Safe, Clean Water Program

Lower Los Angeles River
Watershed Area Steering Committee (WASC)

Meeting Minutes:
Tuesday, February 25, 2020
1:00pm – 3:00pm
Long Beach City Hall, Beach Conference Room, 2nd Floor
411 West Ocean Blvd, Long Beach, CA 90802

Attendees

Committee Members
Dan Sharp (District)
Lyndsey Bloxom* (Water Replenishment District)
Kristen Ruffell (LA County – Sanitation)
Stephen Scott (Long Beach Parks & Recreation)
Kendrin Hopkins* (Conservation Corps of Long Beach)
Marybeth Vergara* (Rivers Mountains Conservancy)
James Vernon (Port of Long Beach)
Gladis Deras (South Gate)
Carlos Moran* (TreePeople)
Erica Maceda* (River in Action)
Dan Mueller (Downey)
Melissa You (Long Beach)
Chau Vu* (Bell Gardens)
Sarah Ho* (Paramount)
Cecil Looney (Signal Hill)

Committee Members Not Present:
Kevin Wattier (Central Basin)
Laura Ochoa (Lynwood)

*Committee Member Alternate

See attached sign-in sheet for full list of attendees

1. Welcome and Introductions

Mr. James Vernon, the Chair of the Lower Los Angeles River WASC, called the meeting to order.

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

2. Approval of Meeting Minutes from February 11, 2020

The District provided a copy of the meeting minutes from the previous meeting. Mr. Vernon asked the committee members for comments or revisions.

Ms. Gladis Deras believes she was listed as an Alternate and not the Primary WASC member in the meeting minutes. Ms. Lyndsey Bloxom stated that Mr. Kevin Wattier may no longer be employed with Central Basin, and Mr. Dan Sharp stated that the meeting minutes were not voted as approved by the Committee, but were instead approved by the Chair with no objections.

With these stated comments and revisions, the Chair on behalf of the Committee approved the meeting minutes from February 11, 2020.

3. Committee Member and District Updates and Disclosures

a) Scoring Committee Update

Mr. CJ Caluag (District) referred the Committee to the Steering Committee handout and stated that as of February 18, all projects in this WASC have passed the minimum scoring threshold. Today will be the last day of project presentations, and the SIP implementation will be taking place at the upcoming WASC meetings. Finally, the General Income-Based Tax Reduction forms are now posted on the Safe, Clean Water (SCW) website, or can be mailed to those that do not have internet access with a telephone call to the SCW team.

4. Public Comment Period

Jenny Newman, the Assistant Executive Officer of the Los Angeles Regional Water Quality Control Board (Regional Board), encouraged the WASC to choose projects for SCW funding that were included in each group's Watershed Management Program (WMP) or Enhanced WMP.

5. Discussion Items

a) Ex Parte Communication Disclosure

No discussion or comments.

b) Presentations:

i) Infrastructure Program (IP)

(1) Compton Blvd Et. Al. Project

Presentation by Joe Venzon (Los Angeles County Public Works). The proposed Compton Blvd Et. Al. Project, located in a disadvantaged community in the unincorporated County of East Rancho Dominguez, will improve water quality, incorporate LID features, repair poor road conditions, improve pedestrian facilities, and enhance traffic safety.

Ms. Kristen Ruffell asked how many dry wells the project will have. Mr. Venzon said the number has not been finalized, but between 50 and 90 dry wells will be installed.

Ms. Marybeth Vergara asked the source of the $5 million already secured for the project. Mr. Venzon stated that LA County general funds and potential through the SCW municipal funds are the source of the secured funding. Ms. Vergara also asked when the outreach was done and how was this project was selected as part of the EWMP. Mr. Venzon stated that the opportunities developed through a collaborative partnership and community outreach, which has occurred over the last two years.

Ms. Bloxom asked about the low score on the water supply and wondering if it was due to the infiltration not making it to the groundwater basin. Mr. Venzon informed her that the low score was due to the volume of water for the water supply benefit was relatively low. Ms. Bloxom also asked how deep the soil testing went, and Mr. Venzon stated that testing went 75 feet deep.

Ms. Ruffell asked for the 90-acre unincorporated area (UA) vs. city watershed area percent breakdown, and Mr. Venzon informed her that this project is 90-percent UA land.

(2) Furman Park Stormwater Capture and Infiltration Project

Presentation by John Hunter and Oliver Galang (City consultant and CraftWater). The "Furman Park Stormwater Capture and Infiltration Project is located in the City of Downey, and proposes to construct an underground infiltration vault in a location that geotechnical testing has shown has exceptionally good infiltration. The project receives runoff from both Downey and Pico Rivera.

Ms. Ruffell asked what the flowrate is of the treatment system and if they spoke with the County regarding discharging back into the storm drain. Mr. Galang noted stated that the discharge back into the storm drain is only necessary remove ponding water for maintenance activities.

Ms. Vergara stated that this project is in construction, and then asked would the lack of SCW funding affect this construction. The consultants stated that the other improvements would continue as intended, and the lack of SCW funding would only affect the stormwater improvements proposed. Mr. Dan Mueller clarified the construction occurring now is for different improvements to the park separate from this project.

A committee member asked if this project is similar infiltration project to the nearby sports complex project. Mr. Dan Mueller confirmed yes, project similar to the Discovery Park project..

A committee member asked for the current status of the project, and the consultants stated that the project is currently at the 10-percent design phase.

(3) Rancho Los Cerritos: Looking Back to Advance Forward

Presentation by Alison Bruesehoff, Travis Taylor and Kirk Keller (Executive Director of Rancho Los Cerritos, Project Manager, and Project Architect). Looking Back to Advance Forward is an innovative stormwater reclamation project that will use a combination of cutting-edge technology and Rancho period water reclamation techniques to capture up to 95% of the rainwater that falls on the property and provides flood mitigation to adjacent properties - in addition to the project itself, there will educational programming that will enhance the experience for all visitors including over 7,000 thousand local school children.

Ms. Bloxom asked if the project design is flexible. The presenters stated that they need to do more work on finalizing the design.

A committee member asked if this project will present job opportunities to the local communities. The presenters stated that they will involve more college students and will expand funding to include more student activities, including internships.

A committee member asked why the parking lot was the focus of the project siting. The presenters stated that as students are arriving in a bus, the parking lot will present optimal exposure as the parking lot is innovative and will collect a large amount of runoff.

Ms. Vergara is concerned with the project location due to seclusion, and asked if the project will add access improvements to the project location. The presenters stated that they plan to increase signage and will ensure the public is aware of visiting times and facility reservations.

A committee member asked for more information about the applicant's affiliation. Ms. Alison Bruesehoff stated that at one time, Rancho Los Cerritos was part of the City of Long

Beach, but have now split into a private public partnership, with the City still owning the land.

Ms. Bloxom asked for a project breakdown of the $2 million request for SCW funds. Mr. Caluag noted the package handed out earlier includes breakdown of the requested funds each fiscal year.

Mr. Carlos Moran asked if only The Port of Long Beach are the only secured leverage funding at this time. The presenters affirmed that this is the case, but they are always looking for more sources.. Mr. Moran further asked what percent of schools used are Title I and Ms. Bruesehoff stated 65 percent.

ii) Technical Resources Program (TRP)

(1) Hollydale Regional Park Green Infrastructure Development

Presentation by Claire Robinson (Amigos de los Rios). The intent of the project concept is to retrofit Hollydale Regional Park to improve the Lower Los Angeles River area's nascent green infrastructure network, and to manage stormwater by increased capture, filtering and infiltration through a natural systems approach focused on community-based design of green infrastructure.

Mr. Sharp alluded to the $340,000 costs and asked whether the District takes this TRP as is with the focused tasks. Mr. Caluag stated it would be only a $300,000 allocation from this WASC, and not what was indicated on the slide. The intent of the TRP is for applicants that do not have technical ability or resources to develop a feasibility study to assist with satisfying the 19 requirements necessary for the Infrastructure Program. Depending on the project, some of the tasks requested could be handled by the TRP, and others can be performed in the Infrastructure Project funding.

Mr. James Vernon asked what the acreage is. Ms. Claire Robinson stated that the park itself is 53 acres, with a total capture area of approximately 94 acres.

Ms. Bloxom stated that this project appears to have many park improvement opportunities, and asked if this effort would evaluate all options for consideration. Ms. Robinson stated that her intent is to explore every opportunity possible.

Mr. Moran asked who some of the project partners are, and Ms. Robinson indicated that South Gate Public Works and Parks & Recreation, Paramount Unified, Maywood, and 120 schools ranging from South Gate to Arcadia are all existing partners.

(2) Parque Dos Rios Bioswale

Presentation by Martin Kammerer and Debbie Enos (BlueGreen Consulting and Watershed Conservation Authority). The goal of this project is to transform existing impervious concrete v-ditch with earthen slopes prone to erosion into a natural riparian bioswale designed cleanse and infiltrate water drained from I-710 that outflows to the Lower Los Angeles River. The v-ditch is a Caltrans easement on Watershed Conservation Authority owned property known as Parque Dos Rios. The 7-acre parcel, located along the LLAR at the confluence with the Rio Hondo in South Gate. The property is under construction as a trail amenity featuring two overlooks, interpretation, shade, seating, view-scopes and habitat restoration on the upper plateau of the site. This proposed project would be Phase II.

Mr. Vernon stated that Hollydale Park across the river has a bike stop from the adjacent bike path, and then asked if this project will have a similar bike stop. The presenters affirmed that there will be a bike stop for this project.

Mr. Moran asked if there are any other community spots besides the bike stops. The presenters stated that the feasibility analyses will further evaluate identifying other community spots.

A committee member asked who owns the property, and the presenters stated that it is owned by the Watershed Conservation Authority.

A committee member asked if the catchment area is 60 acres, and the presenters stated that this will be finalized as part of the feasibility analyses.

Ms. Vergara stated that since this is a Caltrans ditch, is Caltrans on board with removing the ditch, and does the $300,000 cover all feasibility study elements, such as hydrology. The presenters stated that the intent is to look at entire surrounding area, and Caltrans will be involved with permitting any engineering plans and retrofits.

6. Break

No break was taken by the group.

7. Voting Items

There were no voting items.

8. Items for the Next Agenda

The WASC will next focus on the SIP process. Presentations are now complete, so the next meeting will be SIP development, so the WASC members need to think about voting and SIP criteria.

Ms. Ruffell proposed that the group vote at the next meeting on how much (percent allocation) we allocate to implementation projects.

Mr. Caluag stated that this group will want a SIP tool, and highly recommended the group not utilize 100 percent of the allocated funding. At this time, $12.8 million is the budget allocated for this WASC, but it is just an estimate and this does not include credits, appeals and non-property tax payments. Mr. Vernon suggested voting between 67 and 80 percent. Mr. Caluag asked if the group wants to vote by show of hands, or by closed (paper) balloting.

Ms. Ruffell further proposed that the group be prepared to rank each priority in this WASC, as this will help to prioritize each project in this WASC. Mr. Sharp understood this to mean that all 12 projects (IPs, TRPs, and special studies) be ranked by each WASC member. Mr. Caluag reminded the group to look over the SIP criteria when ranking and voting. Mr. Dan Mueller believes it will be very difficult to rank all projects as combined, and Mr. Vernon agreed with this.

Mr. Moran asked if the LA County SIP tool will help the group rank the projects, and both Mr. Caluag and Ms. Ruffell stated that it will not help rank projects, but it will help the group see what funding remains and whether certain allocations are allowed or not.

Ms. Chau Vu asked if the group can use 100 percent as the funding allocation, and Ms. Ruffell stated that the group needs to leave funds for the watershed coordinator.

Ms. Melissa You asked when the SIP has to be finalized, and Mr. Caluag stated that by April.

Mr. Moran asked if this WASC ever set priorities. Mr. Vernon stated that the group had a general discussion about priorities which Mr. Moran was a part of, but nothing further. Mr. Moran further stated that he believes the group needs to define its priorities before projects are ranked. The group reminded Mr. Moran that the intent of each WASC member is to vote and prioritize according to the SCW guidelines and SIP criteria.

Mr. Vernon reminded the group that the next WASC meetings in March will be held in Paramount at Progress Park.

9. Adjournment

Mr. Vernon thanked the committee members and public for their time and participation and adjourned the meeting.

Next Meeting:

Tuesday, March 10, 2020, 1:00pm – 3:00pm
Progress Park
1500 Downey Ave, Paramount, CA 90723

Future Meetings:

Tuesday, March 24, 2020, 1:00pm – 3:00pm
Progress Park, 1500 Downey Ave, Paramount, CA 90723

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

SAFE CLEAN WATER

Member Name	Municipality/ Organization	Email Address		Signature
Dan Sharp	FCD	DSHARP@dpw.lacounty.gov	P	
Carolina Hernandez	FCD	CHERNANDEZ@dpw.lacounty.gov	A	
Diane Gatza	Water Replenishment District	dgatza@wrd.org	P	
Lyndsey Bloxom	Water Replenishment District	lbloxom@wrd.org	A	
Stephen Scott	City of Long Beach Parks and Recreation	Stephen.Scott@longbeach.gov	P	
Meredith Reynolds	City of Long Beach, Parks, Recreation and Marine	Meredith.Reynolds@longbeach.gov	A	
Kristen Ruffell	Sanitation Districts	kruffell@lacsd.org	P	
Mike Sullivan	Sanitation Districts	msullivan@lacsd.org	A	
Kevin Wattier	Central Basin	kevinw@centralbasin.org	P	
Nick Jiles	Páo Strategies	nick@paostrategies.org	P	
Kedrin Hopkins	Conservation Corps of Long Beach	khopkins@cclb-corps.org	A	
Mark Stanley	Rivers Mountains Conservancy	mstanley@rmc.ca.gov	P	
Marybeth Vergara	Rivers and Mountains Conservancy	Mvergara@rmc.ca.gov	A	
James Vernon	Port of Long Beach	james.vernon@polb.com	P	
Dylan Porter	Port of Long Beach	dylan.porter@polb.com	A	

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

SAFE CLEAN WATER

Member Name	Municipality/ Organization	Email Address		Signature
Melissa Bahmanpour	River in Action	melbahmanpour@gmail.com	P	
Erica Maceda	River in Action	ericamaceda@gmail.com	A	
Cindy Montanez	TreePeople	CMontanez@treepeople.org	P	
Carlos Moran	TreePeople	cmoran@treepeople.org	A	
Gina Nila	Commerce	ginan@ci.commerce.ca.us	P	
Chau Vu	Bell Gardens	CVu@bellgardens.org	A	
Dan Mueller	Downey	dmueller@downeyca.org	P	
Delfino Consunji	Downey	dconsunji@downeyca.org	A	
Melissa You	Long Beach	Melissa.You@longbeach.gov	P	
Alvin Papa	Long Beach	Alvin.Papa@longbeach.gov	A	
Laura Ochoa	Lynwood	Lochoa@Lynwood.ca.us	P	
Noe Martinez	Lynwood	nmartinez@lynwood.ca.us	A	
Adriana Figueroa	Paramount	afigueroa@paramountcity.com	P	
Sarah Ho	Paramount	sho@paramountcity.com	A	
Kelli Tunnicliff	Signal Hill	ktunnicliff@cityofsignalhill.org	P	

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

SAFE CLEAN WATER

Member Name	Municipality/ Organization	Email Address		Signature
Cecil Looney	Signal Hill	clooney@cityofsignalhill.org	A	
Gladis Deras	South Gate	gderas@sogate.org	P	
Clint Herrera	South Gate	cherrera@sogate.org	A	
Nina Turner	POLB	Nina.Turner@polb.com		

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

SAFE CLEAN WATER

First Name	Last Name	Municipality/Organization	Email Address
JOSEPH	VENZON	LA COUNTY	JVENZON@PW.LACOUNTY.GOV
OLIVER	GALANG	[illegible]	oliver.[illegible]@[illegible].com
Elisha	Back	Woodard and Curran	EBack@WoodardCurran.com
JENNY	NEWMAN	LARWQCB	jenny.newman@waterboards.ca.gov
Martin	Kammerer	BlueGreen Consulting	kammerer@bluegreen.biz
Michelle	Kim	JLHA	mkim@JLHA.net
Bryce	Lee	JLHA	blee@jlha.net
Debbie [illegible]	ENOS	WCA	denos@wca.ca.gov
Greg Alexander →		P2S	greg.alexander@p2sinc.com
KIRK [illegible]	KELLER	STUDIO ONE ELEVEN	KIRK.KELLER@STUDIO-111.COM
Dillon [illegible]	O'Donohue	COLB PW	Dillon.ODonohue@longbeach.gov
CECIL [illegible]Y	LOONEY	CITY OF SIGNAL HILL	CLOONEY@CITYOFSIGNALHILL.org
Halie Simmons		Signal Hill	
Jaime	Sayre	TetraTech	jaime.sayre@tetratech.com

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

February 25, 2020

Lower Los Angeles River

Watershed Area Steering Committee Meeting

PUBLIC SIGN-IN

SAFE CLEAN WATER

First Name	Last Name	Municipality/Organization	Email Address
John	Hunter	JLHA	JHunter@JLHA.net
Fred	Gonzalez	LACFCD	fgonzal@dpw.lacounty.gov
Alison	Bruesehoff	RLC	alisonb@rmcsandmountainsconservancy.org
Katie	Harrel	CWE	kharrel@cwecorp.com
Jon	Abelson	Stantec	jonathan.abelson@stantec.com
Jacqueline	McMillen	Alta | NVS	jacqueline.mcmillen@altaenviron.com
Claire	Robinson	Amigos de los Rios	claire@amigosdelosrios.org

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

February 25, 2020

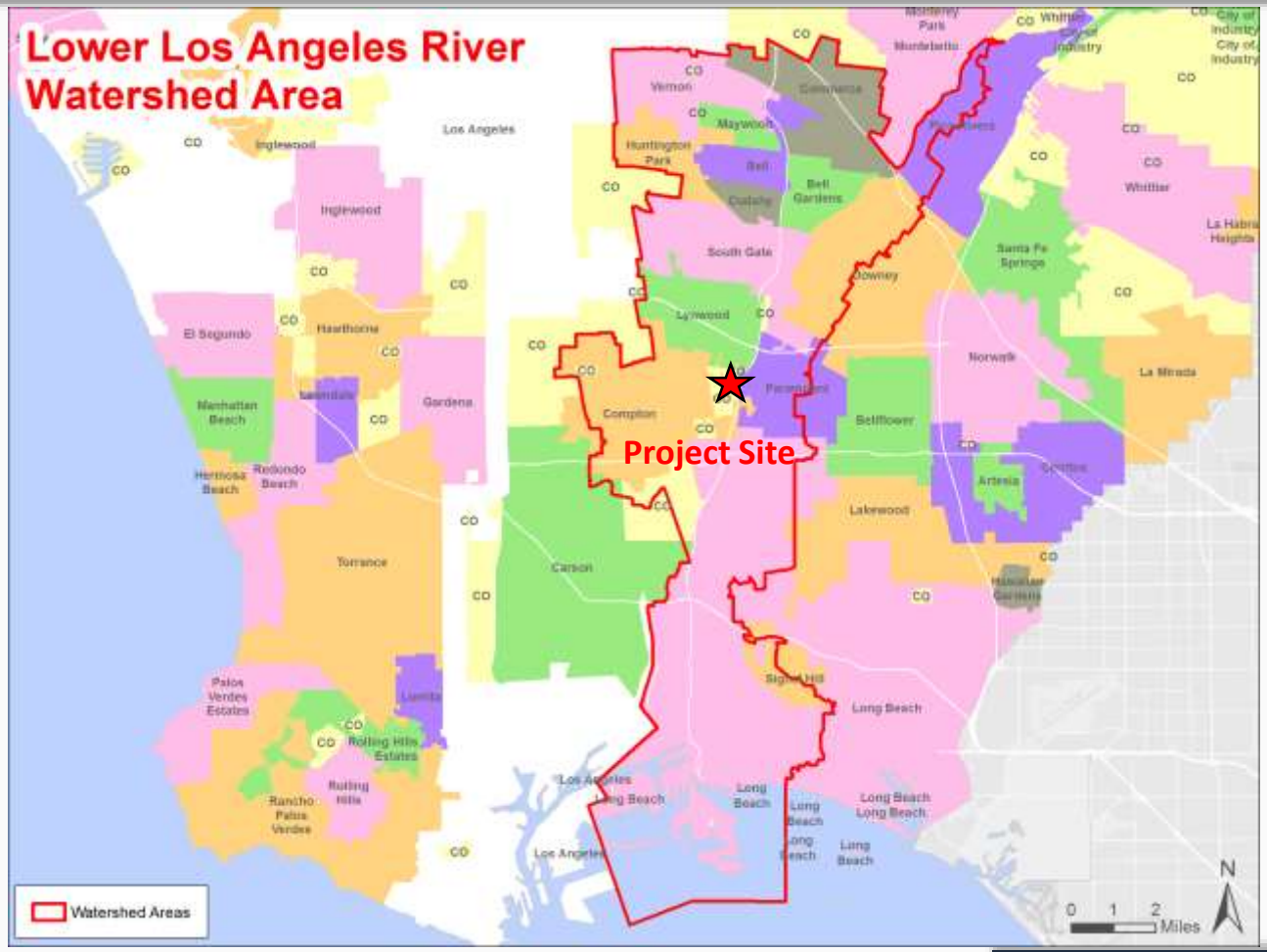
Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Presented by:

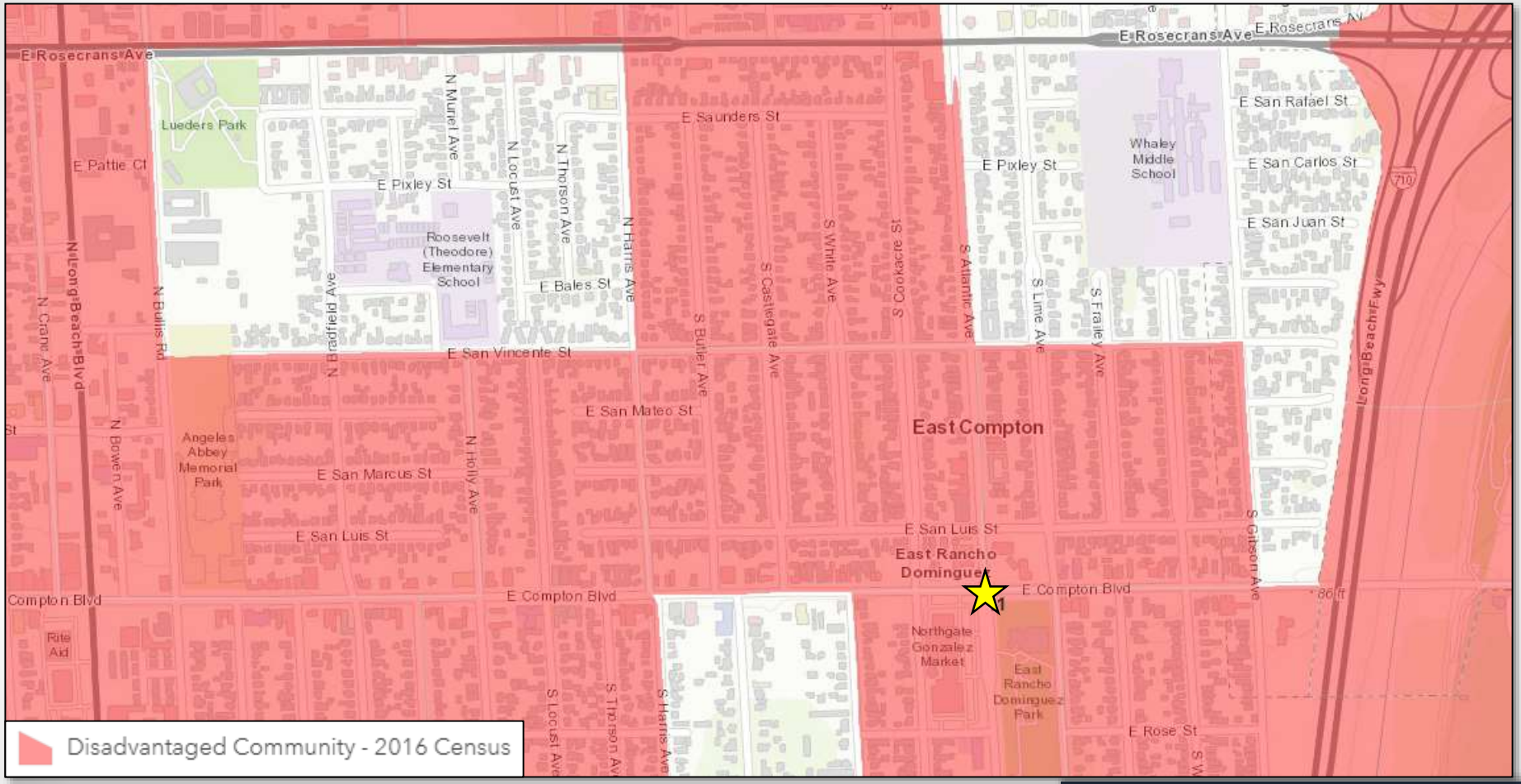
Joe Venzon, P.E.
LA County Public Works

Compton Blvd Et. Al. Project



Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Project Location: Unincorporated Community of East Rancho Dominguez

