

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



Meeting Minutes:

Monday, February 24, 2020

3:00pm – 5:00pm

Los Angeles County Public Works, Headquarters – Conference Room B
900 S. Fremont Ave., Alhambra, CA 91803

Attendees:

Committee Members Present:

Paul Lui (LA Dept. of Water and Power)

Javier Solis* (LA Recreation & Parks)

Alfredo Magallanes (Los Angeles – Sanitation)

Delon Kwan (LA Dept. of Water and Power)

David Nahai (Lewis Brisbois Bisgaard & Smith)

Veronica Padilla-Campos (Pacoima Beautiful)

John Luker (Santa Susana Mountain Park
Association)

Yazdan Emrani (Glendale)

Teresa Villegas* (Los Angeles)

Patrick DeChellis (La Canada Flintridge)

Miguel Luna (Urban Semilla DakeLuna
Consultants)

TJ Moon* (Los Angeles County Public Works)

Gary Hildebrand (Los Angeles County Flood
Control District)

Ernesto Pantoja (Laborers Local 300)

Ackley Padilla (Los Angeles)

Kris Markarian (Pasadena)

Committee Members Not Present:

Jeff Camp (Los Angeles)

*Committee Member Alternate

See attached sign-in sheet for full list of attendees

1. Welcome and Introductions

Mr. Gary Hildebrand, Los Angeles County Flood Control District member, called the meeting to order. The chair and vice-chair were not available

All committee members made self-introductions and quorum was established.

2. Approval of Meeting Minutes from February 10, 2020

The District provided a copy of the meeting minutes from the previous meeting. Mr. Nahai asked the committee members for comments or revisions. Mr. Yazdan Emrani asked for a revision to be made in agenda item No. 5 (Ex Parte Communications) to make it clear that he was relaying a message from the Director of Public Works of the City of South Pasadena. Mr. Pat DeChellis made a motion to approve the meeting minutes from February 10, 2020 with the revision. Mr. Yazdan Emrani seconded the motion. **The Committee voted to approve the meeting minutes from February 10, 2020 (unanimous).**

3. Committee Member and District Updates

a) Scoring Committee Update

Mr. CJ Caluag said that the Scoring Committee met on February 18, 2020 and that all projects have been scored. A total of three projects from the Rio Hondo, Lower San Gabriel River, and

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



Central Santa Monica Bay Watersheds did not pass the threshold score and were notified by District staff.

Mr. Caluag also announced that the General Income-Based Tax Reduction guidelines and application were adopted in early February and the application is available on the SCW Program website. He navigated to the webpage to show the Committee and the public.

4. Public Comment Period

No public comments.

5. Discussion Items

a) Ex Parte Communications

Mr. Alfredo Magallanes shared that he has knowledge on two presentations from the City of Los Angeles, Echo Park Lake Rehabilitation and Coordinated Safe Clean Watershed Plans. He also shared that the City of Alhambra's Green Street Demonstration Project on Main Street was discussed at a City of Los Angeles working group meeting as a potential partnership opportunity. Mr. Delon Kwan disclosed that he was involved in the preparation of the City of Los Angeles projects presented today and that he has the same disclosure as Mr. Magallanes regarding the City of Alhambra's project.

Mr. Paul Liu shared that he was involved in the review for the three Los Angeles Department of Water and Power Projects, Fernangeles, Strathern and Valley Village Park Stormwater Capture Projects.

Mr. Javier Solis shared that he was also involved in the review for the three Los Angeles Department of Water and Power Projects, Fernangeles, Strathern and Valley Village Park Stormwater Capture Projects, in addition to the City of Los Angeles' Echo Park Lake Rehabilitation.

Mr. Miguel Luna shared that he sits on the Citizens Oversight Advisory Committee for Prop O and they are involved with the City of Los Angeles' Echo Park Lake Rehabilitation.

Ms. Teresa Villegas shared that she was briefed on the City of Los Angeles' Echo Park Lake Rehabilitation and the three LADWP projects.

b) Presentations:

i) Scientific Studies Program (SS)

(1) **Coordinated Safe Clean Watershed Plans**

Presentation by Dr. Shahram Kharaghani (City of Los Angeles, Bureau of Sanitation) and Dustin Bambic (Paradigm Environmental). The Plan will use scientific methods and modeling in conjunction with the most recent watershed monitoring data to provide/develop information for management actions to achieve current and future TMDL water quality milestones.

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



Mr. Luna asked what would happen if to this study if it was not funded. Mr. Dustin Bambic said they would revert back to the regular E/WMP and IRWMP process, which by nature, are not as open and do not have as much funding.

Ms. Villegas asked how would this impact any disadvantaged communities. Mr. Bambic said that the study covers all the entire region including disadvantaged communities. The study would emphasize these areas since they are emphasized in the funding.

Mr. TJ Moon noted that the ULAR WASC had a similar project identification scientific study presentation, the preSIP. Mr. TJ Moon ask how would this study work with the preSIP. Mr. Bambic said that the scope is quite flexible what can be accomplished under preSIP can be done with this study. The City of Los Angeles has discussions bringing the same consultants for the preSIP to stay consistent for the region.

Mr. Ackley Padilla asked how this relates to the Regional Bacteria Scientific Study to Support Protection of Human Health. Mr. Bambic said that this would be an additional effort from the Regional Scientific Study project applicant and, in some ways, this study would seek to leverage similar outcomes to address bacteria. For these purposes, it would remain as two different applications. Mr. Padilla also asked how does this involve MS4 compliance. This strategy would be to vocalize, visualize and analyze all MS4 requirements and establish how the money with these projects will comply with MS4 requirements.

Mr. Gary Hildebrand asked if all the cities are supportive of this study. Mr. Bambic said it is tough to ask all cities in the three watershed areas, but there are a lot of cities are looking towards working together to being in MS4 compliance. Mr. Hildebrand asked if this has been discussed in the E/WMP or other watershed management plan meetings. Mr. Bambic said yes and we just had a recently presented at a watershed management plan meeting. Mr. Hildebrand asked how much additional information will come out of the study. Mr. Bambic said E/WMP is already five years old. To give a scale, ULAR has eight really defined projects. Since then there has been better high resolution data and County has created a new model. The expectation is that there will be a lot of new projects and the scope talks about at least a few new projects for each city.

ii) Technical Resources Program (TRP)

(1) Green Street Demonstration Project on Main Street

Presentation by David Dolphin (City of Alhambra). The proposed green street project is located on the median along Main Street between Fremont Avenue and Hampden Terrace. The identified median will capture and treat stormwater from the roadway and surrounding neighborhood. The project will improve water quality, increase water supply, provide green space for residents and revitalize the business community in the area. Additionally, the project will increase public awareness of stormwater impacts and promote acceptance of green infrastructure.

The Committee had no questions.

iii) Infrastructure Program (IP)

(1) Echo Park Lake Rehabilitation

Presentation by Gordan Haines (City of Los Angeles, Bureau of Sanitation). The proposed funding request will provide operation and maintenance funds for the recently restored Echo Park Lake. Echo Park Lake was restored to include constructed wetlands, trash

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



exclusion devices, and other nature-based solutions to meet in-lake TMDLs but as well those of the adjoining drainage watershed. Echo Park Lake is an urban lake just northwest of the Civic Center providing multi-benefits to all visitors.

Mr. Pat DeChellis asked who maintains Echo Park Lake? Mr. Gordan Haines said mainly the City of Los Angeles Sanitation. Mr. DeChellis asked why would the Committee approve to fund this project's operation and maintenance if it is already funded? Mr. Haines said the current funding is not sufficient for the needs. It covers the basics to keep the project alive. Although, more funds are needed for community and water quality benefits.

Mr. DeChellis asked what the \$400,000 is? Mr. Haines said that is the annual SCW funding request, and City of Los Angeles is currently spending \$500,000 for O&M.

Mr. Hildebrand asked if they are seeking municipal funds. Mr. Haines said he is unable to answer because he was not involved in the decisions on this topic. Dr. Shahram Kharaghani said that they have not completed the process of receiving municipal funding.

Ms. Veronica Padilla-Campos asked if there are any programs at the park for the community. Mr. Haines said there are programs in certain areas of the park. Dr. Kharaghani said that elementary to college students get educational tours and exercises at the park. Ms. Padilla-Campos asked if any funds go to people experiencing homelessness. Mr. Haines said no. Ms. Padilla-Campos suggested that geofencing technology could be used to limit the electronic scooters to certain areas around the park to avoid the disposal into the lake.

Mr. John Luker asked if there are concession stands at the park and asked what extent that the City of Los Angeles has with those business and if there is a way to leverage funding through that for operation and maintenance. Mr. Haines they are restricted by their contract to perform maintenance on a recreational aspect, not water quality aspects.

Ms. Teresa commented that she has sat in the Prop O Citizens Oversight Committee. She said that the park is a huge destination place for Angelinos and people outside of the City.

Mr. DeChellis asked if there are tributaries outside of the City of Los Angeles that drain to the lake. Mr. Haines said as far as he knows, the water that drains to the lake is within City of Los Angeles limits.

The Committee decided to take a break at this time.

(2) Fernangeles Park Stormwater Capture Project

Presentation by Peter Tonthat (Los Angeles Department of Water and Power). This project will install an underground infiltration gallery, utilizing approximately 1.6 acres of land area for stormwater capture and infiltration. The project will also construct bioswales along Morehart Avenue. The Project will divert stormwater from a 292 acre tributary area and has the potential to capture and infiltrate approximately 192 AFY.

(3) Strathern Park North Stormwater Capture Project

Presentation by Peter Tonthat (Los Angeles Department of Water and Power). The project will install a subsurface infiltration gallery, utilizing approximately 2.3 acres of land for stormwater capture and infiltration. The Project will divert stormwater from a 485 acre tributary area and has the potential to capture and infiltrate approximately 294 AFY

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



(4) Valley Village Park Stormwater Capture Project

Presentation by Peter Tonthat (Los Angeles Department of Water and Power). The Project will install a subsurface infiltration gallery, utilizing approximately 0.6 acre of land area for stormwater capture and infiltration. The Project will divert stormwater from a 455 acre tributary area and has the potential to capture and infiltrate approximately 134 AFY.

Ms. Padilla-Camps commended the presenter for discussing environmental justice and community benefits.

Mr. Nahai reminded the Committee that there has been an agreement that comments, arguments, and advocating for projects will come in future meetings after presentations are finished and the Committee discuss the SIP.

Mr. DeChellis asked for clarification on the specified timeline in year. Mr. Tonthat said that it is their intention to complete the project in four years. The request could be extended to five years, which would reduce the yearly requested funding.

Mr. DeChellis asked if the funding requested includes operations and maintenance (O&M). Mr. Tonthat said no. Mr. DeChellis asked where the O&M funding will come from. Mr. Tonthat said that the funding request for that will come at a later time with Los Angeles – Sanitation. Mr. DeChellis asked how much does it cost for O&M? Mr. Tonthat said it would cost about \$112,000 to \$127,000 each year.

Mr. Emrani asked based on funding requested, if LADWP is committed on providing more than 50% in case they do not get the other funding. The response was that LADWP can fund a maximum amount of 50%. If they need more money, they will need to supplement elsewhere.

Mr. Hildebrand asked to navigate back to the location slide for Fernangeles Park Project. He asked if they looked at getting water to the spreading grounds versus building an infiltration basin. The response that the Tujunga Spreading Grounds Project included the expansion of the spreading grounds, but they want this to be a stand-alone project because of the park improvements and amenities for the community benefits.

Mr. Nahai asked if the total cost for Fernangeles shown in the presentation slides includes O&M. The response was that it does not include O&M. Mr. Nahai asked if the project applicant expects to request funding from the SCW Program in the future for O&M funding. Presenter said that that would be a discussion later on. Mr. Nahai reminded the project applicant that the Committee needs that kind of information early on, because the Committee want to be certain a project will be completed entirely, including O&M. Mr. Nahai said that maybe the project applicant can come back with some estimates on O&M costs for the future. Dr. Shahram Kharaghani said that he will talk to the sister agency and can get an estimate back to the Committee.

6. Break

The Committee took a break after agenda item 5.b.iii.1.

Safe, Clean Water Program

Upper Los Angeles River

Watershed Area Steering Committee (WASC)



7. Voting Items

- a) None

8. Items for next agenda

None

9. Adjournment

Mr. Nahai reminded the Committee to sign in and announced the next meeting location, date and time. Mr. Nahai thanked the committee members and public for their time and participation and adjourned the meeting.

Next Meeting: Monday, March 2, 2020, 2:00pm – 4:00pm
LA County Public Works Headquarters, Conference Room A
900 S. Fremont Avenue, Alhambra, CA

Future Meeting Dates and Times:

Thursday, March 12, 2020, 10:00am – 12:00pm

LA County Public Works Headquarters, Conference Room C

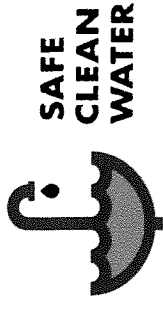
Thursday, March 26, 2020, 2:00pm – 4:00pm

Media Center, Training Room A/B, 2714 Media Center Drive, Los Angeles, CA 90065

Presentation timeslots held for March 2nd:

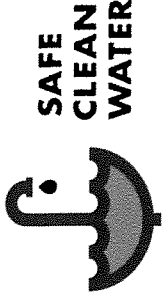
- Infrastructure Program
 - Lankershim Boulevard Local Area Urban Flow Management Network Project (City of Los Angeles, Bureau of Sanitation)
 - Active Transportation Rail to River Corridor Project - Segment A (Los Angeles Metropolitan Transit Authority)
 - City of San Fernando Regional Park Infiltration Project (City of San Fernando)
 - The Distributed Drywell System Project (City of Glendale)
 - Rory M. Shaw Wetlands Park Project (Los Angeles County Flood Control District)
- Technical Resources Program
 - None
- Scientific Studies Program
 - None

Upper Los Angeles River
Watershed Area Steering Committee Meeting
COMMITTEE MEMBER AND ALTERNATE SIGN-IN



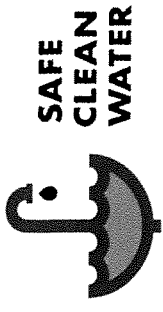
Member Name	Municipality/ Organization	Email Address	Signature
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David Nahai	Lewis, Brisbois, Bisgaard & Smith	dn@davidnahai.com ; lr@davidnahai.com	

Upper Los Angeles River
 Watershed Area Steering Committee Meeting
 COMMITTEE MEMBER AND ALTERNATE SIGN-IN



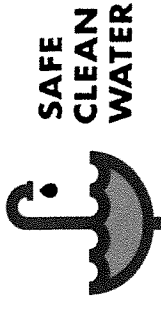
Member Name	Municipality/ Organization	Email Address	Signature
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Veronica Padilla-Campos	Pacoima Beautiful	vpadilla@pacoimabeautiful.org	P
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Mark Lombos	Los Angeles County	MLOMBOS@dpw.lacounty.gov	A
TJ Moon	Los Angeles County	TMOON@dpw.lacounty.gov	A

Upper Los Angeles River
 Watershed Area Steering Committee Meeting
 COMMITTEE MEMBER AND ALTERNATE SIGN-IN



Member Name	Municipality/ Organization	Email Address	Signature
Kris Markarian	Pasadena	kmarkarian@cityofpasadena.net	<i>Kris Markarian</i>
Sean Singletary	Pasadena	ssingletary@cityofpasadena.net	<i>Sean Singletary</i>
Anna Buchholz	DM Smith	BECHTEL KE@CDMSMITH.COM	Anna Buchholz
Jillian Lee	South Pasadena	jllee@southpasadenacorp.com	Jillian Lee
Renee Purdy	RUCRB-LA	Renee.Purdy@waterboards.ca.gov	<i>Renee Purdy</i>
Anthony Henry	WAL		Anthony Henry
Traci Murawski	LASCB		<i>Traci Murawski</i>
Clare Helmer	Colton		<i>Clare Helmer</i>

Upper Los Angeles River
Watershed Area Steering Committee Meeting
PUBLIC SIGN-IN



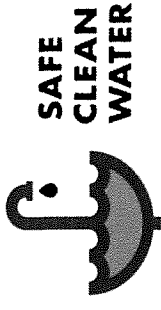
First Name	Last Name	Municipality/Organization	Email Address
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THUAN	Nguyen	LA County	
Katke	Altkbe	LA City	

*Signing or completing this form is voluntary for members of the public

Upper Los Angeles River

Watershed Area Steering Committee Meeting

PUBLIC SIGN-IN



First Name	Last Name	Municipality/Organization	Email Address
Megs Smith (mika)	ANIZBAN	Casallo Engineers	mms@casallo.com
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Kimberly	Henry	Wood Environment	kimberly.henry@woodpic.com

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Coordinated Safe, Clean Watershed Plans: Upper Los Angeles River

February 24, 2020



Safe Clean Watershed Plans



Overview

- Why is a Safe Clean Watershed Plan being proposed?
- What will be the major outcomes?
- How will the WASC and stakeholders be engaged?
- What are the major tasks and proposed schedule?
- What is the breakdown of requested funding?

