

# Safe, Clean Water Program

## Lower Los Angeles River

### Watershed Area Steering Committee (WASC)

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#### **Meeting Minutes:**

Tuesday, April 27, 2021  
1:00pm - 3:00pm  
WebEx Meeting

#### **Attendees**

##### Committee Members Present:

Dan Sharp (District)	Melissa Bahmanpour (River in Action)
Jeremy Melendez* (Central Basin)	Gina Nila (Commerce)
Lyndsey Bloxom* (Water Replenishment District)	Dan Mueller (Downey)
Kristen Ruffell (LA County Sanitation)	Melissa You (Long Beach)
James Vernon (Port of Long Beach)	Laura Ochoa (Lynwood)
Kedrin Hopkins (Conservation Corps of Long Beach)	Adriana Figueroa (Paramount)
Marybeth Vergara* (Rivers and Mountains Conservancy)	Kelli Tunnicliff (Signal Hill)
Manny Gonez* (TreePeople)	Gladis Deras (South Gate)
Stephen Scott (Long Beach Parks & Recreation)	

##### Committee Members Not Present:

\*Committee Member Alternate

See attached sign-in sheet for full list of attendees

#### **1. Welcome and Introductions**

Gina Nila, Chair of the Lower Los Angeles River WASC, welcomed members and called the meeting to order.

CJ Caluag (District) conducted the roll call and with a majority present, quorum was established. The District provided an overview of the WebEx functions and housekeeping items.

#### **2. Approval of Meeting Minutes from March 23, 2021**

The District provided a copy of the meeting minutes from the previous meeting. Gina Nila asked the committee members for comments and/or revisions.

Kristen Ruffell motioned to approve the meeting minutes. Manny Gonez seconded the motion. The Committee voted to approve the meeting minutes from March 23, 2021. (Approved, see Vote Tracker sheet).

#### **3. Committee Member and District Updates**

The District provided the District updates, noting: The call for Round 3 of projects ends July 31, 2021. The District will host two webinars by the end of May or early June. Additional information will be available on the SCW Program website. Project applicants will need to contact their local Flood Control District (FCD) Watershed Manager for conceptual plan approval letters by May 31, 2021 if their project encroaches into FCD right-of-way or is proposing a connection to FCD facilities/infrastructure. The Reporting Module is

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ready, Uploads of first quarterly reports are due May 15, 2021. Recorded information sessions will be held April 28, 2021 at 9 am and April 29, 2021 at 1 pm for further assistance.

Regarding Watershed Coordinators (WC), 6 out of 12 WC agreements have been executed including for the LLAR WASC. Mike Antos from Stantec will continue in the role of Regional Coordination and assist with the onboarding of WCs.

SCCWRP has provided one Scientific Summary, all other scientific summaries should be distributed to the WASCs and Applicants by the end of April.

The District has an Educational Program within the SCW Program, and a consultant is currently working on the framework. For additional information, please email the District directly.

Marybeth Vergara announced her new alternate, Joe Gonzalez, will be sitting in for her starting in May.

Laura Ochoa noted Noe Martinez is no longer with the City of Lynwood and will inform the WASC of a new alternate.

#### **4. Ex Parte Communication Disclosures**

There were no Ex Parte communication disclosures provided during this part of the agenda.

#### **5. Public Comment Period**

There were no public comments provided during this part of the agenda.

#### **6. Discussion Items**

a) Infrastructure Program (IP) Presentations ([LLAR Scoring Rubric](#) and [SCW Portal](#)):

i) *Lynwood City Park Stormwater Capture Project Presented by Lorry Hempe, Public Works Special Projects Manager for the City of Lynwood, and John Hunter of John Hunter & Associates. The Project is a regional stormwater capture and infiltration system that will also install a new parking lot, soccer field, and ephemeral stream.*

Gina Nila and Dan Sharp asked about the flood risk management benefit this Project provides. John Hunter responded that during peak season, the project will collect 11-acre-feet of floodwater and up to 14-acre feet during a rainstorm. Gina Nila asked if the project used school land. Lorry Hempe responded that the project is completely on City-owned land.

Melissa Bahmanpour asked about the possibility of connecting student learning opportunities since the project is adjacent to Hosler Middle School and Union Gallery. John Hunter responded that they have dedicated funds for education and public outreach. John is thinking about a monument or signage highlighting the project. Lorry Hempe discussed multiple ways education, including leading them through the design and construction of the project. Melissa asked if the City of Lynwood would investigate working with other NGO's. Lorry noted they have worked with TreePeople Inc.

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Dan Sharp asked for clarification on the groundwater recharge benefits and its location. John Hunter responded that the water does not lead into the Montebello Forebay and they have not studied anything further than the existing water table. Dan expressed that the claim the water goes into a useable aquifer is a little strong and would like more information before voting on the project.

Marybeth Vergara asked for clarification on additional funding sources for this project. John Hunter indicated that there are no additional funding sources. If an opportunity comes along, the City of Lynwood will pursue it.

Kristen Ruffell asked for details regarding the use of a sewer diversion in the case of water not reaching the aquifer. John Hunter replied that sewer diversion would be a third option and that the ephemeral stream and infiltration should handle the water capture.

Gina asked if there was any partnership with the neighboring school. John Hunter said the project is all within the City of Lynwood's property.

*ii) Spane Park Presented by Adriana Figueroa, Director of Public Works for the City of Paramount, and John Hunter of John Hunter & Associates. The Project is a Regional stormwater capture and infiltration facility located at Spane Park beneath the open space of the existing park surface.*

Gina Nila asked how Prop 68 funding would support this project. Adriana Figueroa responded that they have applied for Prop 68 funds for design and construction.

Melissa Bahmanpour asked if a Community-based Organization or if the City of Paramount would be conducting the outreach for this project. Adriana Figueroa responded that they have not looked into it yet but it is possible to use a nonprofit organization and that they are working with TreePeople Inc. on a separate project. Melissa Bahmanpour inquired about scoring and flagging projects that are not able to offer aquifer recharge due to their location. The District referenced the Scoring Rubric for more details. Dan Sharp noted that although the water will go into the ground, there are confining layers but it does not provide water supply and this should be expressed to the Scoring Committee, to be more accurate.

Marybeth Vergara asked about the amount requested from Prop 68 funding and what is the City's process for entering into contract work. Adriana Figueroa responded that they incorporate community outreach with design but that there is flexibility in developing Professional Services contracts. Adriana Figueroa remarked that the Prop 68 funds are for the amenities that are on top of this Project and that the Recreation team applied for those funds separately. It was mentioned for the committee to understand the timeline of the funds.

Manny Gonez mentioned that TreePeople Inc. would be open to assisting with the community engagement.

Gladis Deras commented that Southgate, Lynwood, and the watershed itself would benefit from the project.

Adriana Figueroa asked for clarity on the recharge basins and water quality benefits. Lyndsey Bloxom discussed the water supply benefits from stormwater that goes directly and indirectly into the drinking water aquifer. She also indicated that water going into the ground is not lost but that there should be different points for water that directly benefits drinking water. Adriana Figueroa indicated that projects in their Watershed would be affected because they cannot drain directly to

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the drinking supply. Lyndsey Bloxom said there could be water supply benefits offsetting potable usage. Lyndsey believes there are supply benefits outside of groundwater recharge. Melissa Bahmanpour suggested giving Applicants more feedback on water supply benefits in the future. Kelli Tunnickliff commented that indirect water supply benefits should also be explored.

#### b) Scientific Studies (SS) Presentations (SCW Portal):

*i) Gateway Area Pathfinding (GAP) Analysis Presented by Rich Watson of Richard Watson & Associates, and Brad Wardynski of Craftwater Engineering. This study initiates a locally driven, scientific approach to find and analyze new projects in a watershed context and plot a project-by-project pathway to safe, clean water.*

Marybeth Vergara asked if project applicants had presented to the LSGR WASC. She also asked how they plan to prioritize projects. Brad Wardynski replied that they presented the study to the LSGR WASC last month and that they submitted responses to questions from the WASC. He also mentioned that they will organize current and new projects to characterize them from a water quality perspective. The budget for the study is for phase 1, and in future years the WASC can consider adding additional funding. Richard Watson mentioned that the reasonable assurance analysis they are conducting will assist in finding projects along the LLAR, LSGR, and RH watersheds.

*ii) Regional Pathogen Reduction Study by Rich Watson of Richard Watson & Associates and the lead consultant to the Los Cerritos Channel Watershed Group. This Study aims to use the latest available science to measure water-borne pathogens across watersheds and seeks funding from eight of the nine WASCs.*

Gina Nila asked if any other WASC have approved funding for the Regional Pathogen Study and the outcome if not all the WASCs approve. Richard Watson responded that there has been no voting on this Project yet and that the Project would scale down to exclude WASCs that do not fund the Project. Richard expressed it would be ideal for all WASCs to fund, but if a group does not fund it, they will not study the area.

Marybeth Vergara asked if existing data can be used for this Project. Richard Watson responded that there is data from the San Diego Region, EPA, Australia, Great Lakes, and many other studies.

Adriana Figueroa asked about the length of the Human Health Risk Assessment. Richard Watson responded that it would take about 3 years.

## 7. Public Comment Period

Richard Watson commented that a virtual meeting took place with Caltrans, the County, and City of LA regarding their new permit with the State Water Board. There was talk about sources of other funding. Caltrans is negotiating their new permit with the State Water Board. Richard has encouraged Caltrans to match some funding for SCW projects.

## 8. Voting Items

There were no voting items included in today's meeting agenda.

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#### **9. Items for Next Agenda**

Upcoming items for future meetings include:

- a) Project rankings
- b) Approve the final Fiscal Year 2021-22 Stormwater Investment Plan funding recommendations for the LLAR Watershed Area and approve submission to the Regional Oversight Committee for review

#### **10. Adjournment**

Gina Nila thanked the committee members and public for their time and participation and adjourned the meeting.