Public Works
LOS ANGELES COUNTY

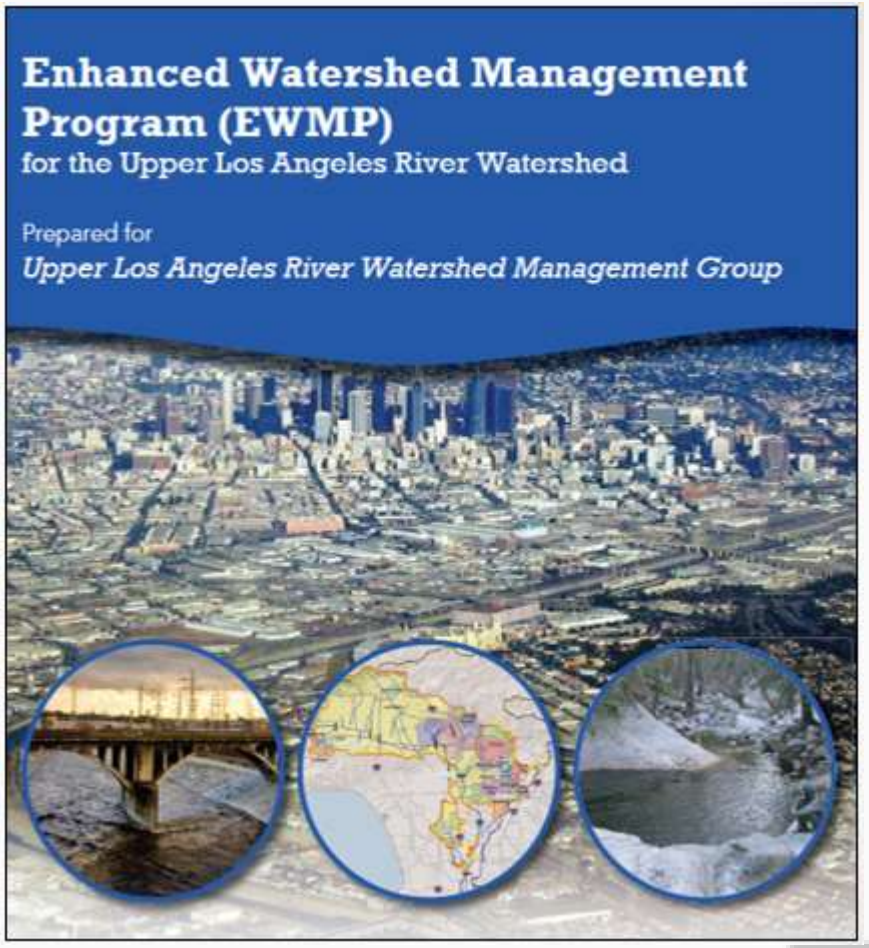
Compton Blvd Et. Al. Project

Project Scope

- Road improvements/repairs
  - City of Compton
- Transportation/Community Enhancements
- Stormwater improvements
  - Infiltration system
  - Surface treatment

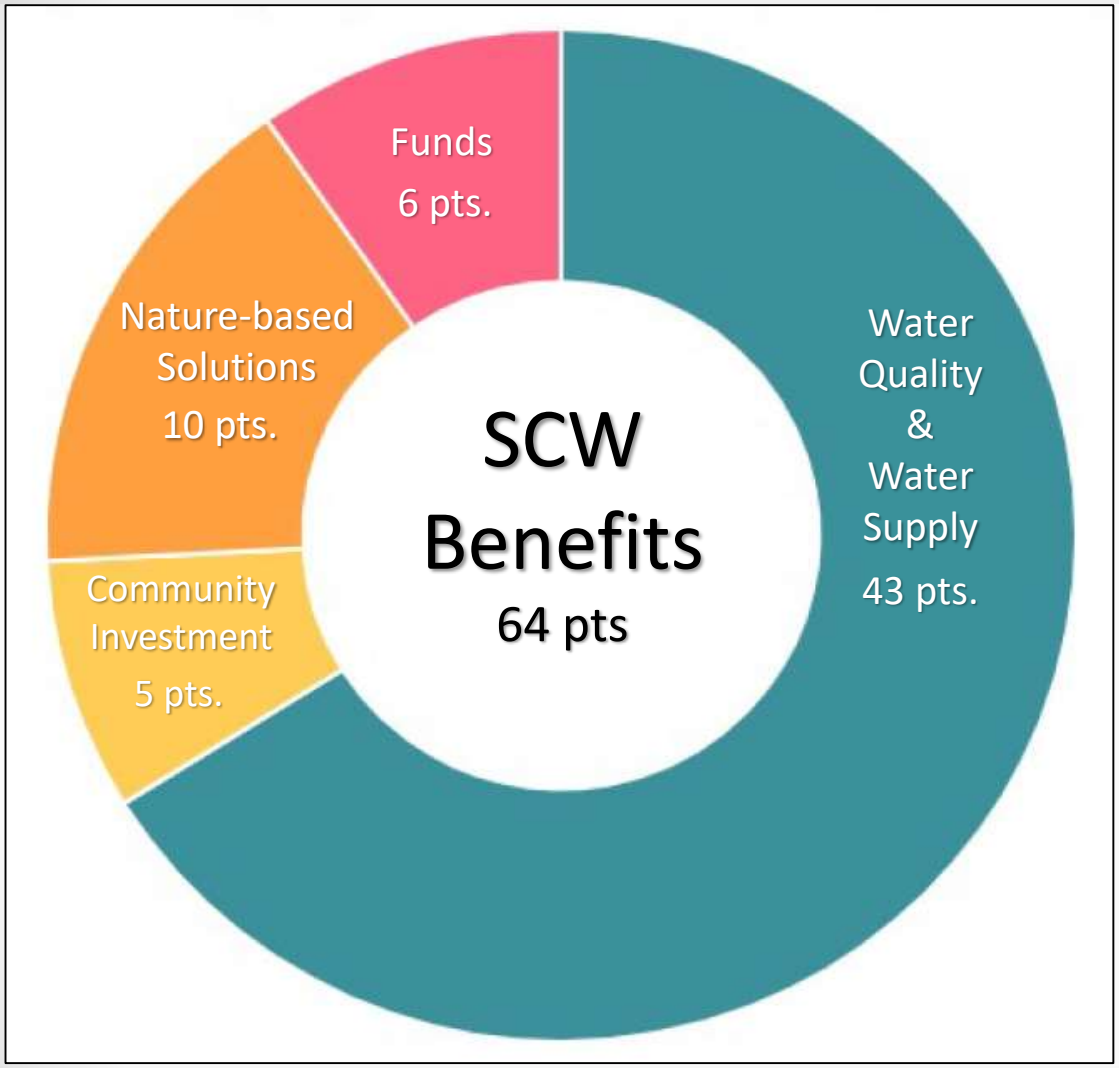
Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Water Quality
Pollutant reduction of metals and bacteria

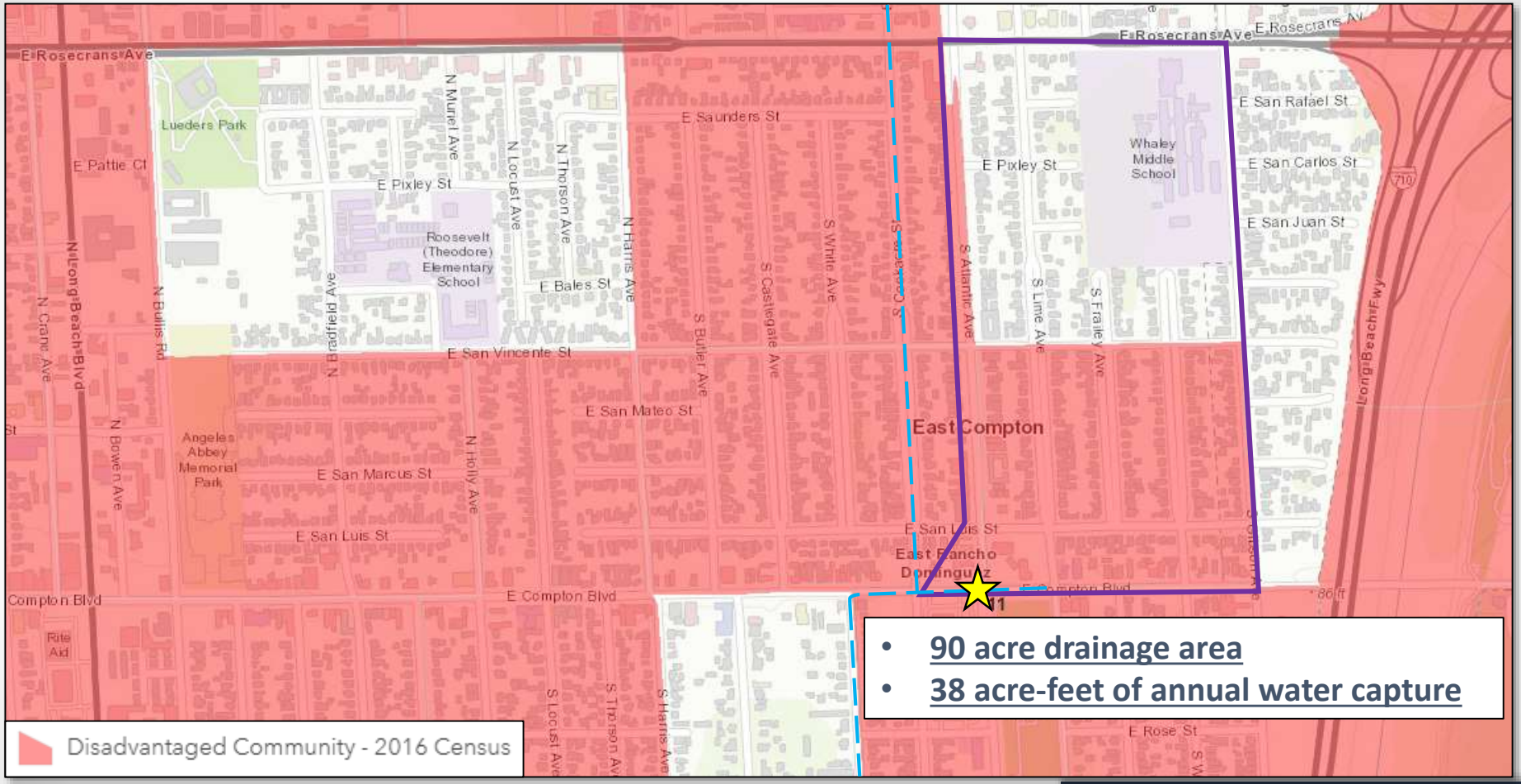
Community Investment
Community Enhancements

Nature-based Solutions
Natural process and materials

Leveraging Funds
Project partnerships and community outreach

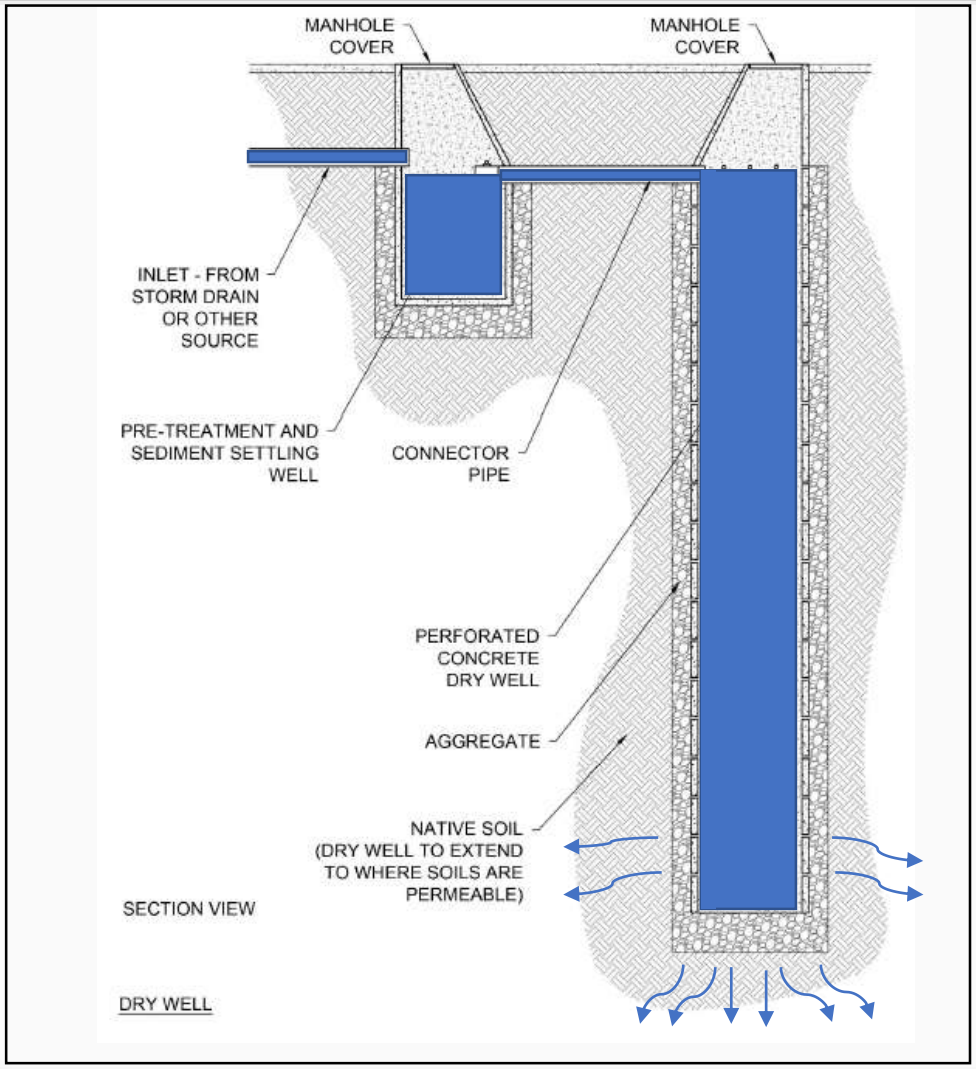
Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Infiltration System

- Diversion from Storm Drain
- Pre-treatment and drywells
- 4 acre-ft capacity (85th percentile storm)

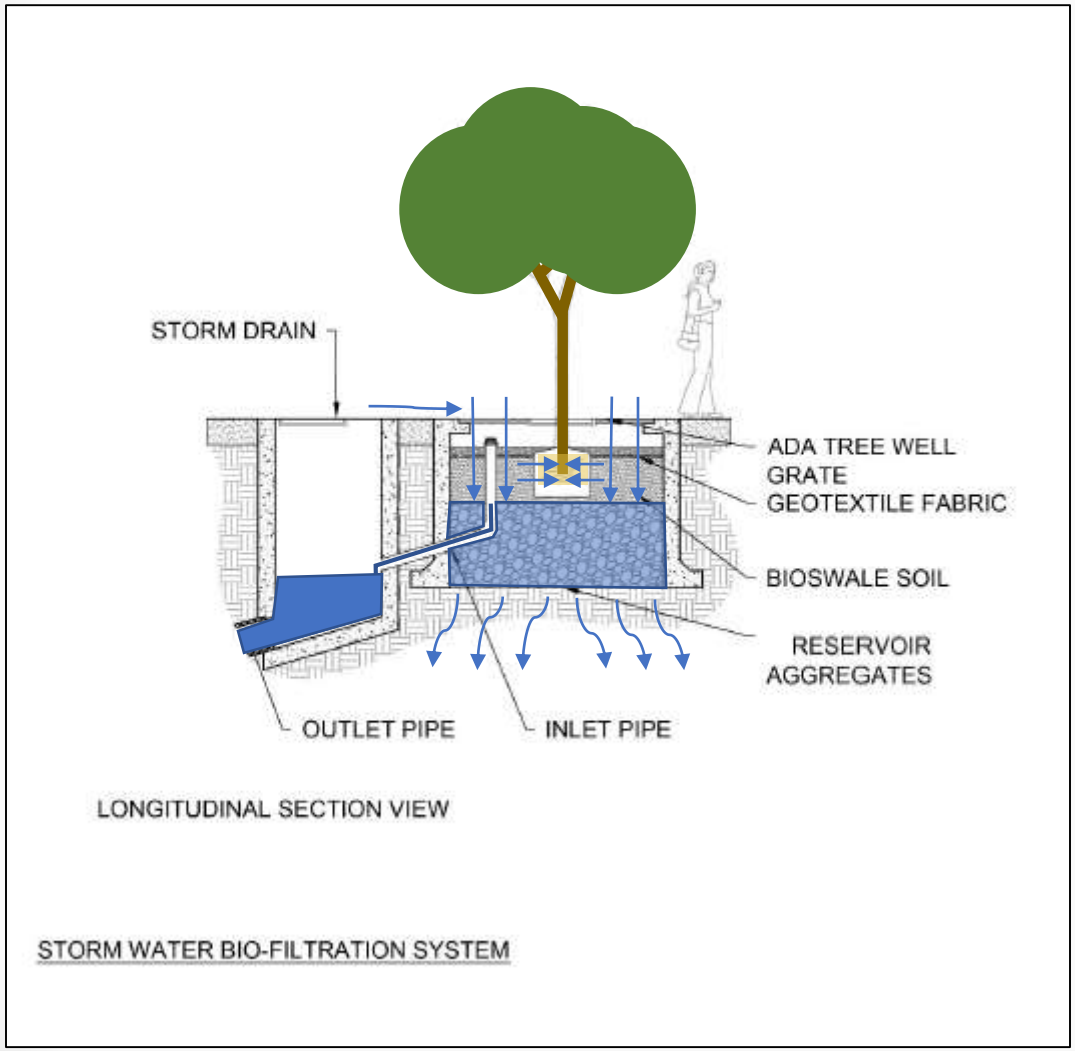
Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Example photos of drywell installation

Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project



Surface Treatment

- Tree wells/ bioswales
- Natural materials/Nature-based solutions
- Biofiltration
- Perforated pipe

Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Road Improvements

- Road re-surfacing and re-construction

Transportation Enhancements

- Curb ramp upgrades
- Curb extensions
- Sidewalk repairs
- Signal upgrades
- Crosswalk upgrades

Community Enhancements

- Wayfinding signage
- Vegetation

Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Community Coordination and Outreach

Supervisorial District 2

Gateway Cities Council of Governments

County of Los Angeles Public Library

LA County Department of Parks and Recreation

E. Rancho Dominguez Neighborhood Association

CHP/Sheriff

City of Compton

Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Preliminary Cost Estimate (Stormwater Features) and Schedule:

Phase	Cost	Completion
Planning & Design	$ 400,000	Early 2021
Construction	$ 8,000,000	Mid 2022
Total Estimate	**$ 8,400,000**	

Request	FY
$1.5M	2021-22
$1.5M	2022-23
$3M	

Operation and Maintenance: Los Angeles County

Public Works
LOS ANGELES COUNTY

Compton Blvd Et. Al. Project

Thank You

Los Angeles County Public Works

Joe Venzon, P.E.
jvenzon@pw.lacounty.gov
(626) 300-2630

Public Works
LOS ANGELES COUNTY

Furman Park Stormwater Capture and Infiltration Project

(Total Funding Requested: $14,625,000)

City of Downey | Presented by John Hunter (JLHA) & Oliver Galang (Craft Water)

Lower Los Angeles River Watershed Area Steering Committee

February 25, 2020

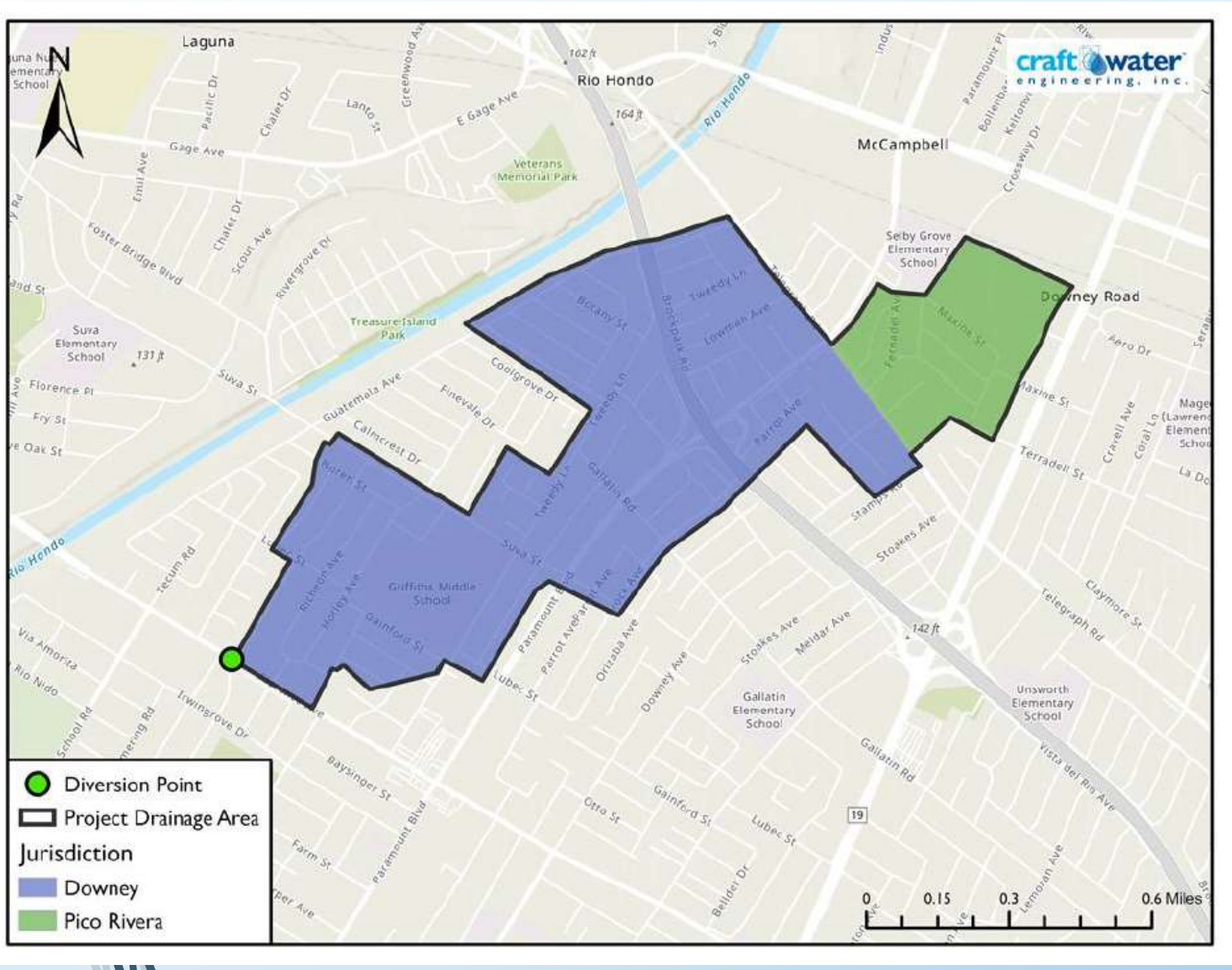
Overview

- Project Lead: City of Downey
- Furman Park is a community park in the City of Downey
- Major project elements include the:
  - Installation of an 8.4 acre-foot capacity storage reservoir and infiltration facility
  - Removal and enhancement of the existing tee-ball field and picnic shelters
  - Refurbishment of the parking lot with a vegetated bioswale or equivalent nature-based LID BMP
- The project has a drainage area of 475 acres

Infiltration

- Excellent for infiltration:
  - 18 inches per hour at 10 feet
  - 51 inches per hour at 35 feet

