

# Safe, Clean Water Program

## Central Santa Monica Bay

### Watershed Area Steering Committee (WASC)

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#### **Meeting Minutes:**

Thursday, February 18, 2021  
10:00 AM – 12:00 PM  
WebEx Meeting

#### **Attendees**

##### Committee Members Present:

E.J. Caldwell (West Basin MWD)	Liz Crosson (Los Angeles)
Art Castro* (LADWP)	Bruce Hamamoto (LA County)
Sheila Brice (Los Angeles Bureau of Sanitation)	Curtis Castle (Santa Monica)
Rita Kampalath (LA County CEO)	Bruce Reznik (LA Waterkeeper)
Gloria Walton (The Solutions Project)	Marcela Benavides* (LACFCD)
Charles Herbertson (Culver City)	Alysen Weiland* (PSOMAS)
Max Podemski (Los Angeles)	Darryl Ford* (LA Rec & Parks)
Josette Descalzo (Beverly Hills)	

##### Committee Members Not Present:

Rafael Prieto

\*Committee Member Alternate

See attached sign-in sheet for full list of attendees.

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

Liz Crosson, the Chair of the Central Santa Monica Bay WASC, welcomed Committee Members and called the meeting to order.

Kirk Allen (District) discussed WebEx features and facilitated the roll call of Committee Members. All committee members made self-introductions and a quorum was established.

#### **2-3. Approval of Meeting Minutes from January 21, 2021 & February 1, 2021**

The District provided a copy of the meeting minutes from the 2 previous meetings: January 21, 2021 & February 1, 2021. Liz Crosson asked the committee members for comments or revisions. An amended motion to approve the January 21, 2021 and February 1, 2021 minutes simultaneously was made by Gloria Walton and seconded by Josette Descalzo. (13 Approved and 1 Abstained for 1/21/21, 12 Approved and 2 Abstained for 2/2/21, see Vote Tracker sheet).

#### **4. Public Comment Period**

Dr. Shahriar Eftekhazadeh from SEITec submitted a comment card comparing SEITec's and LA Sanitation District's Ballona Creek dry weather flow projects and shared his comments during the meeting (See Public Comment Card).

Jenna D'Ottavio from California Greenworks submitted a comment card regarding the Hayden and Blackweilder Tract Projects (See Public Comment Card).

Sherilyn Correa, representing LA City District 9 Councilmember Curren Price, urged support for the Slauson Connect Clean Water Project.

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Jonathan Pacheco Bell, representing the Los Angeles Neighborhood Land Trust, strongly supports the Slauson Connect Clean Water Project.

Jacqueline Dupont-Walker, representing Ward Economic Development Corporation, encouraged support for the Slauson Connect Clean Water Project.

Albert Farias, representing the Voices Neighborhood Council, enthusiastically supports the funding of the Slauson Connect Clean Water Project.

Stacy Hill-Williams, representing the Brotherhood Crusade Organization, supports the Slauson Connect Clean Water Project.

Caroline Orija, from the Baldwin Hills Conservancy, supports the Slauson Connect Clean Water Project.

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

Kirk Allen provided the District updates, noting:

- First Annual Plans are being posted on the SCW Program website and over half of the cities have received their local returns. Cities that did not return their executed Transfer Agreements (TA) were requested to return them as soon as possible. Second Annual Plans are due in April.
- An interactive web-based Stormwater Investment Plan planning tool that is in development will be introduced in early March 2021. The District stated the goal completing Stormwater Investment Plans (SIP) programming by late April/early May. Selected Watershed Coordinators (WC) for CSMB WASC are Steve Groner and Associates and Heal the Bay; their Letters of Intent and insurance requirements are being reviewed.
- The District is advancing 14 of 16 Technical Resource Program (TRP) project concepts to Technical Assistance Teams to develop Feasibility Studies. These concepts were approved in the FY2020-21 Stormwater Investment Plans (SIPs). Submissions for Round 3 have a deadline of July 31, 2021.
- Tax relief applications are due May 1, 2021. Low-Income Senior-Owned (LISO) properties are eligible for a full exemption of the SCWP tax if they meet the minimum income and age threshold. Also, there is a tax credit program for property owners who have invested in stormwater management infrastructure on their property.

Alysen Weiland reminded the WASC that, as a private consultant of PSOMAS, she will be a non-voting member for the projects.

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

##### **a) Ex Parte Communication Disclosures**

Alysen Weiland stated that PSOMAS is the civil engineer for the Venice High School Project.

Bruce Reznik has had communications with Water LA Organization but not specifically about any of the four projects being presented.

Liz Crosson communicated with City Council District 9 about the Slauson Connect Clean Water Project.

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#### **b) Presentations for Infrastructure Program (CSMB Scoring Rubric)**

i) Normandie Ave ES - DROPS and Paving – LAUSD. Presented by Christos Chrysiliou.

Curtis Castle inquired about the Project funding amount and if O&M includes just landscaping maintenance or if it also includes future maintenance (5-10 years later) for items such as replacement of the bioswale layers. Christos Chrysiliou commented that there is a database that can keep a log of the required maintenance; some items like coating will not need maintenance for 10-15 years but will need to be evaluated for maintenance at the end of this period.

Max Podemski asked if there were plans for joint use by the school and community during non-school hours. Christos Chrysiliou replied that the community can work with LAUSD to enter into an agreement for access.

Bruce Reznik asked if the funding request amount will stay the same. Christos Chrysiliou commented that the actual cost is more, but the amount requested will remain the same.

Josette Descalzo asked if the Project will receive any discharges from other nearby drainage areas. Christos Chrysiliou stated he would investigate that and get back to the WASC with the information.

ii) Slauson Connect Clean Water Project – Corvias Infrastructure Solutions and Geosyntec Consultants Presented by: Ken Susilo, Greg Cannito, and Sean Agid.

Bruce Reznik commented that it seems early in the project process to request funding for both design and construction. He mentioned there is difficulty on scoring projects that are part of a larger component of projects and of different phases. Greg Cannito noted that a municipal applicant is not listed on the application which transfers the risk of delivering the project to the private sector but allows the municipality to be the steward of the funding. Ken Susilo replied that there would only be payments after the product is done.

Curtis Castle inquired about CEQA determination. Ken Susilo replied that they are in coordinated with the City of Los Angeles.

Josette Descalzo asked about the amount of payback to the private companies fronting the costs and if it is included in the costs provided. Greg Cannito replied that there is no contractual underwriting of financing or commitment of revenues; costs are built into the hard costs of the project.

iii) Venice High School Comprehensive Modernization Project – LAUSD. Presented by Scott Singletary.

No questions or comments.

iv) Webster MS - DROPS – LAUSD. Presented by Christos Chrysiliou.

No questions or comments.

#### **7. Public Comment Period**

No Public Comment.

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#### **8. Voting Items**

None.

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

a) Central Santa Monica Bay (CSMB) Project Prioritization and Selection Discussion for populating the Fiscal Year 2021-22 Stormwater Investment Plan – Interactive Planning Tool.

#### **10. Adjournment**

Liz Crosson thanked the WASC members and public for their time and participation and adjourned the meeting.