## LOWER LOS ANGELES RIVER WASC MEETING - APRIL 27, 2021

		Quorum Present				Items
Member Type	Organization	Member	Voting?	Alternate	Voting?	Meeting Minutes
Agency	District	Dan Sharp	x	Ramy Gindi		y
Agency	Central Basin	Alex Rojas		Jeremy Melendez	x	y
Agency	Water Replenishment District	Diane Gatza		Lyndsey Bloxom	x	y
Agency	LA County Sanitation Districts	Kristen Ruffell	x	Mike Sullivan		y
Agency	Port of Long Beach	James Vernon	x	Dylan Porter		y
Community Stakeholder	Conservation Corps of Long Beach	Kedrin Hopkins	y			y
Community Stakeholder	Rivers & Mountains Conservancy	Mark Stanley		Marybeth Vergara	x	y
Community Stakeholder	TreePeople	Cindy Montanez		Manny Gonez	x	y
Community Stakeholder	City of Long Beach Parks & Recreation	Stephen Scott	x	Meredith Reynolds		y
Community Stakeholder	River in Action	Melissa Bahmanpour	x	Erica Maceda		y
Municipal Members	City of Commerce City of Bell Gardens	Gina Nila	x			y
Municipal Members	City of Downey	Dan Mueller	x	Delfino Consunji		y
Municipal Members	City of Long Beach	Melissa You	x	Cecilia Salazar		y
Municipal Members	City of Lynwood	Laura Ochoa	x	Noe Martinez		y
Municipal Members	City of Paramount	Adriana Figueroa	x	Sarah Ho		y
Municipal Members	City of Signal Hill	Kelli Tunnicliff	x	Cecil Looney		y
Municipal Members	City of South Gate	Gladis Deras	x	Clint Herrera		y
Total Non-Vacant Seats		17			Yay (Y)	17
Total Voting Members Present		16			Nay (N)	0
Agency		5			Abstain (A)	0
Community Stakeholder		4			Total	17
Municipal Members		7				Approved

**Attendees**  
**Lower Los Angeles River WASC Meeting**  
**April 27, 2021**

Safe Clean Water LA	Matilda Reyes	Brittany Rivas	Mayra Cabrera
Alvin Cruz - LACFCD	James Vernon	Gladis Deras	Karen Lee
Kristen Ruffell	Jeremy Melendez	katie m	Kirk Allen
CJ Caluag - LACFCD	Nadja Swihart	Lyndsey Bloxom	Kevin Chang
Lorry Hempe	john hunter	Jon Abelson (stantec)	Oliver Galang, Craftwater DVBE
Gina Nila	Lauro Alvarado	Michelle Kim	Lynda Bybee
Stephen Scott	Brad Wardynski	I EC	Aric Torreyson
Bryce Lee	Dylan Porter	Margaret Novak	Belen Bernal
Maritsa DRA INC	Richard Watson	kelli tunnicliff	BW
Laura Ochoa	Erica Maceda	Thuan Nguyen	Nate Schreiner - Tetra Tech
Adriana Figueroa	Cecilia Salazar	Dan Mueller	kedrin Hopkins
Dan Sharp	Manny Gonez	Jason Casanova	
Marybeth Vergara	Joseph Gonzalez	Paul Glenn (GHD)	
MELISSA YOU	Jonathan Abelson (Stantec)	Joe Venzon - LA County	
Melissa Bahmanpour	Oliver Galang (Craftwater)	Sarai Jimenez (TNC)	

An aerial photograph of the Lynwood City Park area, showing a dense urban grid, a large body of water (likely a reservoir or lake), and a prominent bridge structure. The image is rotated 90 degrees clockwise.

# Lynwood City Park

Infrastructure Program

City of Lynwood

Presented by Lorry Hempe & John Hunter





# Project Overview

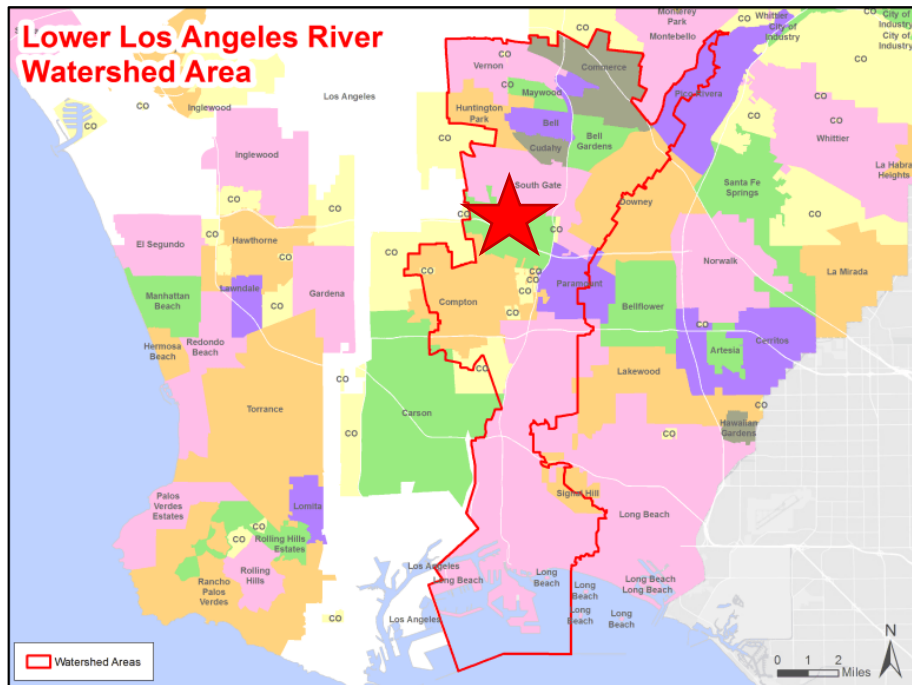
Regional stormwater capture and infiltration system that will also install a new parking lot, soccer field, and ephemeral stream

- Primary and Secondary Objectives:
  - Improve water quality within the Los Angeles River Watershed
  - Potentially increase water supply (e.g. offset irrigation needs, recharge aquifer)
  - Enhance recreational opportunities and rehabilitate park facilities
  - Implement nature-based solutions
- Project Status: Design
- Total Funding Requested: \$1,691,629

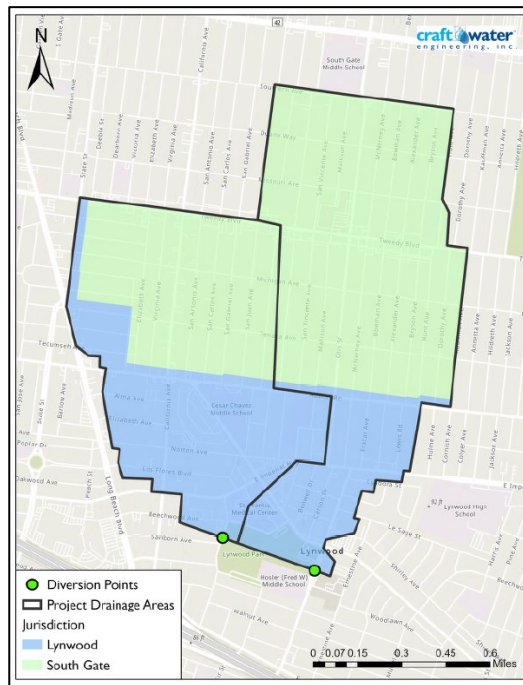




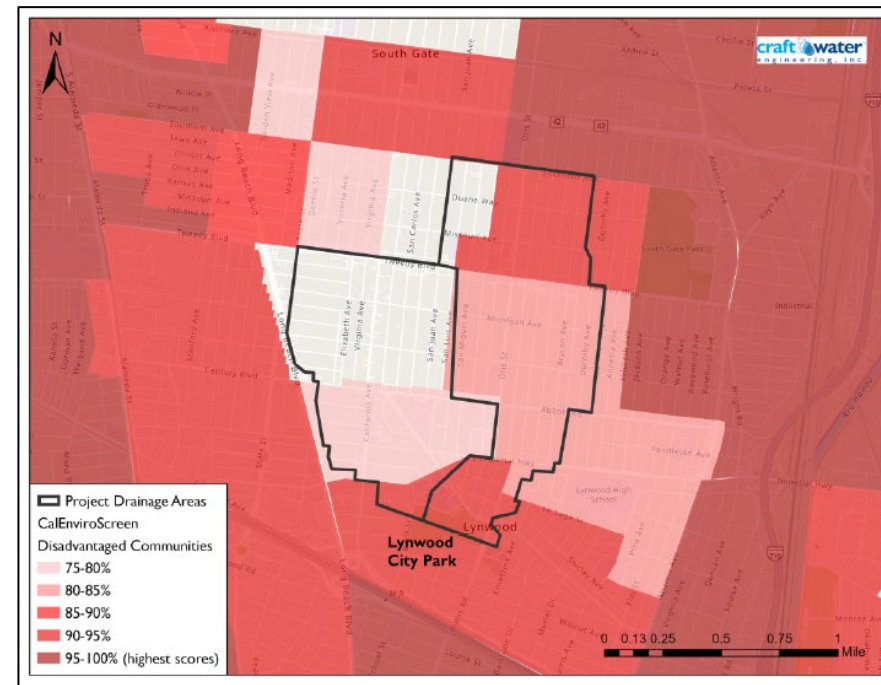
# Location



The project is located in the City of Lynwood, within the Lower Los Angeles River Watershed Area