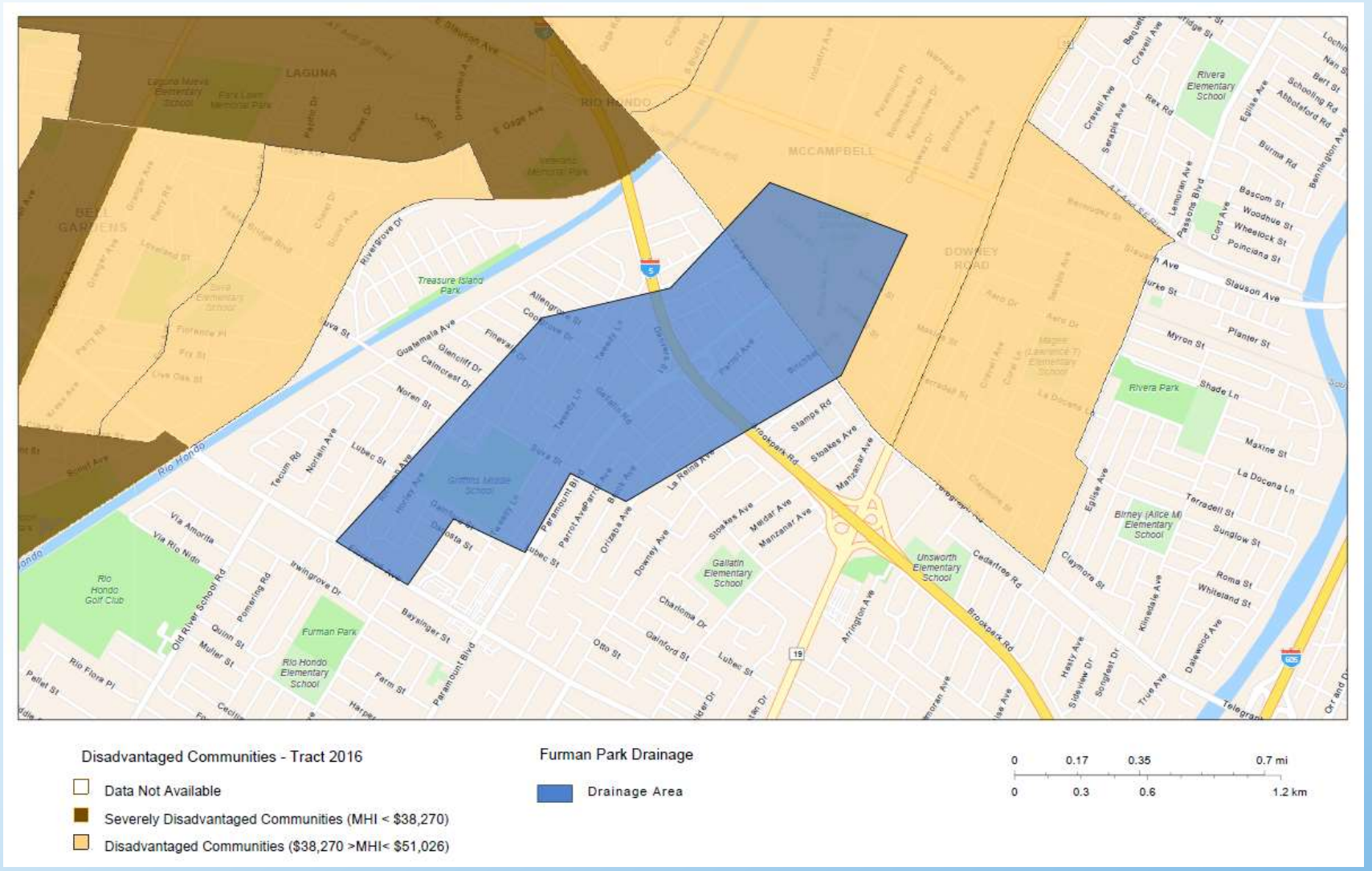
Project Area

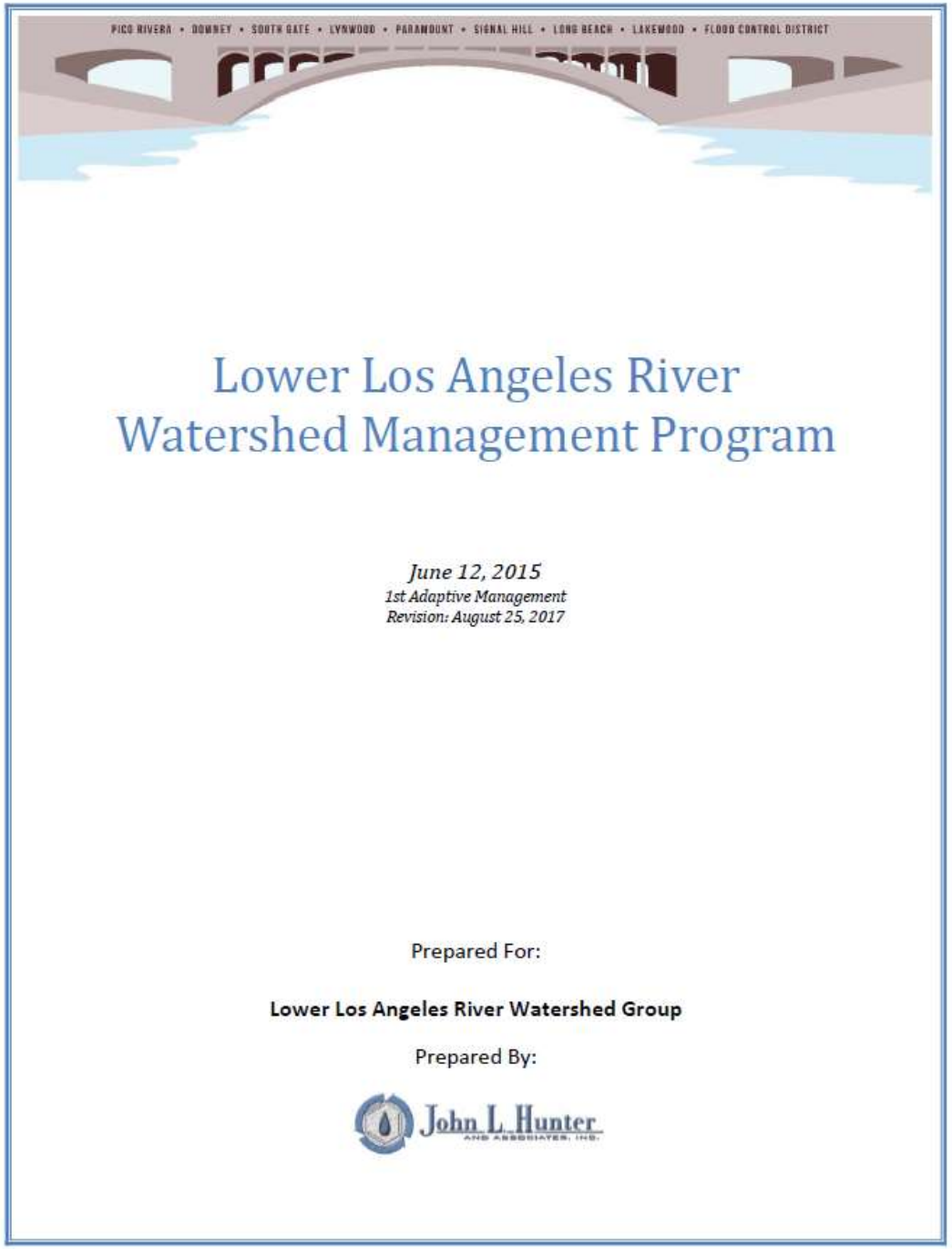


Drainage Area

Jurisdiction	Area (acres)
Downey	394
Pico River	81
Total	**475**

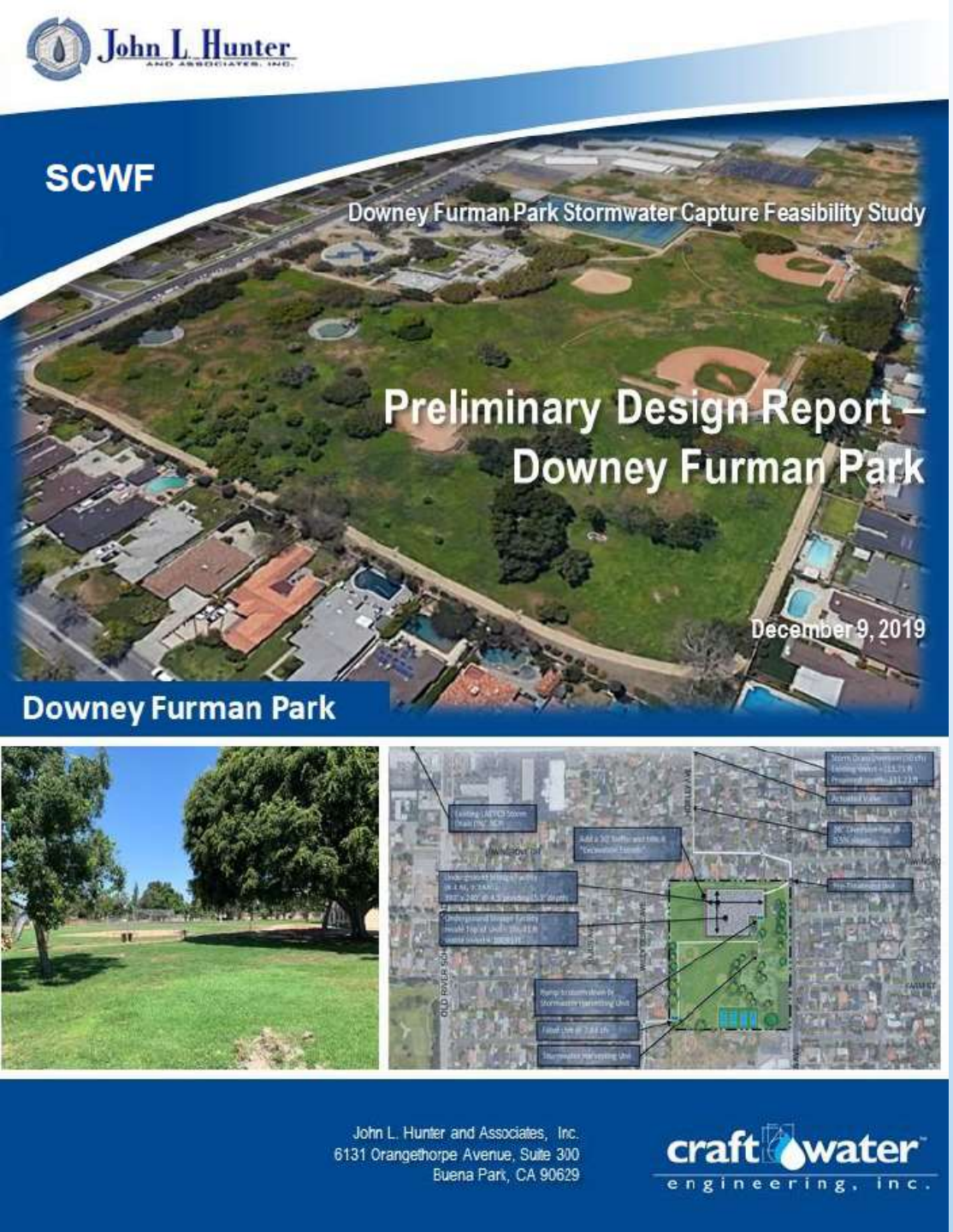
DAC Benefits





Lower Los Angeles River Watershed Management Program (LLAR WMP)

- Conditionally approved on April 28, 2015 and subsequently approved on July 21, 2015
- Consists of the following permittees: Downey, Lakewood, Long Beach, Lynwood, Paramount, Pico Rivera, Signal Hill, South Gate, Los Angeles County Flood Control District
- Outlines the path to achieving compliance with the MS4 Permit
- Listed on the OPTI database



The LLAR Watershed Management Group previously contributed **$70,000** for the development of 10% design plans and a preliminary design report

City of Downey

CONCEPTUAL LAYOUT

MATCH LINE - STA. 4+00
SEE SHEET C-02

LINE A PROFILE

LINE B PROFILE

HORLEY AVENUE

IRVINGROVE DRIVE

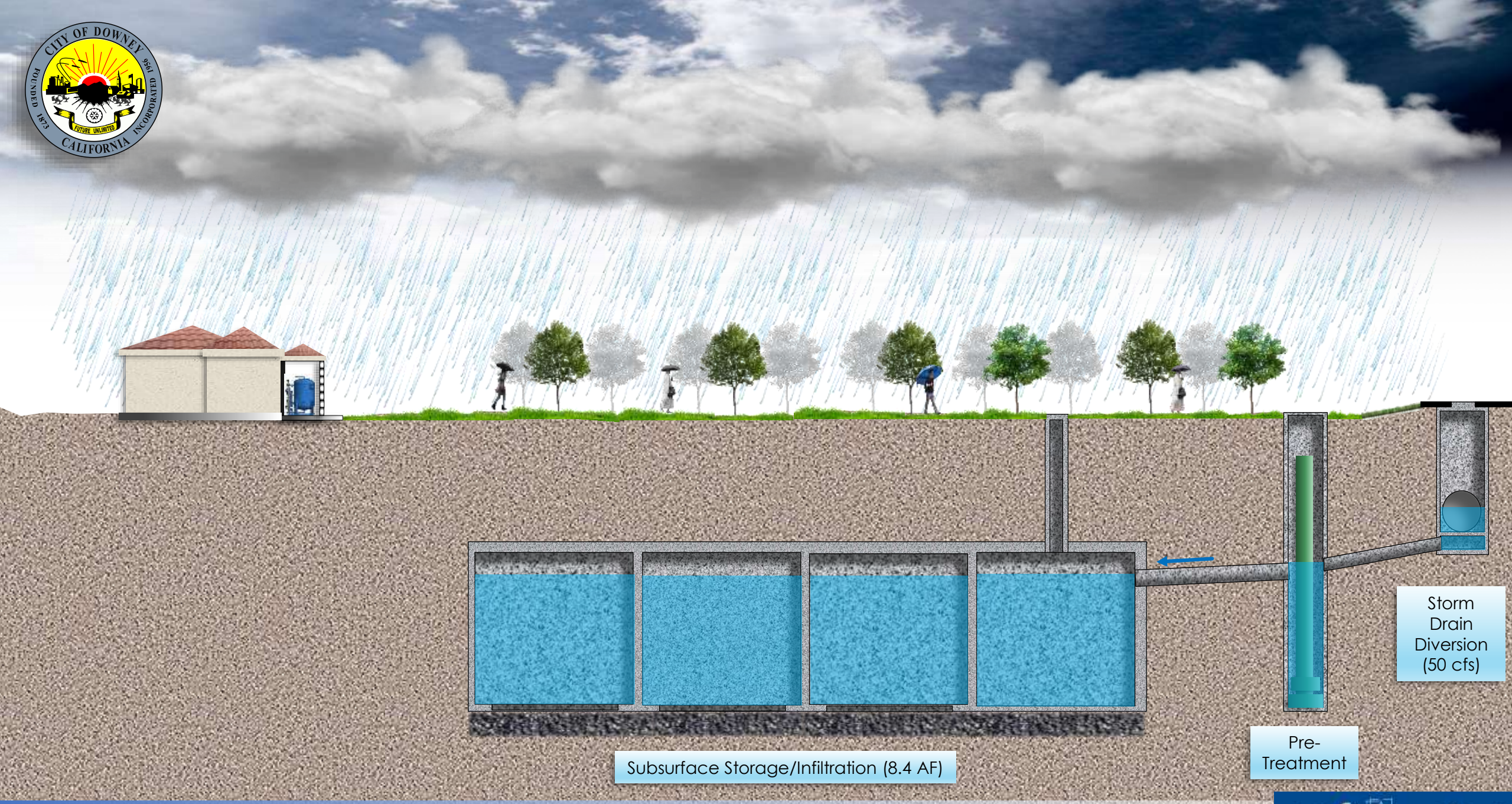
HOPELAND AVENUE

RIVES AVENUE

Downey Furman Park Stormwater Capture Project | SITE PLAN

City of Downey

craft water engineering, inc.



Downey Furman Park Stormwater Capture Project | SCHEMATIC DIAGRAM

craft water engineering, inc.

Water Quality & Supply Benefits

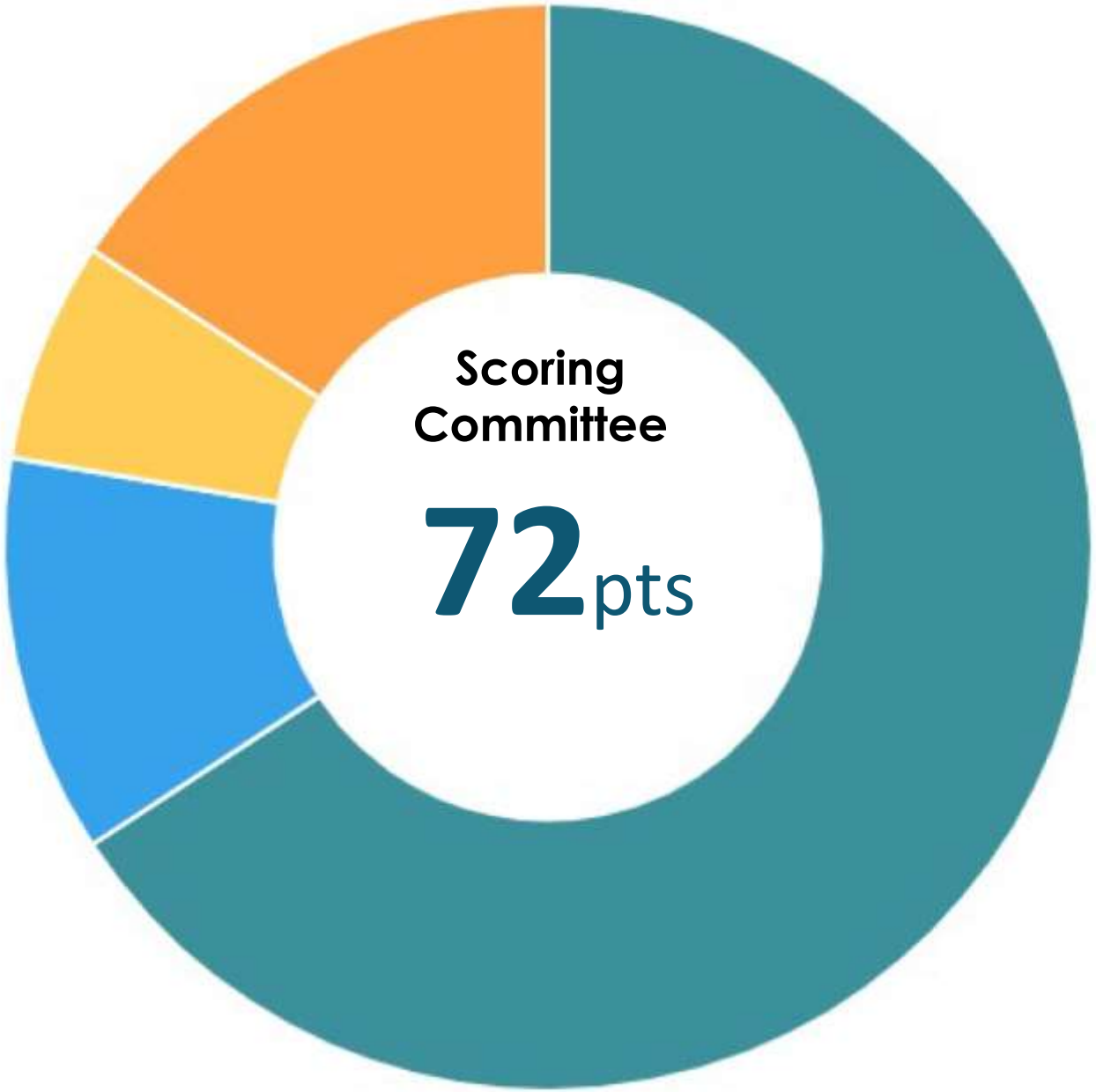
- The project will entail the construction of a regional stormwater capture and infiltration facility with a **drainage area of 475 acres**
- The project will address **total zinc** as the primary pollutant and **bacteria** as the secondary pollutant (both identified in the LLAR WMP)
- **Pretreatment** will be an integral component of the treatment train strategy to extend the life of the system
- The storage reservoir will have a **capacity of 8.4 acre-feet**, and the infiltration of water into the subsurface and eventual water table will provide final pollutant removal
- The **vegetated bioswale** or equivalent LID BMP near the **parking lot** will promote infiltration of runoff into the subgrade and eventually to the groundwater table

Funding Requested

- Total SCW Funding Requested: **$14,625,000**
  - FY 20-21: $3,800,000 for final design plans, CEQA, permitting, and initial construction
  - FY 21-22: $7,000,000 for construction
  - FY 22-23: $5,400,000 for construction and replacement of surface structures
  - FY 23-24: $50,000 for O&M and monitoring
- The City of Downey intends to commit up to 10% in city matching funds for the project

Community Investment Benefits & Nature Based Solutions

- **Improved flood risk mitigation**/management
- **Enhanced park space**
- **Improved recreational opportunities** (e.g. new tee-ball field surfaces, modernization of picnic structures)
- **Reduced heat island effect** through the planting of additional native trees, shrubs, and grasses
- **On-site infiltration** through the installation of a vegetated bioswale or equivalent LID BMP near the parking lot



Scoring Summary

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

Questions?

SAFE, CLEAN WATER PROGRAM

Watershed Area Steering Committee

RANCHO LOS CERRITOS

LOOKING BACK TO ADVANCE FORWARD

$2,000,000

ALISON BRUESEHOFF

Rancho Los Cerritos

TRAVIS TAYLOR

P2S Inc.

KIRK KELLER

Studio One Eleven

175 YEARS
RANCHO LOS CERRITOS

Project
SUMMARY

Looking Back to Advance Forward is a revolutionary stormwater reclamation project that will use a combination of cutting-edge technology and Rancho period water reclamation techniques to capture up to 95% of the rainwater that falls on the property. In addition to the project itself, there will be educational programming that will enhance the experience for all visitors of all ages.

Project
LOCATION

- The site area: 4.7 acres comprised of 143,000 SF of mixed landscaping and historic gardens, 19,000 SF of decomposed granite, 25,000 SF of paved roadway and 16,000 SF of buildings.
- Based on an average rainfallof 12.25” per year, The Rancho receives 276,000 cubic feet of rainfall across the entire site annually.
- The current site can retain roughly 40% of rainfall onsite through purposeful plant selection.

- Lower Los Angeles River Watershed Area
- Receiving Water: San Pedro Bay

Nature Based SOLUTIONS

Stormwater BMP's

There is no storm drain system

Community

EDUCATION BENEFITS

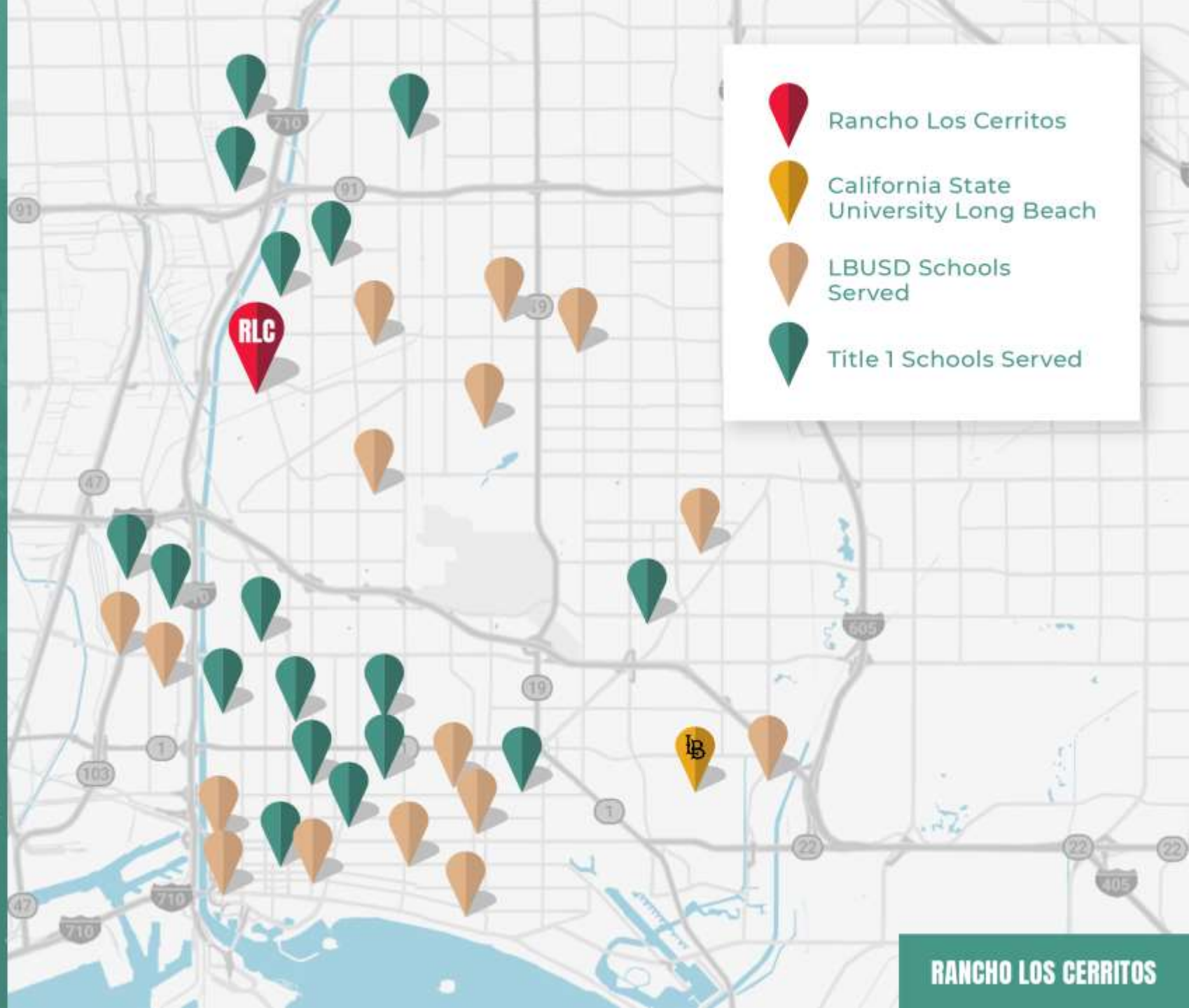
- Our public education programs offer a living classroom setting to visitors from Southern California - and beyond
- Our goal is to link our water conservation efforts to our educational programming. We will develop a water education curriculum designed for various grades, including pre-k through college-level learners and integrate our educational objectives into our public tours.
- We will offer innovative & immersive programs that weave together history, the arts and STEM initiatives.
- Develop partnerships with academic institutions to create a research-based case study.

Community

EDUCATION BENEFITS

- 29 LBUSD Afterschool Childcare Programs including WRAP and CDC
- Partnership with CSULB
- A total reach of 7000 schoolchildren

17 Districts Served:
Long Beach Unified, Los Angeles Unified, Bellflower, Lakewood, Huntington Beach, Cypress, Orange, Torrance, Garden Grove, Wilmington, Los Alamitos, Compton, Downey, Temple City, El Monte, Paramount, Artesia and the ABC School Districts.



Environmental

BENEFITS

- Water Reclamation project will allow RLC to retain 95% of rainwater through capture and infiltration.
- Reduce stormwater run-off and its impact on the immediate neighbors and our historic gardens.
- Run-off captured on Virginia Road will mitigate flooding and reduce pollutant flow.
- The project will help RLC acquire a California Green Business Network Certification - we would be the first museum/attraction to be certified in Los Angeles County, as well as all of Southern California, and would be only the 13th to be certified in the entire state.
- Improve water quality in the San Pedro Bay by nearly eliminating run-off and treating stormwater on-site.

Pollutant
REDUCTION

Percent Removal by Strategy

	Cistern with Treatment	Permeable Pavement	Vegetated Swale
ZINC	70	>90	85
BACTERIA	60	>90	NA
TSS	90	>90	77

We are proposing to capture and reuse, on-site, all of the first 0.25 inch of a rain event. Reuse on-site equates to 100 percent removal for this 0.25 inch 'first flush'.

Technology & INNOVATION

- With the use of high-tech visual aids, guests will learn about the methods used to capture and treat stormwater.
- We seek to lead the charge in modernizing our site and making it more accessible with interactive/immersive educational components.
- The City of Long Beach is a leader in innovation - this project reflects credit upon the entire city, not just Rancho Los Cerritos.
- We will be a case study for water use on cultural/ community/historic sites, setting the standard and inspiring other cultural sites to implement stormwater capture and wise water usage.

Diversity, Equity &
INCLUSION

- Rancho Los Cerritos' mission is to view our work and the community we serve through the lens of diversity, equity, inclusion and accessibility.
- Of the 7,000 students we serve, approximately 65% are socioeconomically disadvantaged (DAC).
- We have expanded our community outreach both in person and digitally making our information accessible to our diverse community with a digital reach of 50,000 accounts annually.
- Public tours and educational programs are available in multiple languages for learners of all ages.
- Our site is ADA accessible and we are becoming more accessible to blind and deaf guests, through the use of technology/digital tours.

