedgerows established in key locations each year
- Year 5: data analyzed using multivariate statistics to assess change over time in soil organic matter and a series of soils-related hydrological properties; white paper produced
- Interviews conducted with park staff to understand qualitative impacts
- Years 2-5: Community engagement /demonstration events held





Study Details

Measurements

Soil organic carbon

Dry combustion

Nitrate and ammonium

Nitrate/ammonium analysis at UC Davis Analytical Lab

Bulk density

Core method

Aggregate stability

ARS Wet aggregate Stability method

Infiltration rates

Double Ring Infiltrometer

1 meter depth for Years 1 and 5 and 30cm depth for Year 3

Hydraulic conductivity

HYPROP



Cost & Schedule

Phase	Description	Cost	Completion Date
Inception	Permitting, construction and baseline sampling, initial compost application, labor and coordination	\$198,100	End of Year 1 Target: Dec. 2022
Midterm	Data collection and lab testing, community engagement events, coordination	\$57,900	End of Year 3 Target: Dec. 2024
Completion	Final analysis, reporting and publishing, knowledge sharing events	\$44,000	End of Year 5 Target: Dec. 2026
TOTAL			

- Light coordination costs included through Year 3



Funding Request

WASC	Year 1	Year 2	Year 3	Year 4	Year 4
CSMB					
LLAR					
LSGR					
NSMB					
RH					
SCR					
SSMB	\$198,100	\$20,200	\$37,700	\$0	\$44,000
ULAR					
USGR					
TOTAL					



Summary of Benefits

Water capture

Increased permeability of soil surface

Potential 2.5 million additional gallons of water retained in park soil through SOM 1% increase

Water quality

Phaseout of synthetics fertilizers

Reduced nitrate leaching and contaminant runoff

Soil health and biodiversity

Increased carbon sequestration

Improved habitats for pollinators and native species



Summary of Benefits

Park staff

Improved knowledge and practices

Shift in standards for healthy land management

Community

Healthier environment for community members

Educational opportunities and compost pick-ups

City / State

Savings from reduced inputs and lake management (water, fertilizers)

Documented methodology and tools for scaling



Questions?

ANNEX:

Original application under Technical Resources

An aerial photograph of the Los Angeles coastline and city grid, showing the ocean on the left and the city on the right. The image is used as a background for the text.

REGENERATE LA

Technical Resources Program

Fiscal Year 2022-2023

South Santa Monica Bay

Project Lead: Kiss the Ground (*w/ LA Compost as key implementing partner*)

Presenter: Callie Ham



Project Overview

Regenerate LA will build and sustain healthy soil through the transition from toxic chemical use to organic regenerative land management (ORLM)

Primary Objective: *Establish Ken Malloy Harbor Regional as a regeneratively managed park to improve soil health and rebuild the “soil sponge” as a means to increase water infiltration/reduce runoff & increase water holding capacity, sequester carbon, increase biodiversity, and improve water quality; and serve as a “hub/demonstration site” for training and education on ORLM that supports surrounding parks.*



Project Overview

Regenerate LA will build and sustain healthy soil through the transition from toxic chemical use to organic regenerative land management (ORLM)

Secondary Objectives: *Educate park maintenance staff through state-of-the-art online and in person training sessions in ORLM, engage and educate communities on ORLM, leverage the existing network of parks to create sharing/distribution systems for organic amendments to improve soil health and watershed function.*



Project Overview

Regenerate LA will build and sustain healthy soil through the transition from toxic chemical use to organic regenerative land management (ORLM)