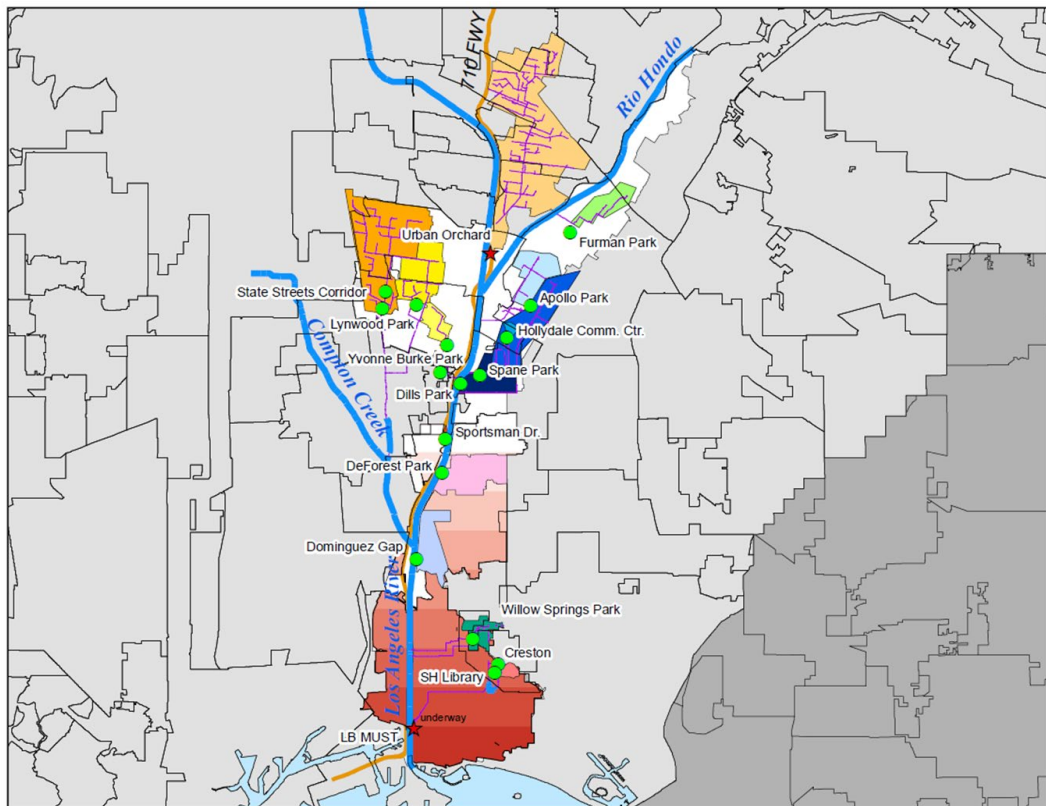
The project has a total drainage area of 955 acres, encompassing portions of Lynwood (~351 acres) and South Gate (~604 acres)



The project contains multiple DACs within its drainage area and is itself located within a DAC



# Background



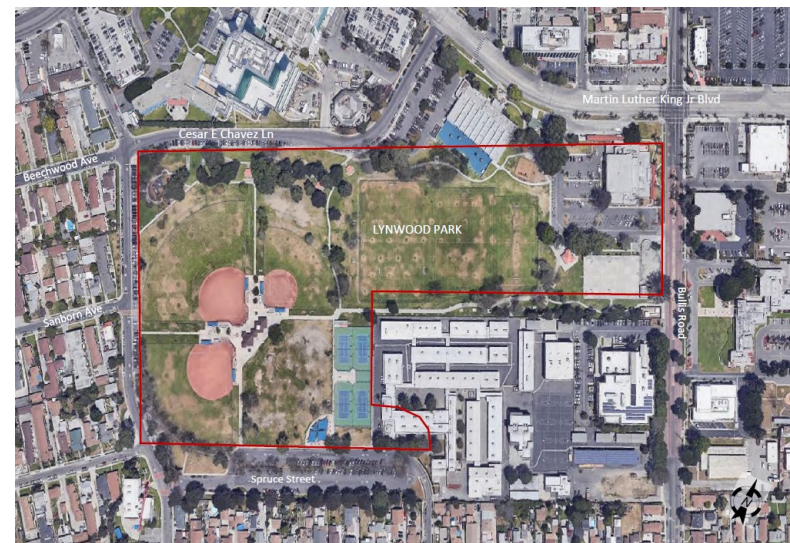
The project is part of the overall Stormwater Corridor approach being taken by the LLAR Watershed Management Group

- The site was identified in the LLAR WMP (approved in 2015) and was subsequently uploaded to the Opti database for inclusion in the GLAC IRWMP
- The LLAR Watershed Management Group funded geotechnical testing in 2016 and the development of a Feasibility Study (including 10% design plans) in the first half of 2020
- The project will therefore implement the LLAR WMP and represent progress toward compliance with the MS4 Permit and applicable TMDL milestones
- Local DACs will benefit from improved park utility and recreational facilities (e.g. soccer field with new turf grass, ephemeral stream with a bird/butterfly garden, native vegetation)
- The City has conducted preliminary community outreach and the design will comply with all LA County anti-displacement avoidance measures



# Details

- The site operates as a park with 3 baseball fields, 3 soccer fields, 2 basketball courts, outdoor fitness zone, 2 playgrounds, 5 picnic shelters, a skate park, restrooms, concession stands, 4 tennis courts, the Lynwood Community Center, and the Lynwood Natatorium and is abutted by Hosler Middle School
- Infiltration testing indicated typical rates ranging from 0.83 to 1.03 inches per hour, and borehole logs indicate conditions conducive to acceptable infiltration rates
- Preliminary hydrological analyses and a utility review have been conducted
- Stormwater capture optimization methods were used when considering project alternatives



Parking Lot: Permeable Pavement and Bioswales



Pre-Cast Subsurface Infiltration Facility



Ephemeral Stream to butterfly garden



# Cost & Schedule

Phase Costs			
Phase	Description	Cost	Completion Date
Design	Final Design (30/60/90/100)	\$ 1,300,562.00	09/2022
Design	Environmental Planning (CEQA) and Permitting	\$ 260,112.00	09/2022
Design	Public Outreach	\$ 50,000.00	09/2022
Design	Agency Project Management (Design Phase)	\$ 80,955.00	09/2022
Construction	Construction Cost	\$ 13,005,615.00	09/2024
Construction	Construction Survey	\$ 20,000.00	09/2024
Construction	Construction Administration and Design Support	\$ 1,300,562.00	09/2024
Construction	Agency Project Management (Construction Phase)	\$ 244,185.00	09/2024
Total Funding:		\$ 16,261,991.00	

Annual Cost Breakdown	
Annual Maintenance Cost:	\$ 103,000.00
Annual Operation Cost:	\$ 25,000.00
Annual Monitoring Cost:	\$ 15,000.00
Project Life Span:	50 years



# Funding Request

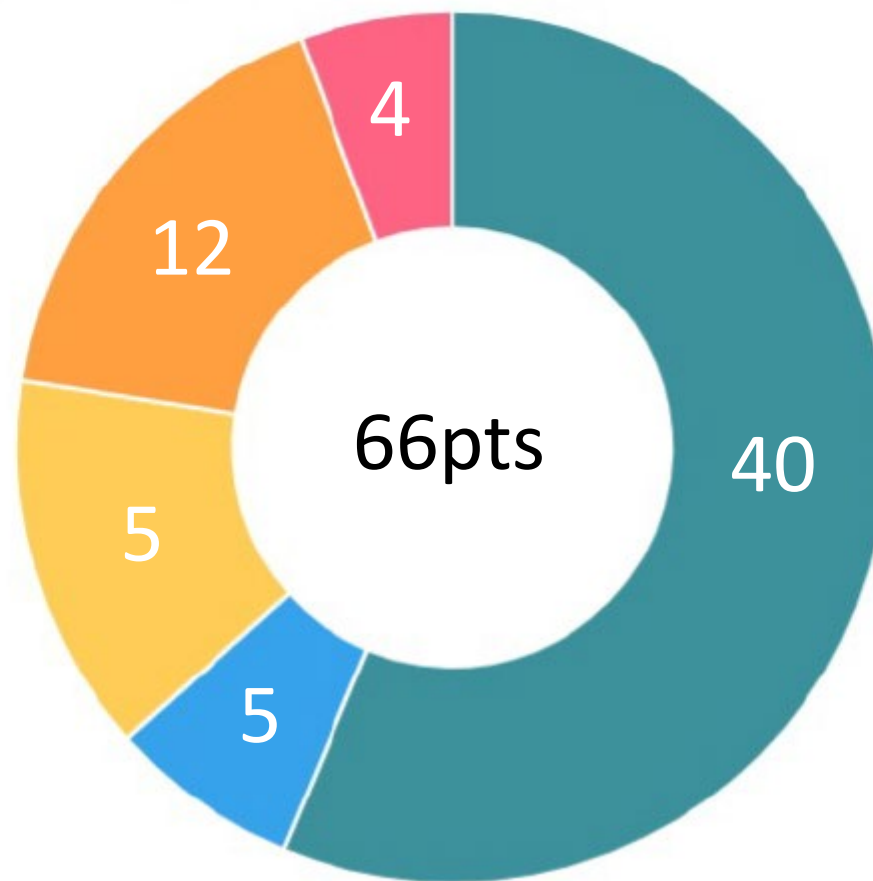
Funding Requested by Year & Phase			
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
Year 1	\$ 260,112.00	Design	Environmental Planning (CEQA) and Permitting
Year 1	\$ 1,300,562.00	Design	Professional Design Services (30/60/90/100)
Year 1	\$ 50,000.00	Design	Public Outreach Campaign
Year 1	\$ 80,955.00	Design	Agency Project Management (Design Phase)
Total Year 1	\$ 1,691,629.00		
Total Funding:	\$ 1,691,629.00		

Upon completion of final design, future SCWP funding requests will be submitted for project construction, operations and maintenance, and monitoring