**CENTRAL SANTA MONICA BAY WASC MEETING - February 18, 2021**

Member Type	Organization	Quorum Present				Voting Items	
		Member	Voting?	Alternate	Voting?	Meeting Minutes 01/21/21	Meeting Minutes 02/01/21
Agency	LACFCD	Cung Nguyen		Marcela Benavides	x	A	A
Agency	West Basin MWD	E.J. Caldwell	x	Alex Heide		Y	Y
Agency	LA Water & Power	Delon Kwan		Art Castro	x	Y	Y
Agency	LA Sanitation District	Sheila Brice	x	Michael Scaduto		Y	Y
Agency	LA Recreation & Parks	Cathie Santo Domingo		Darryl Ford			
Community Stakeholder	LAC Chief Sustainability Office	Rita Kampalath	x	Gary Gero		Y	Y
Community Stakeholder	Lipa Consulting Company / Business Sector	Jacob Lipa		Alysen Weiland	x	Y	A
Community Stakeholder	The Solutions Project / SCOPE	Gloria Walton	x	Gloria Medina		Y	Y
Community Stakeholder	LA Waterkeeper	Bruce Reznik	x	Kim Martin		Y	Y
Community Stakeholder	VACANT						
Municipal Members	Beverly Hills / West Hollywood	Josette Descalzo	x	Hany Demitri		Y	Y
Municipal Members	Culver City	<b>Charles Herbertson</b>	x	Kim Braun		Y	Y
Municipal Members	Los Angeles	Max Podemski	x	Ackley Padilla		Y	Y
Municipal Members	Los Angeles			Rafael Prieto			
Municipal Members	Los Angeles	<u>Liz Crosson</u>	x	Susie Santilena		Y	Y
Municipal Members	LAC Public Works	Bruce Hamamoto	x	Armando D'Angelo		Y	Y
Municipal Members	Santa Monica	Curtis Castle	x	George Rodriguez		Y	Y
Total Non-Vacant Seats		15				Yay (Y)	13
Total Voting Members Present		14				Nay (N)	0
Agency		4				Abstain (A)	1
Community Stakeholder		4				Total	14
Municipal Members		6				Approved	Approved

Other Attendees		
Aiyla Balakumar	Jonathan Pacheco Bell	Wendy Dinh
Albert Farias	Julia Hawkinson	Amy Meenan
Alejandro Martines	Karen Lee	Caroline Orjia
Alysha Chan	Katie Harrel	Lauren Amimoto
Andrew Evans	Katie M	Limor Horo
Armando D'Angelo	Ken Susilo	Sean Agid
Brenda Ponton	Kim Braun	Stacy Hill-Williams
Brett Perry	Leslie Frazier	Alfredo Magallanes
Brian Rowley	Limor Horowitz	Carlos Moran
Cassie Betts	Lorena Matos	Sarai Bhaga
Chanel Kincaid	Lori Selna	
Christine McLeod	Maritsa DRA	
Christos Chrysiliou	Michael Gagan	
Conor Mossavi	Mike Rudd	
Curtis Fang	Mohammed Baig	
Greg Cannito	Parker Rand	
Gregory Burks	Ryan Jackson	
Gus Orozo	Scott Singletary	
Hans Tremmel	Sean Singletary	
Ilene Ramiez	Shahriar Eftekhazsadeh	
Jae Ko	Tara Liametchakul	
Johanna Chang	taraned.nik-khah	



# Public Comment Form

Name:\* Shahriar Eftekhazadeh Organization\*: SEITec  
Email\*: Shahriar.Eftekhazadeh@seitecinc.com Phone\*: 310 879 9376  
Meeting: CSMB WASC Date: 02/18/2021

LA County Public Works may contact me for clarification about my comments

\*Per Brown Act, completing this information is optional. At a minimum, please include an identifier so that you may be called upon to speak.

Phone participants and the public are encouraged to submit public comments (or a request to make a public comment) to [SafeCleanWaterLA@dpw.lacounty.gov](mailto:SafeCleanWaterLA@dpw.lacounty.gov). All public comments will become part of the official record.

Please complete this form and email to [SafeCleanWaterLA@dpw.lacounty.gov](mailto:SafeCleanWaterLA@dpw.lacounty.gov) by at least 5:00pm the day prior to the meeting with the following subject line: "Public Comment: [Watershed Area] [Meeting Date]" (ex. "Public Comment: USGR 4/8/20").

## Comments

On Feb. 1, 2021, the CSMB WASC was presented with two alternatives to divert and treat Ballona Creek dry weather flow, one by LASAN and the other by SEITec.

The LASAN alternative constructs two pump station facilities with Ozone treatment, at a construction cost of \$31.9 Million and annual operation and maintenance (O&M) cost of just over \$1.2 Million per year, and consumes more than 10,150 kWh per day of electricity.

The SEITec alternative uses gravity diversion with UV treatment at a construction cost of **\$14.9 Million (53% less)** and O&M cost of **\$0.38 Million per year (68% less)**, and consumes **1,700 kWh per day of electricity (83% less)**.

I would like to clarify the following points, which were expressed in support of the LASAN project:

- 1. LASAN has already looked at rubber dam and opted for pump station** – This is NOT true. LASAN only evaluated a small rubber dam as an alternative to the saw cut channel diversion to the pump station, and NOT as alternative for the pump station itself.
- 2. Gravity alternative will delay the project because of CEQA** – This is NOT true. According to [14 CCR Section 15162](#) all that is needed is an addendum for the EIR, given the smaller environmental impacts. The addendum does not need to be circulated for public review.
- 3. Gravity alternative will delay the project because of Permitting** – This is also NOT true. The key permit in the project critical path timeline is the US ACE 408 permit, which LASAN has not as yet applied for (Ref. Feasibility Study, p. 39).

I would like to draw your attention to the [City of LA Green New Deal Targets](#), in the "[Lead by Example](#)" section, which aims to:

- *"Reduce municipal greenhouse gas emissions 55% by 2025; 65% by 2035; and reach carbon neutral by 2045"*
- *Reduce municipal energy use 18% by 2025, 35% by 2035, and 44% by 2050"*

The LASAN project energy use of **10,150 kWh per day** starting in 2025, which is equivalent to the energy use of **340 average US households**, resulting in greenhouse gas emissions of **1,700 metric tons CO2**, equivalent to **360 ICE cars on the road**, is a **major step in the wrong direction** and must be avoided. Ignoring these hard facts will run counter to direction, policy, and call for action on combating global warming, recognized as an existential threat at City, County, State, and Federal levels.

According to the [International Panel on Climate Change \(IPCC\) report](#), meeting the above targets is the minimum required to keep global warming below the catastrophic 1.5 degrees centigrade below preindustrial levels.

**From:** jenna@calgrnwks.org  
**Sent:** Wednesday, February 3, 2021 9:22 AM  
**To:** DPW-SafeCleanWaterLA  
**Subject:** Answers from presentation

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

**CAUTION:** External Email. Proceed Responsibly.

Good morning,

I appreciate the time you gave us to present our projects to you on Monday.

Please see below the answers to your questions.