Safe Clean Watershed Plans: Why?

- Strategic planning would help us maximize the return on Measure W investments
- Collaboration among municipalities and community groups would lead to integrated and complimentary projects
- Using smart tools to develop project concepts would create a pool of cost-effective and highly-beneficial projects
- Incorporating EWMPs and water quality compliance requirements would promote integrated, collaborative decision making



Safe Clean Watershed Plans: Why?

LA River TMDLs (Effective Date)

Bacteria	2012
Metals	2011
Nutrients	2014
Trash	2008

Other TMDLs (Effective Date)

Urban Lakes Toxics	2012
Harbor Toxics	2012

plus many 303(d) listings!



Safe Clean Watershed Plans: Scope of Work



Safe Clean Watershed Plans: Outcomes

- A pool of 'smart' project concepts for each municipality and major community group, based on 1-on-1 workshops
- Living document that describes our vision for the Upper LA River watershed and forecasts the cumulative WQ benefits of projects
- Modeling to forecast the benefits of SCW funding as compared to TMDL requirements, which will also support ULAR EWMP RAA updates
- Fact sheet materials and website for public engagement

Using Smart Science to Identify New Project Concepts



Site Location				Watershed Characteristics		Retrofit Characteristics	
Site Location, City	Los Angeles	Site Name	Roosevelt Park	Drainage Area Max/Alternative, ac	2250/169	Proposed Retrofit	
Latitude	33°58' 11.08" N	Longitude	118° 14' 33.885" W	Hydrologic Soil Group	Chino Silt Loam, Hanford Fine Sandy Loam	Recommended BMP Footprint, ft ²	36540
Landuse	Open Space	Street Address	7600 Graham Ave	Soil Infiltration Rate, in/hr	0.30	Available BMP Volume, ac-ft	200
Major Watershed	Upper Los Angeles River	Land Owner	County of Los Angeles	Design Storm Event, In	85th Percentile, 24 hr	BMP Water Storage Depth, ft	10
Existing Land Use of Site: Park				Recommended Active BMP Volume, ac-ft=	8.4	Gravel Depth, ft	0

Budget- Level estimates for both soft and hard costs	\$36,423,000	Schedule	2 years design, 6 months bid, 5.00 years construction (7 1/2 years total)
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Drainage Map

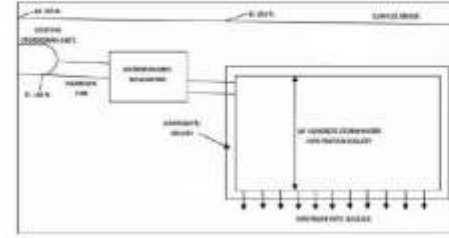


Watershed and Vicinity

Rapid Concepts for each Municipality and Major Community Group



Rendered Improvements



RENDERED PHYSICAL SECTION

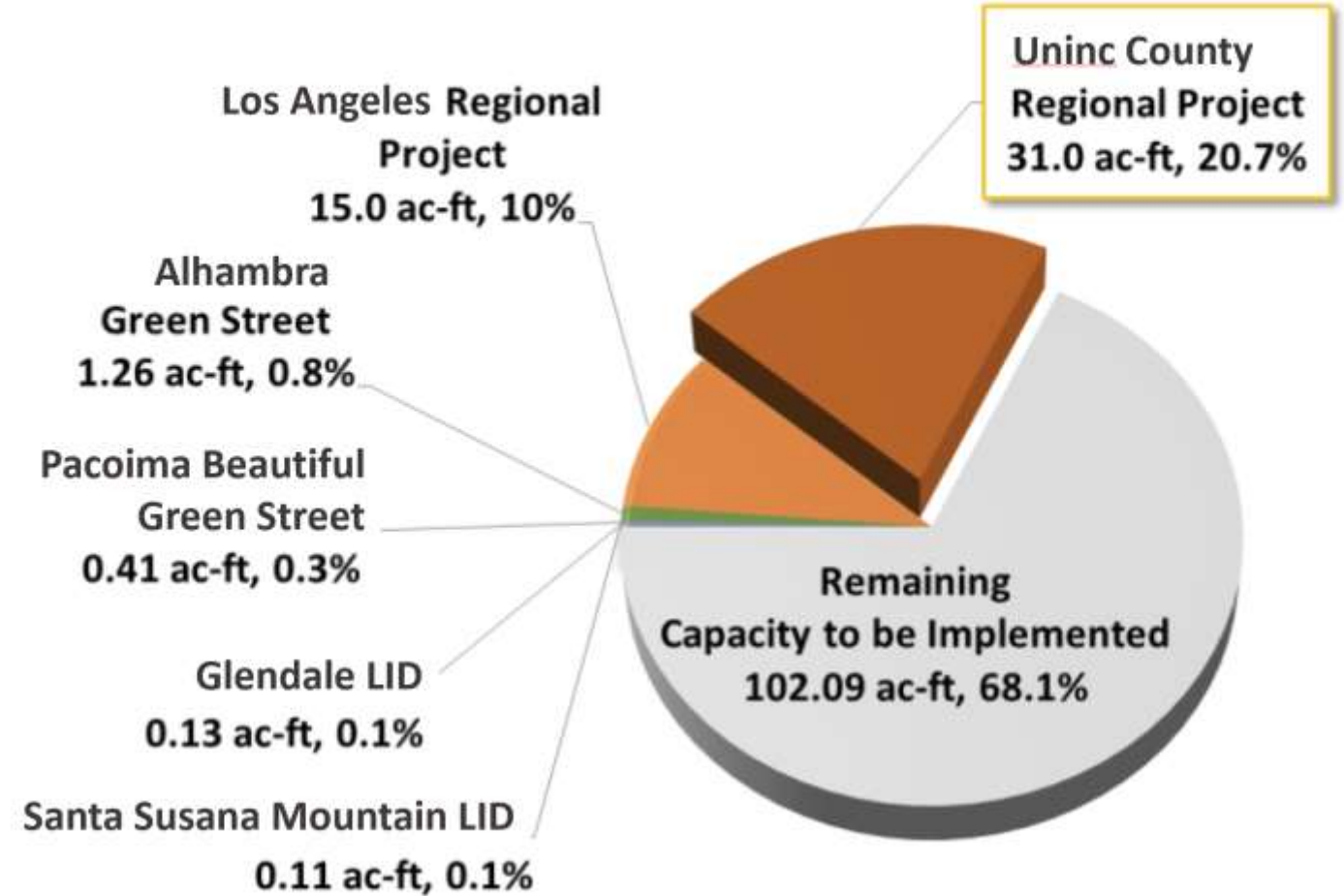
- NOTES:
1. CROSS SECTION FROM THE PROJECT'S REGIONAL BMP PROJECT CONCEPTUAL PLAN (RACBP)
 2. SOIL COVER APPROXIMATELY 8"

Benefits Forecast (hypothetical)

- Quantify cumulative benefits of SCW concepts
- Compare to MS4 and TMDL requirements
- This modeling will support RAA updates

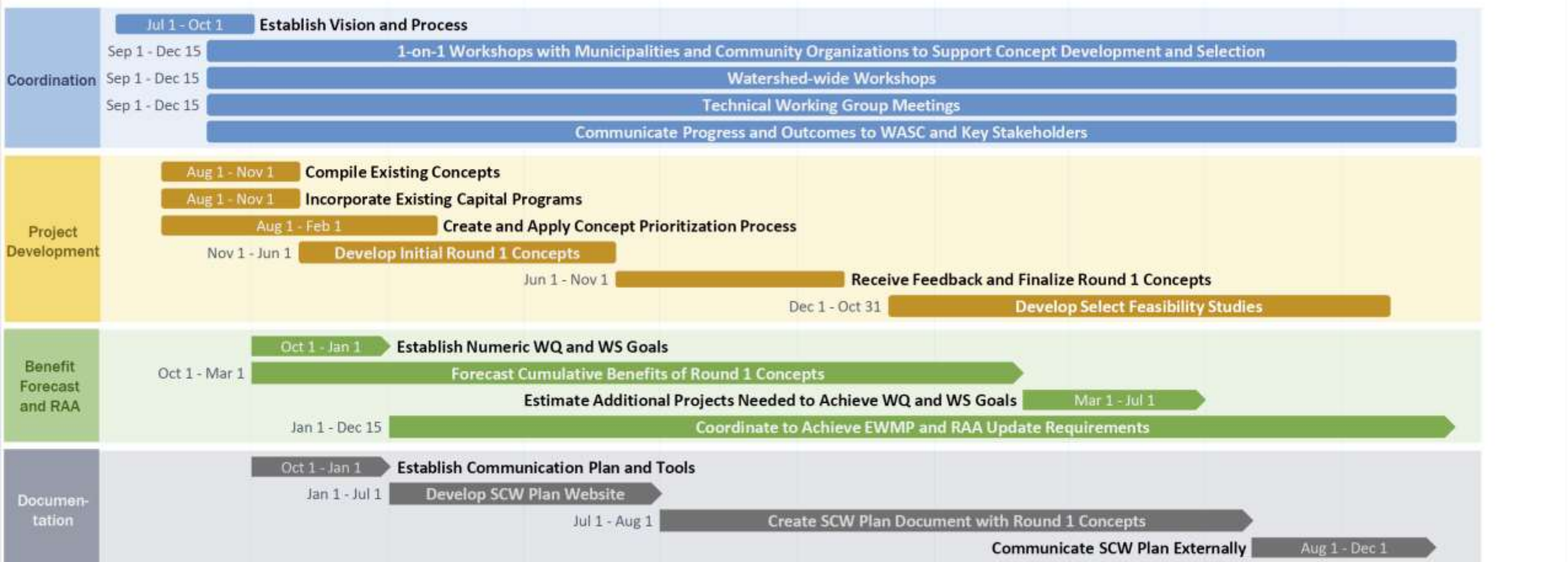
Forecast of Progress toward Water Quality Requirements

Project Capacity (ac-ft)



Tasks and Timeline

Figure 1. Preliminary Tasks and Schedule to Develop a Safe Clean Watershed Plan



Requested Funding

Watershed Area	Amount
Central Santa Monica Bay	\$1,786,000
South Santa Monica Bay	\$1,222,000
Upper Los Angeles River	\$1,692,000

Breakdown by Task

Task	Cost
Coordination	\$100,000
Project Development	\$750,000
Benefits Forecast/RAA	\$692,000
Documentation	\$150,000

Breakdown by Year

Year	Cost
2020-2021	\$616,000
2021-2022	\$663,000
2022-2023	\$413,000

Summary

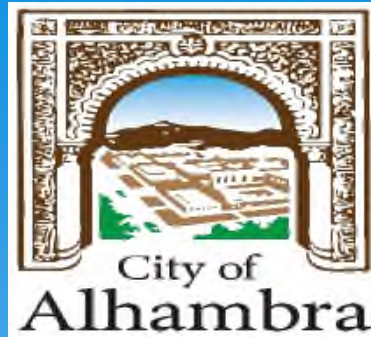
- If we collaborate and integrate our efforts, we'll better protect the environment and public health
- If we use smart planning and prioritization tools, our projects will be more cost effective and beneficial
- If we incorporate EWMP and TMDL requirements, we'll more effectively address our water quality compliance challenges
- If we better engage the public, we'll gain support and promote positive behavior changes



THANK YOU.

Questions and Discussion





GREEN STREET DEMONSTRATION PROJECT ON MAIN
STREET
TECHNICAL RESOURCES PROGRAM

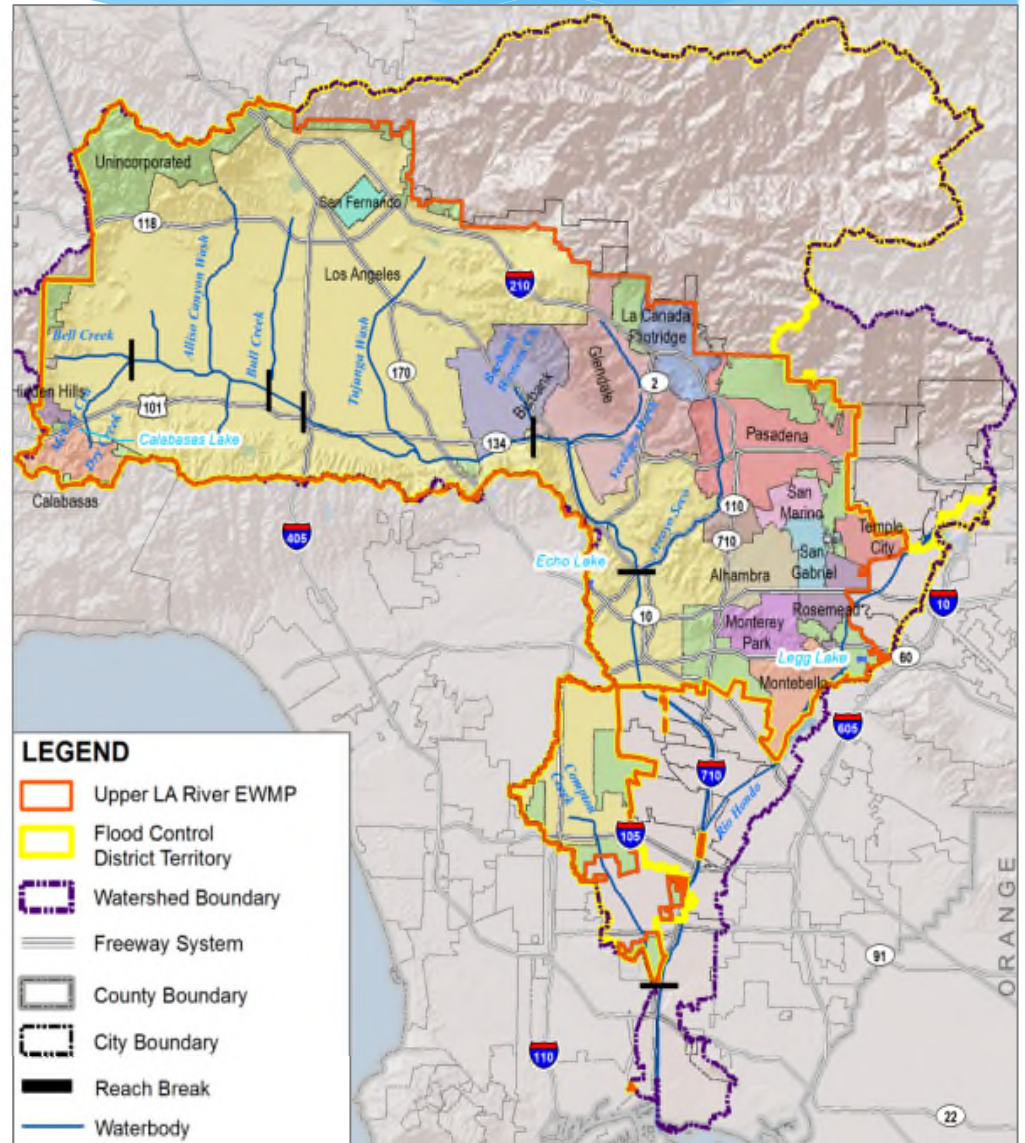
February 24, 2020

**UPPER LOS ANGELES RIVER
WATERSHED AREA STEERING COMMITTEE
SAFE, CLEAN WATER PROGRAM INFORMATION**

DESCRIPTION	DATA/INFORMATION
PROJECT NAME	Green Street Demonstration Project on Main Street
PROJECT LEAD	City of Alhambra
PRESENTERS	David Dolphin , Deputy Director, Utilities Department City of Alhambra
TOTAL FUNDING REQUEST	TOTAL PROJECT COST: \$300,000 <ul style="list-style-type: none">• Technical Resources Program