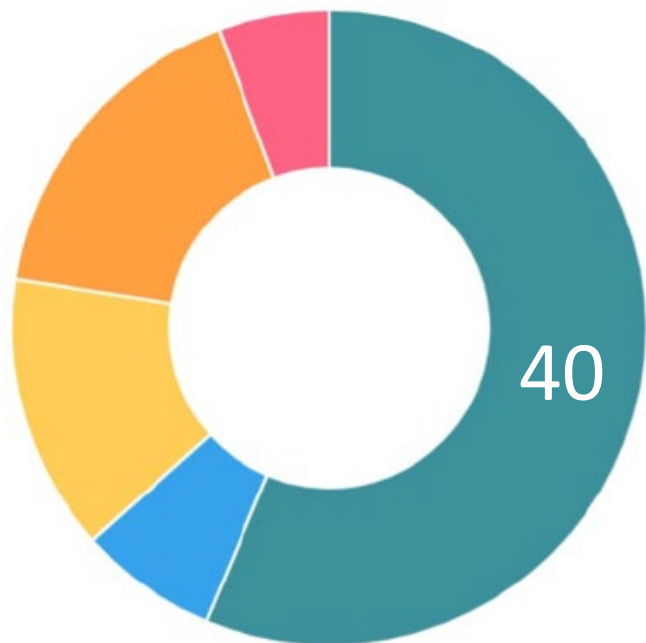
# Score (per Scoring Committee)

Water Quality Water Supply Community Investment Nature-Based Solutions Funds & Community





# Water Quality Benefits

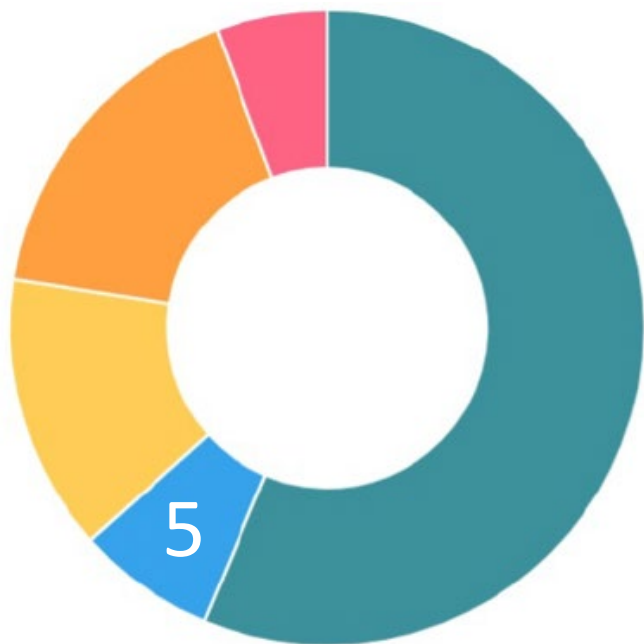


- Primary mechanisms: runoff/pollutant capture, infiltration, filtration, and release
- A 11.2 ac-ft underground storage reservoir is proposed with a storage depth of 10.0-feet, a freeboard depth of 1-foot, and a footprint of 1.12 acres
- The project proposes to include both an infiltration element and a filtration element
  - Infiltration of water into the subsurface and eventually the water table for pollutant removal
  - Supplementary pump and filter system to provide additional final pollutant removal prior to discharge back into the storm drain channel during larger events; smaller events are anticipated to infiltrate
  - Effluent flows will be used to create an ephemeral biofiltration creek with a bird and butterfly garden that can improve habitat through natural flora and fauna
- The proposed project dimensions will adequately allow capture of all dry weather flows





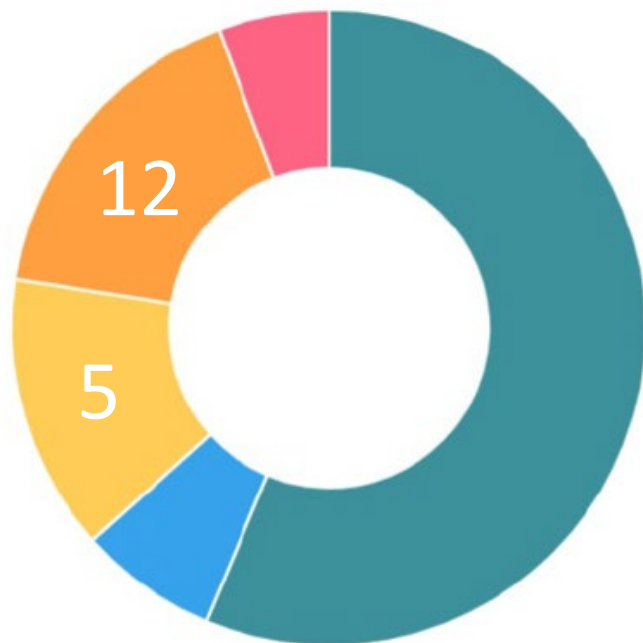
# Water Supply Benefits



- Onsite Irrigation Use
  - The project could utilize captured flows to offset onsite irrigation needs
  - Dry weather flows require additional studies during design development
- Water Recycling
  - There are sanitary sewer lines in the vicinity of the project, but further capacity study would be required to determine if discharges to these would be feasible
- Aquifer Recharge
  - The project is connected to a managed water supply aquifer (Central Basin of the Coastal Plain, Los Angeles aquifer)
  - Infiltration rates are modest and will augment groundwater supply by approximately 19 acre-feet on an average annual basis
  - Confirmation that the Central Basin Municipal Water District concurs with this added benefit is still needed



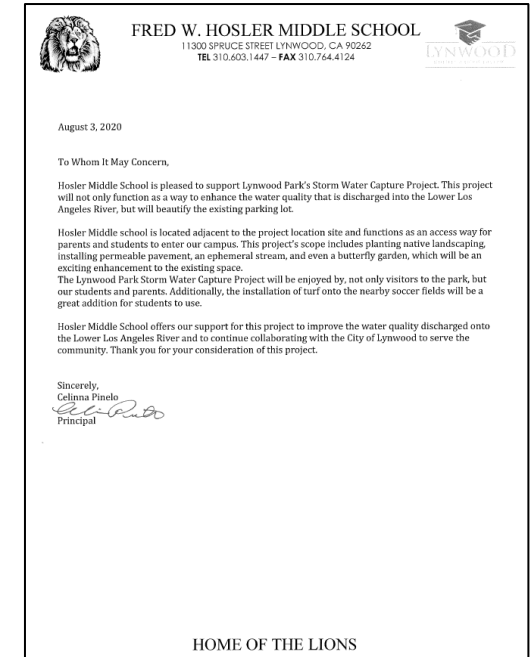
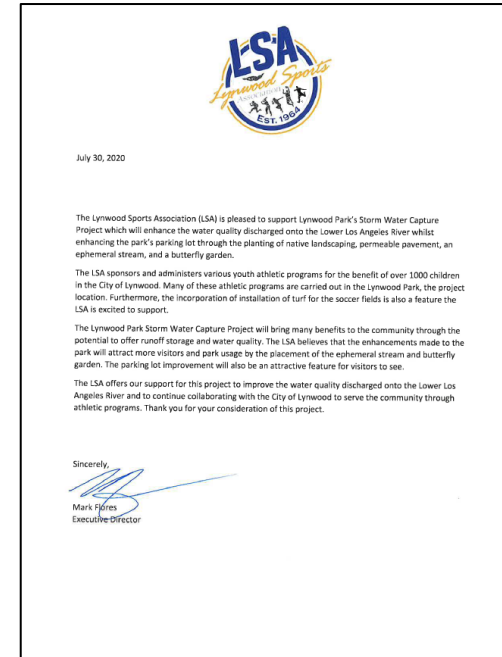
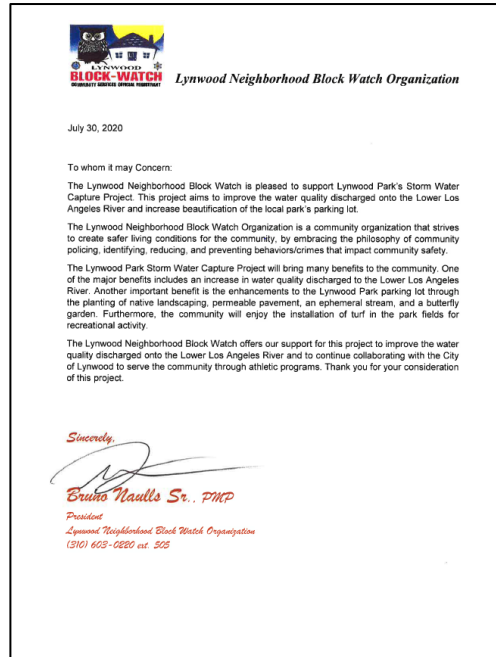
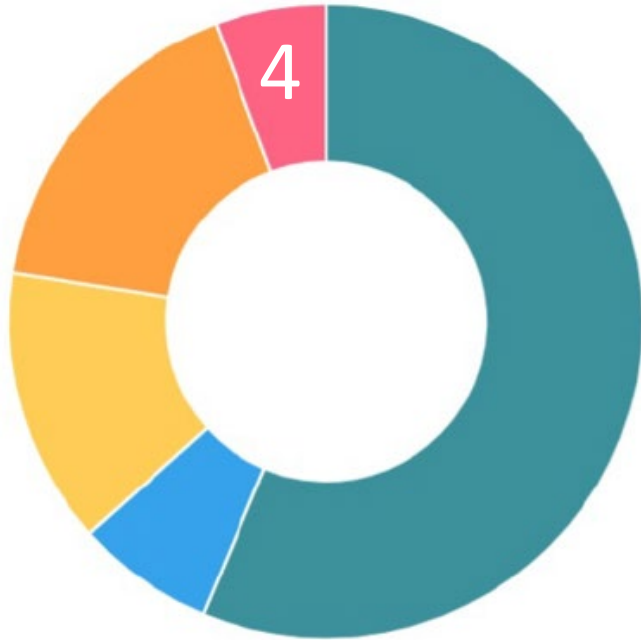
# Community Investment Benefits & Nature-Based Solutions



- Flood Management:
  - The project takes diverted stormwater from two storm drains, reducing potential stress on the local storm drain system
- Enhanced Park Space and Recreational Opportunities:
  - Removal and replacement of the park surface (including the soccer field and the parking lot)
  - Installation of a new ephemeral stream
- Reduced Heat Island Effect:
  - Landscape plans post construction include additional native trees, shrubs, and grasses
  - The ephemeral bioretention stream and associated bird and butterfly garden will increase the on-site native vegetation that will provide additional shade and cooling effects