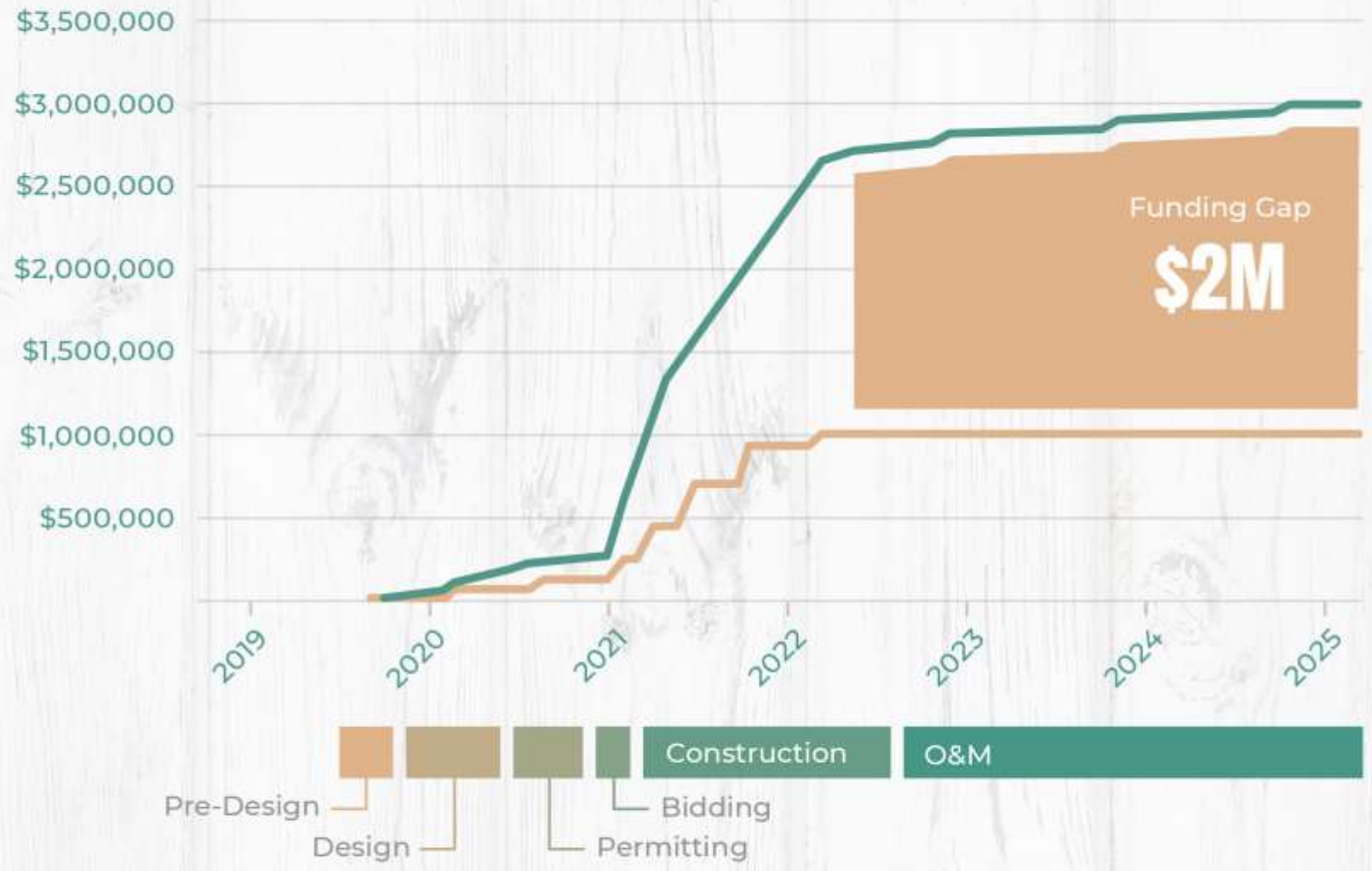
5 Year look Ahead

SCHEDULE

The project is included in the following:

- Adaptive Management section of the Lower Los Angeles River (LLAR) Watershed Management Group's (WMG) Watershed Annual Report for Reporting Year 2018-19
- LLAR WMG biennial Adaptive Management Report
- Revised LLAR Watershed Management Plan (WMP) community/historic sites, setting the standard and hopefully inspiring other cultural sites to use the same practices as we do - wise water usage.

Expendature Projections



RANCHO LOS CERRITOS

Local, State & National

HISTORICAL LANDMARK

- U.S. National Historical Landmark
- California Historical Landmark
- Long Beach Historical Landmark

The Rancho aspires to become a national model and leader for historic sites with this project and teach resposible stewardship for the environment.

THANK YOU

Thanks to Our
PARTNERS

RANCHO LOS CERRITOS

SAFE CLEAN WATER L.A.

Hollydale Regional Park Green Infrastructure Development Project

Managing Director - Claire Robinson
Amigos de los Rios / Emerald Necklace Group
claire@amigosdelosrios.org

Total Funding Requested: $343,840

AMIGOS DE LOS RIOS

EMERALD NECKLACE

CITY OF SOUTH GATE, CALIFORNIA
SOUTH GATE
INCORPORATED JAN 20, 1923
All-America City

EMERALD NECKLACE FOREST TO OCEAN EXPANDED VISION PLAN:

Towards a Common Vision

The Emerald Necklace Forest to Ocean Expanded Vision Plan: Towards a Common Vision
Funded by: The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 Proposition 84 and the State of California Strategic Growth Council

Amigos de los Rios

EMERALD NECKLACE

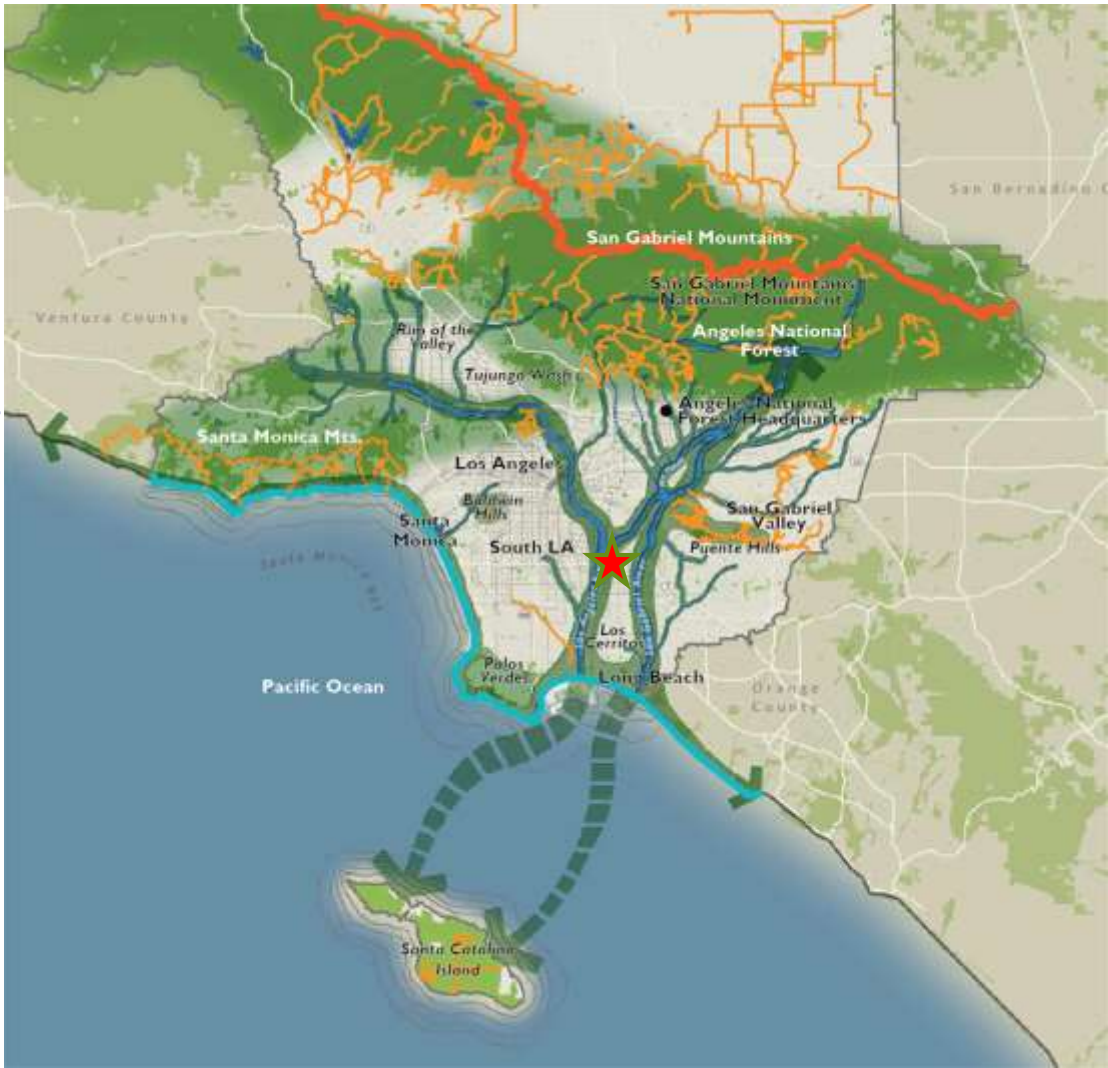
THE CONSERVATION FUND

AMIGOS DE LOS RIOS

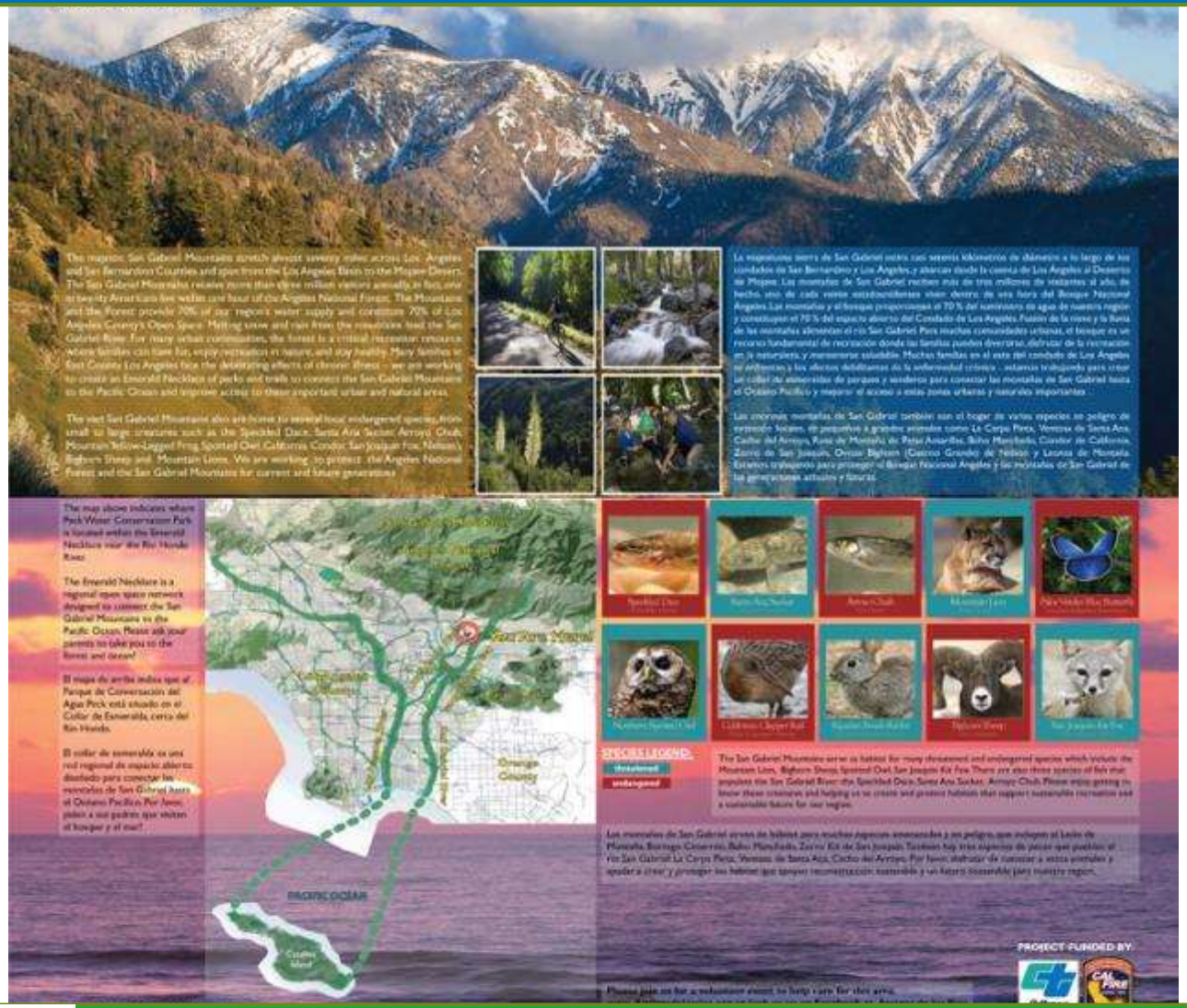
EMERALD NECKLACE

WATERSHED APPROACH
Olmsted Bartholomew Plan 1930
Founded 2003

501(c)3 non-profit organization committed to protecting water resources, restoring open space & natural resources in our urban environments by creating an 'Emerald Necklace' Green Infrastructure network of sustainable parks, trails and schools throughout the Los Angeles Basin from the Mountains to the Sea.



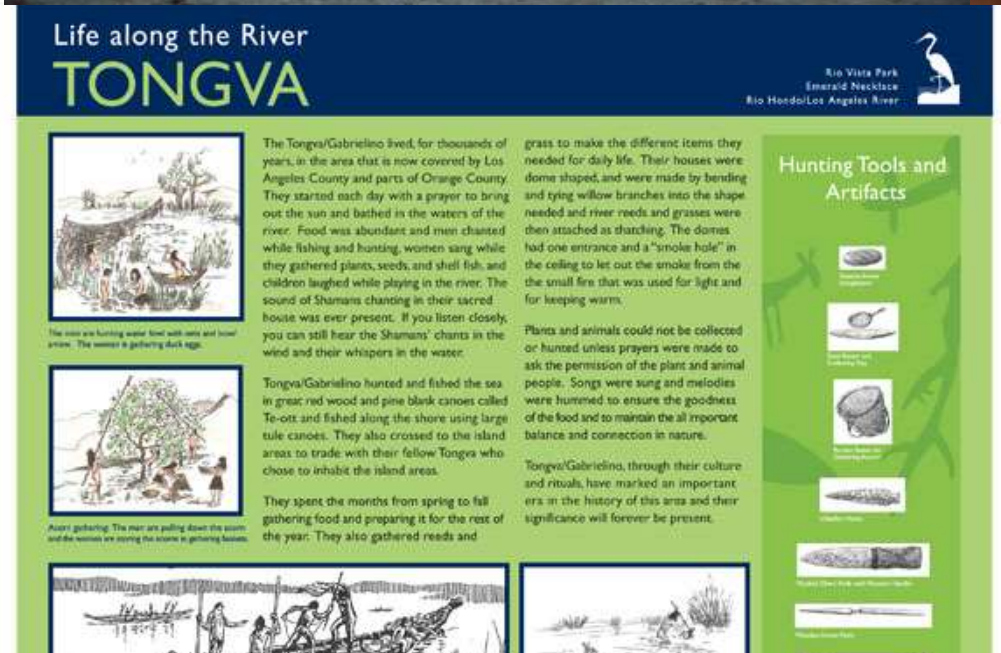
Mountains to Sea



LOWER LA RIVER

Emerald Necklace

First People's Knowledge



OLMSTED BARTHOLOMEW 1930

Comprehensive trail & greenway network for LA Basin

ANGELES NATIONAL FOREST

The Olmsted Vision

- EXISTING PARKS
- PROPOSED GREENWAYS – URBAN RIVER CORRIDORS
- BEACHES & COASTAL TRAIL
- ANGELES NATIONAL FOREST
- SCHOOLS OVER 5 ACRES

EMERALD NECKLACE

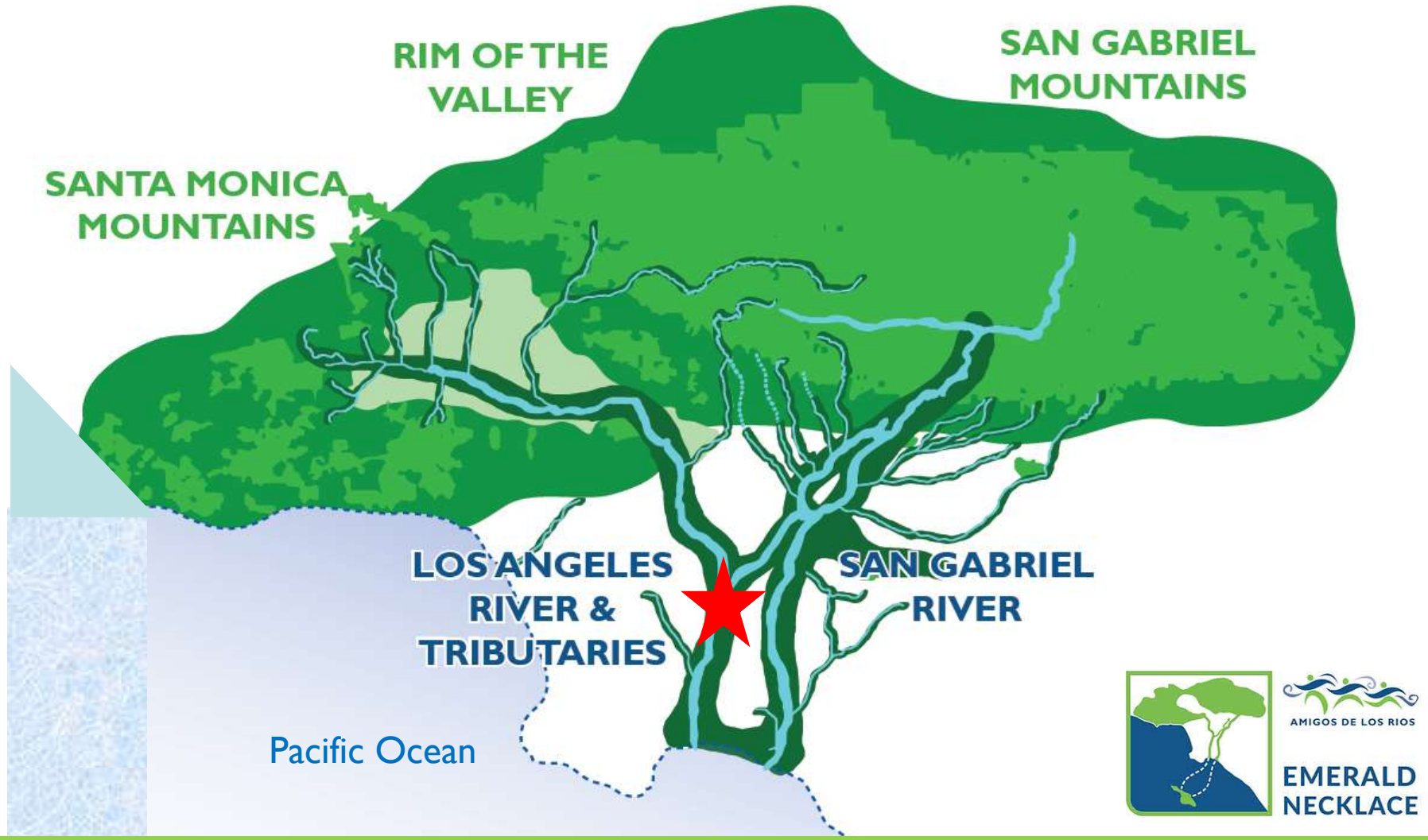
AMIGOS DE LOS RIOS

The City Project

GreenInfo Network


RIM OF THE VALLEY
SAN GABRIEL MOUNTAINS
SANTA MONICA MOUNTAINS
LOS ANGELES RIVER & TRIBUTARIES
SAN GABRIEL RIVER

Los Angeles Basin – "BIG PICTURE"

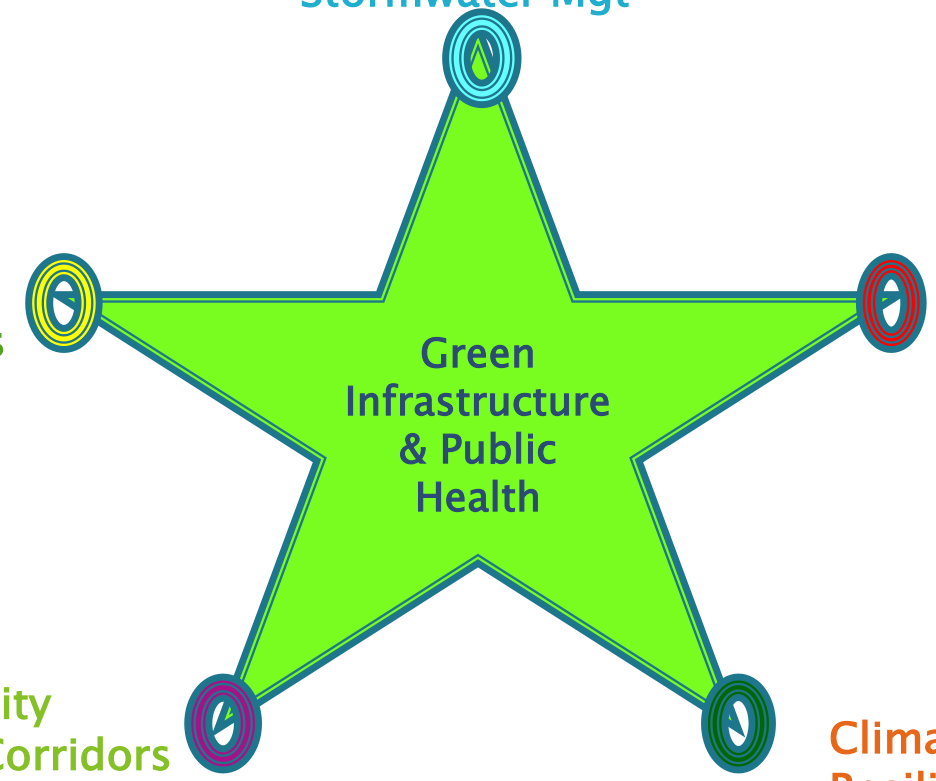


Green Infrastructure

SAFE CLEAN WATER L.A.

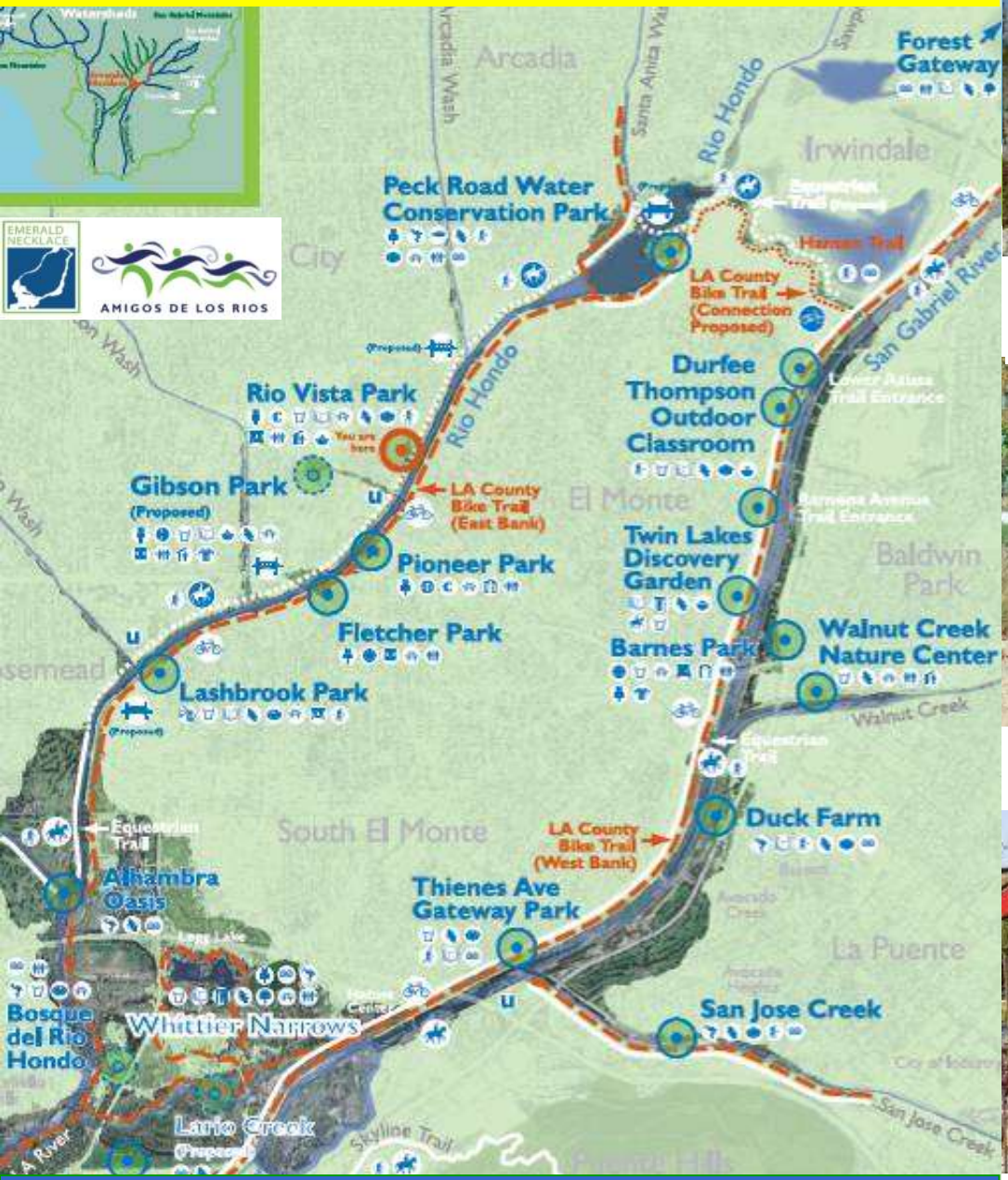
AMIGOS DE LOS RIOS

EMERALD NECKLACE



CONVERGENT GREEN INFRASTRUCTURE PLANNING

URBAN RIVER GREENWAYS



PECK ROAD WATER CONSERVATION PARK

VETERANS MEMORIAL PARK

RIO VISTA PARK

LASHBROOK PARK

GIBSON MARIPOSA PARK

DURFEE THOMPSON PARK

EMERALD NECKLACE

AMIGOS DE LOS RIOS
EMERALD NECKLACE

REGIONAL GOALS

REGIONAL GOAL	COMMON VISION
1 Promote Active Transportation - Walking, Biking, and Alternative Commute Options	1 An interconnected network of walking and biking trails, from forest to ocean
2 Create Functional and Multi-Purpose Natural (Green) and Built (Grey) Environment Networks	2 Interconnected and complementary green and grey infrastructure networks
3 Improve Public Health by Expanding Access to Nature and Outdoor Recreation	3 A nature-based network of recreation facilities that promotes public health, social justice and equity
4 Treat Water as a Multi-Benefit Amenity	4 A water network that infiltrates groundwater, manages wet weather events and provides human enjoyment
5 Design and Build Communities Resilient to the Current and Projected Impacts of Climate Change	5 Communities resilient to changing water supplies, climate extremes and sea level rise
6 Enhance Regional Anchors for People and Wildlife	6 A linked network of open space treasures from the Mountains to the Sea
7 Support Environmental Awareness and Civil Engagement through Education, Outreach, and Cultural Heritage	7 A network of culturally aware and civically involved communities that support conservation, restoration and recreation
8 Foster a Green Economy that Creates Jobs and Encourages Investment in Local Multi-Benefit Projects	8 A robust and sustainable local economy that produces new economic opportunities around a growing green infrastructure