Upper Los Angeles River Watershed Management Group Enhanced Watershed Management Program

- City of LA
- County of LA
- LACFC
- Alhambra
- Burbank
- Calabasas
- Glendale
- Hidden Hills
- Temple City
- Montebello
- Monterey Park
- Pasadena
- Rosemead
- San Fernando
- San Gabriel
- San Marino
- South Pasadena
- La Canada Flintridge
- South El Monte

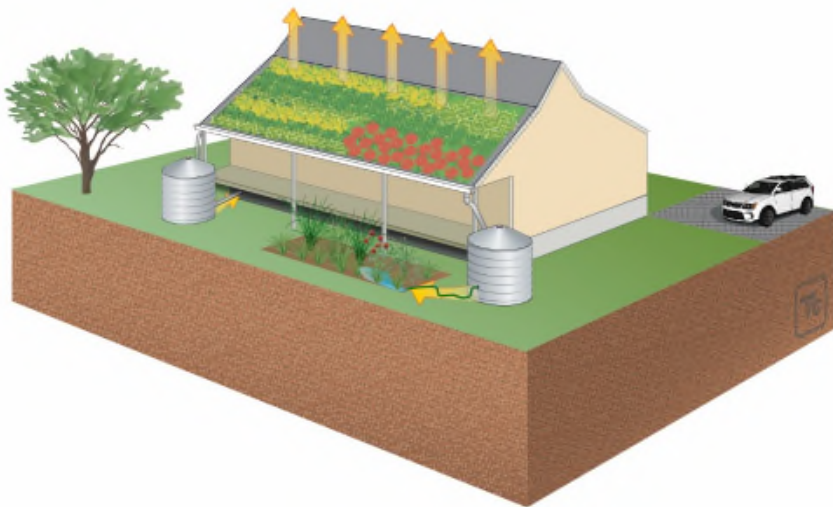


EWMP Compliance Strategy

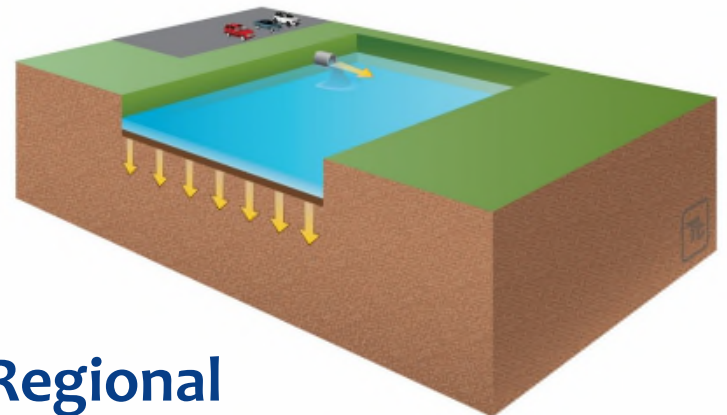
- (1) **Institutional BMPs**
e.g., Enhanced sweeping



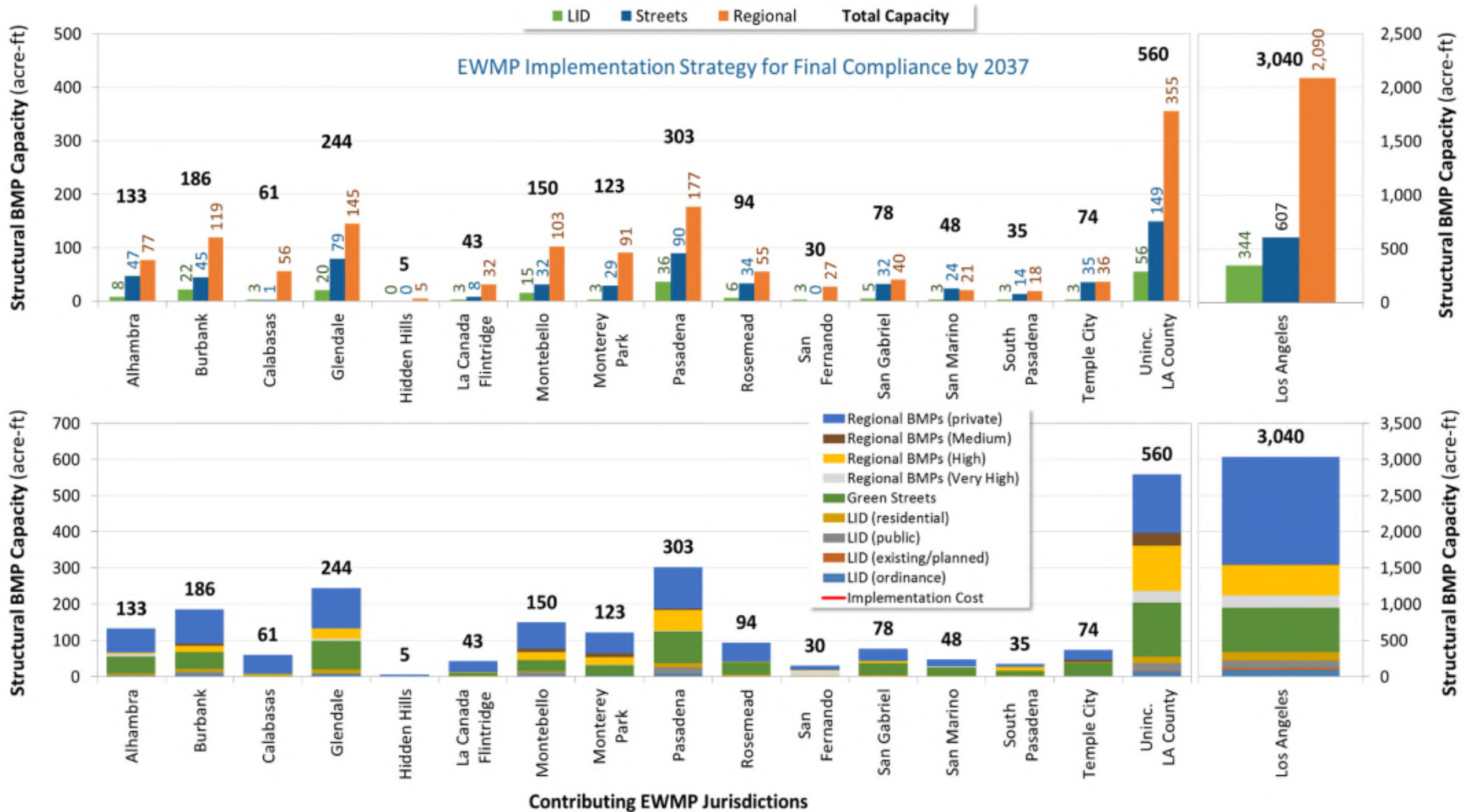
- (3) **Low Impact Development**



- (4) **Regional BMPs**

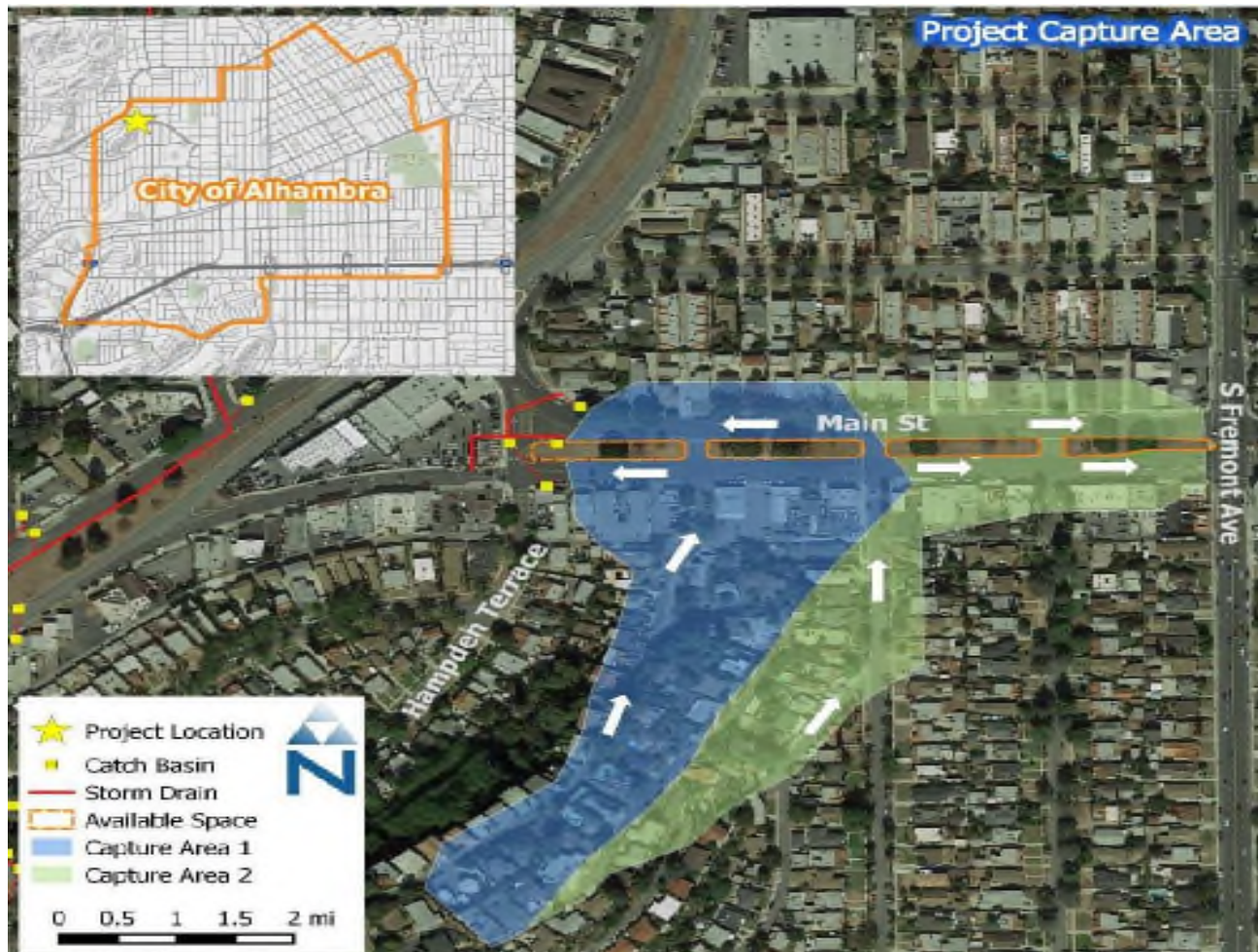


EWMP Implementation Strategy (Bacteria, thru 2037)



Project Location

Initial Conceptual design completed in 2017- includes 2 Capture Areas

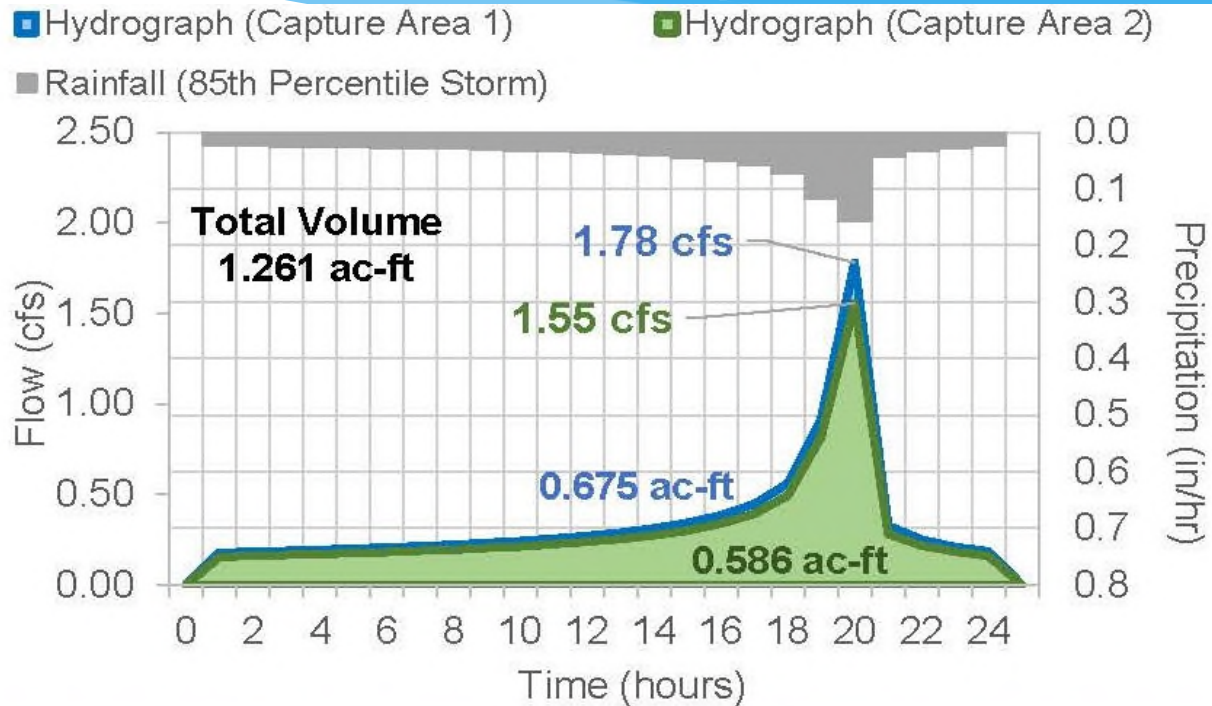


- 1.46-acre -Total median space identified to capture and treat stormwater
- 25.7acres- Total capture area Stormwater runoff from the roadway and surrounding neighborhood-