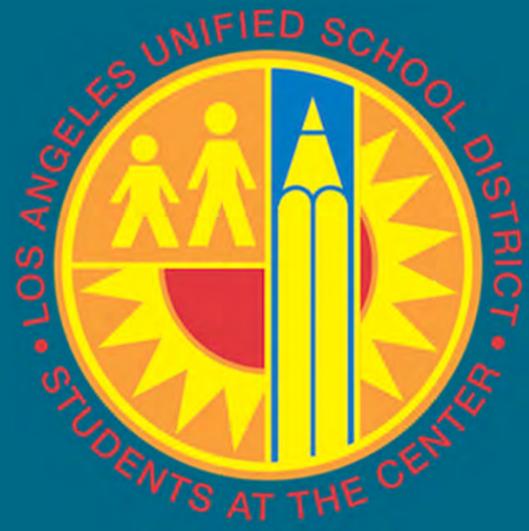
- What department in LA county supports us? We received a letter of support for the feasibility study and the project from LA county watershed protection division.
- In regard to the right of way, which municipality is our partner? Hyden Tract is within City of Culver City and Blackweilder Tract is within the City of Los Angeles.
- Flood control management, who is our municipality? The flood control and management falls under the jurisdiction of Los Angeles County Flood Control District.

Thank you so much.

Sincerely,  
Jenna D'Ottavio  
Programs and Projects Coordinator



P| 323.298.5077 C| 303.476.0390  
E| jenna@calgrnwks.org



# Normandie Elementary School DROPS and Paving Project

Safe Clean Water Infrastructure Program FY 21-22

Los Angeles Unified School District

Presented by:

Christos Chrysiliou, AIA, CCM, LEED AP BD+C

Director of Architectural and Engineering Services

Maintenance and Operations





# Presentation Outline

Project Overview

Project Location and Disadvantaged Communities

Project Information

- Project Background
- Project Details
- Project Photos

Cost and Schedule

Funding Request

Preliminary Score

- Water Quality Benefits
- Community Investment
- Nature Based Solutions



## Project Overview

The Normandie ES DROPS (Drought Response Outreach Program for Schools) and Paving Project includes various site improvements, including installation new greening and storm water capture features, ADA upgrades, and school wide asphalt replacement with solar reflective coating.

- Project objectives
  - Create a safe, enriched learning environment for students through playground improvements and new recreational green spaces.
  - Provide accessibility upgrades to current ADA codes.
  - Mitigate stormwater run-off through bioretention and new permeable pavement areas in accordance with County LID Standards.



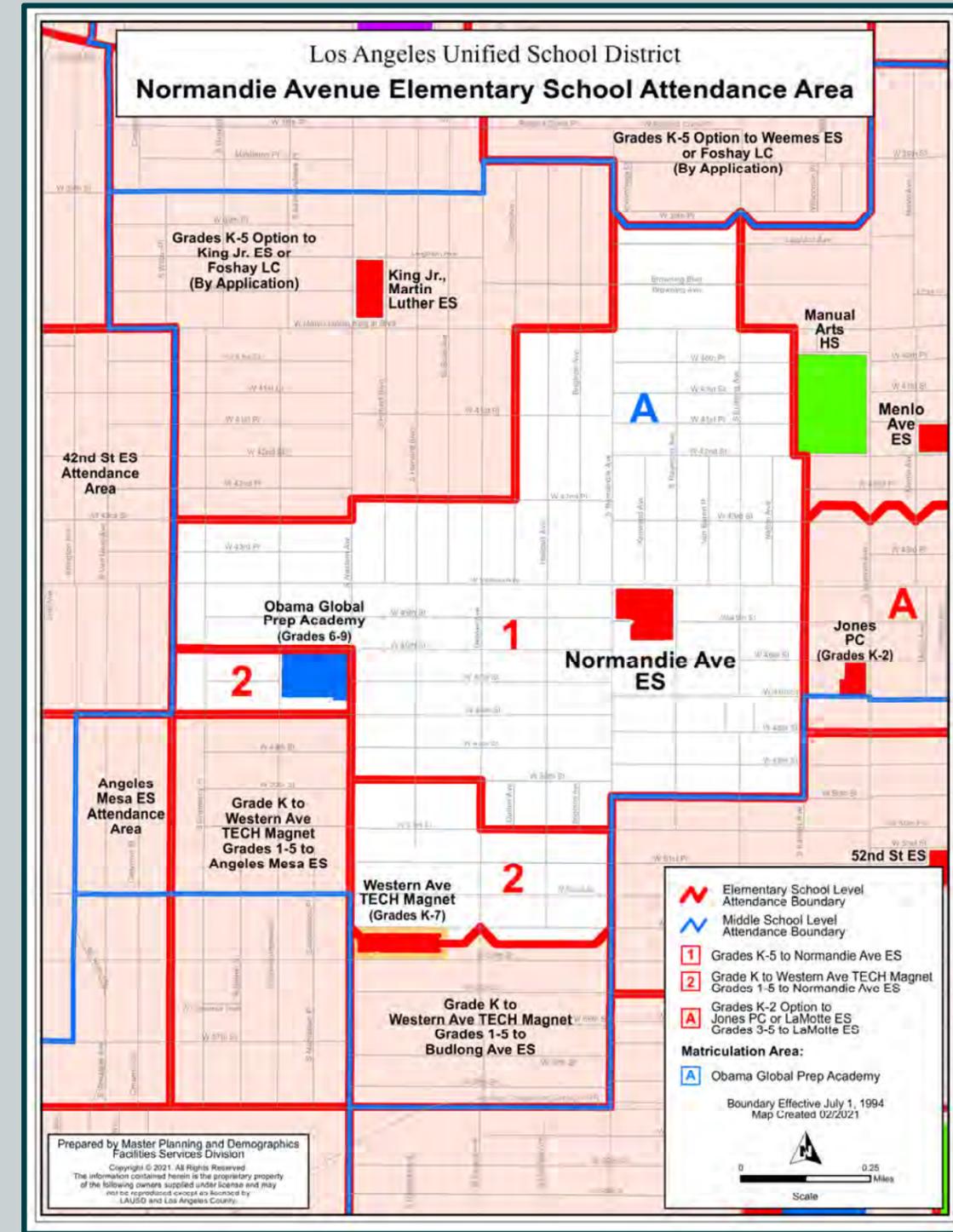
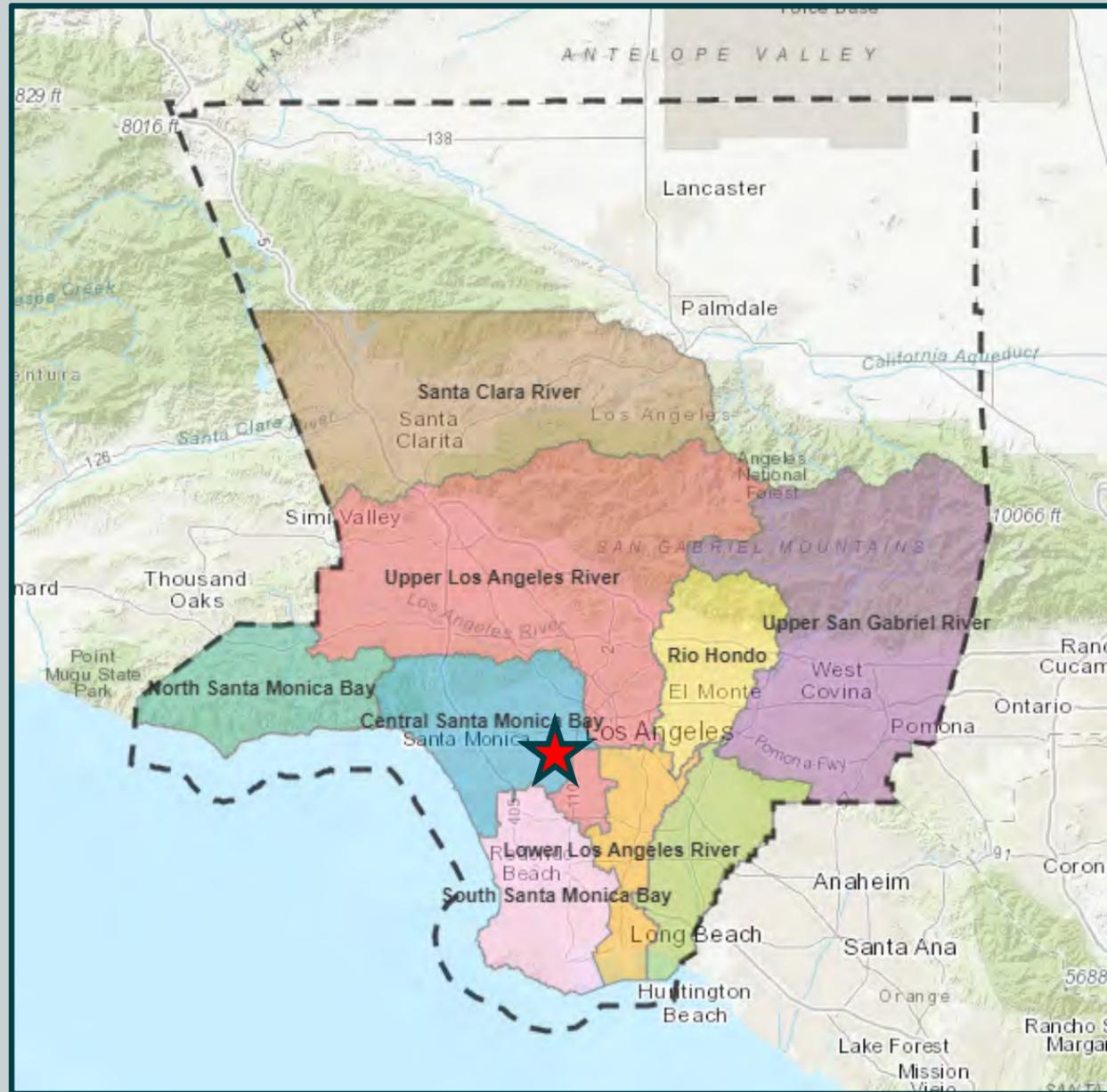
# Project Overview