TOWARDS A COMMON VISION

Development of NEXT Generation Watershed Stewards

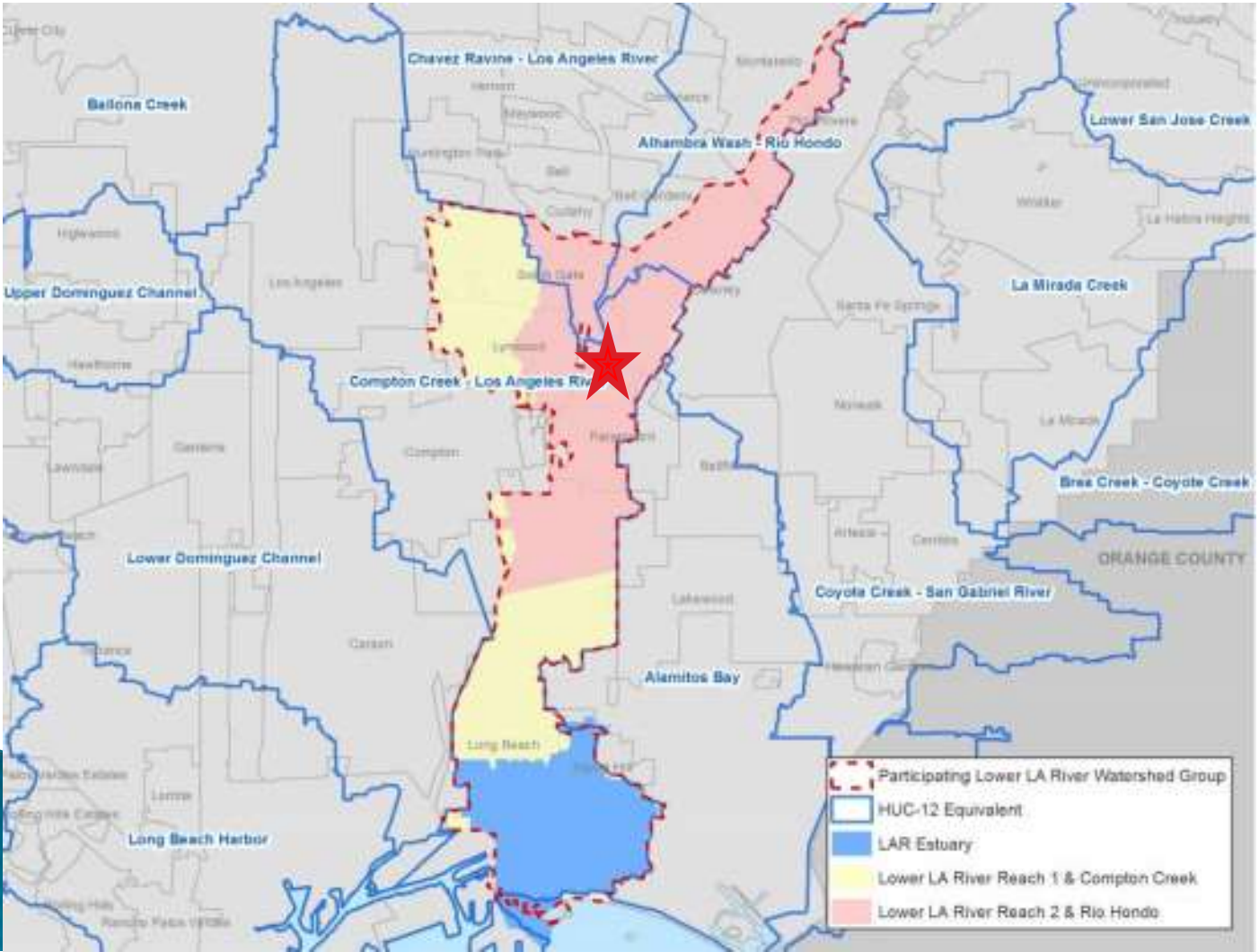
A special thanks to the following California Conservation Corps, Los Angeles Conservation Corps, and San Gabriel Valley Conservation Corps Members who have built Lashbrook Park for the benefit of current and future generations:

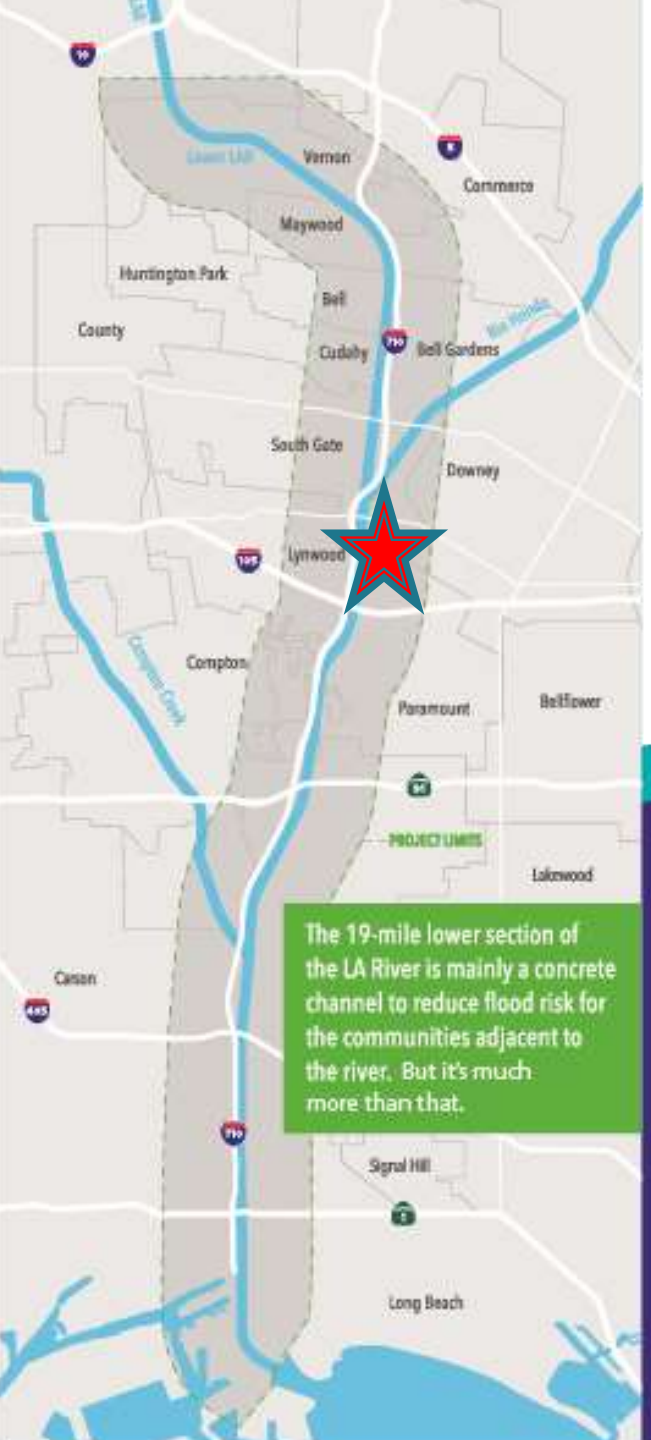
Amigos de los Ríos

THE EMERALD NECKLACE EXPANDED PLAN VISION

Feasibility study will allow Amigos de los Rios to collect data on stormwater capture, water infiltration and conservation, pollutant filtration, vector mitigation.

AMIGOS DE LOS RIOS
EMERALD NECKLACE





The 19-mile lower section of the LA River is mainly a concrete channel to reduce flood risk for the communities adjacent to the river. But it's much more than that.

LEARN MORE

The river can be an outdoor classroom and recreation area for the entire community.

Visit **LOWERLARIVER.ORG** for ways you can engage and learn about the Lower LA River.

LOWER LA RIVER

THE LOWER LOS ANGELES RIVER

RIVERS AND MOUNTAINS CONSERVANCY

LOWER LA RIVER

LOWER LOS ANGELES RIVER
Opportunity Assessment

LOWER LA RIVER

Opportunity Area

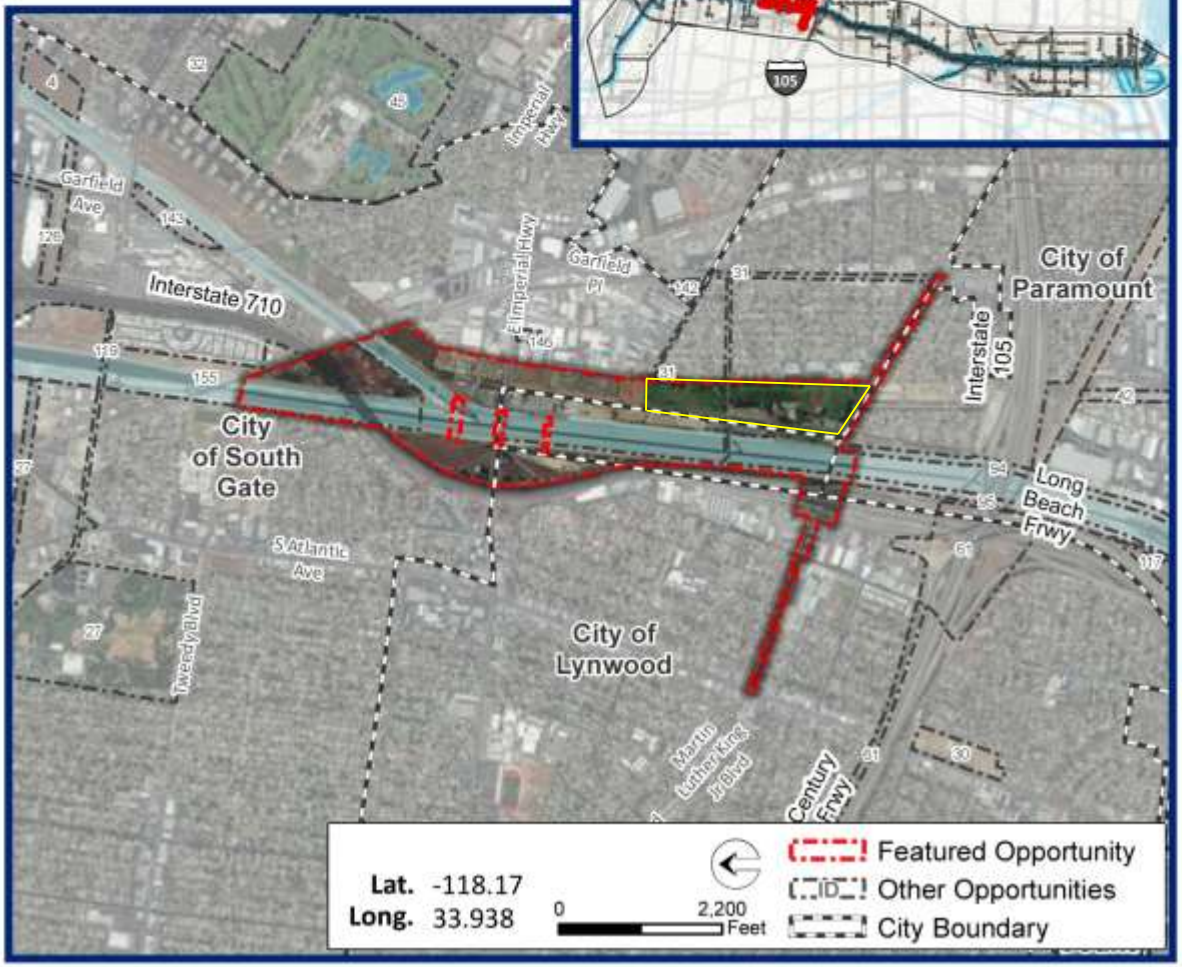
Rio Hondo Confluence Area

Opportunity ID
3

Opportunity Driver
Open Space Areas, WG Mark-Up

Opportunity Description

Area available for habitat restoration, water quality features, amphitheater, community center; create educational opportunities, homeless camps; Parque Dos Rios is owned by WCA; A portion of the site is a Tongva cultural site



Plan Element	Objective	Applicable Metrics Advanced (%)
Water and Environment	Conserve, Enhance, and Restore Habitat, Biodiversity, and Floodplain Functions	100
	Enhance Local Water Capture and Use	100
	Improve Environmental Quality	100
	Manage Flood Risk	100
Public Realm	Enhance Connectivity	100
	Improve User Experience and Equitable Access	100
	Enhance and Create Diverse, Vibrant Public Spaces	100
Community Economics, Health, and Equity	Address Homelessness	75
	Increase Community Green Infrastructure	100
	Increase Equitable Community Access to Multi-use Trails, Assets	100
	Prevent Local Gentrification-Induced Displacement	100
	Promote Wellness and Physical Activity	100
	Support and Develop Local Business and Workforce	100

Opportunity Potential

(Average of Applicable Metrics Advanced)

98

Hollydale Regional Park
Green Infrastructure Development
Lower Los Angeles River Watershed

Project Concept will retrofit Hollydale Regional Park and seeks to manage stormwater by increased capture, filtering and infiltration through a natural systems approach focused on community-based design of green infrastructure.

Multi Objective Goals: Key Stormwater, Ecosystem & Community Health Benefits:

Pervious Paving & Permeable Surfaces, Healthy Soil Bioswales, Rain Gardens, Landscape Infiltration Planters, Urban Forestry, Mulched Native Plant Landscape Areas, Watershed Education Program

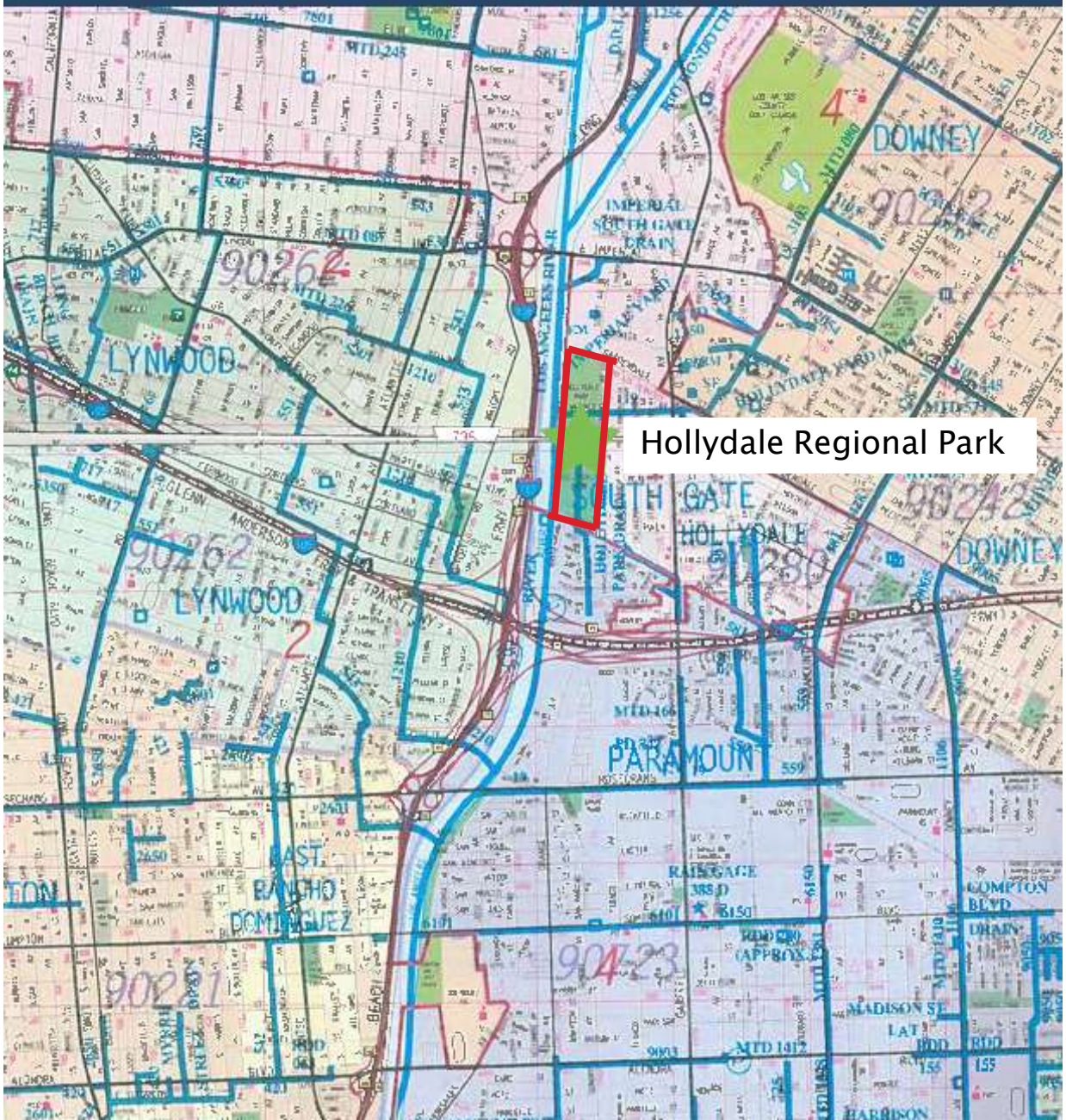
AMIGOS DE LOS RIOS

EMERALD NECKLACE


Gabriel
Mountains
South Gate
RIO HONDO
Downey
710
LOS ANGELES RIVER
Hollydale
Regional Park
Lynwood
AMIGOS DE LOS RIOS
EMERALD
NECKLACE
LOWER LA RIVER

Project Stormwater Drains

City of South Gate



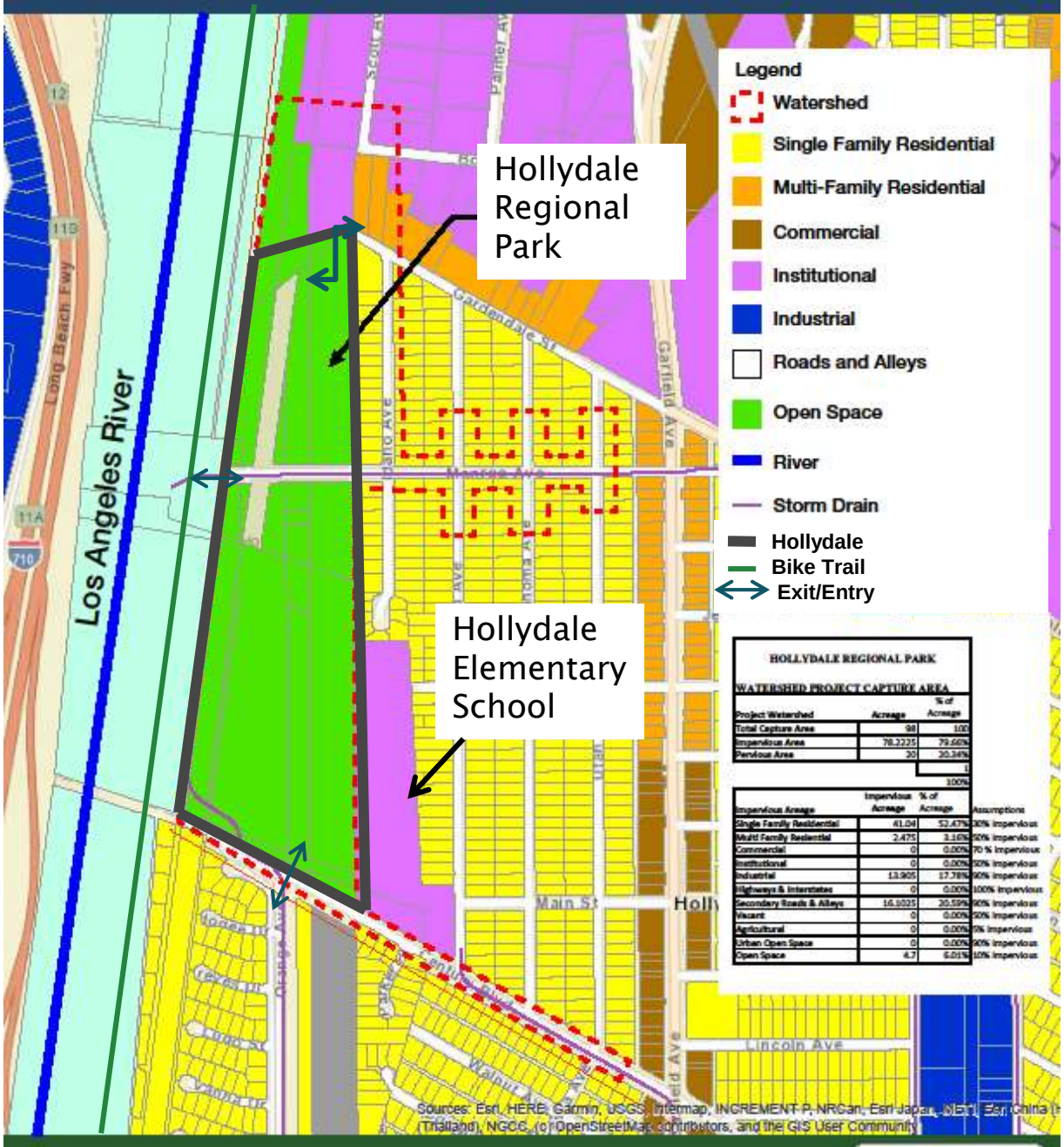
The Emerald Necklace Vision

Natural Infrastructure for the Los Angeles Basin

Emerald Necklace Park Projects

Hollydale Regional Park

5400 Monroe Ave. South Gate, CA 90280



HOLLYDALE REGIONAL PARK

WATERSHED PROJECT CAPTURE AREA

Project Watershed	Acreage	% of Acreage
Total Capture Area	98	100
Impervious Area	78.2225	79.66%
Pervious Area	20	20.34%
		1
		100%

Impervious Acreage	Impervious Acreage	% of Acreage	Assumptions
Single Family Residential	41.04	52.47%	80% Impervious
Multi Family Residential	2.475	3.16%	90% Impervious
Commercial	0	0.00%	70 % Impervious
Institutional	0	0.00%	50% Impervious
Industrial	13.905	17.78%	90% Impervious
Highways & Interstates	0	0.00%	100% Impervious
Secondary Roads & Alleys	16.1025	20.59%	90% Impervious
Vacant	0	0.00%	50% Impervious
Agricultural	0	0.00%	5% Impervious
Urban Open Space	0	0.00%	90% Impervious
Open Space	4.7	6.01%	10% Impervious

Hollydale Regional Park

12/14/2019, 4:23:10 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

California Counties

Disadvantaged Communities - Places 2016

Data Not Available

Severely Disadvantaged Communities (MHI < $38,270)

Disadvantaged Communities ($38,270 >MHI< $61,026)

U.S. Census Bureau. Contact: gis@water.ca.gov, U.S. Bureau of Reclamation, California Department of Conservation, California Department of Fish and Game, California Department of Forestry and Fire Protection, National Oceanic and Atmospheric Administration, Sources: Esri, HERE,

Web AppBuilder for ArcGIS

Esri Community Maps Contributors, County of Los Angeles, Esri, HERE, Garmin, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA | U.S.