Main Street Medians



Design Criteria



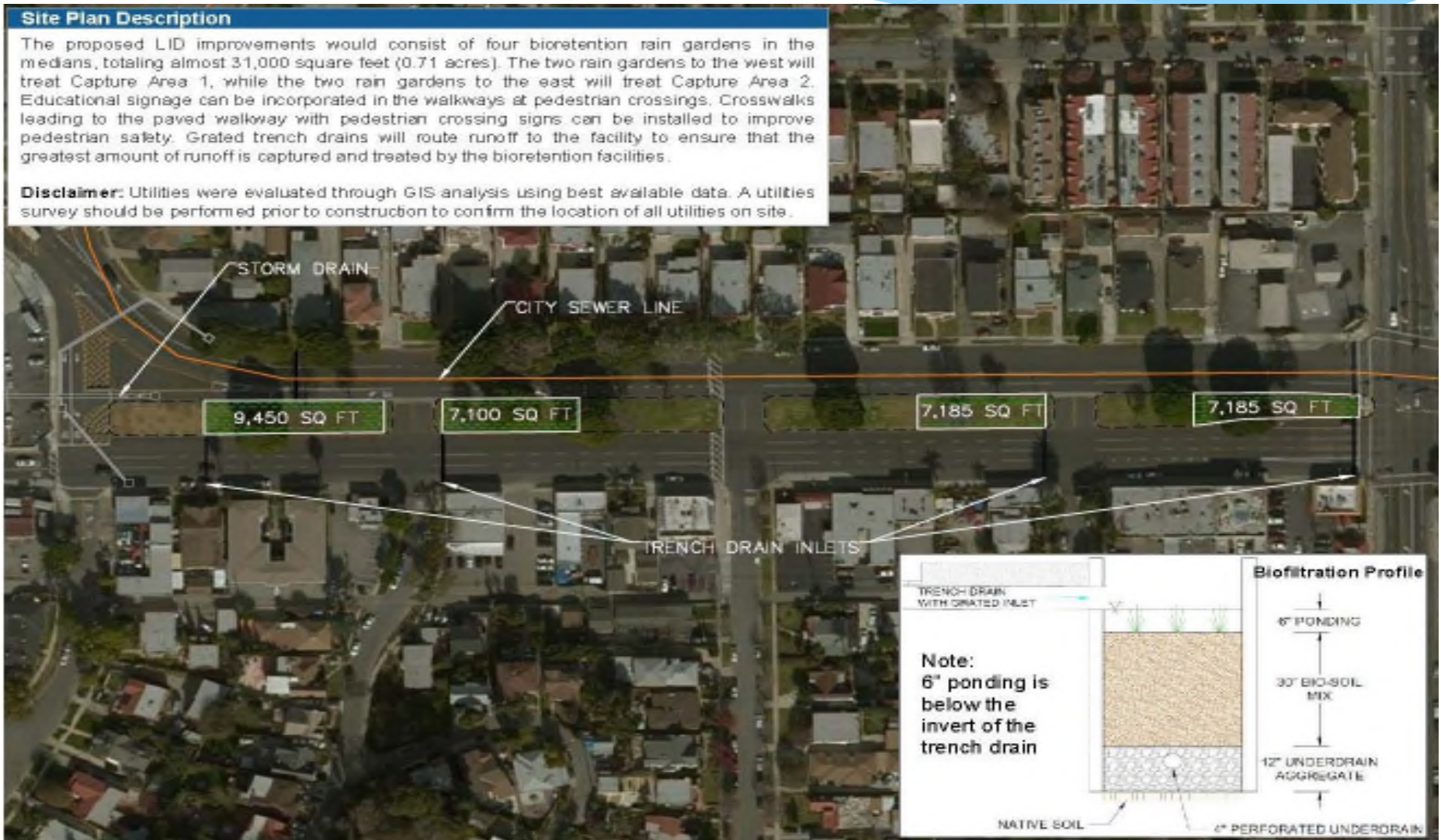
Design Criteria		Capture Area 1	Capture Area 2
Sizing Criteria		85 th percentile, 24-hour storm	
Capture Area		14.52 acres	11.13 acres
Imperviousness		53%	62%
Design Conditions for 85 th % - ile storm	<i>Precipitation:</i>	1.05 inches	
	<i>Total Runoff Volume:</i>	0.675 ac-ft	0.586 ac-ft
	<i>Peak Flow Rate:</i>	1.8 cfs	1.6 cfs

Project Description

Site Plan Description

The proposed LID improvements would consist of four bioretention rain gardens in the medians, totaling almost 31,000 square feet (0.71 acres). The two rain gardens to the west will treat Capture Area 1, while the two rain gardens to the east will treat Capture Area 2. Educational signage can be incorporated in the walkways at pedestrian crossings. Crosswalks leading to the paved walkway with pedestrian crossing signs can be installed to improve pedestrian safety. Grated trench drains will route runoff to the facility to ensure that the greatest amount of runoff is captured and treated by the bioretention facilities.

Disclaimer: Utilities were evaluated through GIS analysis using best available data. A utilities survey should be performed prior to construction to confirm the location of all utilities on site.



Optional Enhancements



Porous pavers for street parking areas

Bioswales

Plaza and Education Kiosk

Pedestrian Walking Paths

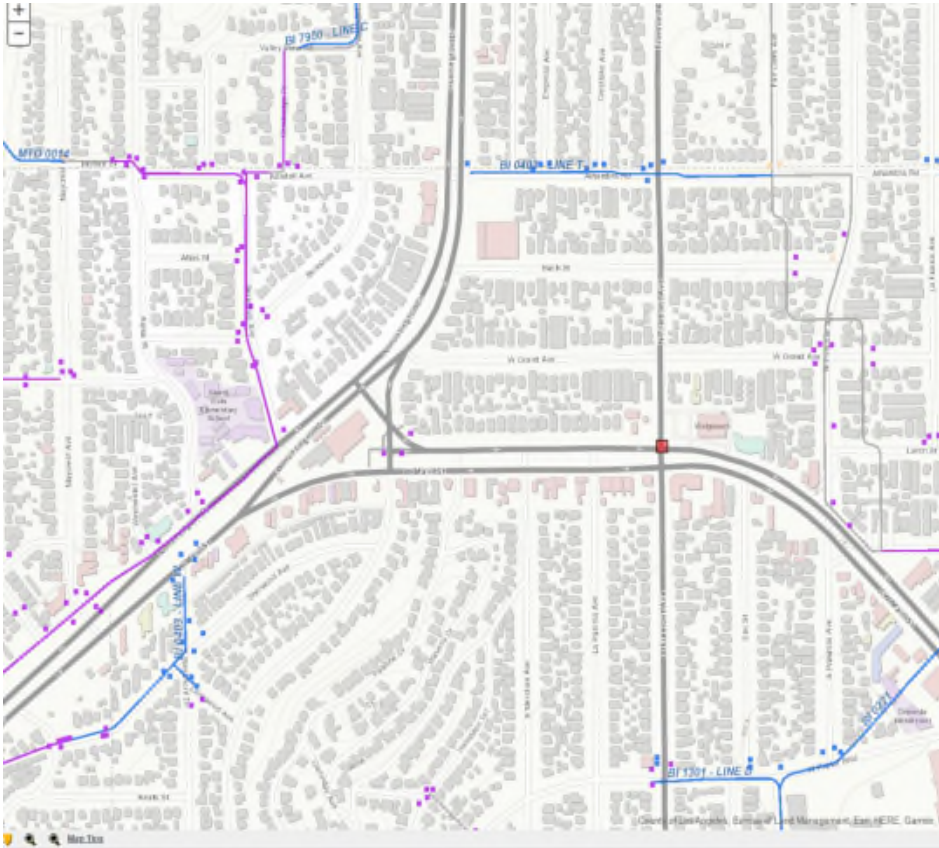
Subsurface Storage/Infiltration Alternative

Benefits of Green Streets

- Beautify neighborhoods and provide green space
- Address regulatory requirements to reduce pollutant discharges
- Increase water supply
- Revitalize commercial and residential areas by increasing pedestrian traffic
- Provide education signage to increase awareness of stormwater impacts



Potential to Partner With City of Los Angeles

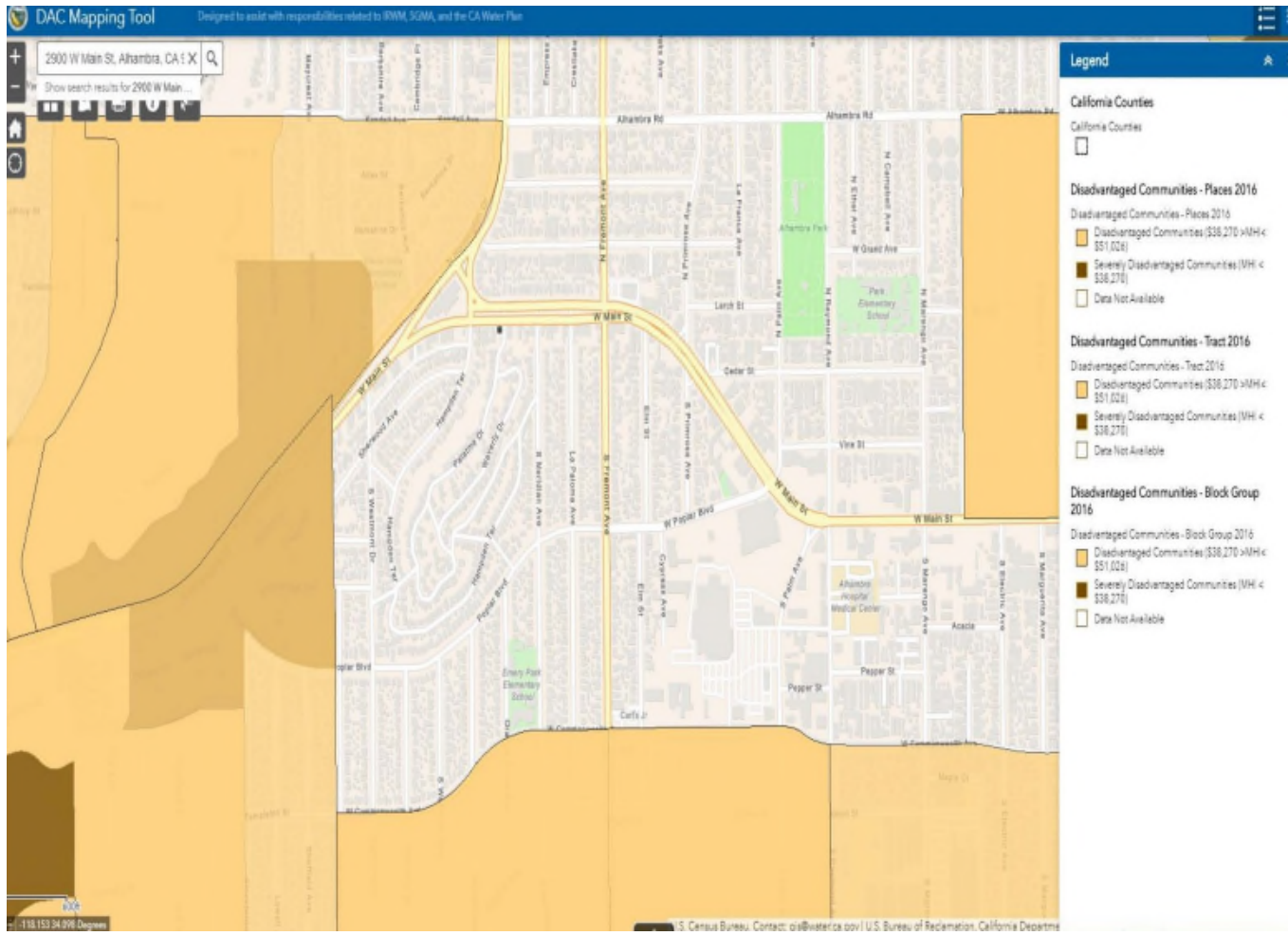


Technical Analysis will need to evaluate potential alternatives

Adjacent City of LA storm drain on Huntington Drive would increase municipal benefits

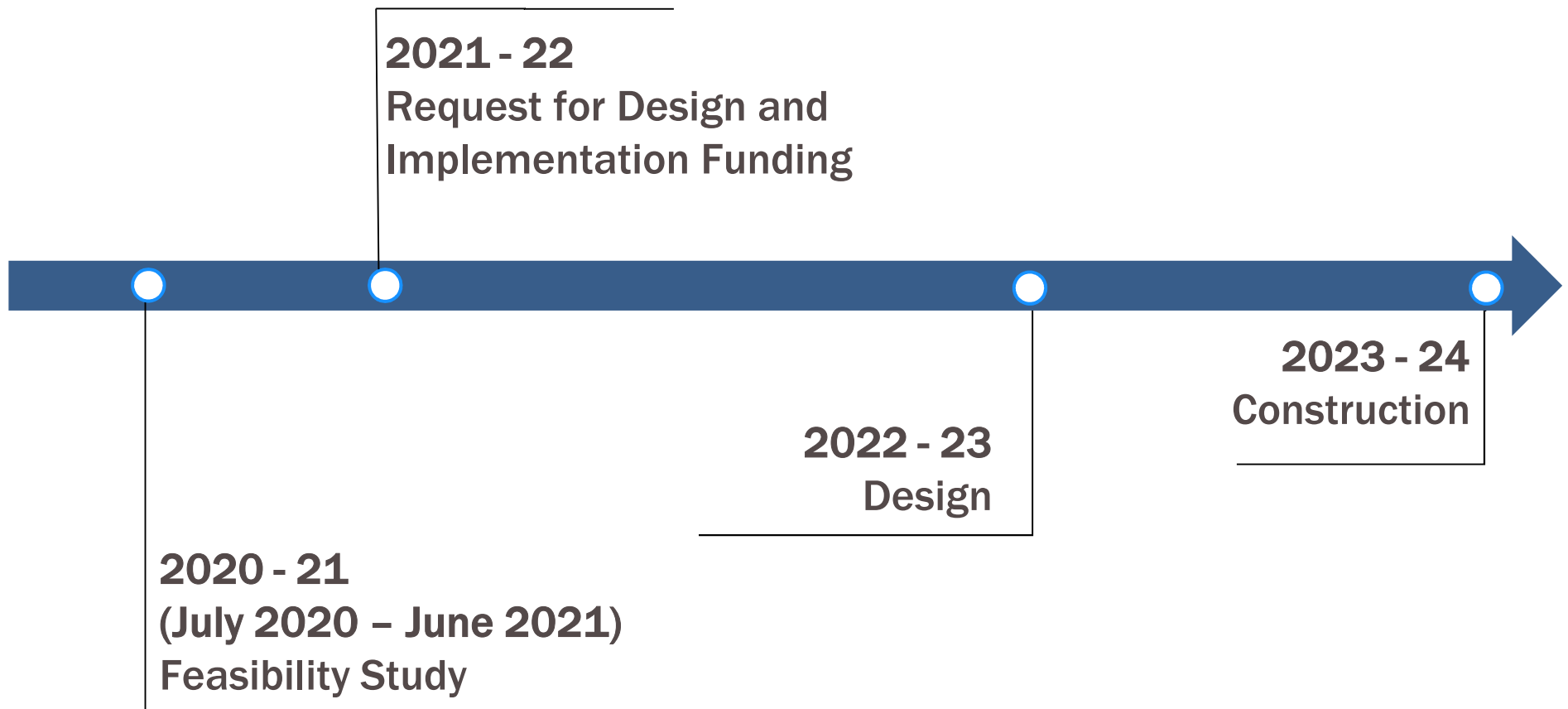
Drainage area could increase to 200-acres

Disadvantaged Communities



DAC located in the City of Los Angeles-Western Portion of the project area

Project Timeline



Questions?