# Leveraging Funds & Community Support



- The LLAR Watershed Management Group provided funding for the Feasibility Study (including 10% design plans) and the preliminary geotechnical testing for the project
- The City will utilize its municipal allocation of the Safe Clean Water Program to provide its cost share of the design costs for the project and will continue to pursue additional funding sources to support construction costs
- The project has received letters of support from the Lynwood Neighborhood Block Watch Organization, Lynwood Sports Association (LSA), and Fred W. Hosler Middle School



**Questions?**



# Spane Park

Infrastructure Program

City of Paramount

Presented by Adriana Figueroa & John Hunter



# Project Overview

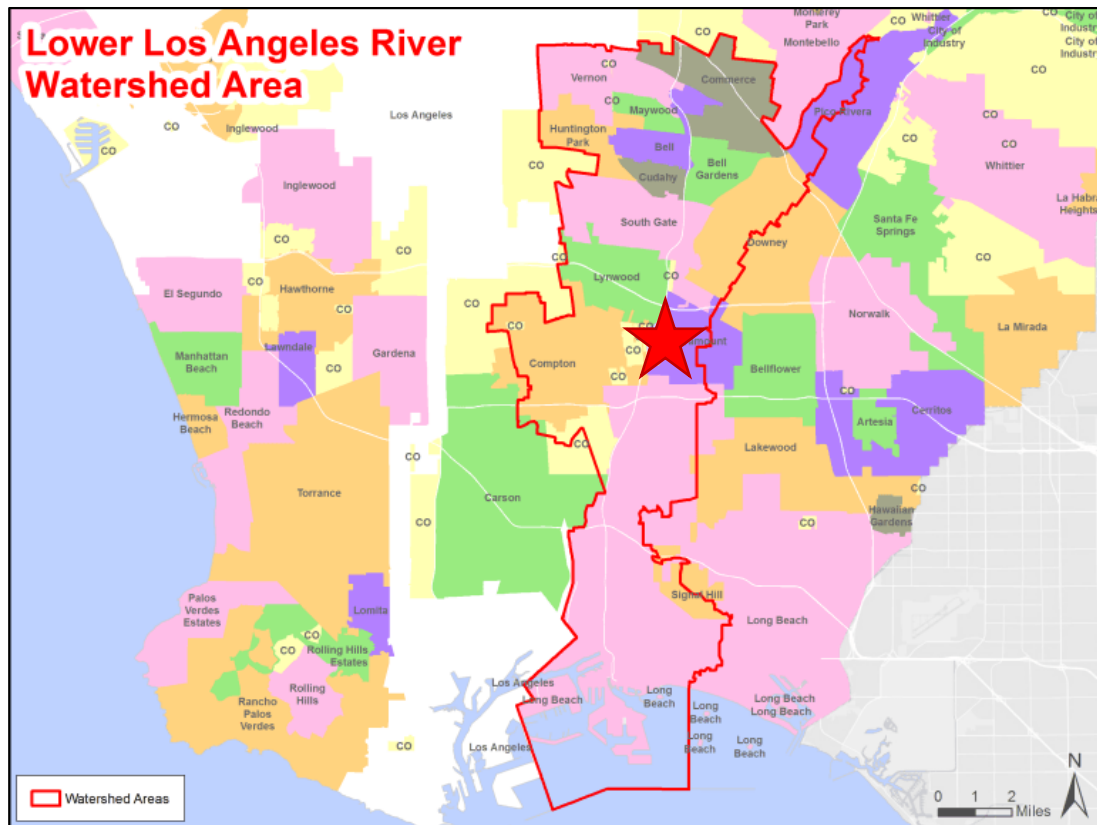
Regional stormwater capture and infiltration facility located at Spane Park beneath the open space of the existing park surface

- Primary and Secondary Objectives:
  - Improve water quality within the Los Angeles River Watershed
  - Offset potable water demand at the park and remove the existing maintenance-demanding man-made pond
  - Restore/rehabilitate park facilities and install a dedicated soccer field in the City
  - Construct a native California landscaping area with ephemeral stream
  - Benefit disadvantaged communities (both within the City and downstream)
- Project Status: Design
- Funding Requested: \$891,984

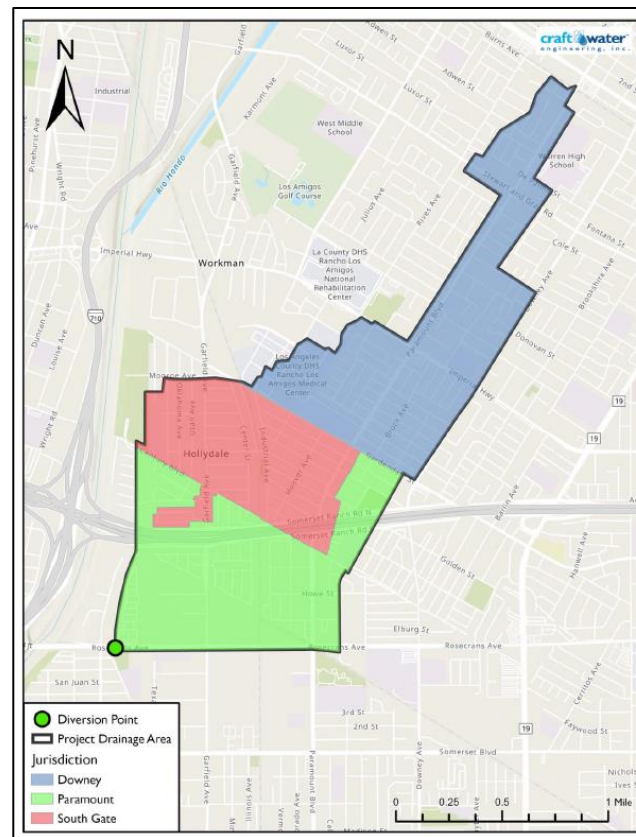




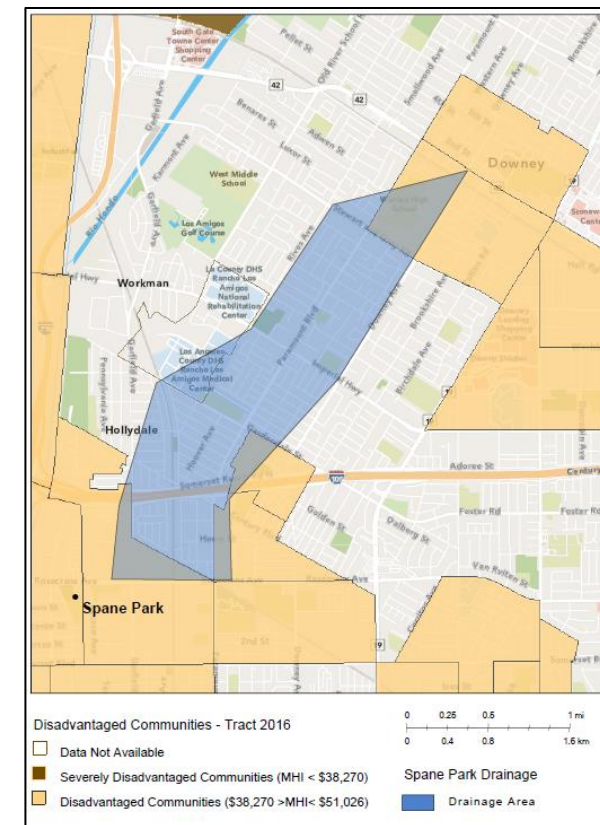
# Location



The project is located in the City of Paramount, within the Lower Los Angeles River Watershed Area



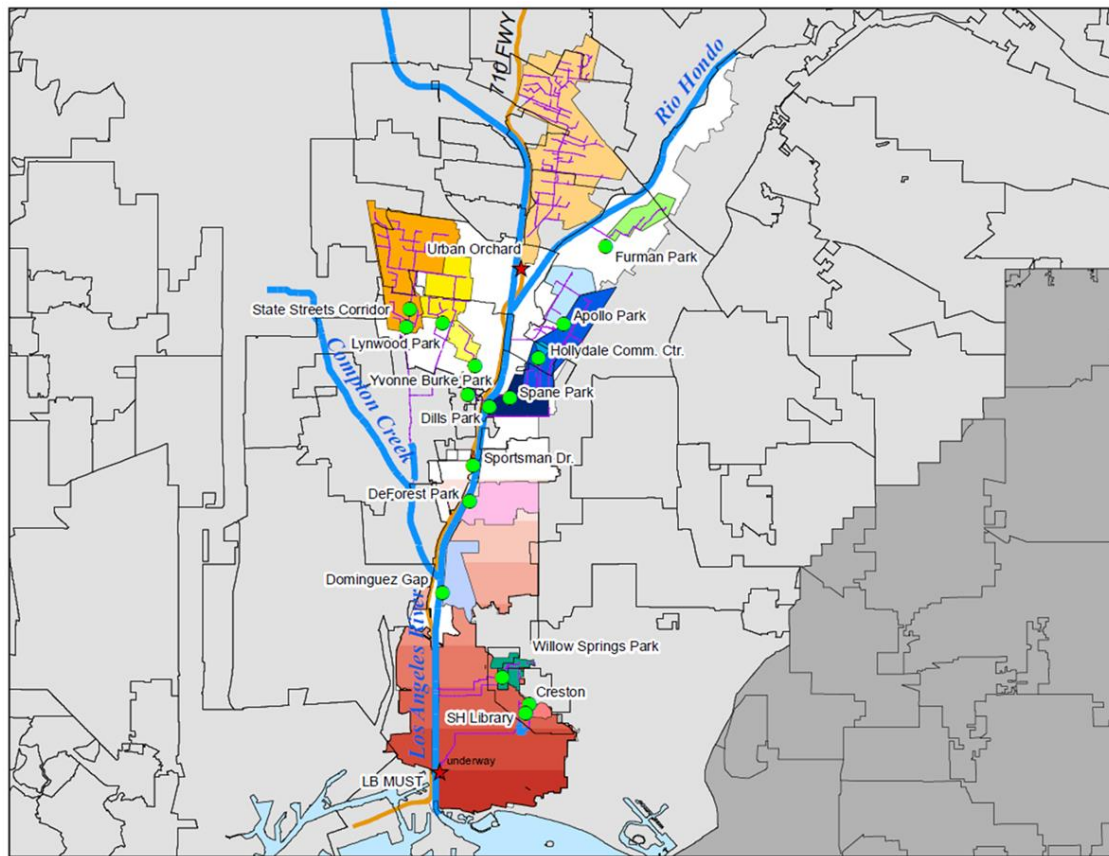
The project has a drainage area of 1,338 acres (483 in Paramount, 528 in Downey, and 327 in South Gate)