Lower Los Angeles River WMP

Project is located in the Lower Los Angeles River WMP

Municipal benefits include

- Realization of Key Element of City of South Gate's Master Plan for Hollydale Park
- Improvements of Parking Lot/ Creation of Equestrian Plaza
- Recreational Amenity co- benefits
  - Nature-based storm water capture, filter and infiltration Water Conservation
  - Urban Greening – Tree Canopy and Vegetation
    - Air Quality & Community Sense of Place
  - Vector Control
  - Heat Island Reduction
  - Environmental Education Interpretive Elements
  - Connection to LA RIVER

Water Resources & Quality Benefits

- Storm Water Management
  - Capture Urban Runoff & Storm Water w/Green Infrastructure Elements
  - Recharge groundwater /Reduce waste of Imported Water/RainWater
  - Preventing pollutants from entering Storm Drain System & Waterways.
  - Trash, nitrogen compounds, ammonia, nitrate, nitrite, algae, copper, cadmium, lead, zinc, aluminum and selenium, bacteria, and pesticides
  - Address Drainage Issues, Local Flooding & Vector Control
- Public Health – Vector Issues
  - West Nile & Zika Virus
- Water Conservation – grass removal /Native Plant Landscape/Efficient Irrigation

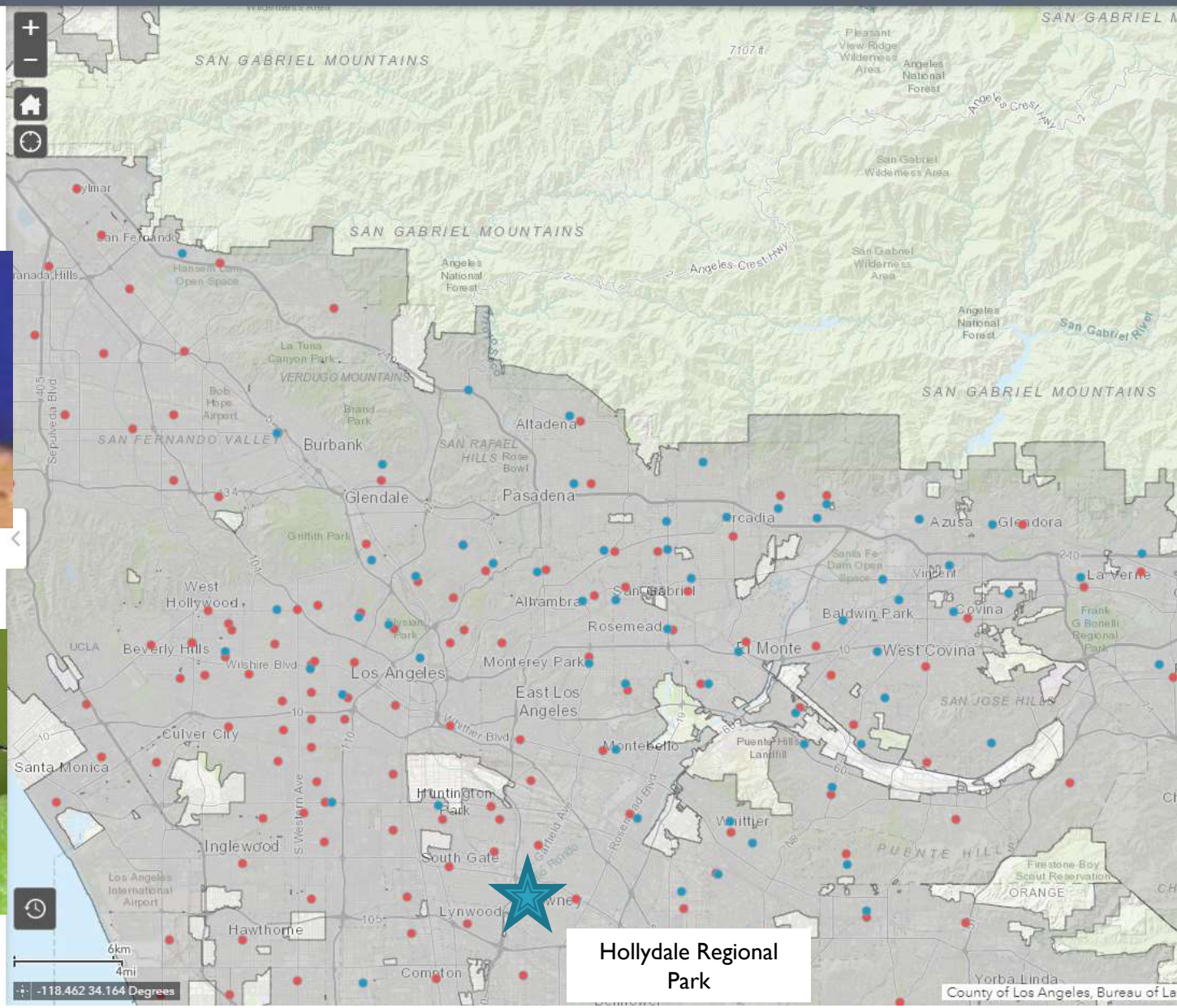
AMIGOS DE LOS RIOS
EMERALD NECKLACE

Invasive Aedes in California

Cities with Current Aedes Detections

- Aedes aegypti
- Aedes albopictus

Approximate Aedes Infestation Area



Hollydale Regional Park

Hollydale Park Green Infrastructure Development "Before"






LOWER LA RIVER

AMIGOS DE LOS RIOS

EMERALD NECKLACE

Examples of Bioswales and Native & Drought-Tolerant Plantings by Amigos de los Rios






LOWER LA RIVER

AMIGOS DE LOS RIOS

EMERALD NECKLACE

AMIGOS DE LOS RIOS

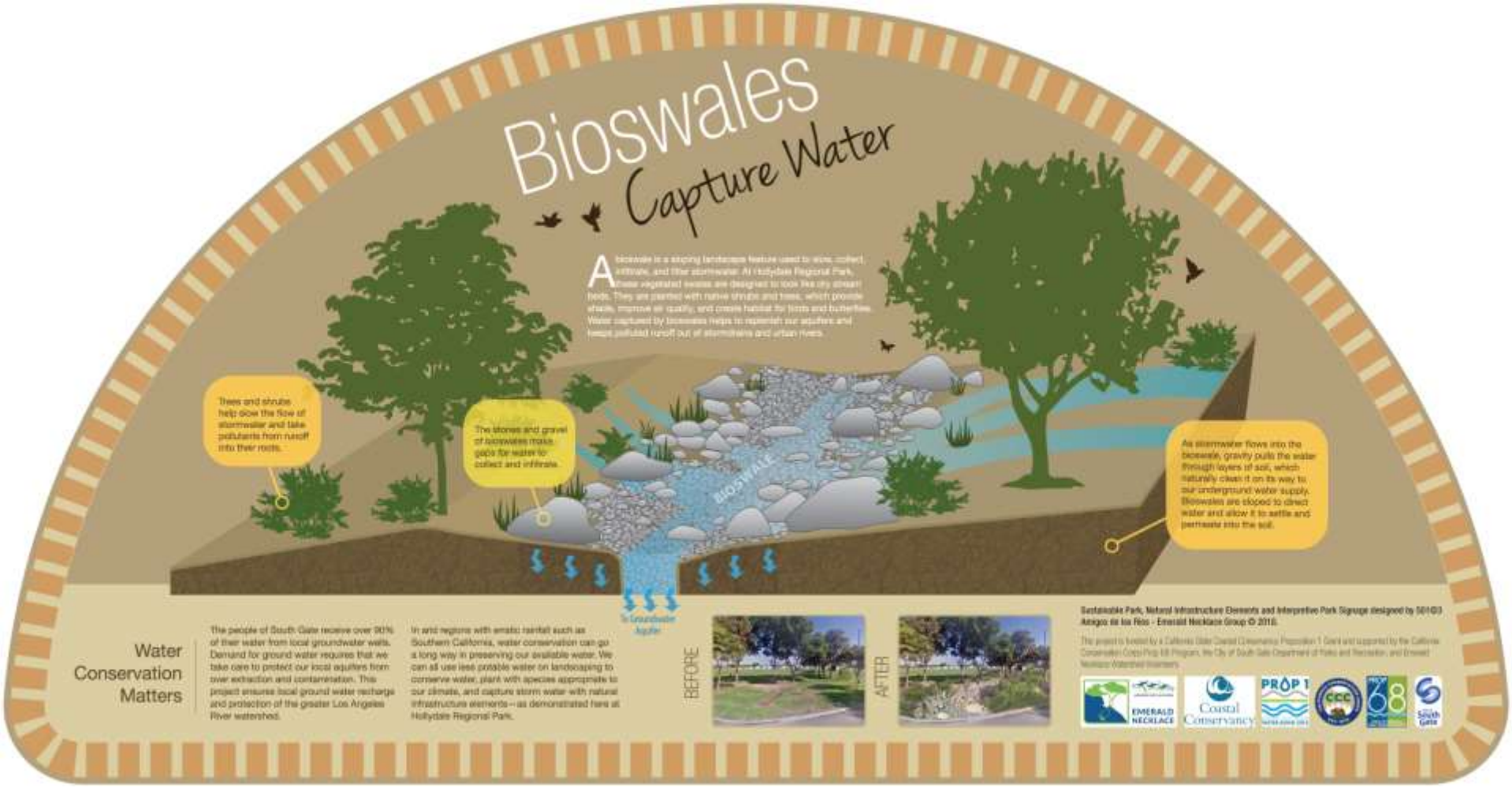
EMERALD NECKLACE

LOWER LA RIVER

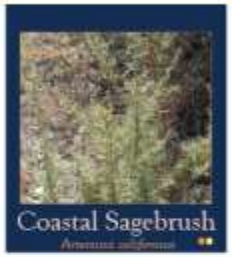
Hollydale Park Green Infrastructure Development

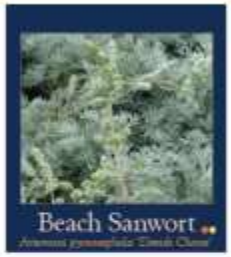

Welcome to
Hollydale Regional Park
Century Blvd. Entrance
Celebrating South Gate
To LA River
Legend
Century Blvd.
'Natural Infrastructure' For Our Urban Community
Hollydale Regional Park's Century Blvd. Entrance is now a public landscape that integrates green infrastructure design elements into the park to help protect our water and air resources, enhance the urban forest, increase native habitat, reduce heat-island impact, manage stormwater, support active transportation, and celebrate local, natural, and cultural history.
Natural Infrastructure Design Elements
• High efficiency water-saving irrigation
• Habitat plantings, appropriate to our climate and watershed
• Bioswales to capture rain runoff, replenish our groundwater supply and protect our rivers and ocean
• Permeable surfaces to infiltrate stormwater and promote watershed health
• Trees to bolster the urban forest, create shade, and improve air quality
• Enhanced permeable parking lot entrance to support public access and safety
EMERALD NECKLACE
Coastal Conservancy
PROP 1

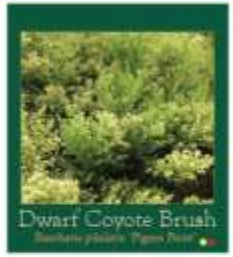

Infiltration Basins
Purify Water
DUMP NO WASTE
FLOWS TO RIVER
To LA River
Water Purification Matters
Hollydale Park is adjacent to the Los Angeles River. Parking lot surfaces collect many pollutants such as oils, metals, trash and bacteria. When water enters the parking lot it carries with it these pollutants as it flows into the storm drain and enters the Los Angeles River and eventually the Pacific Ocean. This has an adverse impact on River and Ocean Ecosystems – by intercepting stormwater we can protect water quality and natural water systems as demonstrated at Hollydale Park.
An infiltration basin is a stratified landscape feature used to store, collect, infiltrate, and filter stormwater. At Hollydale Regional Park, these vegetated infiltration basins are designed to collect and filter storm water flowing from the parking lot. They are planted with native shrubs and trees, which provide shade, improve soil and air quality, and create habitat space for birds and butterflies. Water captured by infiltration basins helps to replenish our aquifers and keeps polluted runoff out of storm drains and urban rivers.
Aquifer
BEFORE
AFTER
Sustainable Park, Natural Infrastructure Elements and Interpretive Park Signage designed by SOIGO Amigos de los Rios - Emerald Necklace Group © 2018.
This project is funded by a California State Coastal Conservancy Proposition 1 Grant and supported by the California Conservation Corps Prop 68 Program, the City of South Gate Department of Parks and Recreation, and Emerald Necklace Watershed Volunteers

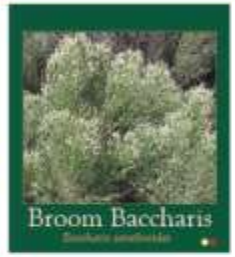

Bioswales
Capture Water
A bioswale is a sloping landscape feature used to store, collect, infiltrate, and filter stormwater. At Hollydale Regional Park, these vegetated swales are designed to look like dry stream beds. They are planted with native shrubs and trees, which provide shade, improve air quality, and create habitat for birds and butterflies. Water captured by bioswales helps to replenish our aquifers and keeps polluted runoff out of stormdrains and urban rivers.
Trees and shrubs help slow the flow of stormwater and take pollutants from runoff into their roots.
The stones and gravel of bioswales make gaps for water to collect and infiltrate.
BIOSWALE
As stormwater flows into the bioswale, gravity pulls the water through layers of soil, which naturally clean it on its way to our underground water supply. Bioswales are sloped to direct water and allow it to settle and permeate into the soil.
To Groundwater Aquifer
Water Conservation Matters
The people of South Gate receive over 90% of their water from local groundwater wells. Demand for ground water requires that we take care to protect our local aquifers from over extraction and contamination. This project ensures local ground water recharge and protection of the greater Los Angeles River watershed.
In arid regions with erratic rainfall such as Southern California, water conservation can go a long way in preserving our available water. We can all use less potable water on landscaping to conserve water, plant with species appropriate to our climate, and capture storm water with natural infrastructure elements—as demonstrated here at Hollydale Regional Park.
BEFORE
AFTER
Sustainable Park, Natural Infrastructure Elements and Interpretive Park Signage designed by SOLID Amigos de los Rios - Emerald Necklace Group © 2015.
EMERALD NECKLACE
Coastal Conservancy
PROP 1
CCC
PROP 68
South Gate

Native Plants at Hollydale Park



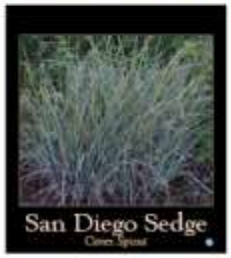


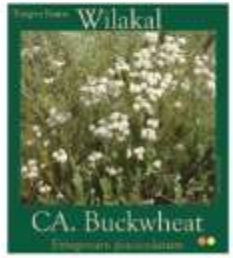


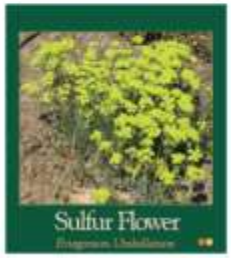


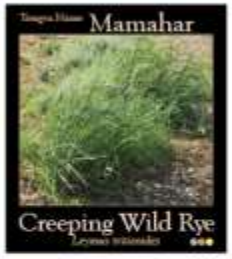
AMIGOS DE LOS RIOS

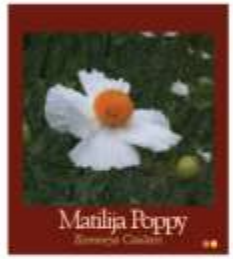
EMERALD NECKLACE

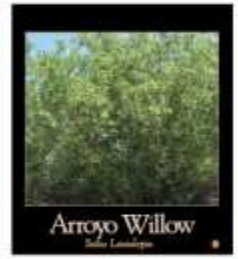


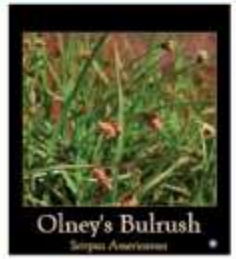












- Riparian
- Oak Woodland
- Coastal Sage Scrub
- Chaparral
- Desert Wash

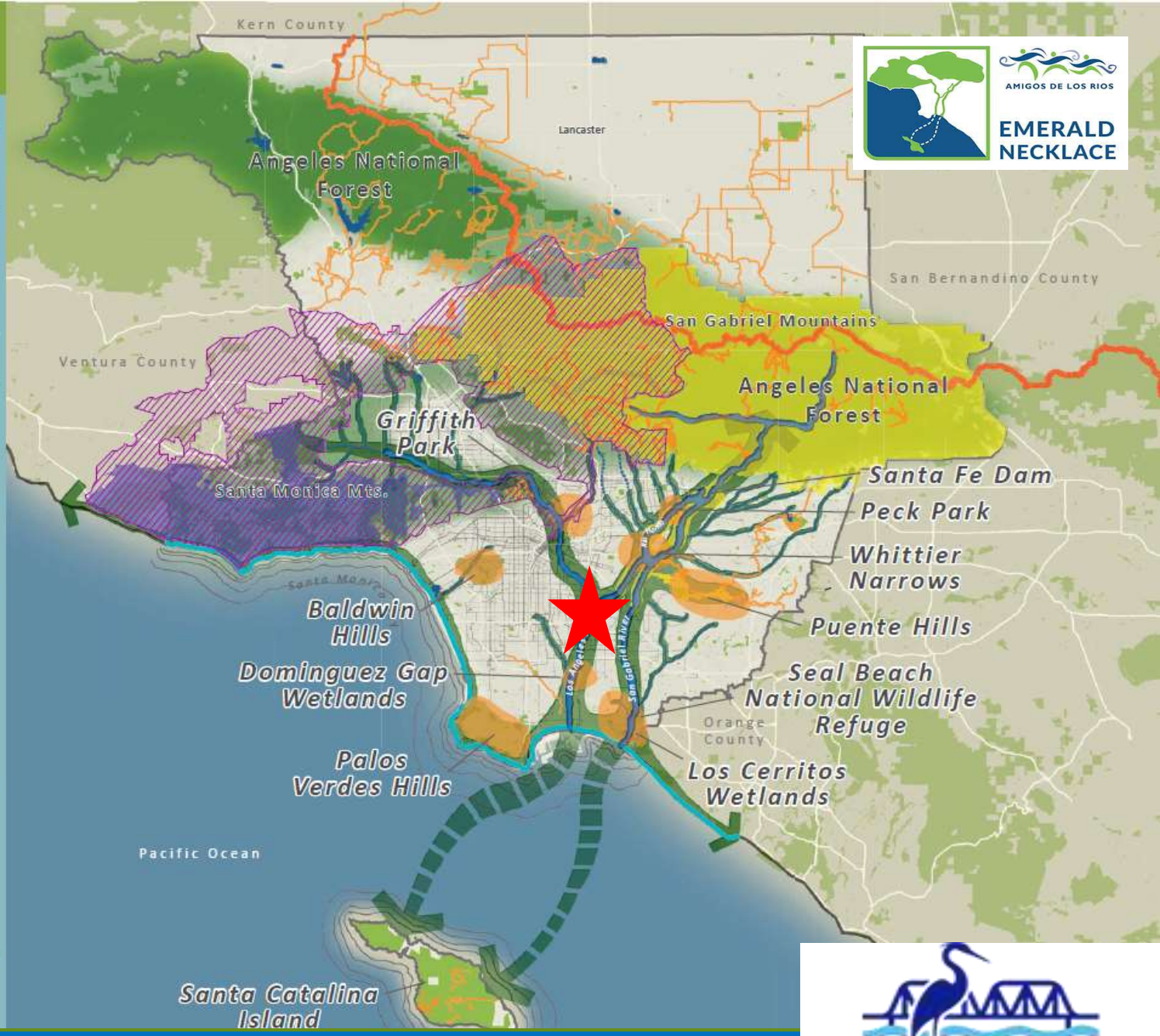
- spiritual
- constructional
- dietary
- medicinal

ENHANCE REGIONAL ANCHORS MAP

This map depicts the existing natural areas within the Expanded Emerald Necklace. These valuable spaces are connected through the river network, which links these open spaces together and allows wildlife habitat connectivity, making these resources invaluable to Los Angeles County.

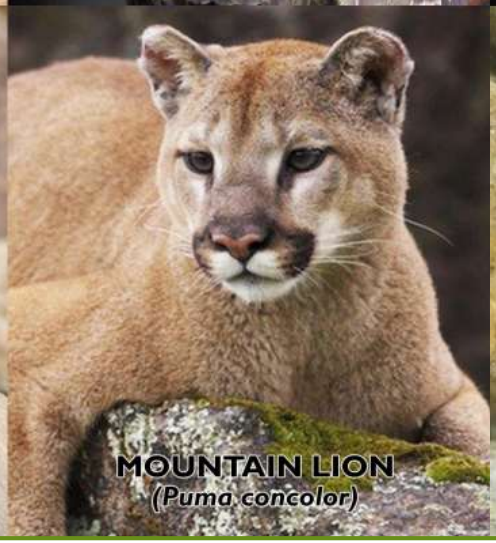
LEGEND

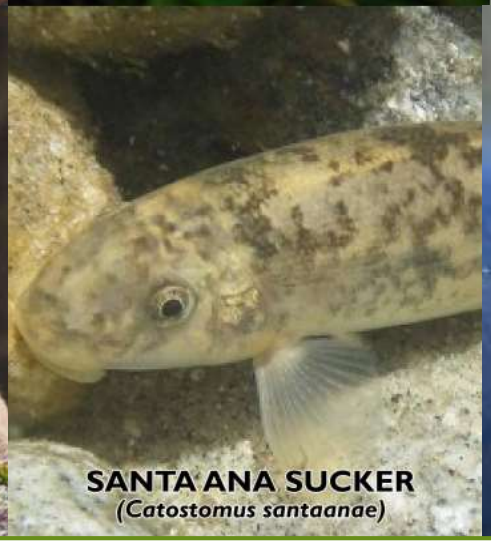
- Emerald Necklace Greenway along Rivers/ Washes/Creeks
- Proposed San Gabriel Watershed & Mountains Permanent Protections
- Proposed Rim of the Valley Corridor
- Santa Monica Mountains National Recreation Area
- Major Regional Anchors
- Beach Trails
- Pacific Crest Trail



Los Angeles Basin's Biodiversity – Endangered species

AMIGOS DE LOS RIOS
EMERALD NECKLACE





Natural Heritage & Diversity in relationship to Cultural Heritage & Diversity

Native Plants of Hollydale Regional Park

The use of native plants in public landscapes helps us to conserve water. These drought-tolerant plants are suited to our climate. By using these plants we also protect biodiversity and the cultural heritage of our region.

Plant Communities

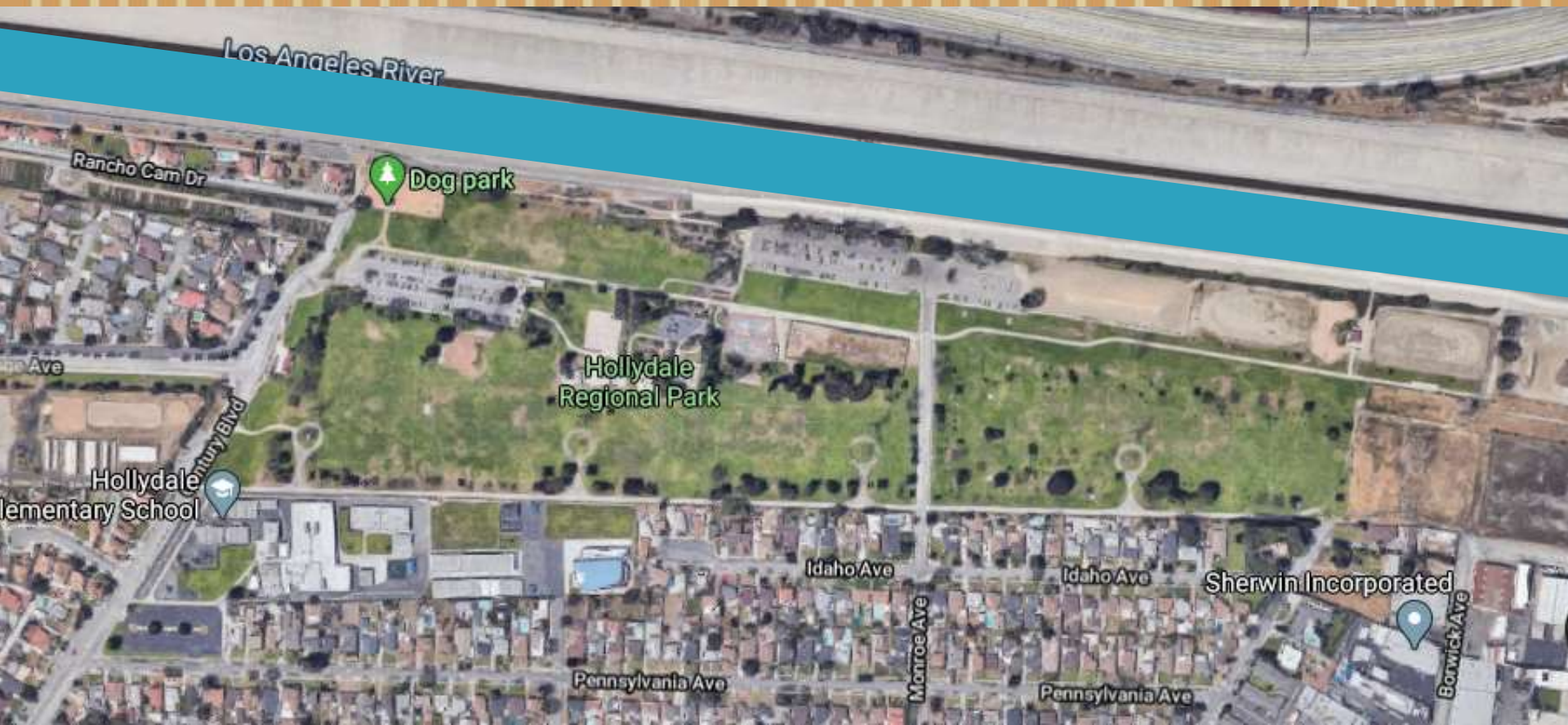
- Riparian
- Oak Woodland
- Coastal Sage Scrub
- Chaparral
- Desert Wash

Kizh Use of Native Plants

The native plants featured at Hollydale Regional Park are culturally significant to the original inhabitants of the Los Angeles Basin, the Kizh, Yan Yume and Tataviam tribes. Their knowledge and use of native plants extends from the medicinal and spiritual, to constructionist and dietary. **Spiritual** plants are used for religious processionals and rites of passage. **Constructionist** plants are used for building houses, making tools, basketry, and clothing. **Dietary** plants are key elements of the Kizh diet. **Medicinal** plants are used for all types of healing—from colds to wounds.

Usage Legend

- Spiritual
- Constructionist
- Dietary
- Medicinal



Hollydale Regional Park Green Infrastructure Development

Estimate of Project Costs

Item	Amount
Construction	$4,723,093
Planning and Design	$346,000
TOTAL	$5,096,093

Project Management & Admin	$	57,000
Community Based Design/Outreach	$	60,000
Civil Engineering/Monitoring Design	$	105,000
Landscape Architecture/Arborist	$	40,000
Survey Engineer	$	45,000
Overhead	$	36,840
TECHNICAL ASSISTANCE TOTAL	$	343,840

Technical Assistance Request $343,840

AMIGOS DE LOS RIOS

EMERALD NECKLACE

SCHEDULE DEADLINES

- Design: 9/31/2020
- Permitting: 2/28/2021
- Construction: 7/30/2021
- Operate / Establishment of Natural Infrastructure Elements

AMIGOS DE LOS RIOS
EMERALD NECKLACE

Jeff Seymour Family Center
Green Infrastructure Campus

Jeff Seymour Family Center
Green Infrastructure Campus

AMIGOS DE LOS RIOS
EMERALD NECKLACE


BILLABONG
Reebok

Jeff Seymour Family Center | Green Infrastructure Campus

10900 Mulhall Street
El Monte, CA 91731

Green Infrastructure Elements

A Urban Community Forestry
Habitat • Heat Island reduction
Stormwater capture • Carbon sequestration

B Rain Garden
Stormwater capture • Habitat

C Bioswale
Stormwater capture • Habitat

D Rain Modules
Stormwater capture

E Stormwater Basin
Stormwater capture • Rain modules

F Bike Safety Track
Cool pavement / Heat Island reduction
Bike training / active transportation
Stormwater capture • Habitat

G Community Garden
Food production • Education

H Bike Park / Skills Track
Bike training / active transportation
Nature-based play

I Walking Paths
Physical fitness • Habitat

J Interpretive Elements
Education • Community Science

● = Location of Green Infrastructure Signage

Campus green infrastructure plan implemented through a community-based process by AMIGOS DE LOS RIOS, a 501(C)3
We hope you enjoy! • www.amigosdelosrios.org

AMIGOS DE LOS RIOS

Funding for this project has been provided by the California Greenhouse Gas Reduction Fund through the California Department of Forestry and Fire Protection (CAL FIRE), Urban and Community Forestry Program.