- ADA and Paving Scope
  - Replace deteriorated asphalt throughout playground areas and parking lots
  - Provide accessible path of travel including required ramps, gates, and ADA parking
  - Upgrade restrooms
  - Upgrade drinking fountains
- Community Investment Scope
  - Bioretention Areas
  - Pervious Pavers
  - Rain Barrels
  - Native Planting and Greening Areas
  - New Playfield and DG Walking Path
  - Solar Reflective Asphalt Coating
- The total project cost is \$6.04 Million and the project was completed in June 2020.
- SCW funding is being requested for construction and O&M cost for Community Investment scope for a total of \$1,337,838.



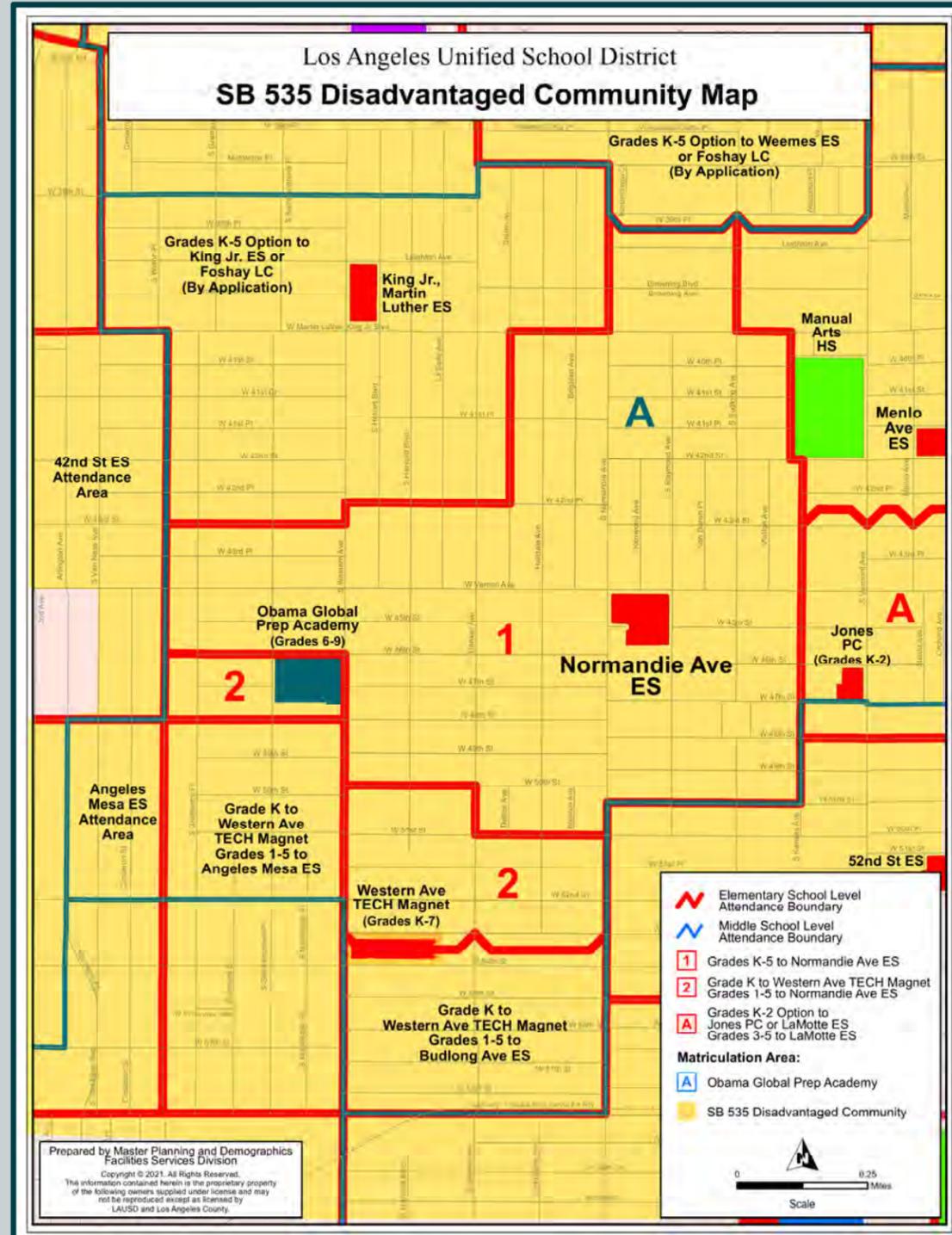
# Project Location

## Watershed Area Central Santa Monica Bay





# Project Location – SB 535 Disadvantaged Communities



- The school serves a Disadvantaged Community Area and the project will benefit students, staff and the neighboring areas through site improvements, water conservation, stormwater pollution reduction, and education.