The project is located within a DAC; downstream DACs will benefit from improved water quality



# Background



The project is part of the overall Stormwater Corridor approach being taken by the LLAR Watershed Management Group

- The site was identified in the LLAR WMP (approved in 2015) and was uploaded to the Opti database for inclusion in the GLAC IRWMP
- The LLAR Watershed Management Group funded percolation testing in 2018 and the development of a Feasibility Study (including 10% design plans) in 2019
- The project will therefore implement the LLAR WMP and represent progress toward compliance with the MS4 Permit and applicable TMDL milestones
- The City has imminent plans to rehabilitate park facilities and install the first public use soccer field in the City; the proposed project will take this opportunity to install a regional stormwater capture and filtration facility
- **If the project is not funded, this opportunity window will close**





# Details

- Per the preliminary concept plan, the scope of the project will include:
  - Diversion and pre-treatment system
  - Underground storage reservoir (3.5 acre-feet)
  - Infiltration and filtration elements
  - Nature-based solutions (e.g. bioswale, ephemeral stream, LID BMPs in parking lots)
  - Surface improvements including a new soccer field, picnic shelter, and vegetation
- Preliminary hydrological analyses and a utility review have been conducted
- Stormwater capture optimization methods were used when considering project alternatives





# Cost & Schedule

Phase Costs			
Phase	Description	Cost	Completion Date
Design	Pre-Design, Design, and Construction Support	\$ 641,857.00	06/2022
Design	Public and Community Outreach	\$ 100,000.00	06/2022
Design	Environmental Planning and Permitting	\$ 128,371.00	06/2022
Design	Agency Project Management	\$ 21,755.00	06/2022
Construction	Construction Surveying	\$ 20,000.00	08/2025
Construction	Construction Administration	\$ 641,857.00	09/2026
Construction	Construction Costs	\$ 6,418,574.00	09/2026
Construction	Agency Project Management	\$ 160,464.00	09/2026
Total Funding:		\$ 8,132,878.00	

Annual Cost Breakdown	
Annual Maintenance Cost:	\$ 43,000.00
Annual Operation Cost:	\$ 3,600.00
Annual Monitoring Cost:	\$ 15,000.00
Project Life Span:	50 years



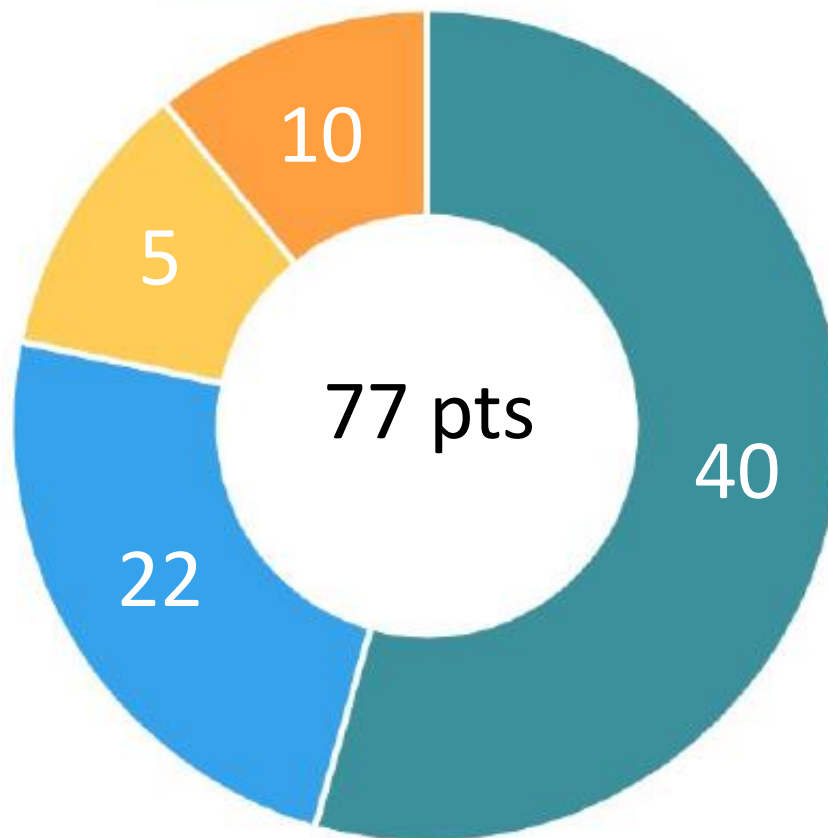
# Funding Request

Funding Requested by Year & Phase			
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
Year 1	\$ 891,984.00	Design	Pre-Design, Design, and Construction Support; Public and Community Outreach; Environmental Planning and Permitting; Agency Project Management
Total Year 1	\$ 891,984.00		
Total Funding:	\$ 891,984.00		

Upon completion of final design, future SCWP funding requests will be submitted for project construction, operations and maintenance, and monitoring

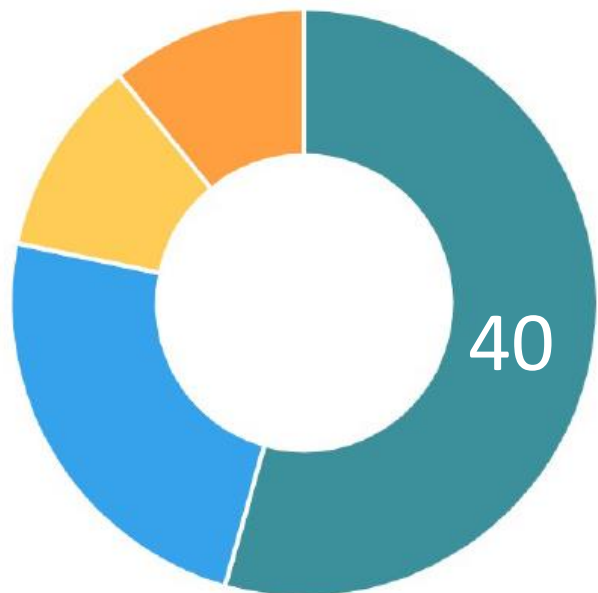


# Score (per Scoring Committee)





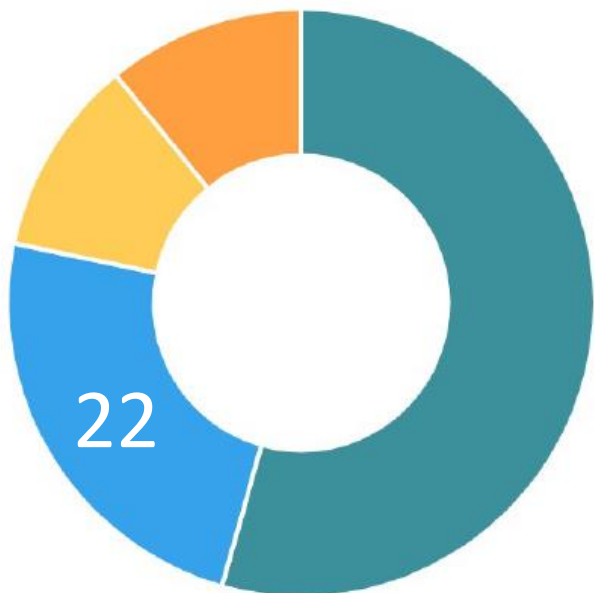
# Water Quality Benefits



- The project:
  - Is located within the Los Angeles River Reach 2 Subwatershed
  - Will achieve its water quality objectives through runoff/pollutant capture, infiltration, filtration, use, and release
  - Will address zinc and bacteria (the primary and secondary limiting pollutants identified in the LLAR WMP, respectively) in addition to other pollutants
  - Has a drainage area of 1,338 acres (including portions of the Cities of Paramount, Downey, and South Gate)
- The pump and filter system will provide final pollutant removal prior to discharge back into the storm drain channel during larger events while smaller events are anticipated to infiltrate
- The proposed storage reservoir has a capacity of 3.5 acre-feet
- Low impact development (LID) BMPs such as permeable pavements and bioretention areas within the parking lots and pathways will treat the local runoff



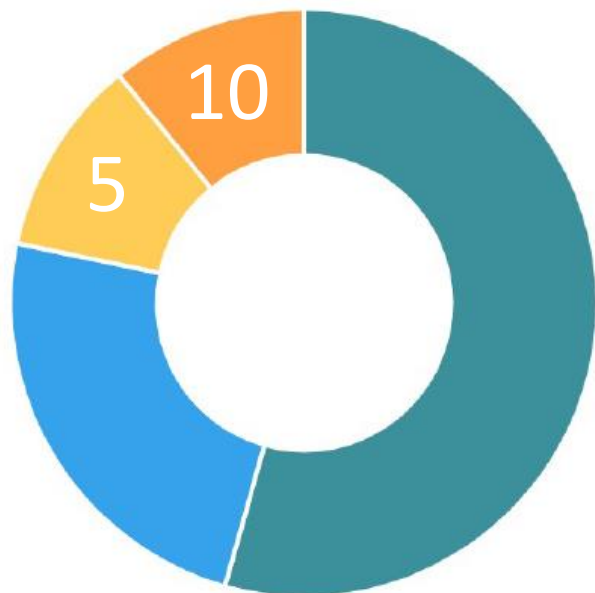
# Water Supply Benefits



- The project has potential to provide multiple benefits at the nexus of water supply and stormwater, including:
  - Water Recycling: discharge to nearby sanitary sewer lines will be explored during the design process
  - Aquifer Recharge: the project is connected to a managed water supply aquifer (Central Basin of the Coastal Plain, Los Angeles Aquifer); infiltration rates are high and will augment groundwater supply by approximately 28 acre-feet on an average annual basis
- The Water Replenishment District has expressed general support of “regional projects that infiltrate pre-treated captured runoff and provide a benefit to the overall health of the watershed”