The Health Benefits of Urban Greening

Urban Greening Improves Physical Wellness

Urban green spaces encourage exercise and are a more restorative environment than indoor settings.[1]

Green spaces provide necessary places and opportunities for physical activity. Exercise improves cognitive function, learning, and memory.[1, 2]

In a study, residents of areas with the highest levels of greenery were three times as likely to be physically active and 40% less likely to be overweight or obese than residents living in the least green settings.[3]

Childhood asthma rates are the highest in parts of the city where tree density is the lowest.[4]

Urban Greening Improves Mental Wellness

The experience of nature helps to restore the mind from the mental fatigue of work or studies, contributing to improved work performance and satisfaction.[5, 6, 7]

People who visit green spaces for 30 minutes or more a week have lower rates of depression and high blood pressure.[8]

Even brief glimpses of natural elements improve brain performance by providing a cognitive break from the complex demands of urban life.[9]

Urban nature can provide calming and inspiring environments and encourages learning, inquisitiveness, and alertness.[10, 11]

Urban Greening Improves Academic Performance

Memory performance and attention span improve by 20 percent after spending an hour interacting with nature.[12]

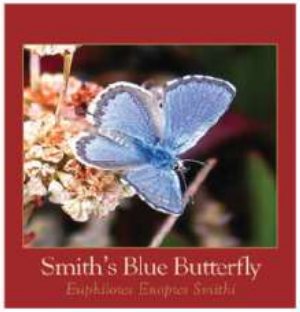
Symptoms of ADD in children can be reduced through activity in green settings, thus "green time" can act as an effective supplement to traditional medicinal and behavioral treatments.[13,14,15]

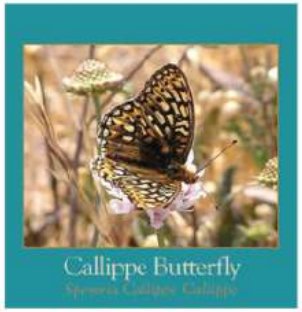
Nature experiences are important for encouraging imagination and creativity, cognitive and intellectual development, and social relationships.[16,17,18]

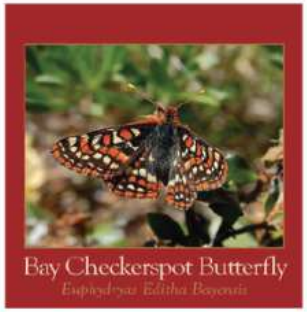
College students with more natural views from their dorm windows scored higher on attention tests and rated themselves as able to function more effectively.[19]

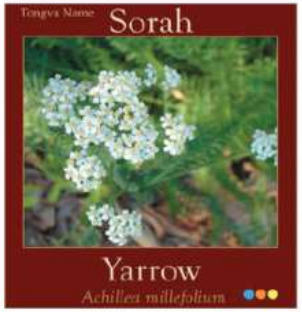
Hollydale Park Green Infrastructure Development

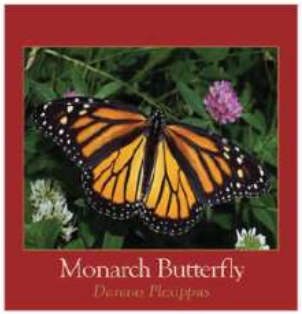
Hollydale Park Butterfly Species

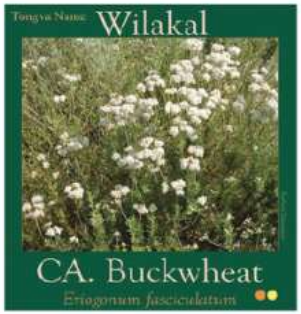


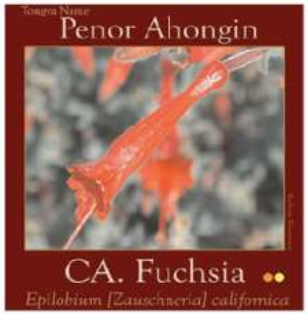


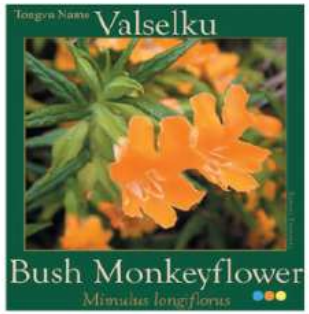


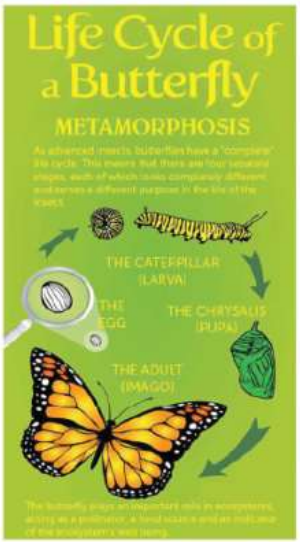


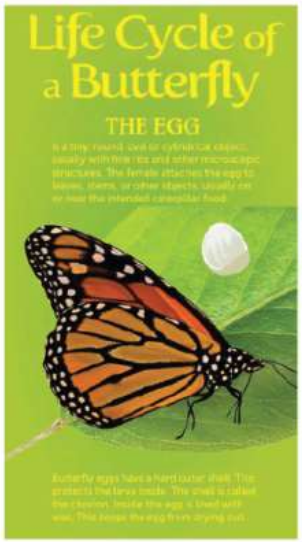


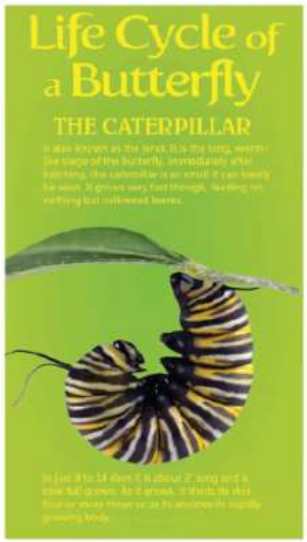












PLANT USES LEGEND:

constructional	housing, clothing, and baskets
dietary	edible plants
medicinal	used to heal wounds and sickness

ECOLOGY - PLANT COMMUNITIES :

- Riparian
- Oak Woodland
- Coastal Sage Scrub
- Chaparral

BUTTERFLY LEGEND:

threatened	butterfly species
endangered	butterfly species

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EMERALD NECKLACE

Hollydale Park Bird Species


Song Sparrow
Melospiza Melodia


Great Blue Heron
Ardea Herodias


Great Egret
Ardea Alba


Rock Dove
Columba Livia


Band-tailed Pigeon
Patagioenas Fasciata


California Gull
Larus Californicus


Anna's Hummingbird
Calypte Anna


American Goldfinch
Spinus Tristis


Mountain Chickadee
Poecile Gambeli


Blackchinned Hummingbird
Archilochus Alexandri


Bell's Vireo
Vireo Bellii


Mallard
Anas Platyrhynchos

AMIGOS DE LOS RIOS

EMERALD NECKLACE

Overview: Green Infrastructure 38 Agencies Emerald Necklace Coalition – East County

Coalition Members

EMERALD NECKLACE

Coalition Member Agencies

Azusa
Baldwin Park
Duarte
El Monte
Irwindale
Montebello
South El Monte
Whittier
Monrovia
La Puente
Bell
South Gate
San Gabriel
Downey

Gateway Authority

Bell Gardens
Commerce
Compton
Cudahy
Huntington Park
Long Beach
Lynwood
Maywood
Paramount
Signal Hill
Pico Rivera

Unincorporated Areas

Hacienda Heights Homeowners Assoc.
Workman Mills Road Homeowners Assoc.
Park El Monte Improvement Assoc.

Environmental Organizations

Charro Equestrian Joint Council
Sierra Club

School Districts

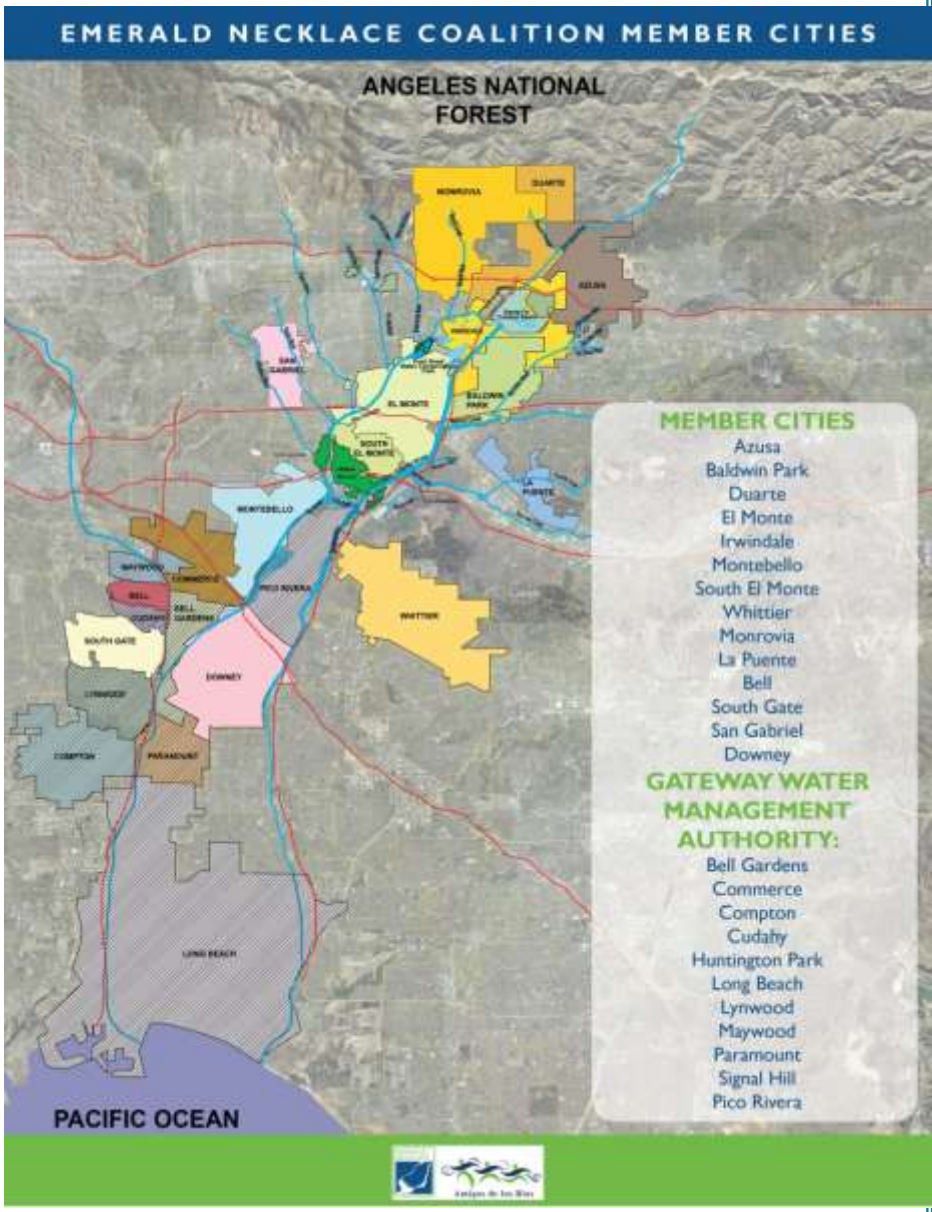
Garvey School District
El Rancho Unified School District
Mountain View Unified School District
El Monte Union School District
El Monte City School District
West Covina Unified School District

County Agencies

Los Angeles County Board of Supervisors

State Agencies

State Rivers and Mountains Conservancy




AMIGOS DE LOS RIOS
EMERALD
NECKLACE


LEGEND
Industrial Area
Commercial Area
School
Residential
Equestrian Trail
Class A Muti-benefit Bike trail
Proposed Equestrian Trail
Proposed Muti-benefit Bike trail
Potential Park Entrance
Existing Park Entrance
Lake Edge View Point
Exercise Station
Picnic Area
Sports Field
Santa Anita Wash
Bridge Causeway
Live Oak Ave
Sawpit Wash
Habitat
View Point
Exercise Trail Loop
School
Arcadia Par 3
Golf Course
Equestrian Trail
KARE
Youth Center
To San Gabriel River
Santa Anita Ave
Rio Hondo
Peck Road
Arroyo High School
Lower Azusa Ave
Existing
Bike Path
Habitat
View Points
Pier
Proposed Trail Link to
San Gabriel River
EMERALD NECKLACE
AMIGOS DE LOS RIOS

AMIGOS DE LOS RIOS - EMERALD NECKLACE GROUP

BEFORE

BECK PARK


AMIGOS DE LOS RIOS
EMERALD
NECKLACE

Emerald Necklace Green Infrastructure | Los Angeles County

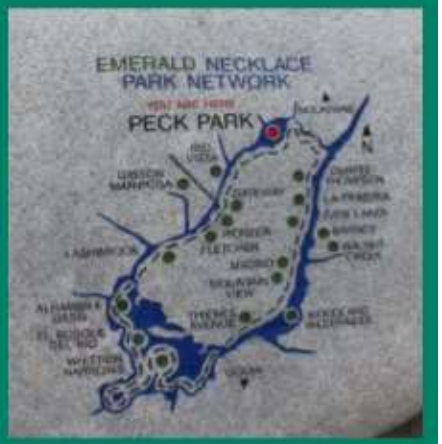
PECK RD. WATER CONSERVATION PARK

-QUARRY REDEVELOPED

www.amigosdelosrios.org | 908 E Altadena Dr|Altadena,CA 91001|t:[626] 791.1611|f:[626]791.1771

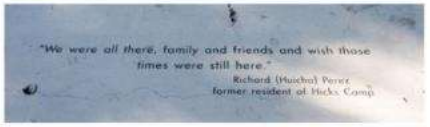
- Created 540 linear foot bioswale
- Created 350 linear foot decomposed granite trail
- Removed subterranean concrete from former quarry
- Total trees planted to date 240
- Total shrubs planted to date 1,611
- Total trees planted to date 8,712

>phase I completed



AMIGOS DE LOS RIOS - EMERALD NECKLACE GROUP

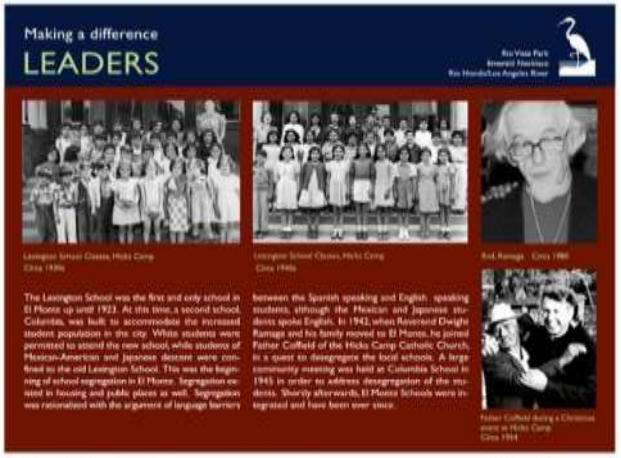
BEFORE

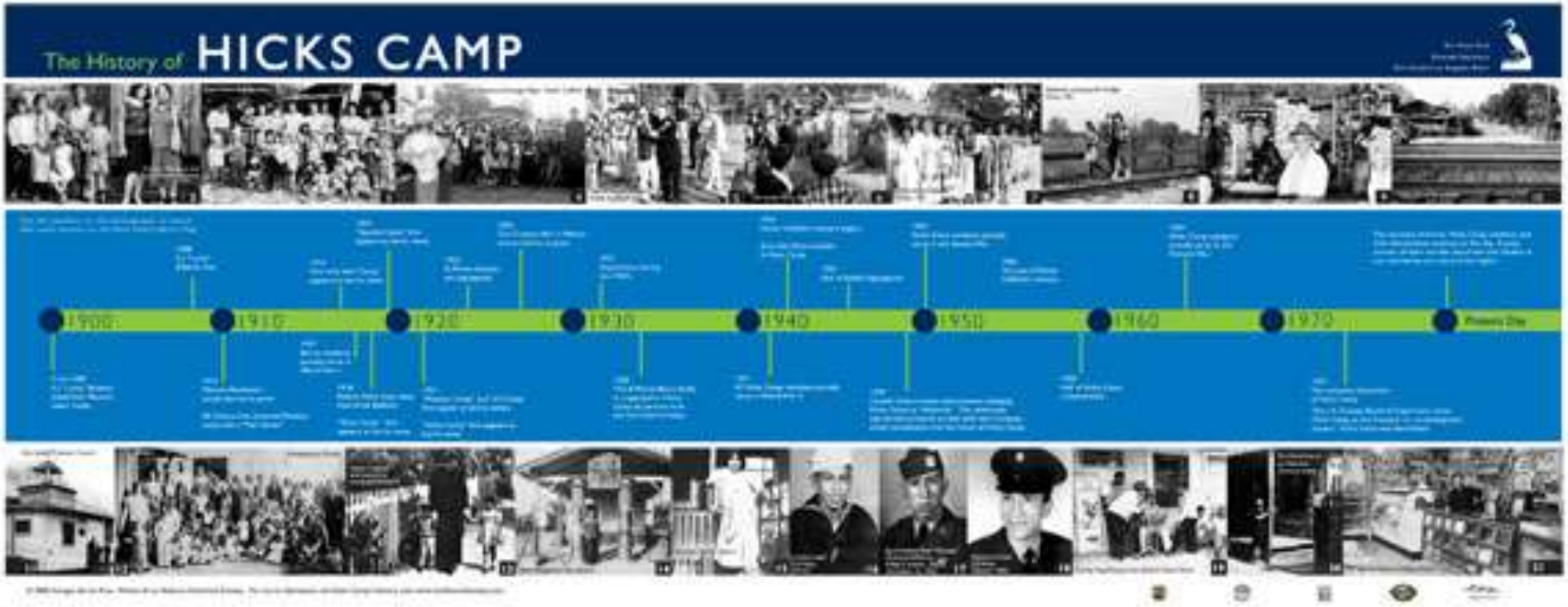


RIO VISTA PARK AND TRAIL


HICKS CAMP
circa 1948
EMERALD NECKLACE
AMIGOS DE LOS RIOS
CAL FIRE

La Historia Society

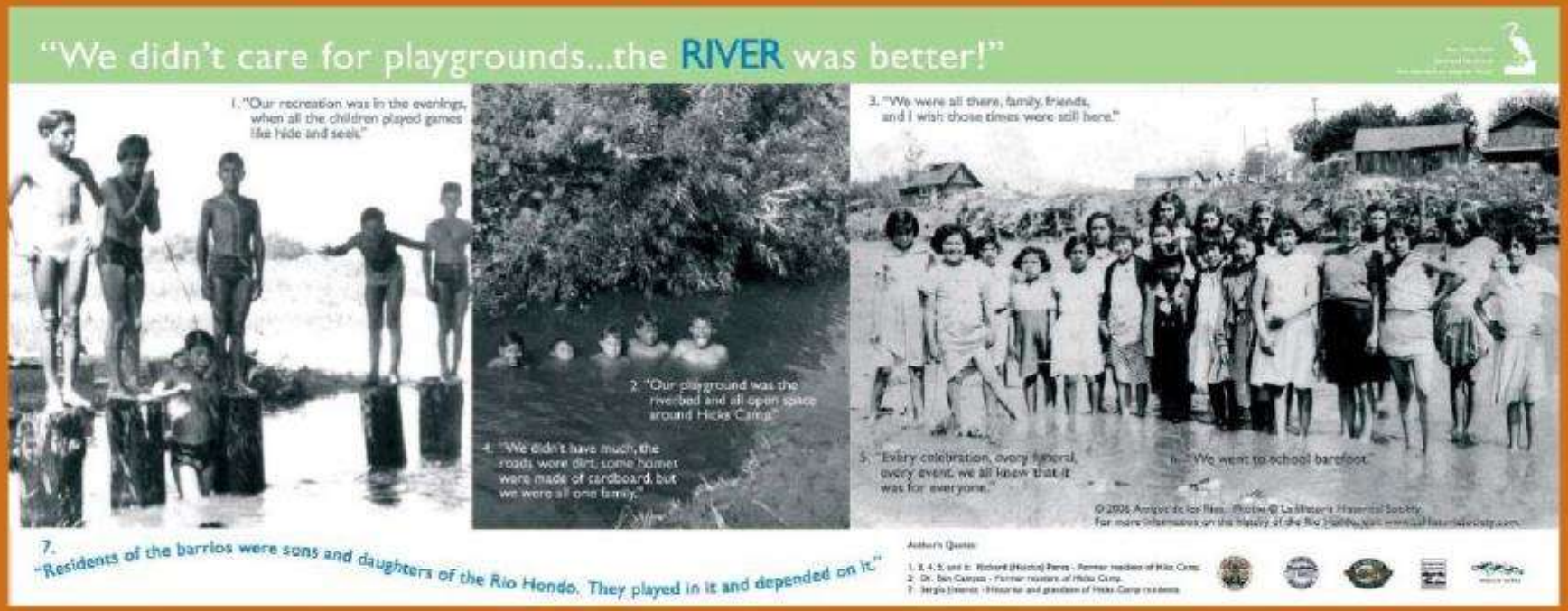




EMERALD NECKLACE

AMIGOS DE LOS RIOS

regional signage system



CELEBRATE Natural & Cultural HISTORY


PROPERTY OF LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRESPASSING - LOITERING
FORBIDDEN BY LAW
UP TO $1000 FINE OR SIX MONTHS
IMPRISONMENT OR BOTH
CALIFORNIA PENAL CODE SECTION 555 et. seq.


EMERALD NECKLACE
AMIGOS DE LOS RIOS
CAL FIRE

The Rio Hondo is a **seasonal** river and is especially **powerful** during periods of excessive rain. It is important to know that the Rio Hondo is also quite dangerous even when there is not much water in the channel. The smooth, trapezoidal shape of the channel forces the water to move with great **force**. As the sides and bottom of the channel are slippery, it is very difficult to escape the strong current of the **river**. Be cautious - the river has an awesome **power** at all water levels.

The Rio Hondo did not always look as it does today. Until the river was concreted in the 1950s, the Rio Hondo offered extensive areas to farm, walk, ride horses, play, and swim. The **braided streams** of the river meandered through the area, **enriching** the soil with **rich** sediment from the San Gabriel Mountains. Channeling the river did prevent the area from flooding, but it also took away the valuable **recreational** space along the river banks. **Rio Vista Park** gives a piece of the Rio Hondo's original green space back to the **communities** and people of El Monte.

From top: El Monte youth using the Rio Hondo as a recreational space (© La Historia Historical Society); view of the damage done to the bridge leading to downtown El Monte after the flood of 1914 (© El Monte Historical Society)
Background image: 1941 aerial of the Rio Hondo's braided streams (© UCLA Geography Archive)

The human body is made out of approximately 55% to 60% water, so make sure you drink plenty of water while on the trail.

Historic Photo of the Rio Hondo

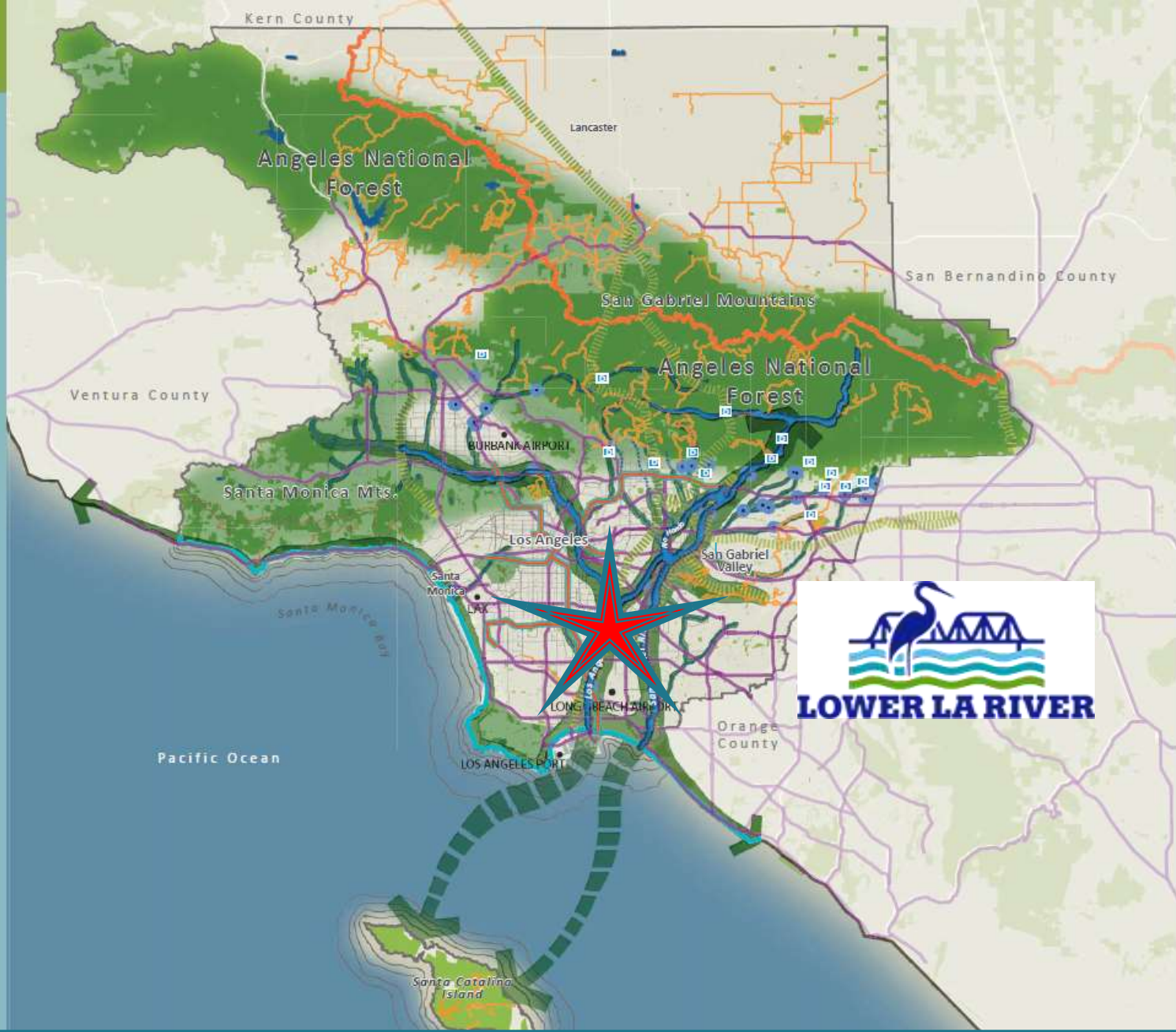

AMIGOS DE LOS RIOS
EMERALD
NECKLACE

GREEN AND GREY INFRASTRUCTURE MAP

This map depicts existing grey infrastructure that we propose be greened and utilized.
We propose to use the residual spaces underneath the utility lines to create greenways and natural areas.
We can also improve the greening surrounding the freeways and public transit lines.