David Dolphin

City of Alhambra – Utilities Department

626-300-1571

ECHO PARK LAKE O&M

CITY OF LOS ANGELES

LA SANITATION AND ENVIRONMENT

WATERSHED PROTECTION DIVISION

Gordon Haines, Environmental Specialist
Watershed Protection, Prop O Section

Gordon.haines@lacity.org

213 485-0585

Wing Tam, Prop O Program Manager
Watershed Protection

Wing.tam@lacity.org

213 485-3985



Presentation to SCW Program
ULAR WASC
February 24, 2020



ECHO PARK LAKE



ECHO PARK LAKE



Lotus festival - July



ECHO PARK LAKE Description

- 2 miles north of Downtown Los Angeles, City park since 1895
- Storm water detention and recreational facility
- 29-acre park, 13 acre lake = 86 AF (28 Million Gallons) capacity
- 784 Acre Watershed
 - Includes input from LA City and County drains
 - Land use: urban, predominately residential/commercial
- Lake specific TMDLs per City's MS4 permit
 - 303(d) listed pollutants Nutrients, Organics, Trash)
- Park managed by City of LA Recreation and Parks;
- Lake managed by City of LA Sanitation

ECHO PARK LAKE Rehabilitation Objectives

- City of LA Clean Water Bond (Prop O), funded \$36.6M Rehabilitation project , completed Nov 2013
 - Improve water quality in the Lake and contribute to water quality improvement in the LA River Watershed
 - Assist in meeting TMDL requirements per Regional Water Quality Control Board
 - Reduction of 303(d) listed pollutants (Nutrients, Organics, Trash)
 - Reduce use of municipal water required to maintain water level
 - Restore the existing and potential beneficial water quality uses in the Lake (REC-2, WILD, MUN, WARM, WET)
 - Provide ancillary benefits: Flood Water reduction, River and Neighborhood Parks, Open Space
 - Optimization phase 2015-2018

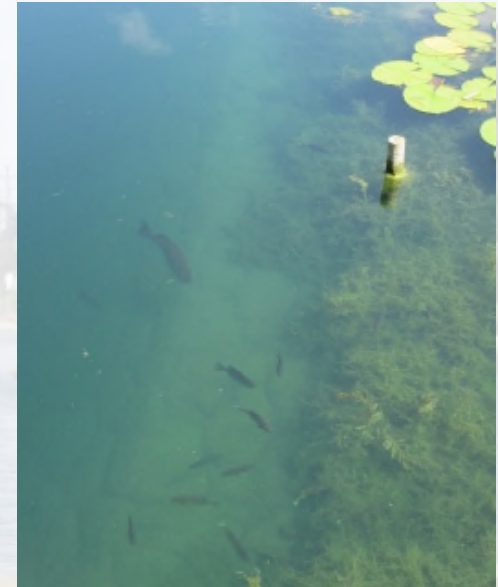
ECHO PARK LAKE Rehabilitation

- KEY STORMWATER CONTROL and WATER QUALITY IMPROVEMENT MEASURES
 - Hydrodynamic separators and trash screens
 - 4+ acres of in-lake wetlands – natural treatment system
 - Habitat improvements
 - Re-lining of Lake bed, sediment removal
 - New pumps, outlet structure, Lake re-circulation system
 - Lake aeration system
 - Park BMPs - swales, permeable paving, smart irrigation and structural improvements
 - Preservation of historic Lotus Bed, Boathouse, recreational features

ECHO PARK LAKE KEY STORMWATER CONTROL and WATER QUALITY IMPROVEMENT MEASURES



Treatment wetlands, habitat



ECHO PARK LAKE KEY STORMWATER CONTROL and WATER QUALITY IMPROVEMENT MEASURES

Water recirculation



Hydrodynamic Separators

Permeable paving, bioswales, erosion control



ECHO PARK LAKE Optimization phase 2015-2018

Challenges for transition to O&M:

- Lower than predicted dry weather flows
- Unpredictable wet weather flows due to drought
- Wetland vegetation loss, avian and mammal pressure and nutrient inputs
- Giant apple snails, red-eared slider turtles other invasives
- Algae, Lake weeds and Microflora
- Trash originating in Park, increased indigent population, realities of 'urban park'
- Performance limitation of recirculation and aeration systems
- Control system not centrally connected

ECHO PARK LAKE

Aquatic plants, algae



ECHO PARK LAKE – Trash, debris, ‘contributions’



Up to 20 cubic yds of trash and debris
removed per week
= 1000 cubic yds per year
= 350 tons of trash or 700,000 lbs/year
(at avg 25 lbs/ft³)
= 25 trash truck loads



ECHO PARK LAKE

Invasive flora and fauna; Bird pressure and inputs



Giant apple snails and eggs



ECHO PARK LAKE

Blue-green algae



Operation and Maintenance activity	Funding source	Amount/annual	Status
Structural: Storm drains, Hydrodynamic separators minimal cleaning schedule	City of LA Sanitation, leveraged funds	\$500,000	Current ongoing O&M
Mechanical & Instruments: Recirculation system, pump, aerators, valves, gates			
Lake management, as-needed clean up, trash removal, care of wetland vegetation; vector control			
Biological: Control of blue-green algae (BGA), chlorophyll			
Operations: Inspections, assessments, reporting			
Responses to illegal dumping, discharges, hazmat			
Increased cleaning, adjustments; controls	SCW request	\$400,000	Deferred
Accumulated lake sediment: removal, disposal			
Lake management – optimal clean up regime, trash and debris removal, disposal			
Wetland vegetation replanting and monitoring			
Invasive control: including apple snails, primrose			
Bird exclosures – maintenance, repair, replacement			
Pro-active BGA biological control (water quality sampling, testing, analysis, applications)			
Educational and warning signage, community partnering, public information to benefit water quality, community & prevent illegal activity			

ECHO PARK LAKE benefits of O&M

Community Investment Benefit	Applicable?	Description
Does this project improve flood management, flood conveyance, or flood risk mitigation?	Yes	Project rehabilitated the outlet structure of Echo Park Lake to provide relief to the existing storm drain system; relining of lake bed
Does this project create, enhance, or restore park space, habitat, or wetland space?	Yes	Project Created approximately 4.4 acres of treatment wetlands in the lake; restored park space and created and enhanced habitat in the lake
Does this project create or enhance new recreational opportunities?	Yes	Project improved and enhanced water quality in the lake to support recreational and educational opportunities such as boating, fishing, wildlife viewing and bird watching
Nature Based Solution	Yes	Constructed treated wetlands , vegetated swales across park to mimic natural processes to improve water quality; Restored Lotus bed, aquatic plants and structures for habitat

ECHO PARK LAKE



Q&A



Fernangeles Park, Strathern Park North, and Valley Village Park Stormwater Capture Projects



Upper Los Angeles River WASC
Los Angeles Department of Water and Power
Peter Tonthat, Scott Dellinger, Miko Aivazian

LADWP + SCWP Objectives



SAFE CLEAN WATER L.A.

- ✓ Implement multi-benefit stormwater capture projects to improve local WQ and increase local WS
- ✓ Source 70% of LA's water locally
- ✓ Capture 150,000 AFY of stormwater by 2035
- ✓ Deliver Environmental Justice & Social Equity

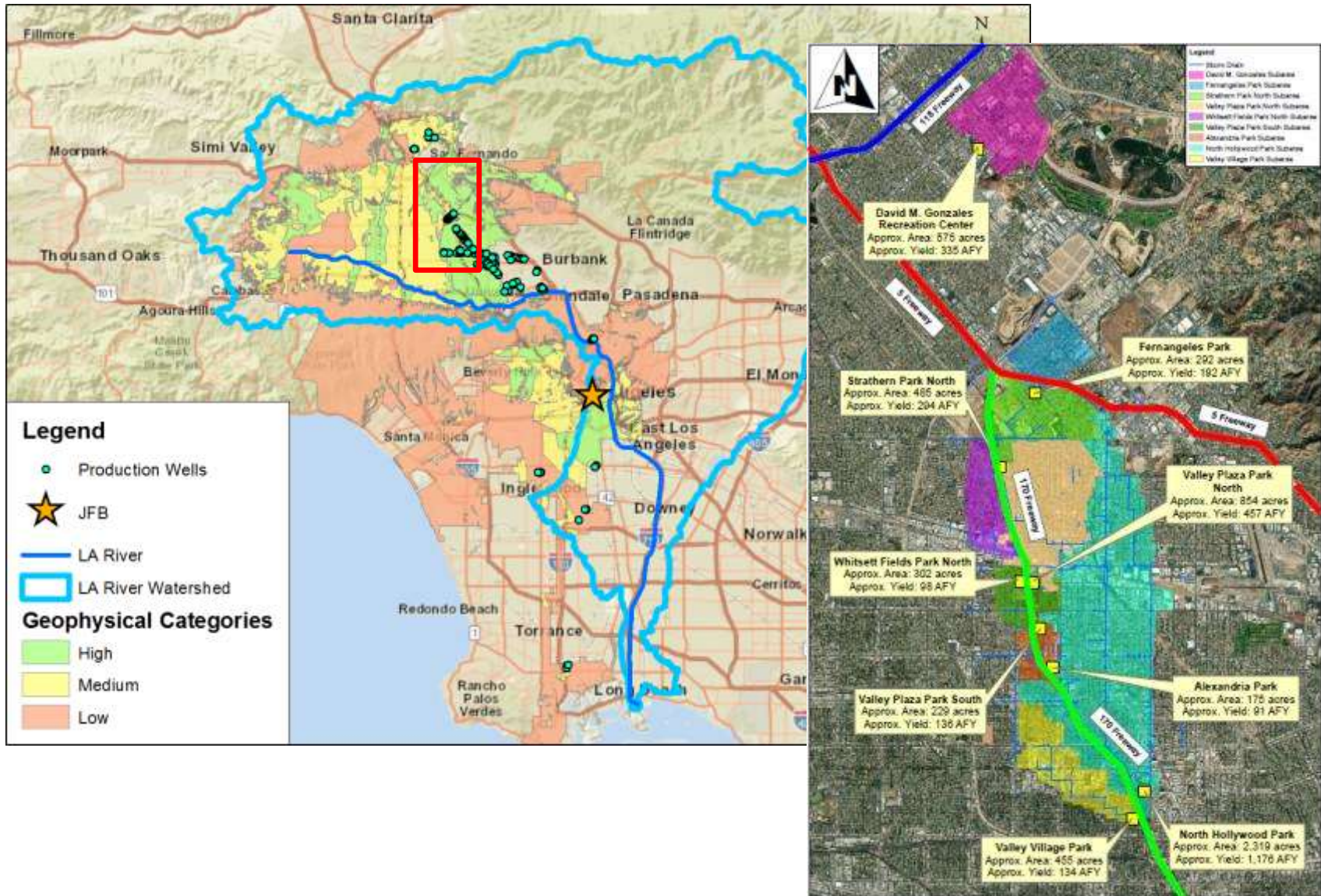
- ✓ Improve water quality
- ✓ Increase local water supply
- ✓ Enhance communities

Additional LADWP + SCWP Objectives

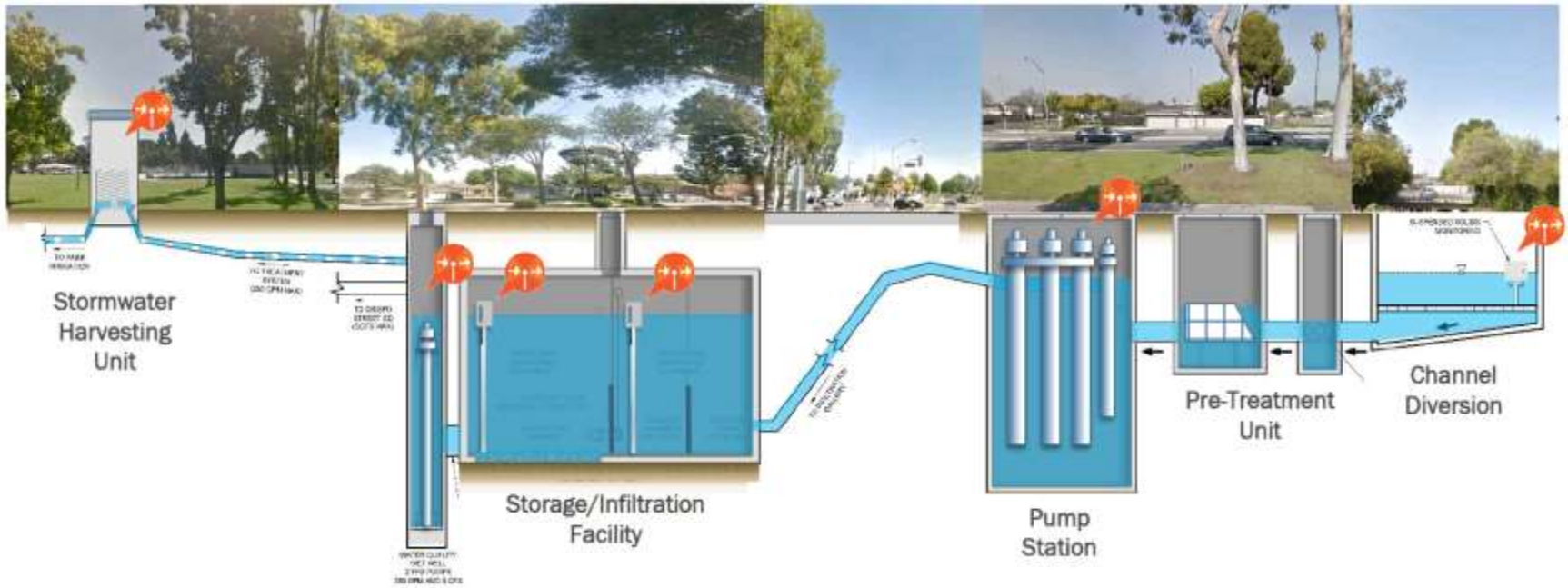
- ✓ Safe and Clean Communities
 - ✓ Mitigate localized flooding
 - ✓ Provide open space
- ✓ Environmental Education & Signage
 - ✓ Watershed health and awareness
 - ✓ Address Environmental Justice
- ✓ Expand Park Infrastructure
 - ✓ Improved sports fields and playgrounds
- ✓ Job Creation
 - ✓ 290+ jobs



Conceptual Parks Program Overview



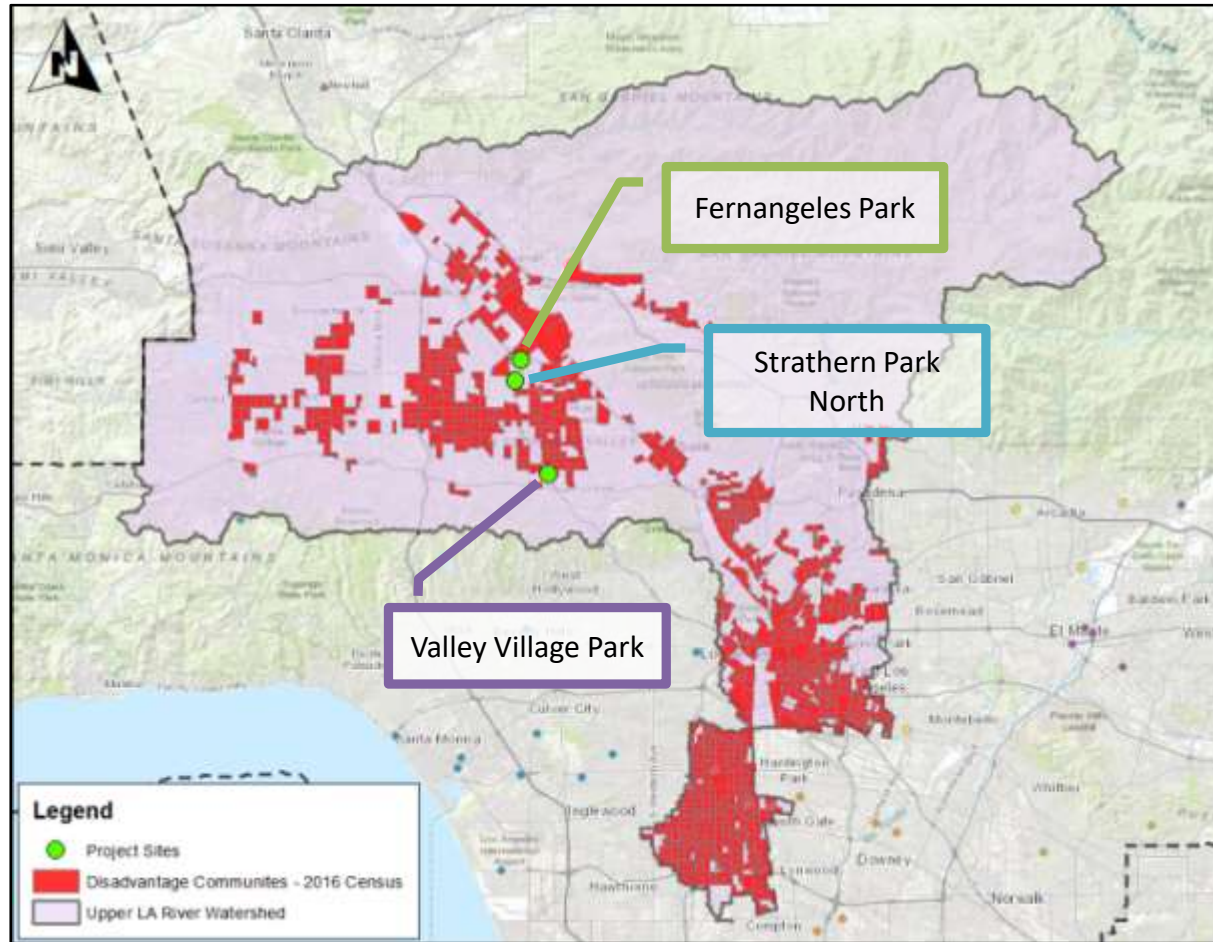
Conceptual Parks Program Overview



Conceptual Parks Program Overview

- Improves water quality
- Improves flood management
- Increases water supply
- Enhances and restores park space
- Enhances new recreational opportunities
- Increases shade, number of trees, and other vegetation