DISADVANTAGED  
COMMUNITY AREA





# Project Background

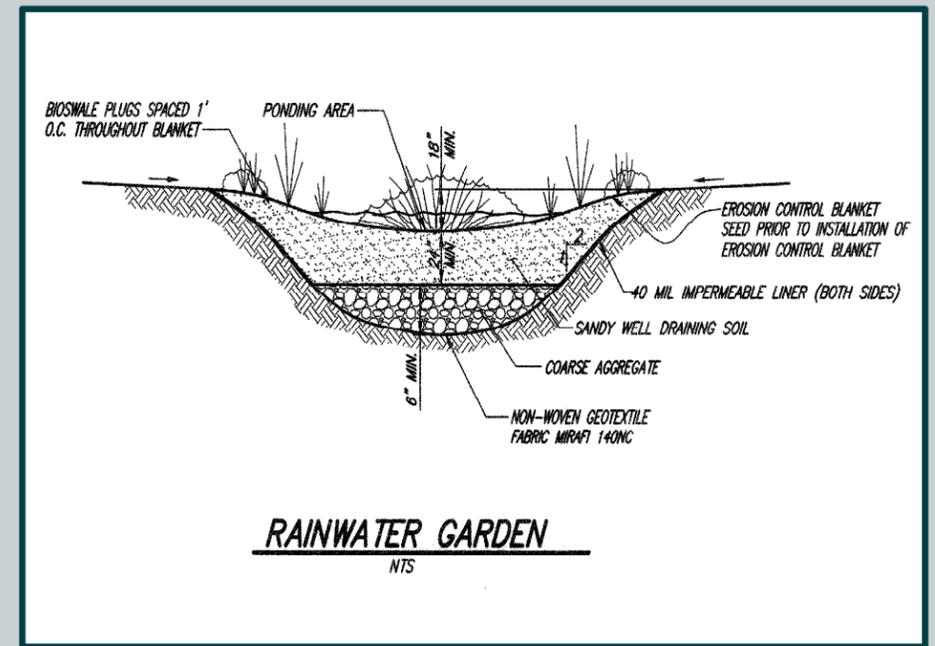
- Normandie ES was selected to be repaved as part of LAUSD's Critical Repair Program.
- LAUSD saw this as an opportunity to increase greening at the site, while taking advantage of the favorable soil conditions for stormwater capture and infiltration.
- Reducing asphalt surfaces and increasing green spaces will be beneficial for physical education activities and stormwater quality.





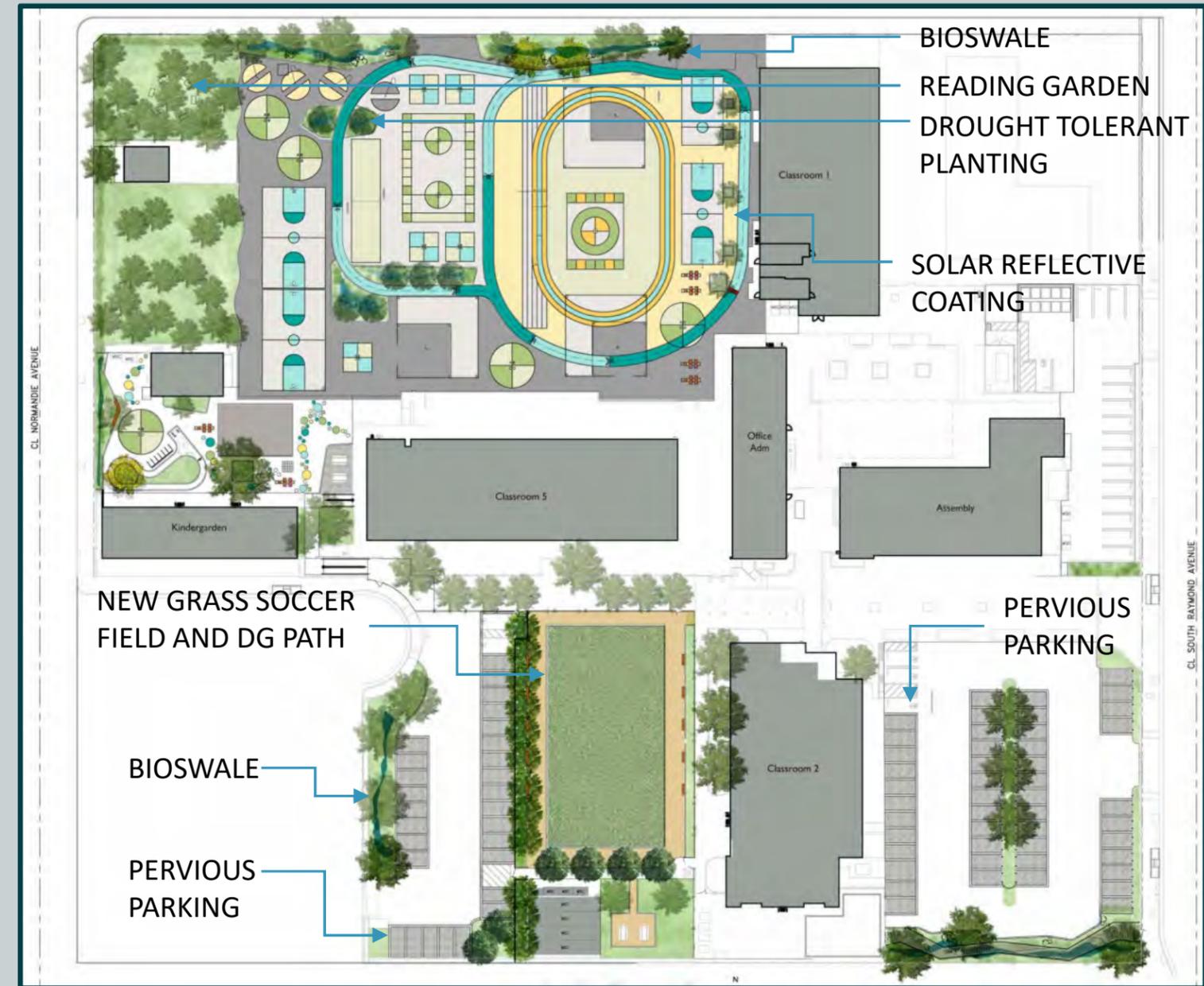
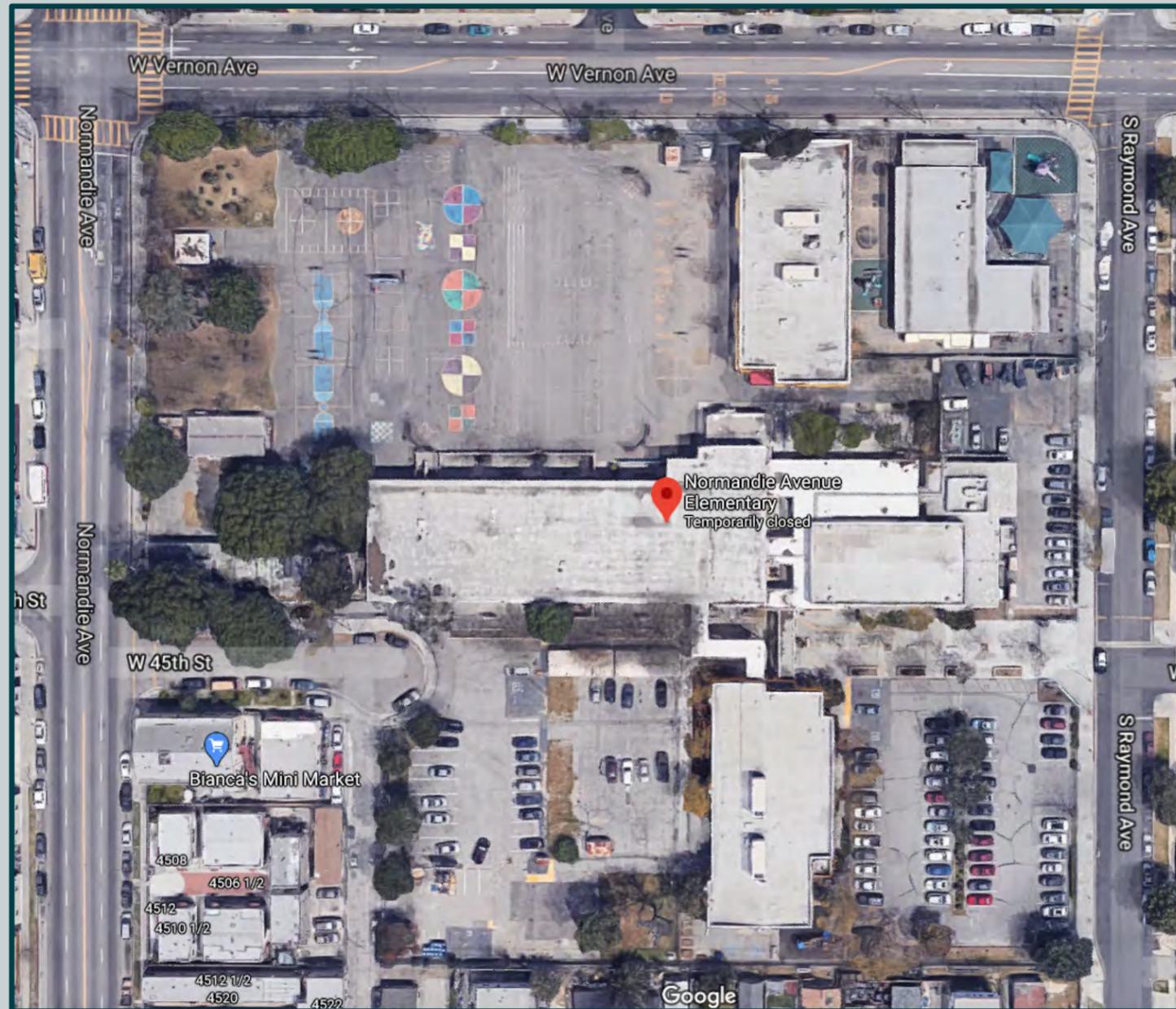
# Project Background