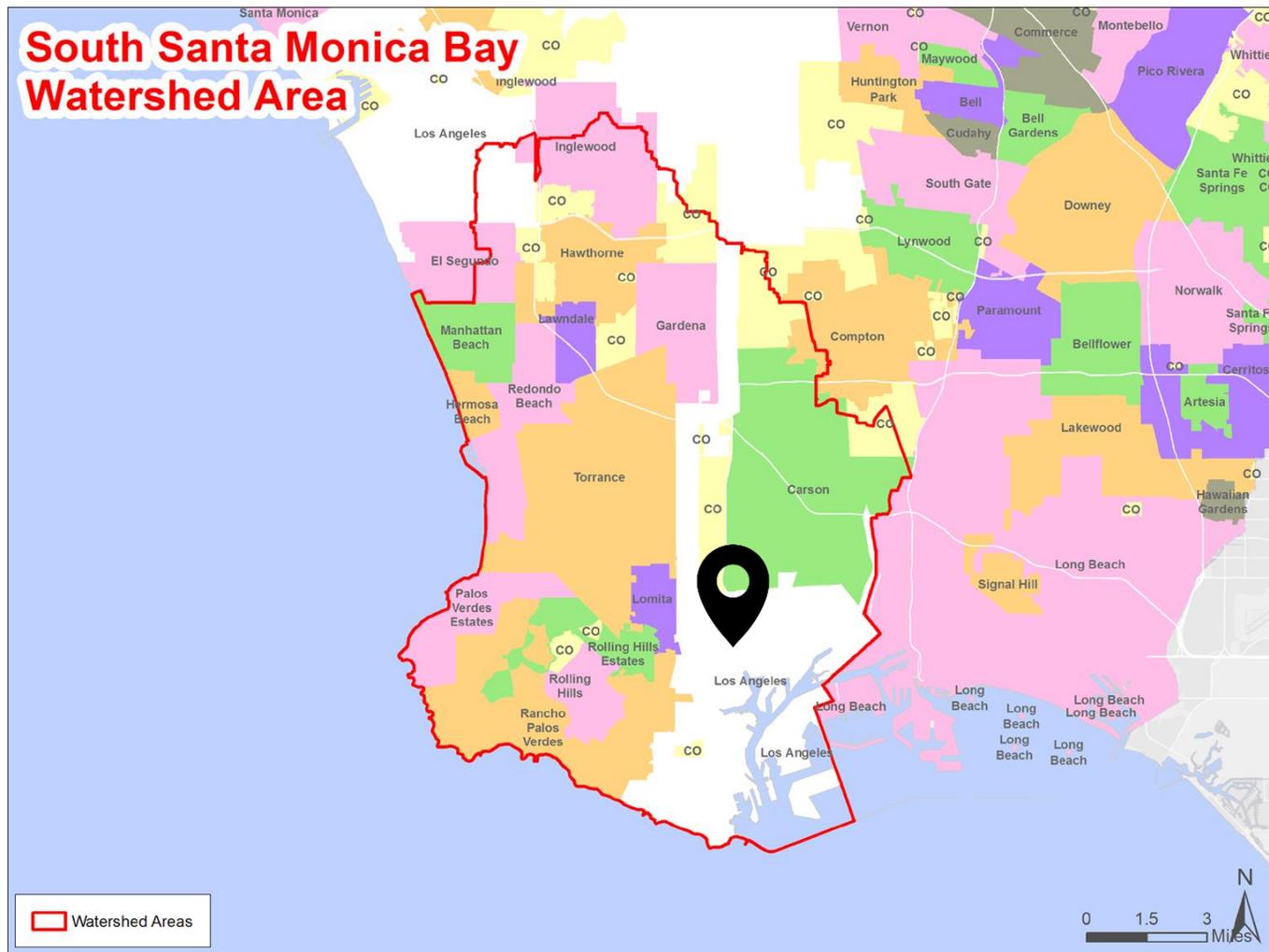
Project Status: Feasibility Study

Total Funding Requested: \$300,000 (or as deemed appropriate by Technical Assistance Team)





Project Location



- Ken Malloy Harbor Regional Park
- South Santa Monica Bay Watershed Area
- Local residents very engaged w/ overflow of people on park volunteer days