Disadvantaged Communities



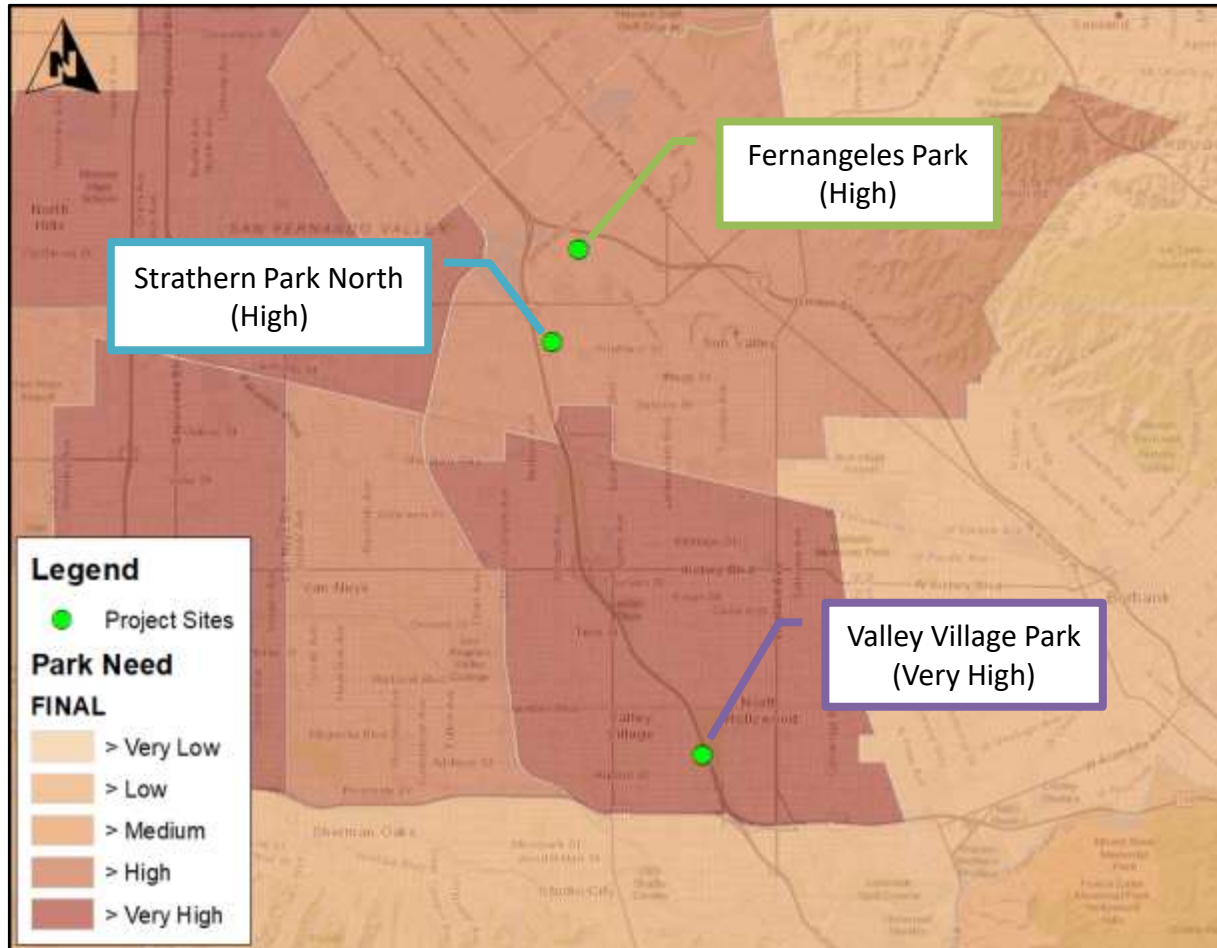
Source: Safe Clean Water Program GIS Reference Map

Fernangeles Park

Strathern Park North

Valley Village Park

SCWP Park Needs (High/Very High)



Source: Safe Clean Water Program GIS Reference Map

Fernangeles Park

Strathern Park North

Valley Village Park

5-yr SIP Funding Requests and Scores

Project	PROPOSED FUNDING REQUEST					Score
	Requested Funding	FY 20/21	FY 21/22	FY 22/23	FY 23/24	
Fernangeles Park	\$8,360,748	\$2,926,262	\$3,344,299	\$1,254,112	\$836,074.83	85
Strathern Park North	\$9,278,606	\$3,247,512	\$3,711,442	\$1,391,791	\$927,860.55	89
Valley Village Park	\$3,177,344	\$1,112,071	\$1,270,938	\$476,602	\$317,734.42	78
	\$20,816,698	\$7,285,844	\$8,326,679	\$3,122,504	\$2,081,670	

ULAR WASC Allocation = \$38M/year



SAFE CLEAN WATER L.A.

Fernangeles Park Stormwater Capture Project

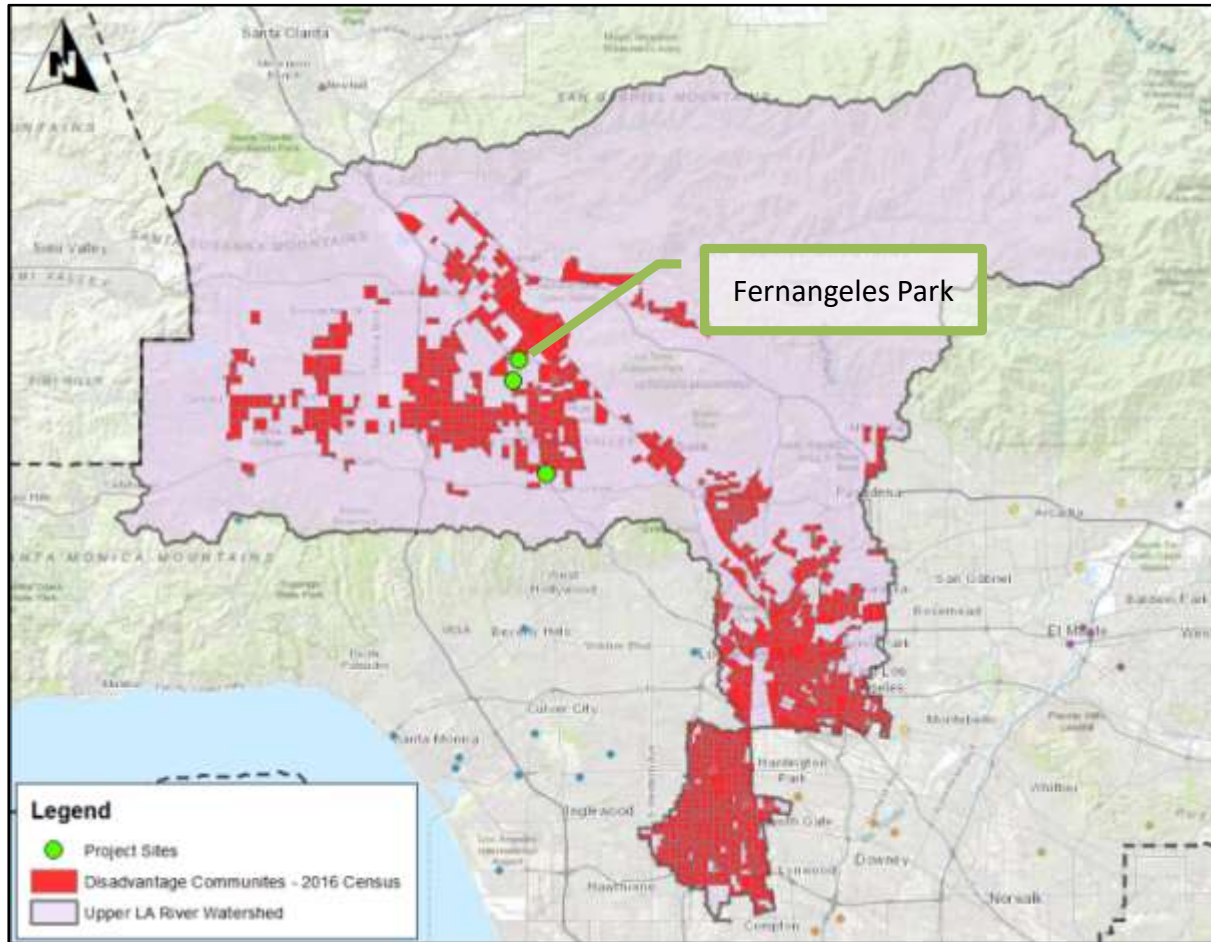


Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities



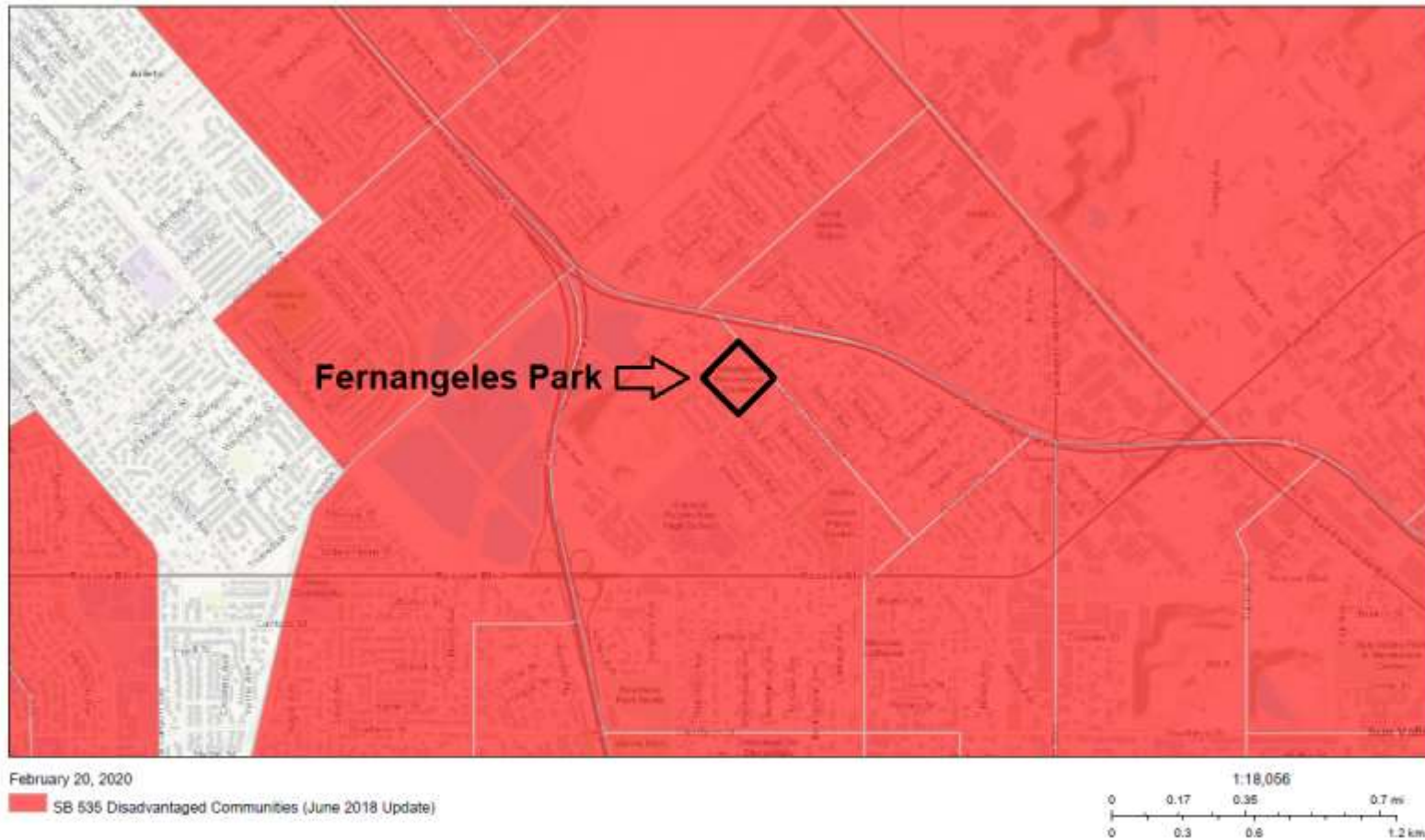
Source: Safe Clean Water Program GIS Reference Map

Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities

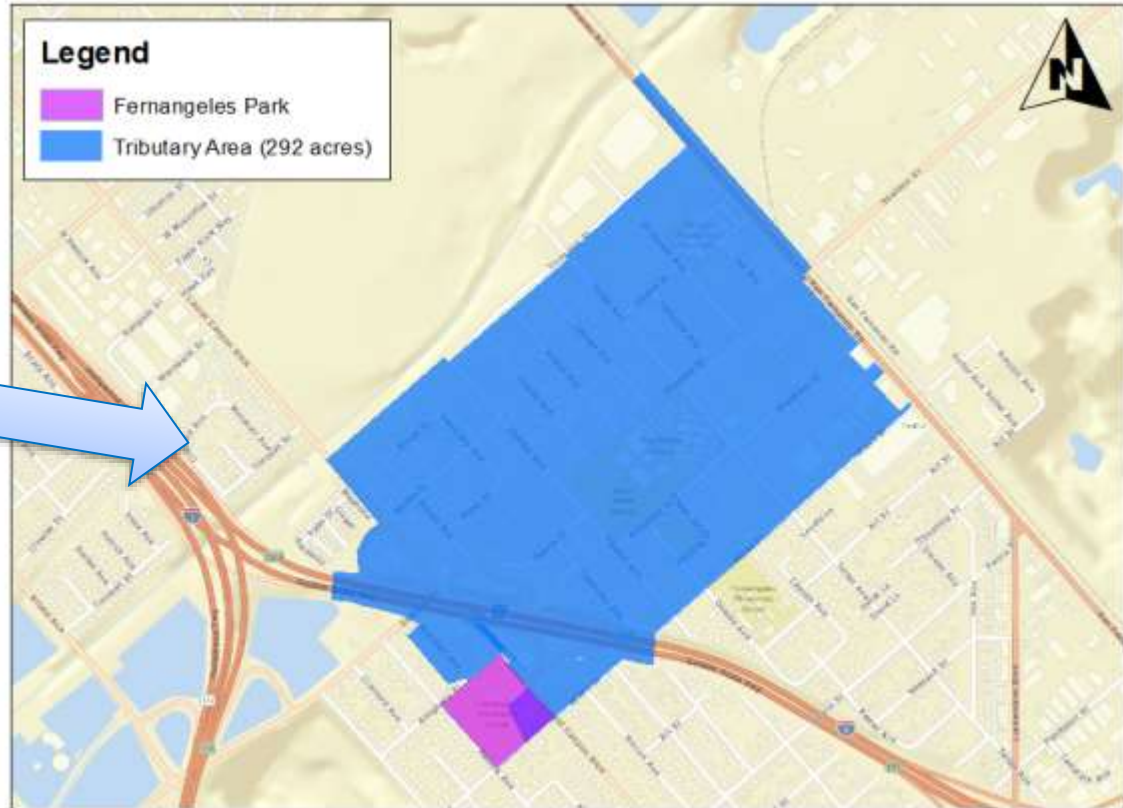


Fernangeles Park

Strathern Park North

Valley Village Park

Location



Fernangeles Park

Strathern Park North

Valley Village Park

Flooding at I-5 and Sheldon Blvd



By Veronica Miracle

Saturday, February 2, 2019

SUN VALLEY, Calif. (KABC) -- The heavy rain caused major flooding in the Sun Valley area on Saturday, shutting a stretch of the 5 Freeway for several hours.