LEGEND

- Emerald Necklace Greenway along Rivers/Washes/ Creeks
- Greenways under utility lines
- Improved greening within and adjacent to freeways
- Improved greening along public transit
- Spreading Basins
- Dams



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EMERALD NECKLACE

Development of NEXT Generation Watershed Stewards

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EMERALD NECKLACE

Inland Empire Parking Lot


Vaux's Swift
Tree Swallow
Violet-Green Swallow
Mountain Chickadee
Blue-gray Gnatcatcher
American Robin
Cedar Waxwing
Tundra Swan
Western Tanager
Bell's Vireo
American Redstart
Killdeer
Green Heron
Great Horned Owl
Rock Dove
Sharp-Shinned Hawk
American Bushtit
Red-Winged Blackbird
Purple Finch
Song Sparrow
American Goldfinch
Loggerhead Shrike
Red-Tailed Hawk
Band-tailed Pigeon
Pacific Loon
Western Grebe
Double-Crested Cormorant
Great Blue Heron
Great Egret
Snowy Egret
Pied-billed Grebe
Belted Kingfisher
American Wigeon
Snow Goose
Wood Duck
Mallard
Canvasback
Ring-Necked Duck
Eared Grebe
Northern Flicker
Ruddy Duck
California Gull
Acorn Woodpecker
Anna's Hummingbird
Black-chinned Hummingbird
American Kestrel
Clark's Grebe
Western Wood Pewee
American White Pelican
Cattle Egret
Whitefaced Ibis
Willow Flycatcher
PROJECT FUNDED BY:
Emerald Necklace Nature Trail
PROJECT PARTNERS:
AMIGOS DE LOS RIOS
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EMERALD
NECKLACE


EMERALD NECKLACE
AMIGOS DE LOS RIOS

Parque Dos Rios Bioswale

Watershed Conservation Authority

Safe, Clean Water Program

Lower San Gabriel River

Watershed Area Steering Committee (WASC)

Technical Resources Program (TRP)

Project Applicant

Debbie Enos

Deputy Executive Officer

Watershed Conservation Authority

Geomorphologist

Martin Kammerer, PhD

Principal

BlueGreen Consulting

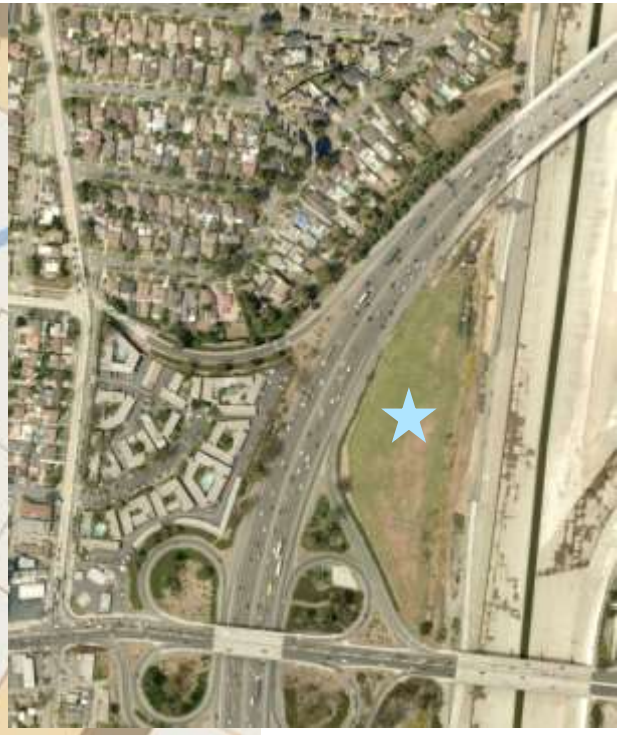
Watershed Conservation Authority

Project Context

The Watershed Conservation Authority is currently constructing a 7+ acre Parque Dos Rios Bike Rest Area and Habitat Enhancement project located along the Los Angeles River at the confluence with the Rio Hondo just north of Imperial Blvd in the City of South Gate.

Watershed Conservation Authority

Project Location and DAC Communities



DAC

Severely DAC

Watershed Conservation Authority

Parque Dos Rios | Phase I

- Amenities
  - Two Trailside Overlooks
  - Shade and Seating
  - Interpretive Features
  - Habitat Restoration
  - Decorative Iconic Gates

Watershed Conservation Authority

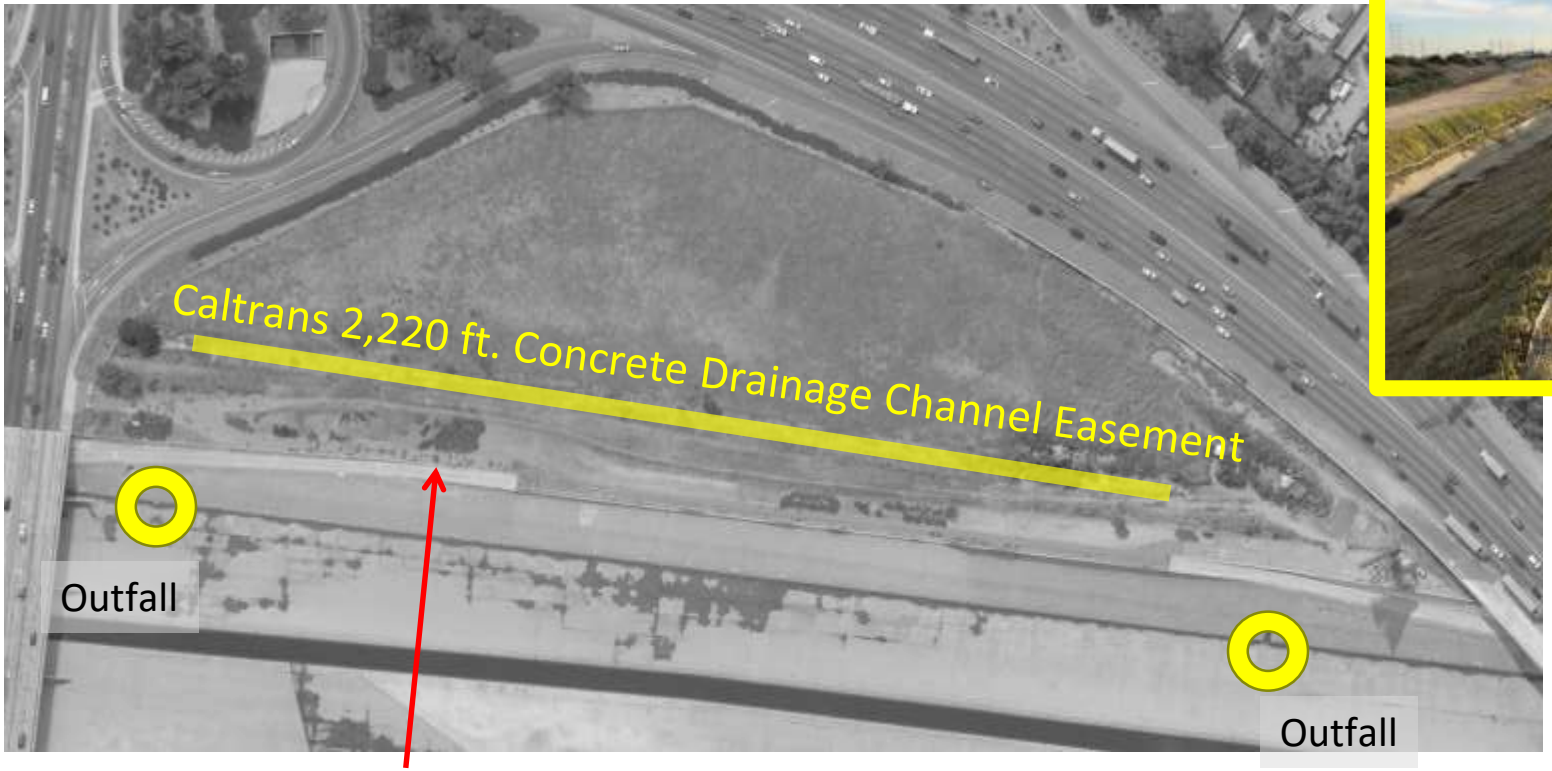
Parque Dos Rios | Phase II Bioswale

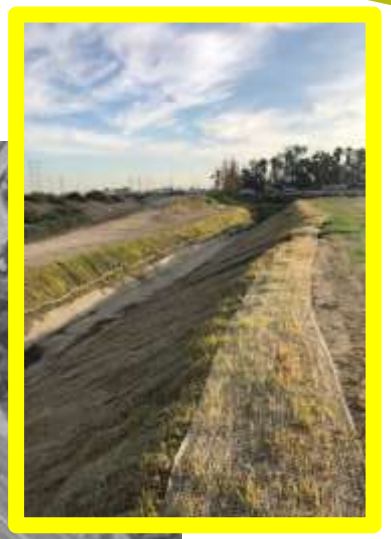
Single Purpose Grey Infrastructure to Green Nature Based Multi-Purpose Solution

Site Analysis

Watershed Conservation Authority

History of a Dysfunctional Site

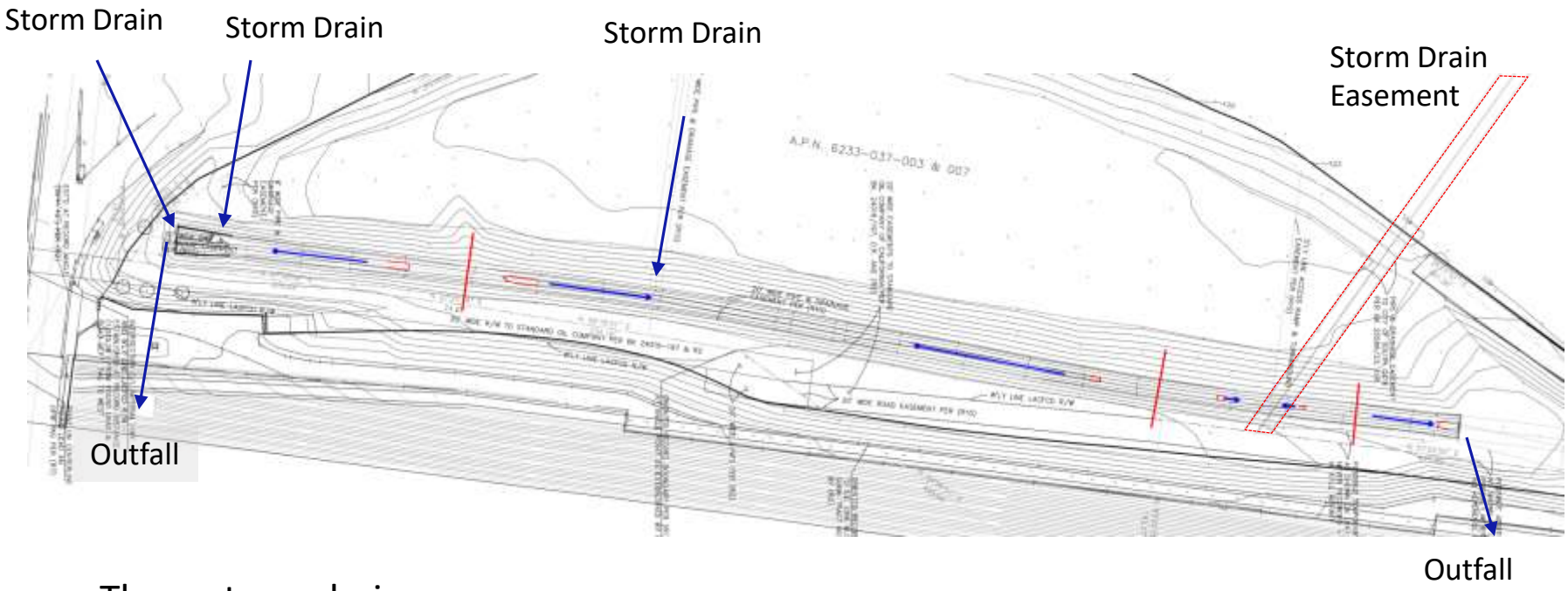




Watershed Conservation Authority

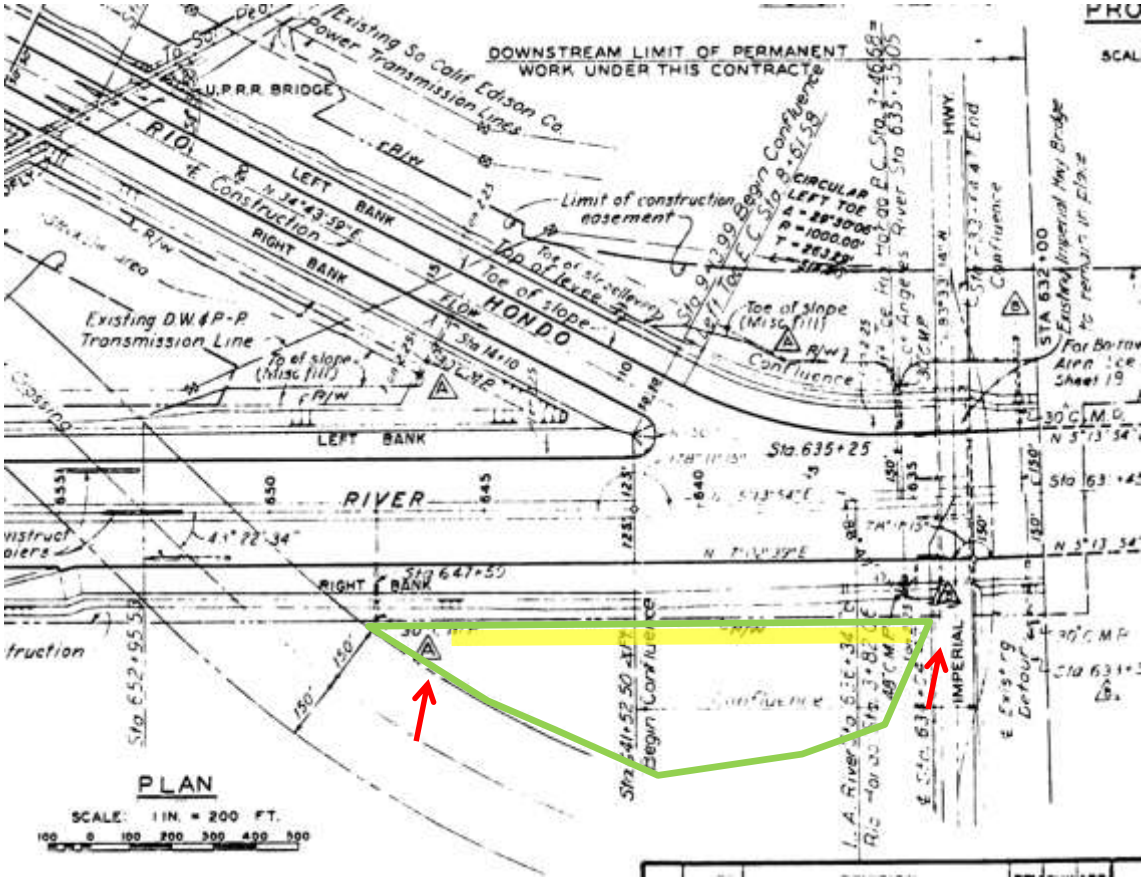
Site Photos

Site Analysis



- Three storm drains
- Two outfalls to L.A. River
- One unused easement for City of South Gate
- Channel has no slope

How did we get here?



USACE channel design and construction first.

Storm drain outlets built before the freeway.

Watershed Conservation Authority

Site Photos

Site Photos

Watershed Conservation Authority

Site Analysis: Source Areas

- South Gate Residential (1)
- Mixed Freeway/Residential (2)
- Freeway Center (3)
- Freeway Embankment (4)

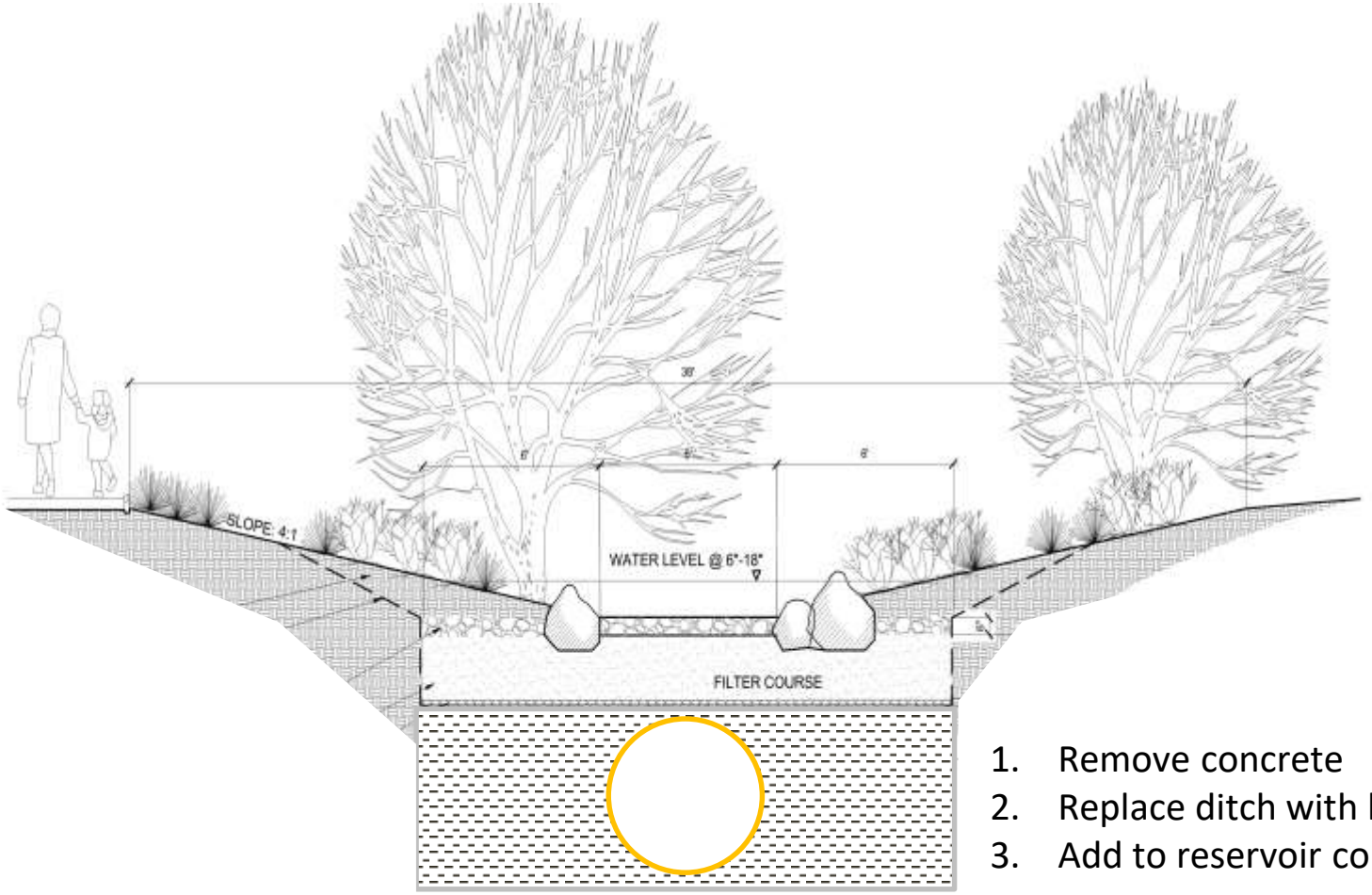
Area Estimates

- 14 ac. Freeway
- 25-45 ac. Residential

Project Opportunities

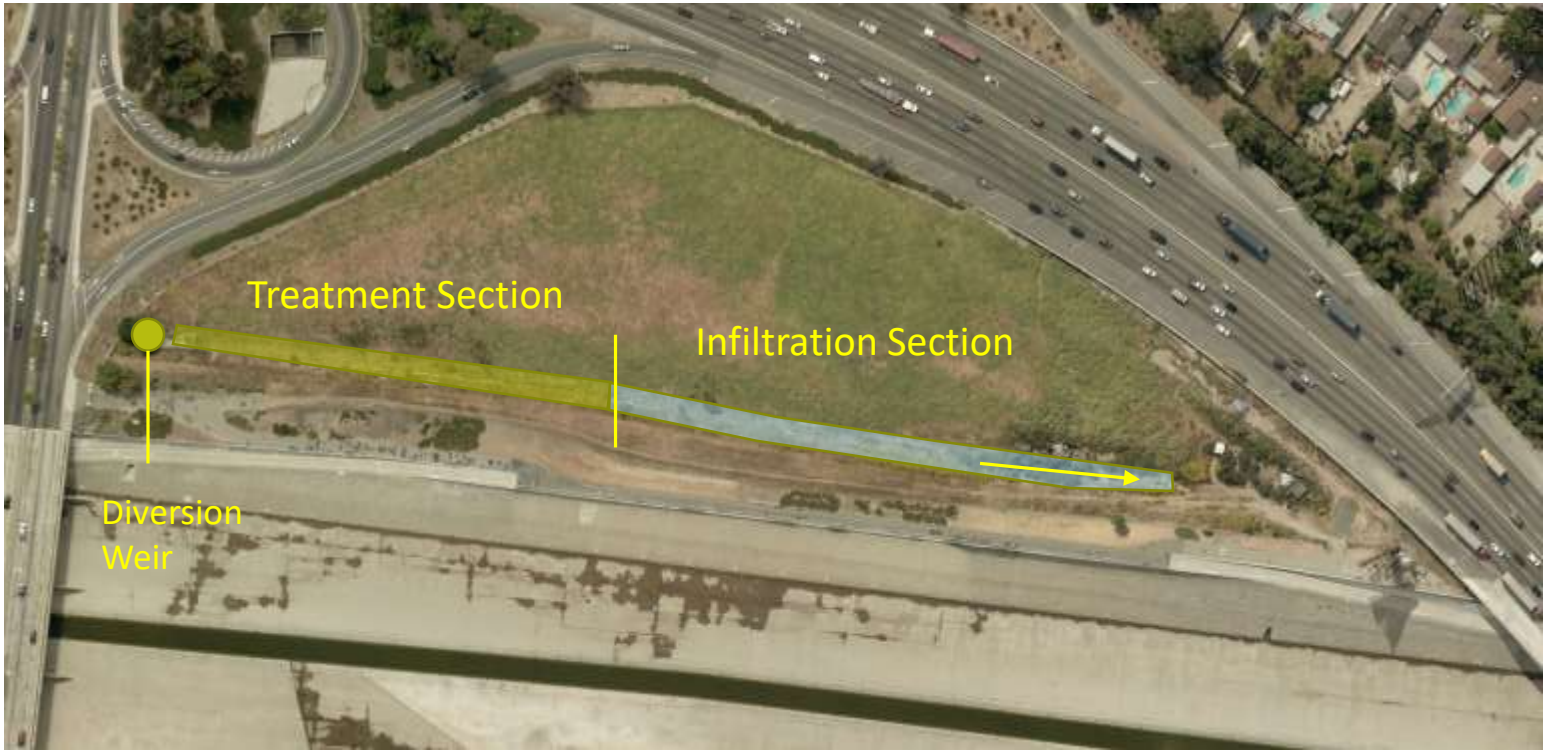
- Capture and treat stormwater from a multi-jurisdictional watershed area
- Up to 60 acres including freeway, commercial and residential land uses
- Intercept dry and wet weather stormwater from an existing Caltrans storm drain with untreated runoff
- Provide a low flow diversion within WCA property
- Keeping but improving the base infrastructure
- Replace an existing concrete stormwater channel
- Construct a naturalized bioswale/wetland

Project Opportunities



1. Remove concrete
2. Replace ditch with buried pipe
3. Add to reservoir course

Project Opportunities



Summary of Benefits

- Water Quality (Dry/Wet)
- Water Supply

Table 6. Average EMCs for SCCWRP storm monitoring data by general land use group

General land use	Average flow (cfs)	TSS (mg/L)	Total Cu (µg/L)	Total Pb (µg/L)	Total Zn (µg/L)	TP (mg/L)	Fecal coliform (#/100 mL)
Agricultural	8.1	354.7	33.2	10.2	112.3	0.01	65,207
Commercial	1.3	164.8	98.2	85.0	665.9	0.98	43,103
Industrial	5.1	149.7	30.0	20.3	691.3	0.02	1,504
LD Residential	0.5	58.3	15.9	4.1	59.6	0.13	19,110
Residential	2.7	152.5	12.8	4.7	91.6	0.20	6,685
ME01	644.9	459.7	106.9	64.0	392.8	1.53	17,042
ME02	1,403.4	733.5	134.6	97.1	556.6	2.08	79,746
ME03	1,259.6	434.7	42.2	36.6	283.3		301
ME04	488.1	226.3	42.4	42.5	245.9		10,025
ME05	1,609.6	264.3	58.7	55.2	367.8	0.13	22,735
ME06	2.5	68.5	10.3	3.6	29.3		6,019
ME07	71.1	566.8	59.8	23.3	239.0	0.38	2,105

EMC = event mean concentration; cfs = cubic feet per second; µg/L = micrograms per liter; mg/L = milligrams per liter

Watershed Conservation Authority

Summary of Benefits

- Community Investment
- Leveraged Funds
- Community Support

Table 1-7: DAC Percentage by City

City	DAC Percentage[1]
Downey	29%
Lakewood	3%
Long Beach	49%
Lynwood*	100%
Paramount*	100%
Pico Rivera	34%
Signal Hill	34%
South Gate*	100%

* Denotes disadvantaged community as a whole

Lower Los Angeles River Revitalization Plan: Volume 1 People + Place + Projects

Watershed Conservation Authority

Summary of Benefits

- Nature Based Solutions

Feasibility Study

- Coordination with Caltrans and City of South Gate
- Full hydrology for all contributing areas
- Pollutant Model
- Geotechnical borings to obtain infiltrations rates
- Coupled hydraulic and hydrologic model
- Engineering Coordination for joint design with Caltrans
- Extended review of opportunities

Extended Opportunities

Caltrans Projects in Vicinity of Parque Dos Rios

Project Number	EA	Route	Mile Post from	Mile Post to	Project Elements	Anticipated Completion
46	28920	710	15.8	24.4	Stormwater Source Control	5/3/2021
71	29801	710	17.9	18.1	Soundwall	7/7/2023
72	29802	710	12.9	24.9	Soundwall	10/4/2021
140	30830	710	18	18.5	Reconstruction Onramp	9/16/2024
275	33050	710	16.5	23.2	Access, Gates, MVP	12/27/2023
348	34700	710	9.6	32.1T	Drainage System Restoration	3/29/2024

Source: Stormwater Management Program, District 7 Work Plan

Thank You |

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