# Community Investment Benefits & Nature-Based Solutions



- Flood Management:
  - The project's detention capabilities can contribute toward enhanced flood retention capabilities of the whole storm drain system
- Enhanced Park Space and Recreational Opportunities:
  - The project will replace the park space (including creation of a new soccer field surface)
  - The project will install a new ephemeral stream along the edges of the field that is supplied by the captured stormwater
  - The project is immediately adjacent to Los Cerritos Elementary School, and students may utilize the revitalized park for recreation and educational opportunities
- Reduced Heat Island Effect: landscape plans post construction include additional native trees, shrubs, and grasses to be installed
- Additional Nature-Based Solutions: permeable pavements or equivalent low impact development (LID) components will be installed in the parking lot



# Leveraging Funds & Community Support

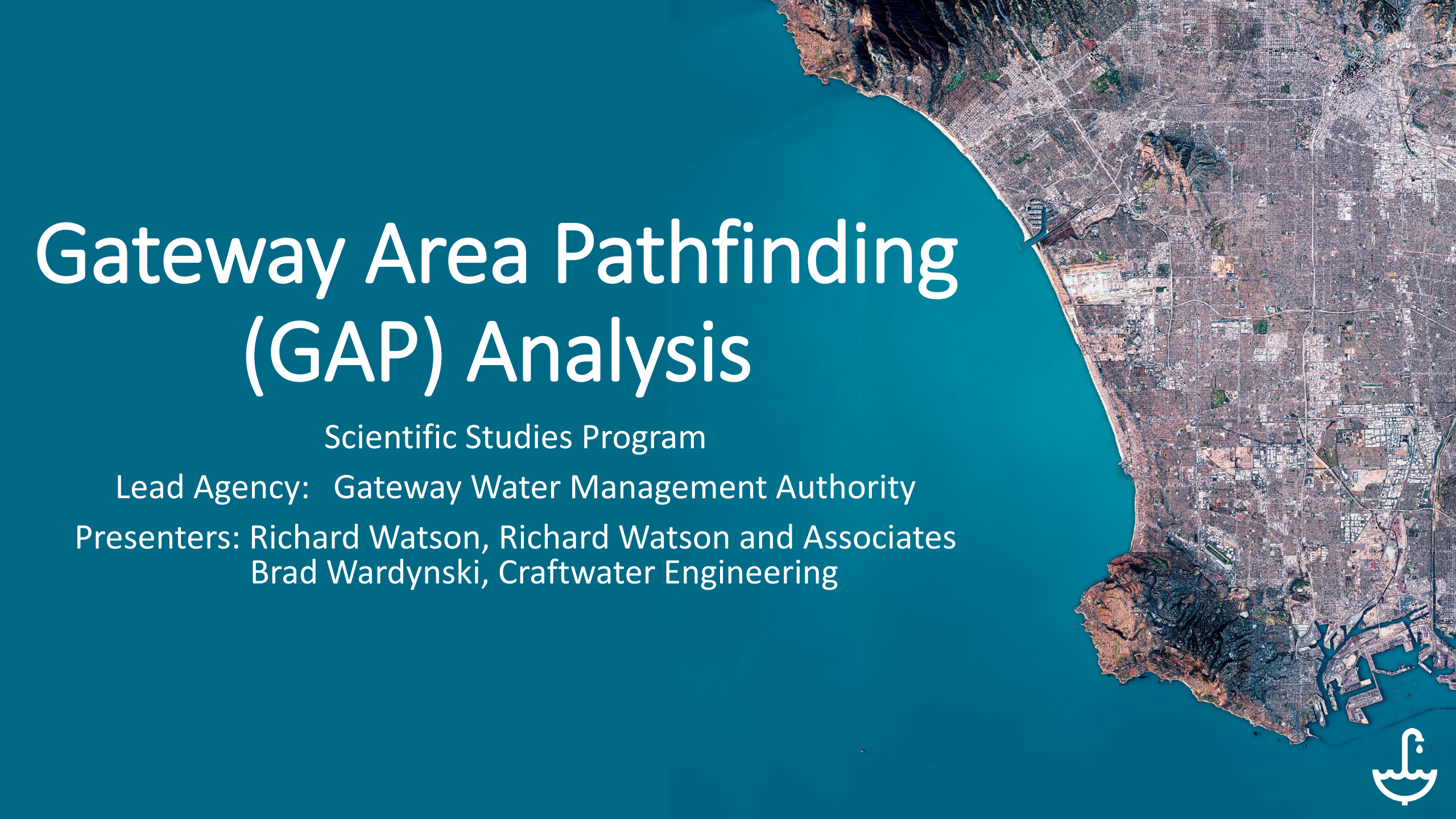


- The LLAR Watershed Management Group provided funding for the Feasibility Study (including 10% design plans) and the preliminary geotechnical testing for the project
- The City will utilize its municipal allocation of the Safe Clean Water Program to provide its cost share of the design costs for the project
- The City will continue to pursue additional funding sources to support the construction costs of the project
- The funding request includes \$100,000 for public outreach efforts, which will include community development meetings and informational signage





# Questions?



# Gateway Area Pathfinding (GAP) Analysis

Scientific Studies Program

Lead Agency: Gateway Water Management Authority

Presenters: Richard Watson, Richard Watson and Associates  
Brad Wardynski, Craftwater Engineering



# Study Overview

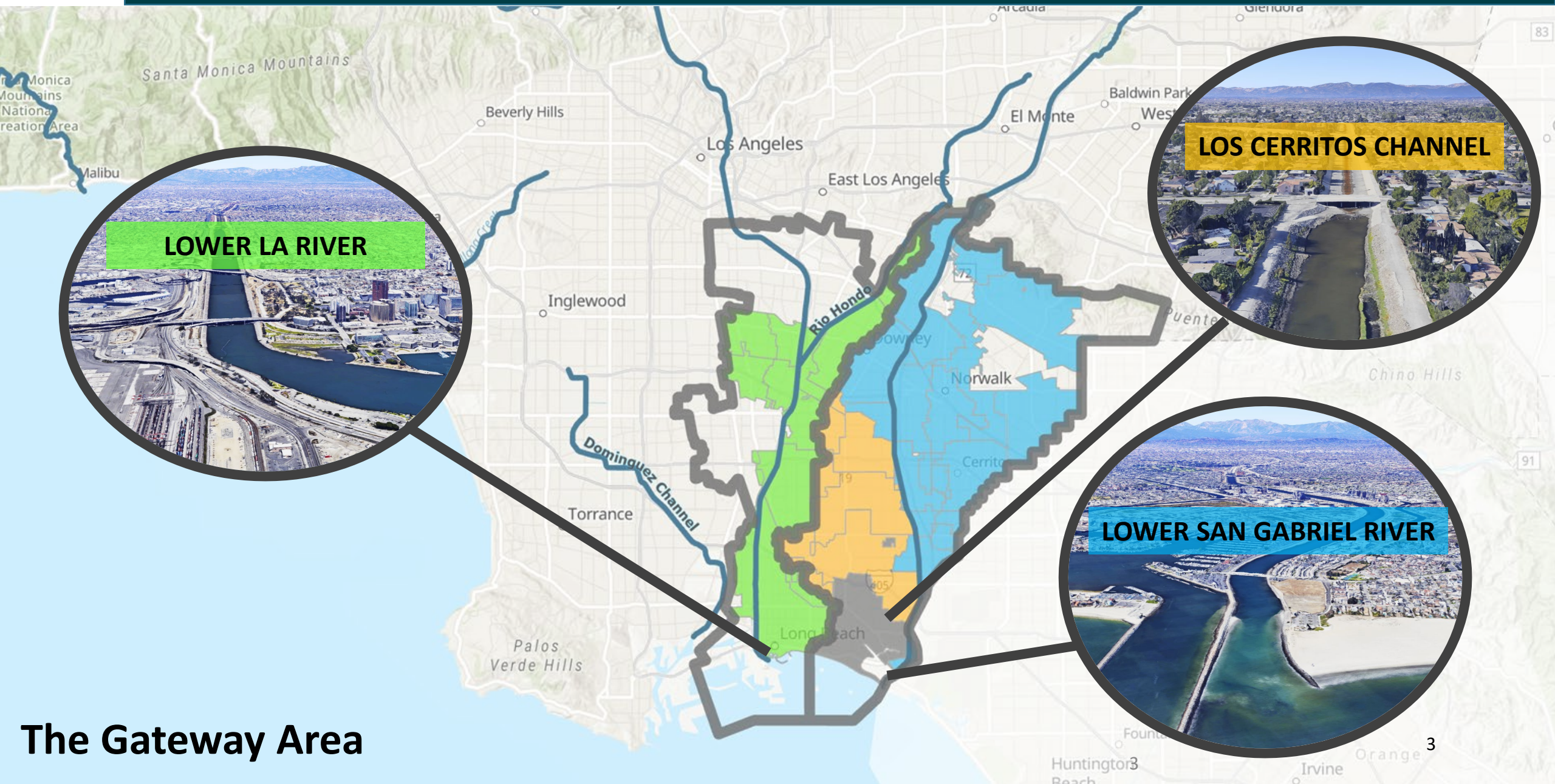
**Initiates a locally driven, scientific approach to find and analyze new projects in a watershed context and plot a project-by-project pathway to safe, clean water**

Nexus: This study will support the Gateway Groups and other stakeholders in the LLAR and LSGR Watershed Areas by enhancing watershed plans with new, implementation-oriented project recommendations for water quality improvement, water supply augmentation, and community investments