- The DROPS program provided community outreach by educating and increasing public understanding of environmental and water sustainability benefits in the area.
- Project is registered as part of the Integrated Regional Watershed Management Plan.
- Project addresses highest contributors to the pollution burden scores which consists of ozone, traffic, and hazardous waste.





# Project Details – School Site Before and After





# Project Details – BMP Plan



	<b>PERVIOUS PAVERS</b>																														
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# Project Photos

- Deteriorated asphalt replaced with new paving, bioretention areas, and drought tolerant native landscaping.
- Solar reflective coating installed to reduce high temperatures from urban heat island effect.



PLAYGROUND (BEFORE)



PLAYGROUND SOLAR COATING (AFTER)

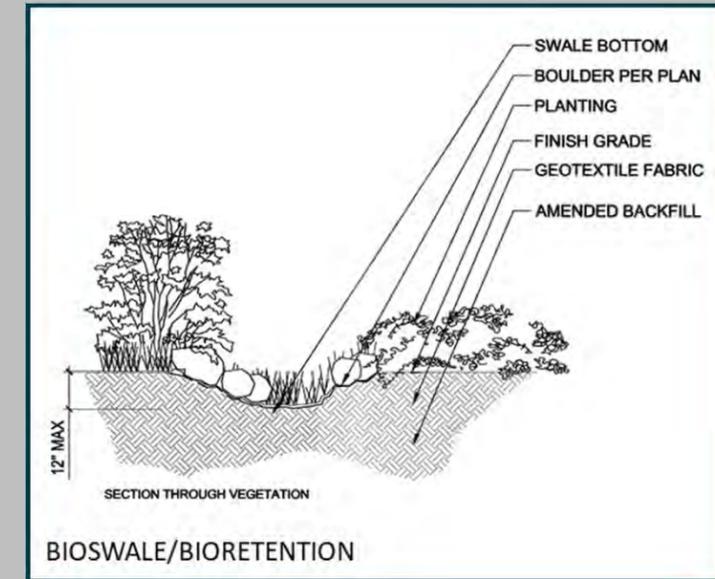


PLAYGROUND SOLAR COATING AND GREENING (AFTER)



# Project Photos

- Bioretention areas installed to infiltrate site stormwater to help recharge local water table and reduce run-off and pollutants.



BIORETENTION AT PLAYGROUND

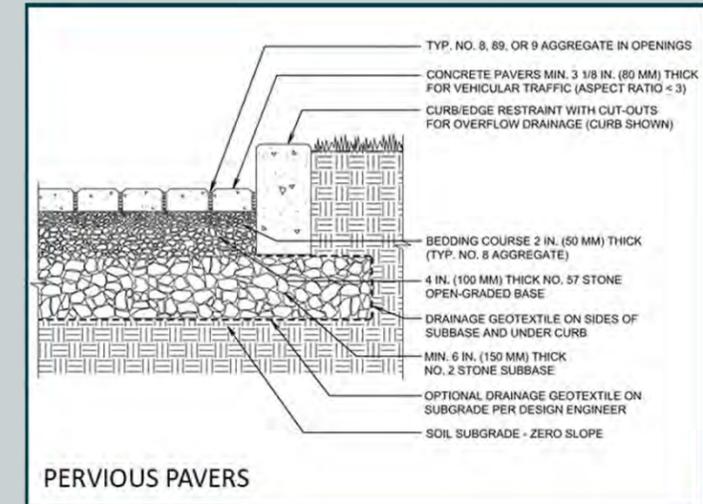


BIORETENTION AT PARKING LOT



# Project Photos

- Permeable pavers at parking spaces reduces pollutants from reaching water bodies carried by run-off.