Flooding prompted the closure of the 5 Freeway in both directions at Sheldon Street, the California Highway Patrol said about 12:45 p.m. The freeway was reopened shortly before 6:30 p.m.

Fernangeles Park

Strathern Park North

Valley Village Park

Freeway overflow at Sheldon Blvd and Morehart Ave.



Current conditions of Morehart Ave.

Fernangeles Park

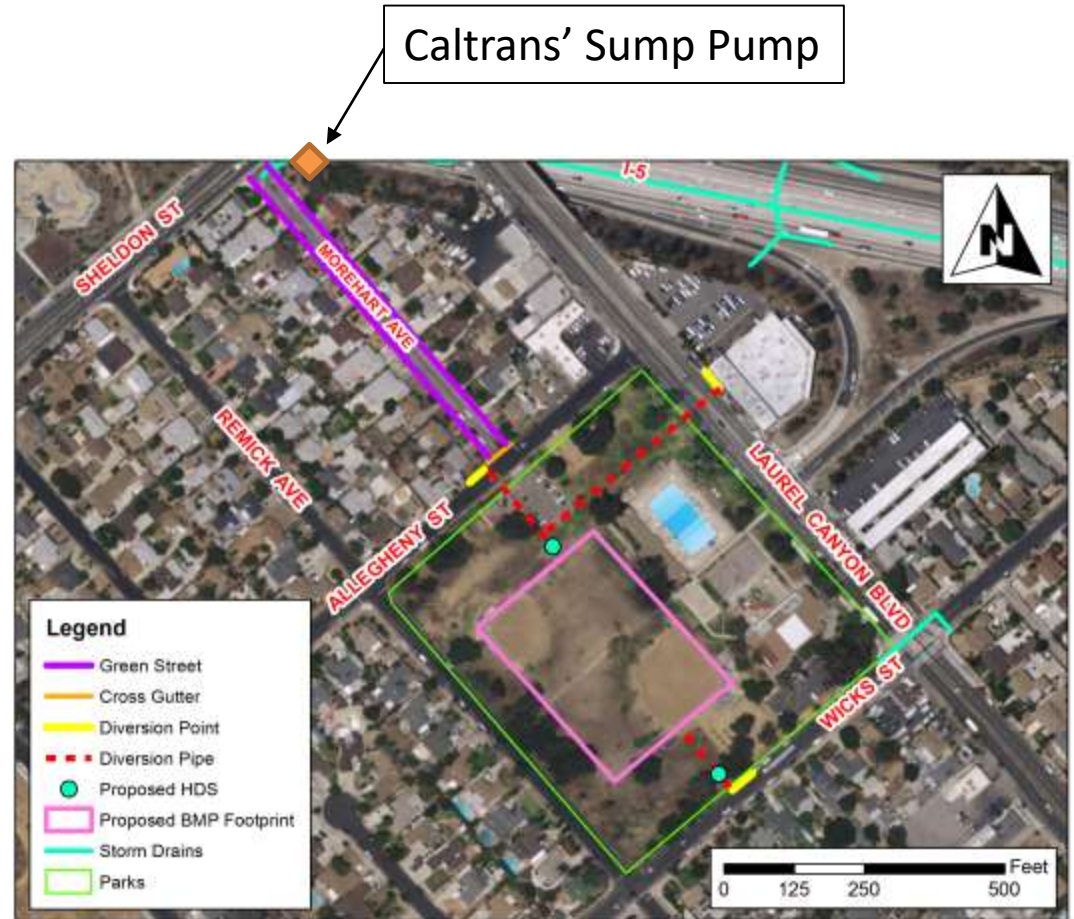
Strathern Park North

Valley Village Park

Scope

- Capture urban runoff from the surrounding streets and the I-5 Freeway into stormwater capture infrastructures
- Infiltrate and replenish the San Fernando Groundwater Basin

Drainage Area: **292 Acres**
Annual Capture: **192 AFY**



Fernangeles Park

Strathern Park North

Valley Village Park

Community Benefits

- Install bioswales, sidewalks, curbs, gutters, new pavement, trees, and native vegetation along Morehart Ave.
- Grade and re-vegetate park and improve baseball fields.

Fernangeles Park



Water Quality + Water Supply

WATER QUALITY Wet + Dry Weather	
24-hour BMP Capacity	24.8 AF
Primary Pollutant Reduction - Zinc	95.4%
Secondary Pollutant Reduction – Lead	94.8%
Tertiary Pollutant Reduction – Copper, Nitrogen, Phosphorous, E. coli,	94.2%, 88.9%, 88.3%, 87.1%

WATER SUPPLY	
Average Capture	192 AFY

Fernangeles Park

Strathern Park North

Valley Village Park

Public Outreach

Partners



Community Support



Mountains Recreation & Conservation Authority



Political Support



Fernangeles Park

Strathern Park North

Valley Village Park

Budget

Project Capital Cost:	\$16,464,000
<i>Construction Cost:</i>	<i>\$14,544,000</i>
<i>Planning and Design Cost:</i>	<i>\$1,920,000</i>
Requested Amount	\$8,360,748
LADWP Matching Funds	\$8,370,000

Fernangeles Park

Strathern Park North

Valley Village Park



SAFE CLEAN WATER L.A.

Strathern Park North Stormwater Capture Project

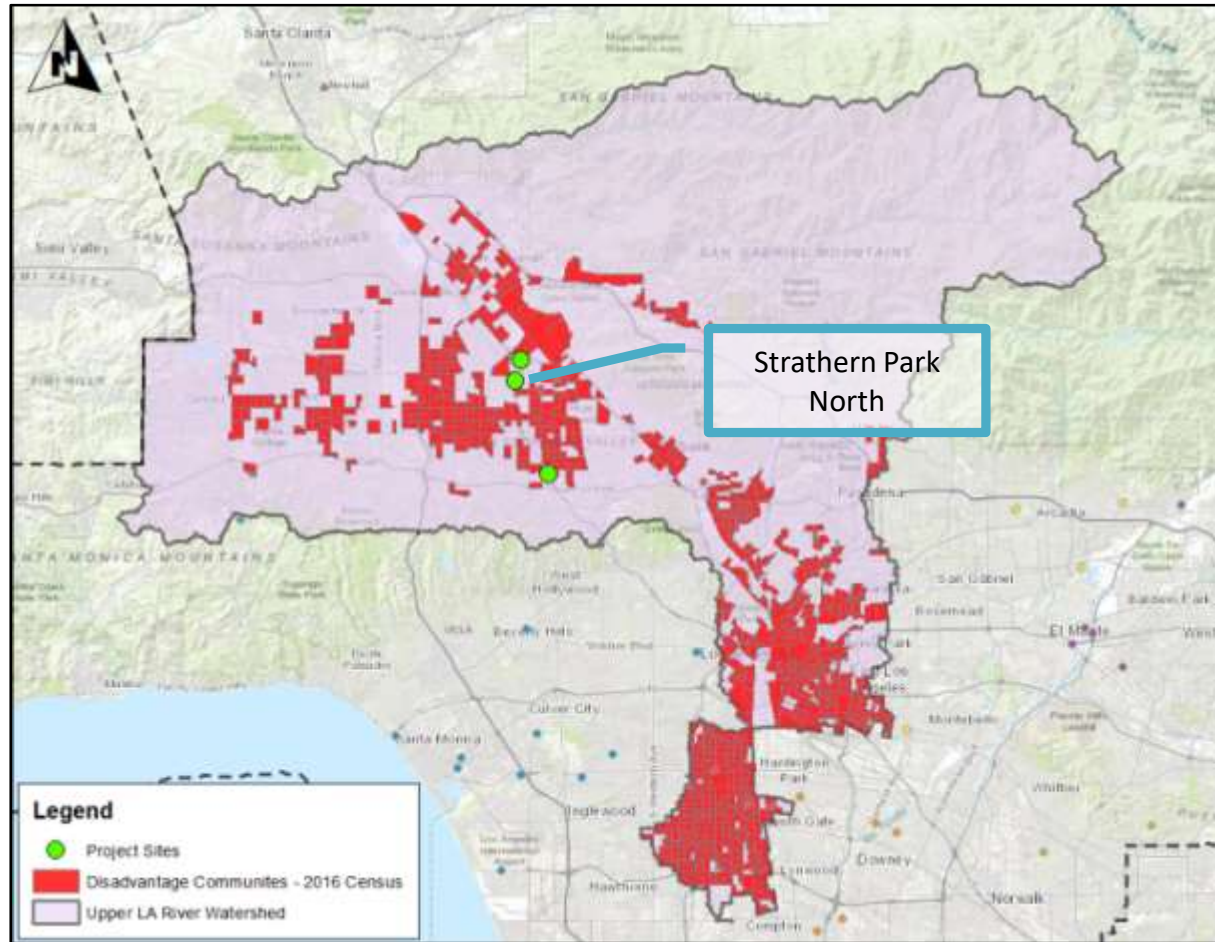


Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities



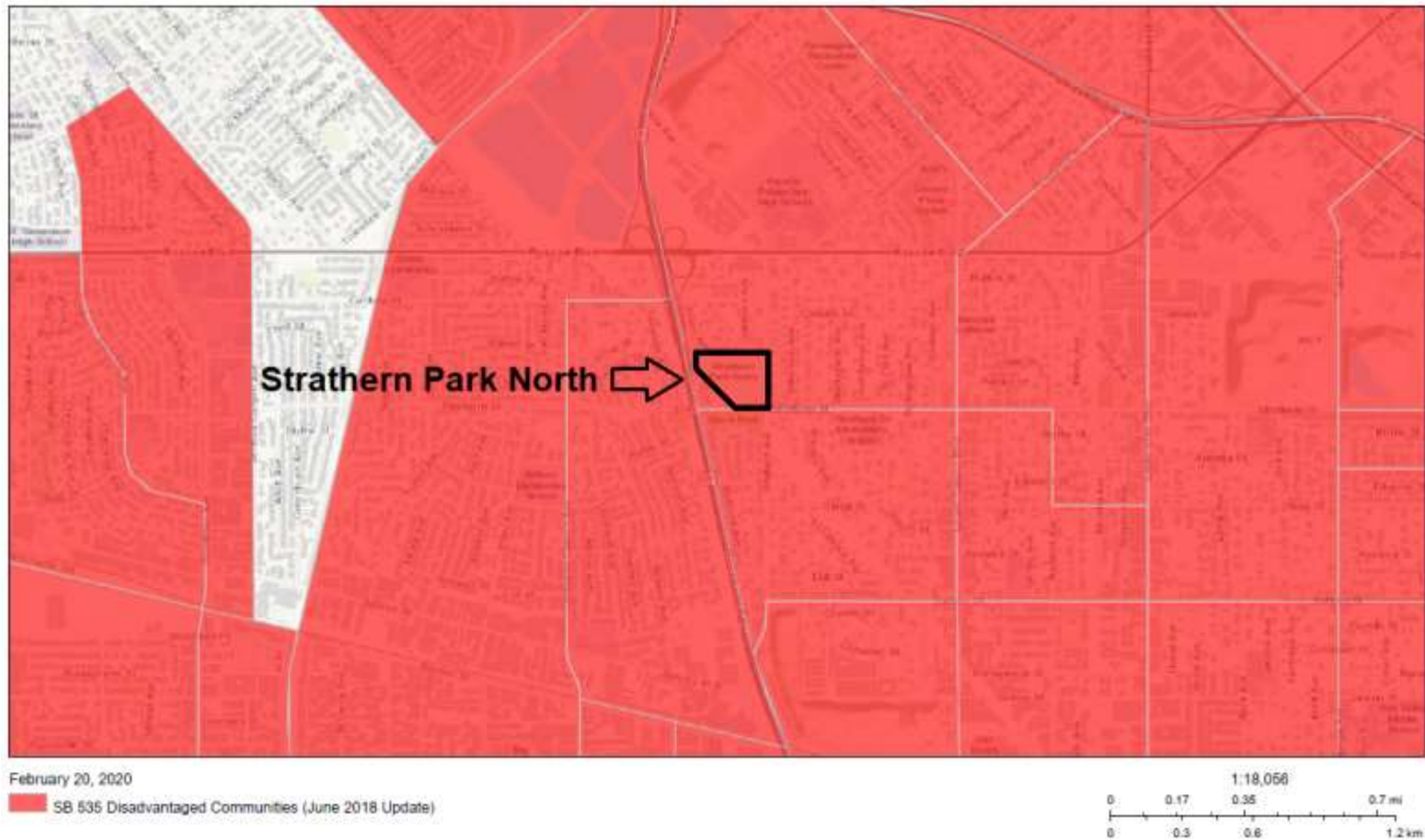
Source: Safe Clean Water Program GIS Reference Map

Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities

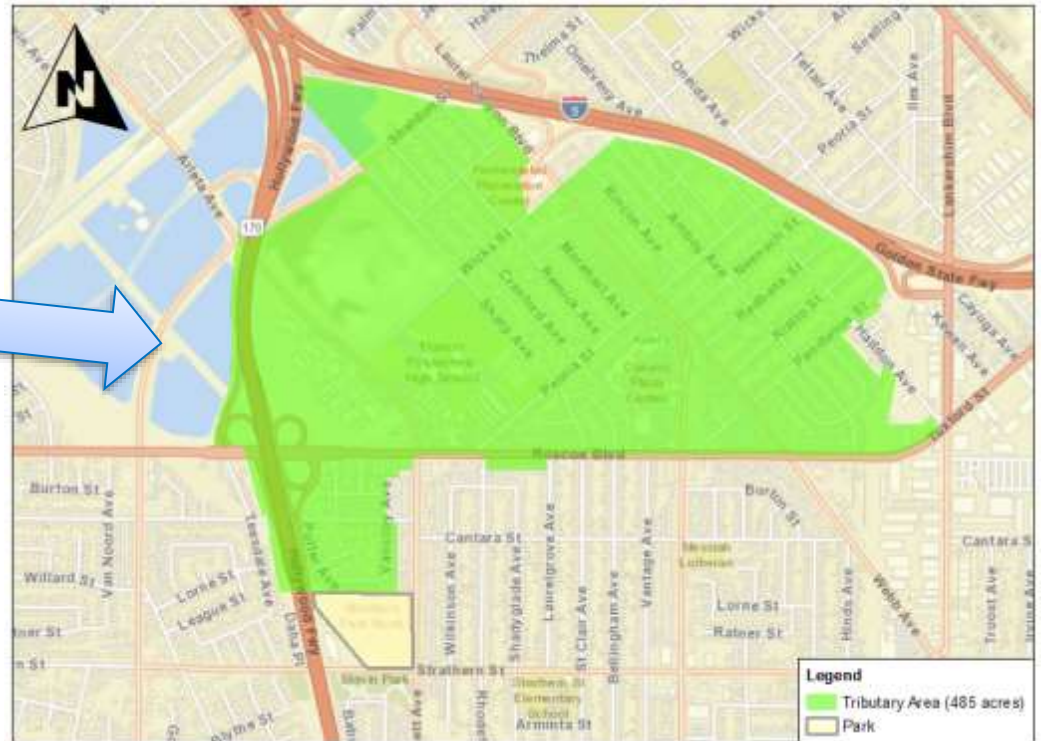
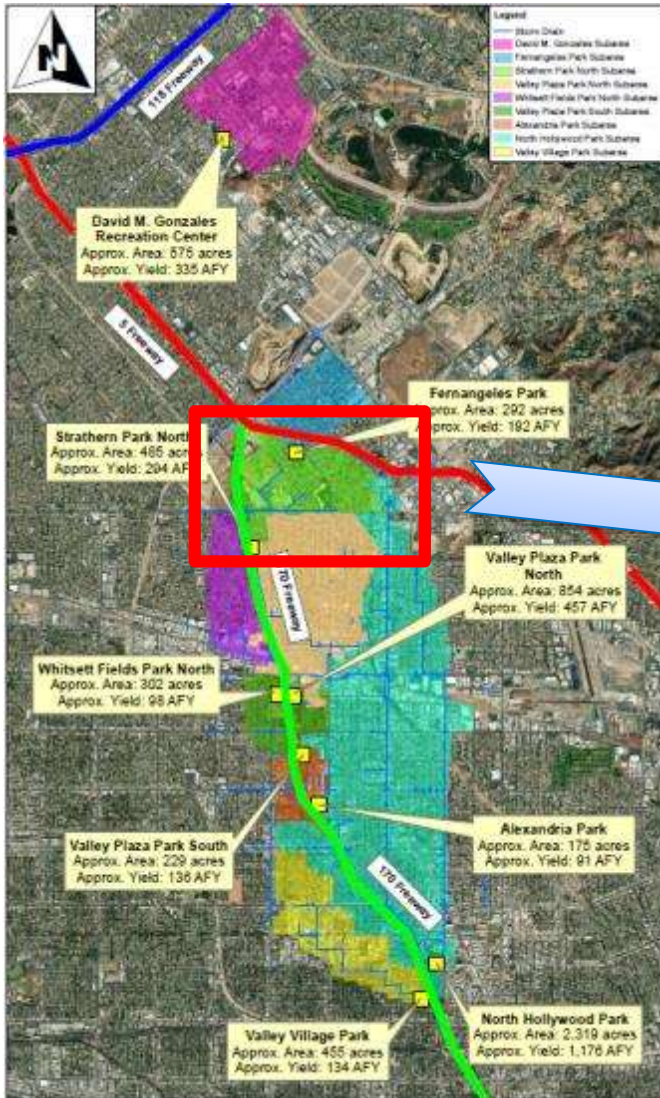