# Study Location



The Gateway Area



## • Problem Statement

- Groups have made excellent progress implementing Watershed Management Programs (WMPs)
- Now they need more project-by-project details (what to build, where, and in what order)
- As more projects go into the ground, need to understand how overall *system* works together
  - e.g., What if a project is proposed upstream from another? How does that impact performance and SCWP benefits?
- Need to leverage watershed science to better align WMPs and SCWP goals

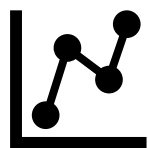


# Study Details

- **Objectives, Outcomes, & Methodology**



**Identify** new, high-impact, multi-benefit projects



**Explore** how projects interact as a system at the watershed scale



**Articulate** project-specific roadmap to stormwater quality compliance



**Translate** findings into Stormwater Investment Plan recommendations



# Study Details

## • Regional Examples and Collaboration

### RIO HONDO/SAN GABRIEL RIVER REVISED WMP

1<sup>st</sup>

watershed plan to articulate a project-by-project pathway to clean water

- Focused approach improved compliance certainty and stretched stormwater investments
- Upstream from LSGR and LLAR groups

### UPPER LA RIVER PRESIP STUDY

73%

potential boost in efficiency, freeing up funding for other watershed and community investments

- Recently funded and initiated
- Closely coordinating with study leads
- Upstream from LLAR group

### BUILDING CONSENSUS FOR BALANCED WATERSHED PROJECTS

\$350k

matching funds to analyze cost-effective pathways to achieve multiple SCW goals

- Explores how to balance compliance, nature-based solutions, and community investments
- Closely coordinating with study leads
- Proposed in LLAR and LSGR



# Cost & Schedule

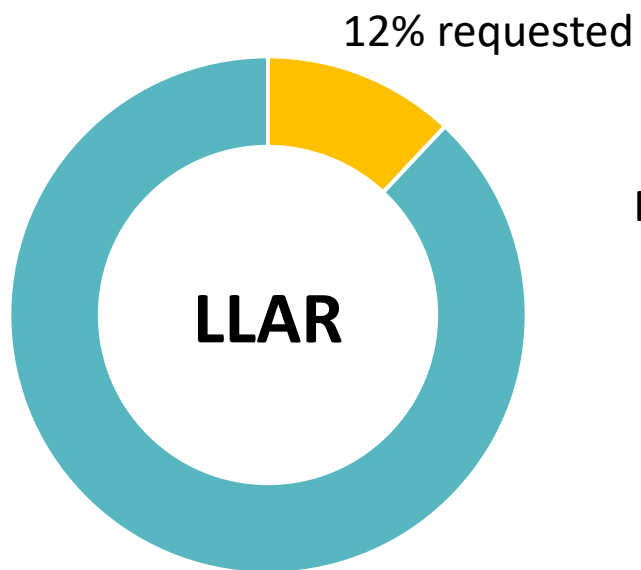
Phase	Description	Cost	Completion Date
1	<b>Identify and Reconcile Watershed-Wide Opportunities</b>	\$63k	Funding Transfer + 6 months (February 2022)
2	<b>Model Watershed-Scale Project Interactions and SCWP Scoring</b>	\$49k	Funding Transfer + 8 months (May 2022)
3	<b>Cross-Reference Projects with Recipes for Compliance and Plot Initial Path to Clean Water</b>	\$24k	Funding Transfer + 10 months (July 2022)
4	<b>Stormwater Investment Plan Recommendations</b>	\$14k	Funding Transfer + 12 months (September 2022)
<b>TOTAL</b>		<b>\$150k</b>	



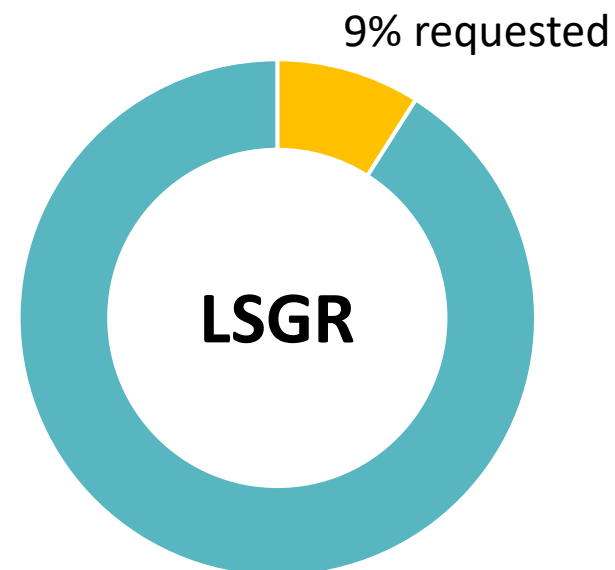


# Funding Request

WASC	Year 1	Year 2	Year 3	Year 4	Year 4
LLAR	\$75k	<i>Although future phases are expected, the study applicants are not asking the WASC to earmark additional funds at this time</i>			
LSGR	\$75k				
<b>TOTAL</b>	<b>\$150k</b>				



**Requested Funding  
Compared to  
Available Annual  
Scientific Study  
Funding (5% of  
Regional Program)**





# Summary of Benefits

The GAP Analysis will bolster certainty that SCWP investments (i.e., taxpayer dollars) will yield defensible, meaningful, measurable, and achievable improvements to the **environment**, and subsequently, to **local communities and local water supply**.



**Questions?**

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# Overview of Pathogen Reduction Study

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

Project Lead: Gateway Water Management Authority

Presentation to the Lower Los Angeles River WASC

27 April 2021

# Summary of Study

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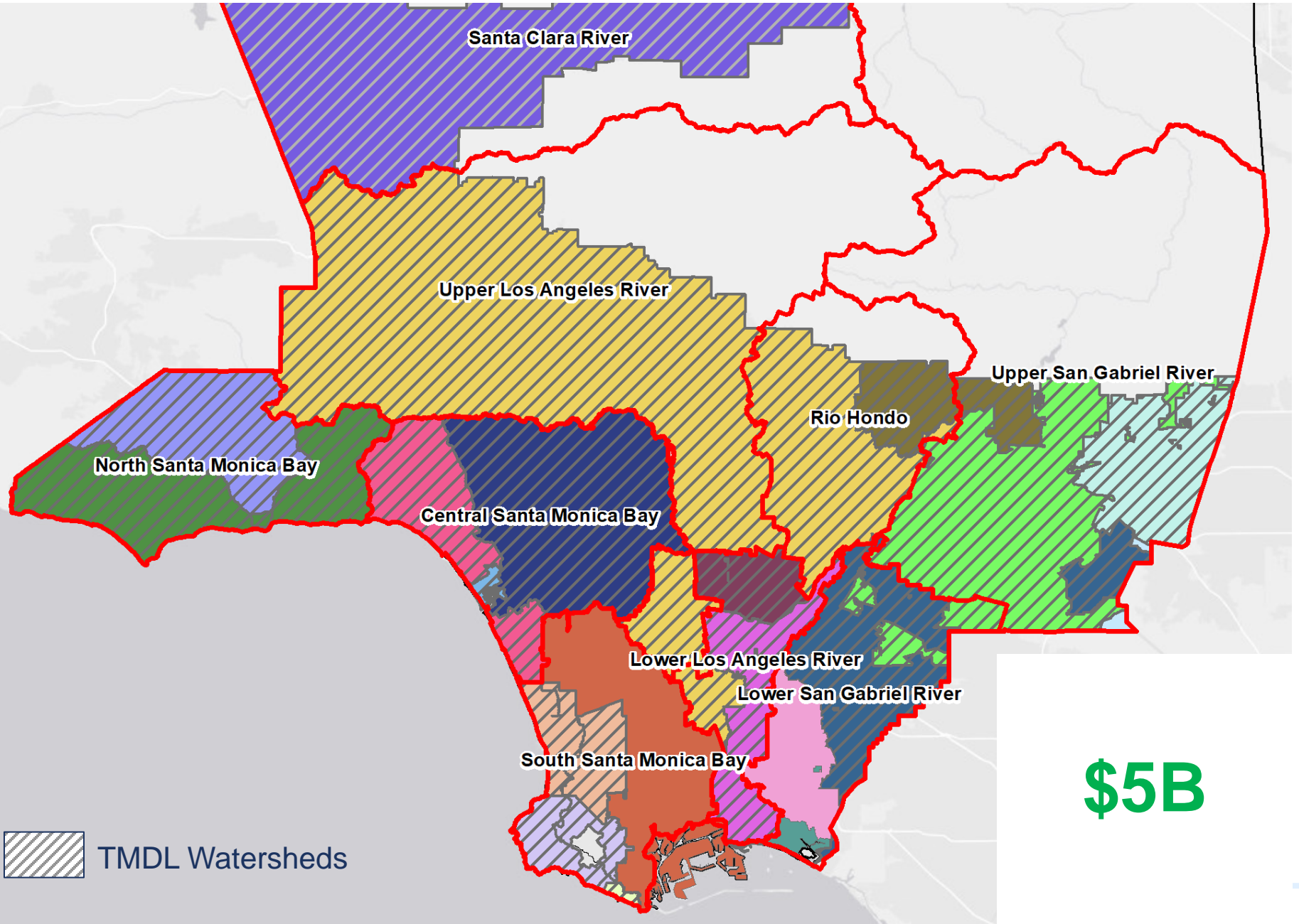
- This Study aims to use the latest available science to measure water-borne pathogens across watersheds. It will help identify key sources of human health risk, and develop cost-effective protective strategies
- USEPA and academia agree not all sources of bacteria are equally risky, but we do not have 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

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- 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



# Scientific Study Details

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## *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)

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## *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)

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## *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)

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- *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

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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
<b>TOTAL</b>		<b>\$8,486,308</b>	

# 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
<b>TOTAL</b>	<b>\$360,668</b>	<b>\$2,630,755</b>	<b>\$2,545,893</b>	<b>\$2,524,677</b>	<b>\$424,315</b>

# Summary of Benefits

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- 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

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