PERVIOUS PAVING AT BACK PARKING LOT



PERVIOUS PAVING AT MAIN PARKING LOT



# Completed Project Photos

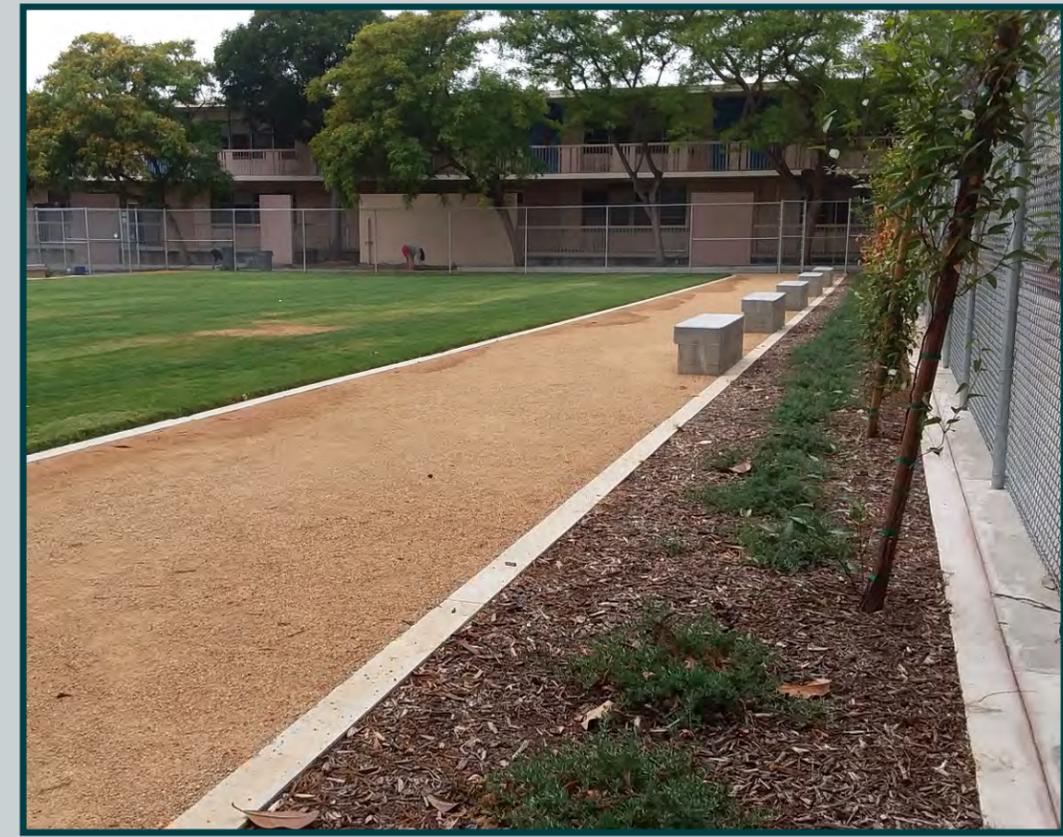
- New playfield and walking path in a predominantly asphalt covered area provides cooler and natural environment for physical activities and sports.



PARKING AREA (BEFORE)



NEW PLAYFIELD (AFTER)



NEW PLANTING AND WALKING PATH  
(AFTER)



# Project Photos

- Rain barrels collect roof water from building to be used for garden and planting areas.
- Helps offset irrigation demand and reduce pollutant loads to the storm drain system.



RAIN BARREL ADJACENT TO PARKING LOT



RAIN BARRELS ADJACENT TO GARDEN AREA



# Overall Project Cost

Phase	Description	Cost	Completion Date
Planning	Environmental and Site Assessment	\$88,752	11/2015
Design	Plans and Approvals	\$557,760	11/2017
Construction	Construction Cost	\$5,389,532	06/2020
<b>TOTAL</b>		<b>\$6,036,044</b>	

- Additional Community Investment benefits estimated cost is \$1,492,108, see next slide.
- DROPS program provided total of \$981,286 of which \$791,751 was allotted for construction cost of Stormwater features.



# Additional Community Benefits Cost & Schedule

Phase	Description	Cost*	Completion Date
Planning	Environmental and Site Assessment	\$21,939	11/2015
Design	Plans and Approvals	\$137,878	11/2017
Construction	Construction Cost	\$1,332,291	06/2020
<b>TOTAL</b>		<b>\$1,492,108</b>	

\*Costs shown above include:

- Bioretention Areas
- Pervious Pavers
- Rain Barrels
- Native Planting and Greening Areas
- New Playfield and DG Walking Path
- Solar Reflective Asphalt Coating



# Funding Request from Safe Clean Water Program

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$783,289	Construction	1 <sup>st</sup> Year Construction Cost
2	\$549,794	Construction & O&M	2 <sup>nd</sup> Year Construction and Maintenance Cost
3	\$1,585	O&M	3 <sup>rd</sup> Year Maintenance Cost
4	\$1,585	O&M	4 <sup>th</sup> Year Maintenance Cost
5	\$1,585	O&M	5 <sup>th</sup> Year Maintenance Cost
<b>TOTAL</b>	<b>\$1,337,838</b>		

- Future potential SCW funding requests would include Operations and Maintenance and Monitoring costs.
- Project lifespan is 50 years with a total lifecycle cost \$1,571,358.