Fernangeles Park

Strathern Park North

Valley Village Park

Location



Fernangeles Park

Strathern Park North

Valley Village Park

Scope

- Capture urban runoff from the neighborhood
- Divert stormwater from a 45-in underground storm pipe into stormwater capture infrastructures
- Infiltrate and replenish the San Fernando Groundwater Basin

Drainage Area: **485 acres**
Annual Capture: **294 AFY**



Community Benefits

- Expand park space & recreational use by adding new native vegetation, grass, trees and other park improvements
- Add 3 new baseball fields with backstops, batting cages & benches

Strathern Park North



Water Quality + Water Supply

WATER QUALITY Wet + Dry Weather	
24-hour BMP Capacity	34.0 AF
Primary Pollutant Reduction - Zinc	97.7%
Secondary Pollutant Reduction – Lead	97.3%
Tertiary Pollutant Reduction – Copper, Nitrogen, Phosphorus, E. coli	96.9%, 93.1%, 92.6%, 91.6%

WATER SUPPLY	
Average Capture	294 AFY

Public Outreach

Partners



Community Support



Mountains Recreation & Conservation Authority



Political Support



Budget

Project Capital Cost:	\$18,434,000
<i>Construction Cost:</i>	<i>\$16,998,000</i>
<i>Planning and Design Cost:</i>	<i>\$1,436,000</i>
Requested Amount	\$9,278,606
LADWP Matching Funds	\$9,467,000



SAFE CLEAN WATER L.A.

Valley Village Park Stormwater Capture Project

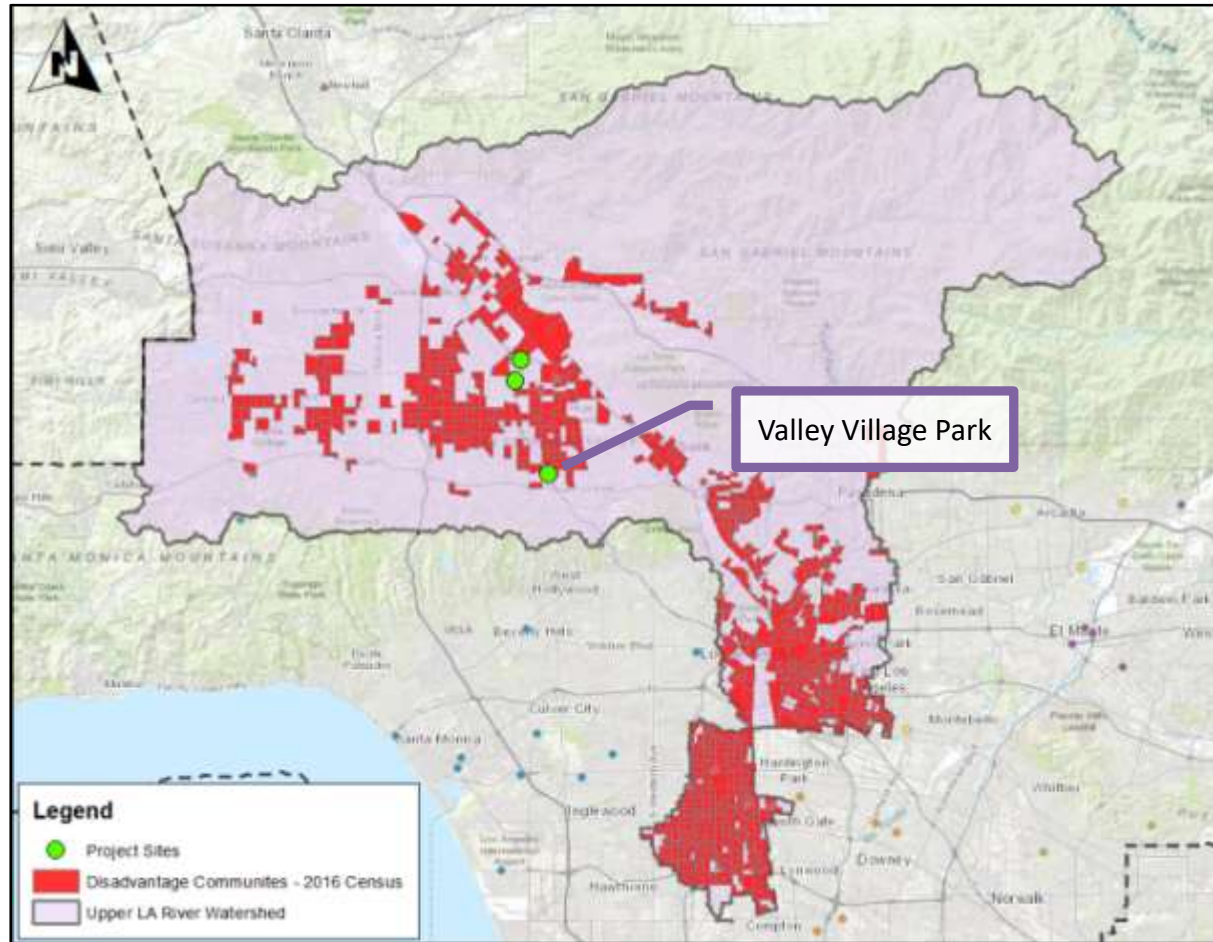


Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities



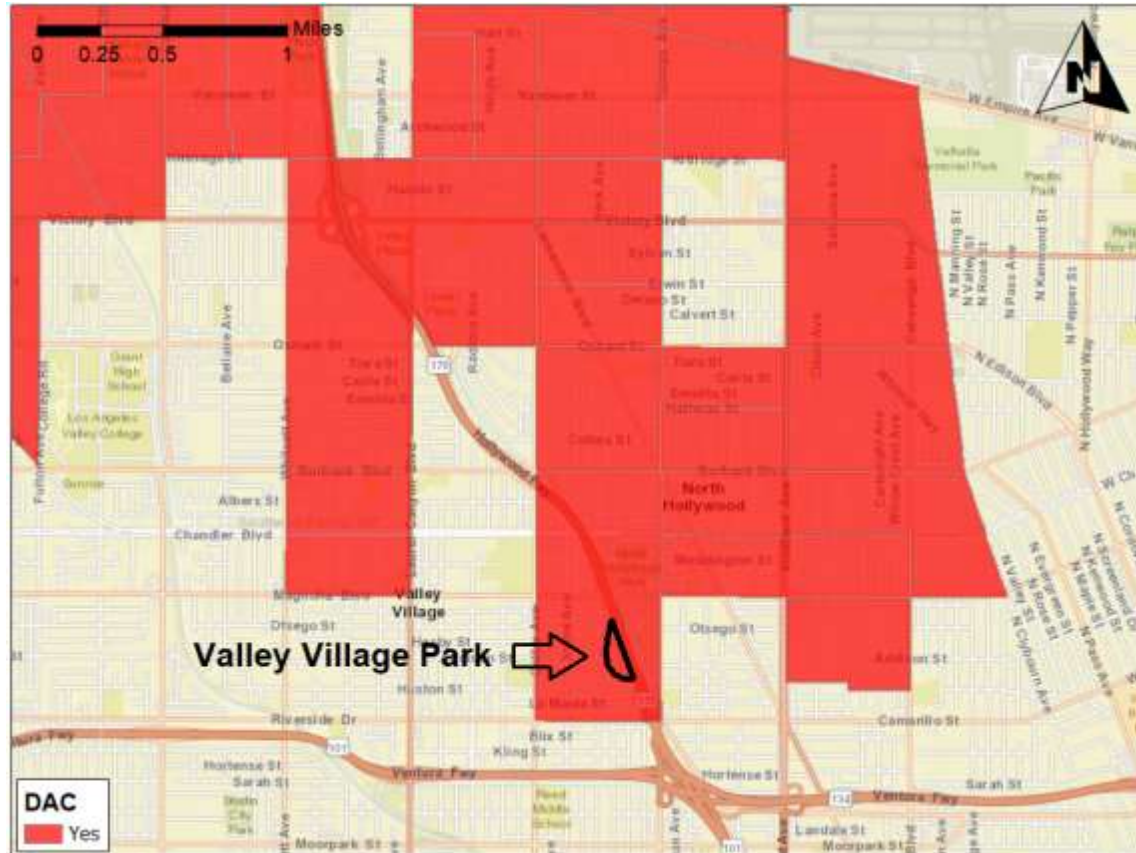
Source: Safe Clean Water Program GIS Reference Map

Fernangeles Park

Strathern Park North

Valley Village Park

Disadvantaged Communities

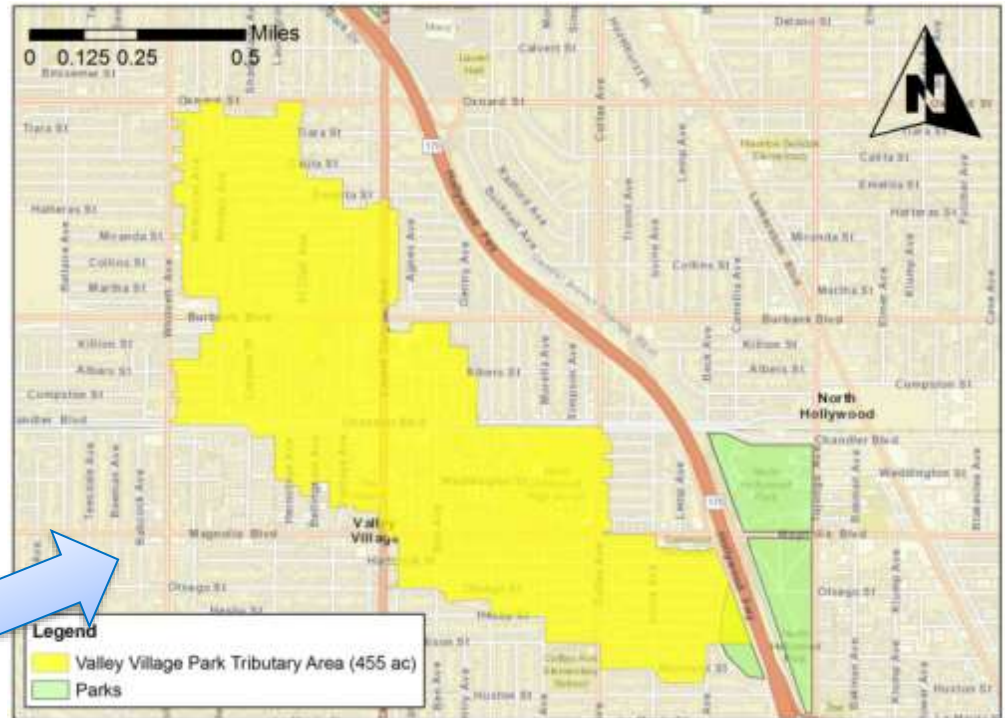


Fernangeles Park

Strathern Park North

Valley Village Park

Location



Fernangeles Park

Strathern Park North

Valley Village Park

Scope

- Divert stormwater from a 90-inch underground storm pipe into stormwater capture infrastructures
- Infiltrate and replenish the San Fernando Groundwater Basin

Drainage Area: **455 acres**
Annual Capture: **134 AFY**



Fernangeles Park

Strathern Park North

Valley Village Park

Community Benefits

- Recreational enhancements including grading and re-vegetation of the park
- New walking path and exercise equipment

Valley Village Park



Water Quality + Water Supply

WATER QUALITY Dry Weather	
Dry Weather Inflow	26 AFY
Average Capture	134 AFY

**100% capture of dry weather flows
and additional wet weather flows**

WATER SUPPLY	
Average Capture	134 AFY

Public Outreach

Partners



Community Support



Mountains Recreation &
Conservation Authority



Political Support



Fernangeles Park

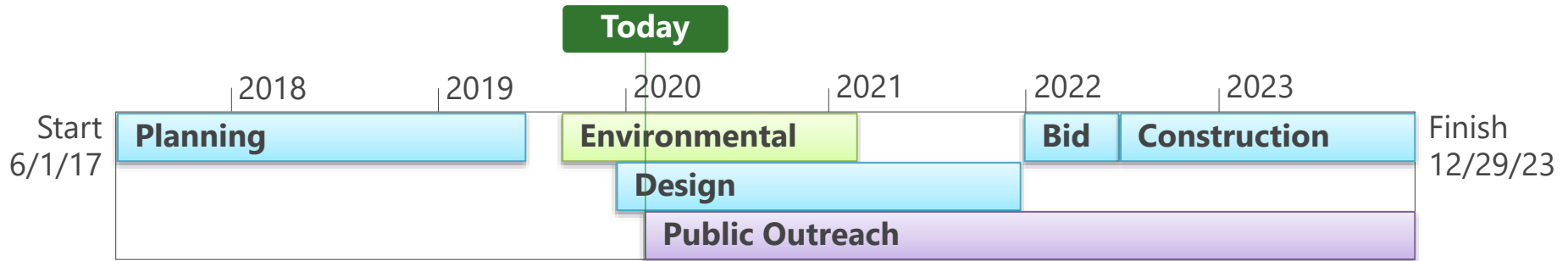
Strathern Park North

Valley Village Park

Budget

Project Capital Cost:	\$6,317,000
<i>Construction Cost:</i>	<i>\$5,568,000</i>
<i>Planning and Design Cost:</i>	<i>\$749,000</i>
Requested Amount	\$3,177,344
LADWP Matching Funds	\$3,242,000

Projects Schedule



TASK NAME	START	FINISH
Planning	Jun 2017	May 2019
Design	Dec 2019	Dec 2021
Environmental	Sept 2019	Mar 2021
Bid-Award*	Jan 2022	Jun 2022
Construction*	Jul 2022	Dec 2023

*Dependent on secured funding

Fernangeles Park

Strathern Park North

Valley Village Park

Community + Environmental Benefits

Community Investment Benefits

- ✓ Improves flood management, flood conveyance, or flood risk mitigation
- ✓ Creates, enhances or restores park space, habitat, or wetland space
- ✓ Creates or enhances new recreational opportunities
- ✓ Reduces heat local island effect and increase shade
- ✓ Increase shade, the numbers of trees, or other vegetation at the site location

Nature-based Solutions

- ✓ Implements natural processes or mimics natural processes to slow, detain, capture, and absorb/infiltrate water
- ✓ Protects, enhances, and/or restores habitat, green space, and/or usable open space
- ✓ Utilizes natural materials such as soils and vegetation with a preference for native vegetation

Fernangeles Park

Strathern Park North

Valley Village Park

Recently Completed LADWP Projects

Laurel Canyon Green
Street Project



Woodman Avenue
Stormwater Capture Project



Thank you

Questions?