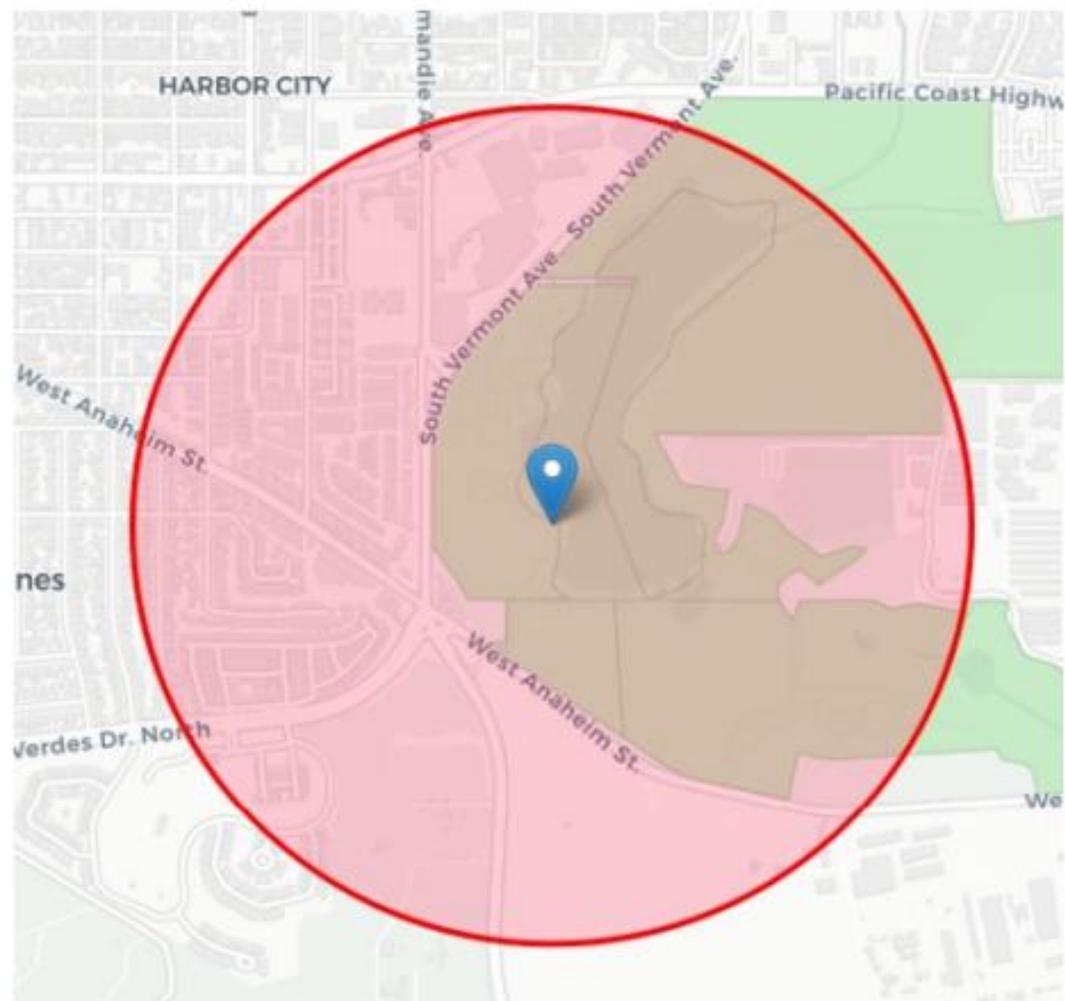


Project Location

PROJECT AREA STATISTICS

County	Los Angeles
City	Los Angeles
Total Population	3,222
Youth Population	596
Senior Population	435
Households Without Access to a Car	101
Number of People in Poverty	510
Median Household Income	\$55,519
Per Capita Income	\$33,593
Park Acres	194.46
Park Acres per 1,000 Residents	60.35

PROJECT AREA MAP





Project Background

2019

LA Green New Deal Sustainability pLAn

Includes 2 healthy soils pilot projects

2020

LASAN's Healthy Soils Advisory Panel

Key stakeholders outlined soil health priorities in healthy soils strategy

2020 - 2021

Healthy Soils Motion 'Regenerate LA'

Introduced by Councilmember Paul Koretz

Calls for the promotion of opportunities to **improve soil health, water retention/capture, and biodiversity** and that promote **green jobs** through **regenerative land mgmt** practices

Endorsed and supported by LASAN and LARAP General Manager - Mike Shull

2021

Regenerate LA project

Partnership between KTG, LA Compost, LARAP, LASAN

- ❖ Compost production
- ❖ Demonstration sites
- ❖ Training & education
- ❖ Pollinator Habitats
- ❖ Data collection
- ❖ Public awareness and community engagement



Project Background

Ken Malloy Harbor Regional selected in partnership with LARAP as 2nd platinum site under RegenerateLA

- Site locations with high potential for compost infrastructure development
- Large maintenance area
- Important watershed implications
- High community engagement
- Location would balance first location in Griffith Park

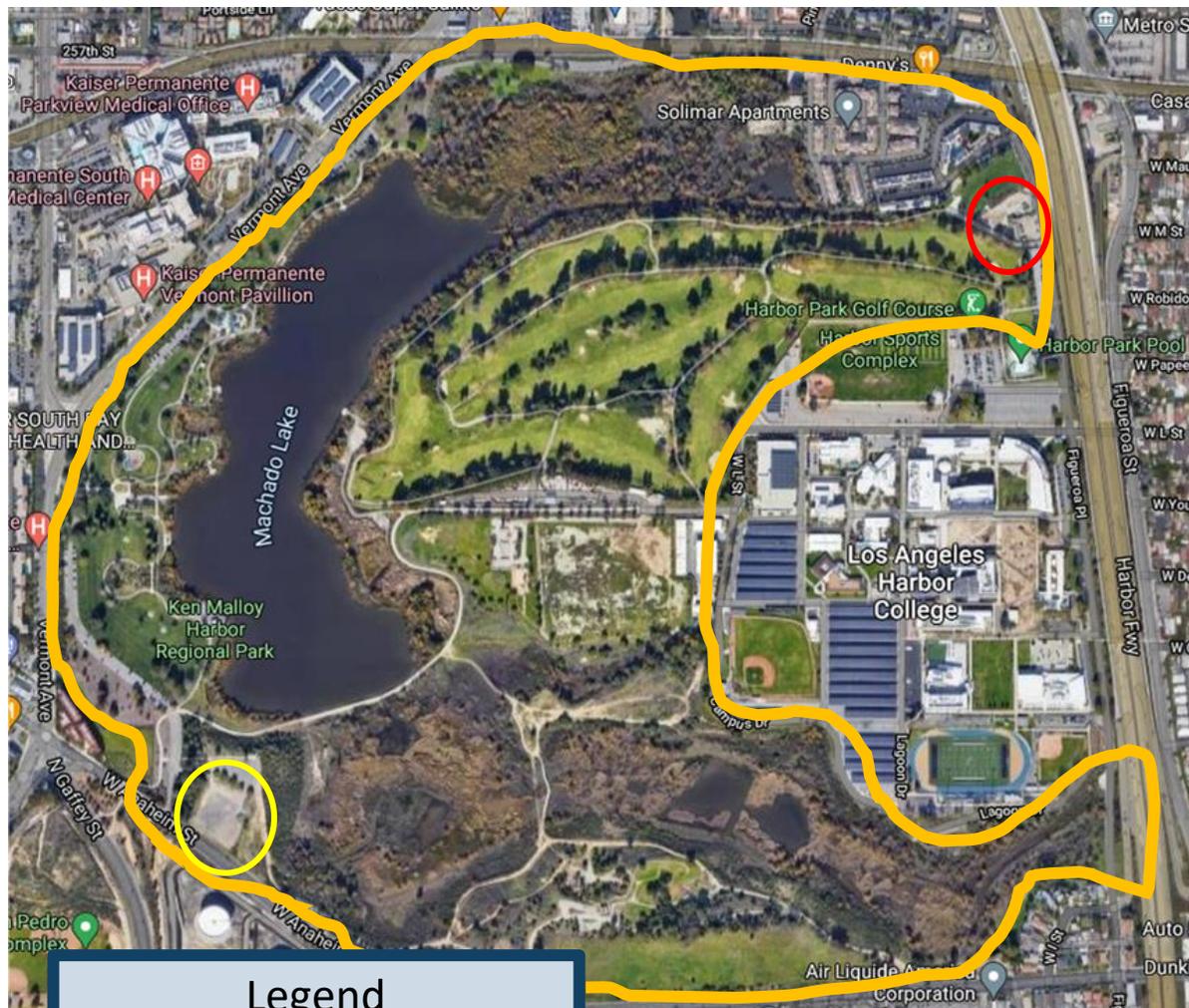
Benefits to municipality, especially DAC:

- Access to chemical-free parks! Clean soils, clean water
- Improvement of local biodiversity and soil sponge: 0.5% increase in SOM could result in 3 million gallons of water!
- Community engagement prior, during, and after project
- Food scrap drop off, compost pick up





Project Details



Legend

- Compost production
- Compost curing

Ken Malloy Harbor Regional Park

- 2 sites: compost production and compost curing
 - Allows to maximize production
- Varied features
 - Park recreation
 - Riparian zones
 - Dog Parks
 - Golf course
 - Campgrounds
- Opportunity for LA to become leader in alternative land management/maintenance options



Cost & Schedule

Phase	Description	Cost	Completion Date
Feasibility Study	Feasibility Study, preliminary design, initial community engagement	\$300,000	June 2022 (TBC)
Planning and design	Final design, permitting, community engagement	\$15,000	Dec. 2022
Construction	Site preparation, compost infrastructure, investment in maintenance tools	\$135,000	March 2023
Implementation	Operational, maintenance, and monitoring (annual costs)	TBD	Dec. 2027 (TBC)
TOTAL		TBD	

- Annual costs will include compost production maintenance, soil testing and monitoring, community engagement / workshops, part time technical expert, part time project coordinator, communications, graphic design and web



Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$300,000	1	Feasibility study
TOTAL			

Requested funds for feasibility study would

- Generate information required for project concept submission to guide and provide baseline data for, transitioning parkland to ORLM, including improvements to soil organic matter, water infiltration and retention, carbon sequestration, and biodiversity
- Provide a roadmap for Ken Malloy to become second platinum site under Regenerate LA



Questions?



Today's Decision Item and Next Steps

- **The decision before the WASC today is:**
 1. **Elect to move the project from TRP to SS for consideration.**
 2. **Elect to not move the project from TRP to SS.**
- If the project is moved:
 - It will be sent to SCWRRP for evaluation alongside other scientific studies
 - The SCWRPP evaluation will be available to the WASC in its deliberation
 - The project will be considered by the WASC for the SIP.
- If the project is not moved:
 - The project will not be considered any further this program year.
 - The proponent can decide to pursue future calls-for-projects with this or another proposal.