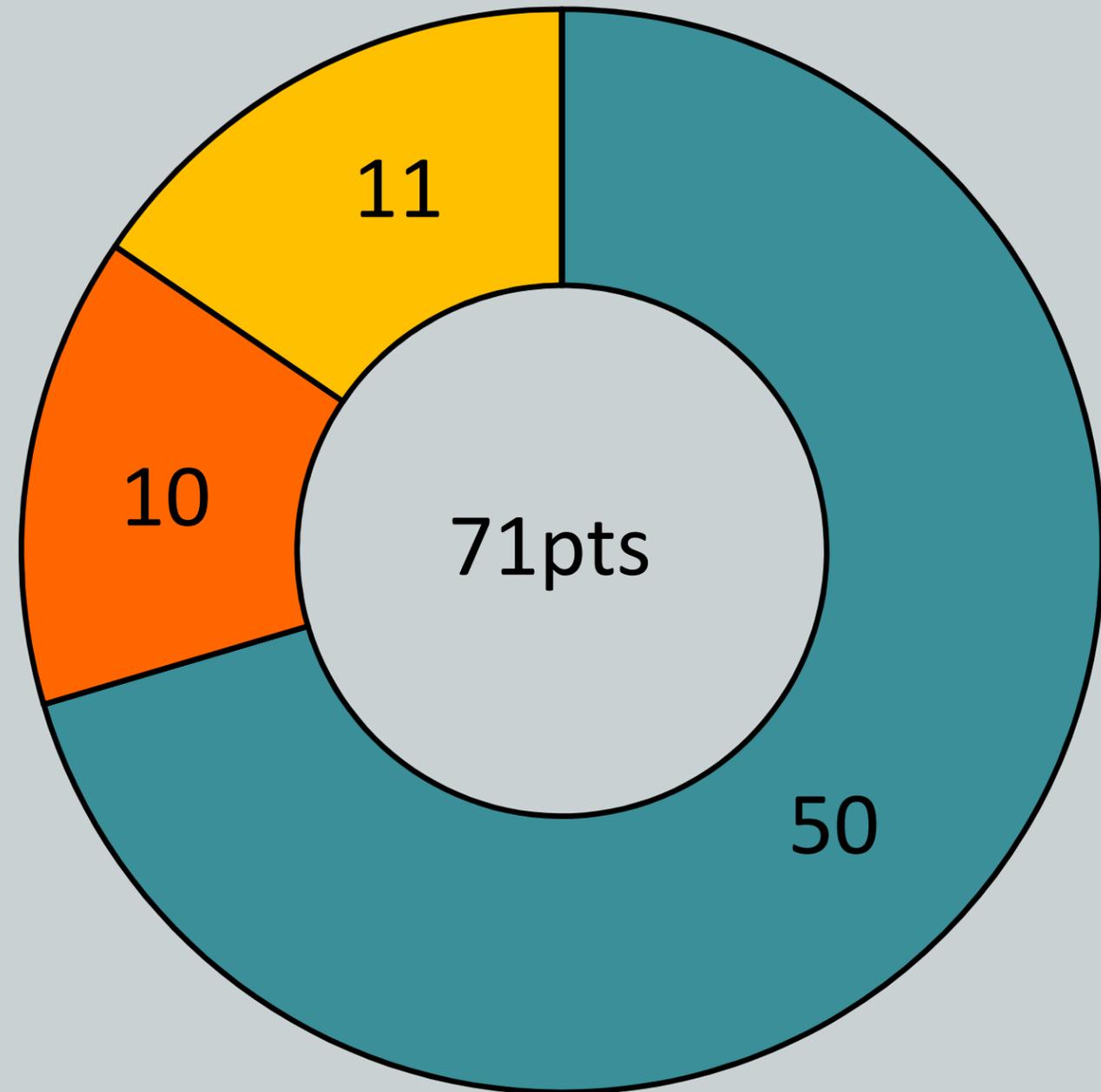


# Preliminary Score

Water Quality  
50 points

Community Investment  
10 points

Nature Based Solutions  
11 points



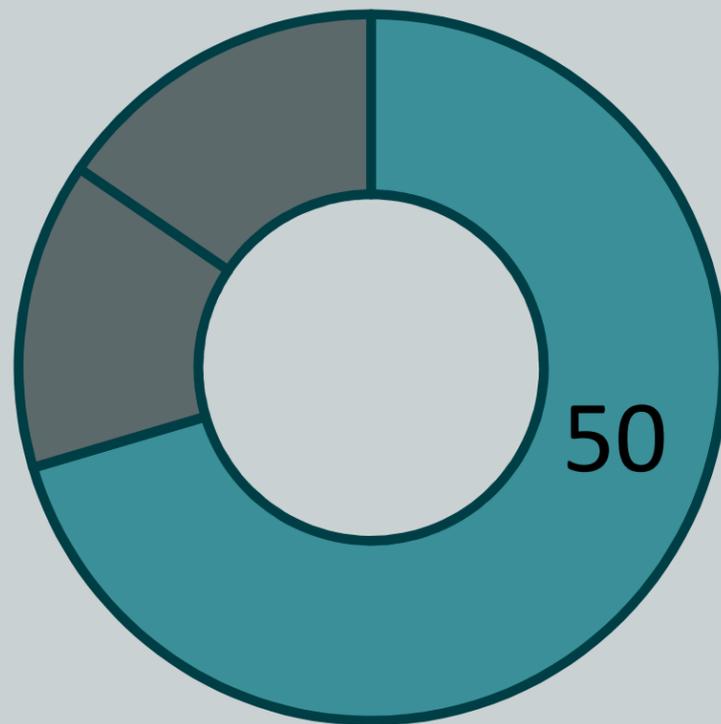
\*No Points received for Water Supply or Leveraged Funds and Community Support



# Water Quality Benefits

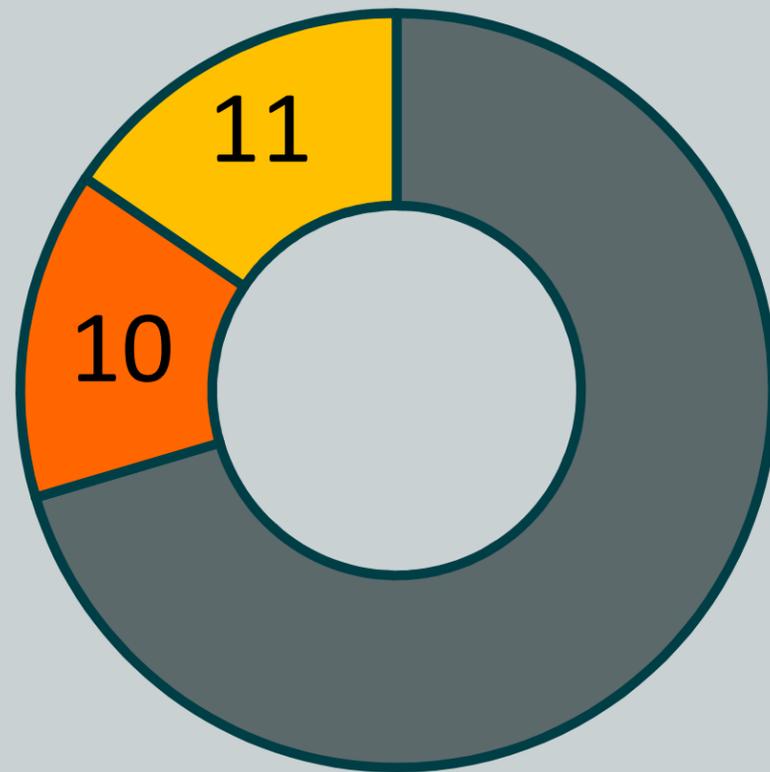
## Water Quality Benefits (50 points)

- Bioretention and permeable pavement areas designed to collect surface runoff.
- 3.23 acre capture area (Wet weather BMP Project).
- BMP storage capacity is 1.67 acre ft. Overall project site has a maximum 24hr BMP capacity of 25.56 acre ft.
- 100% pollutant reduction for E Coli (primary), Nitrogen (secondary), Zinc, Copper, Lead, and Phosphorus.
- Water Quality Cost Effectiveness is greater than 1 acre ft per million dollars.





# Community Investment and Nature Based Solutions



## Community Investment Benefits (10 points)

- Bioretention areas are designed to take in runoff and infiltrate utilizing the soil high draw down rate to help mitigate flood risks. Native planting enhances green spaces and provides shade in a predominantly asphalt covered community.
- New play field and walking path creates area for recreational activities.
- Reduced asphalt pavement areas, solar reflective coating, and new landscaped areas reduce local heat island effect.

## Nature Based Solutions (11 points)

- Project surface is graded at minimal slopes to slow runoff flows and direct stormwater towards bioretention areas.
- Drought tolerant plants help with erosion control and reduce runoff through water consumption and infiltration.
- Restores native shrubland and creates areas for natural habitat.

Los Angeles Unified



Questions?

# Slauson Connect Clean Water Project

Infrastructure Program

Slauson Connect Clean Water Partnership

Corvias Infrastructure Solutions and Geosyntec Consultants

Ken Susilo and Greg Cannito



# Project Overview

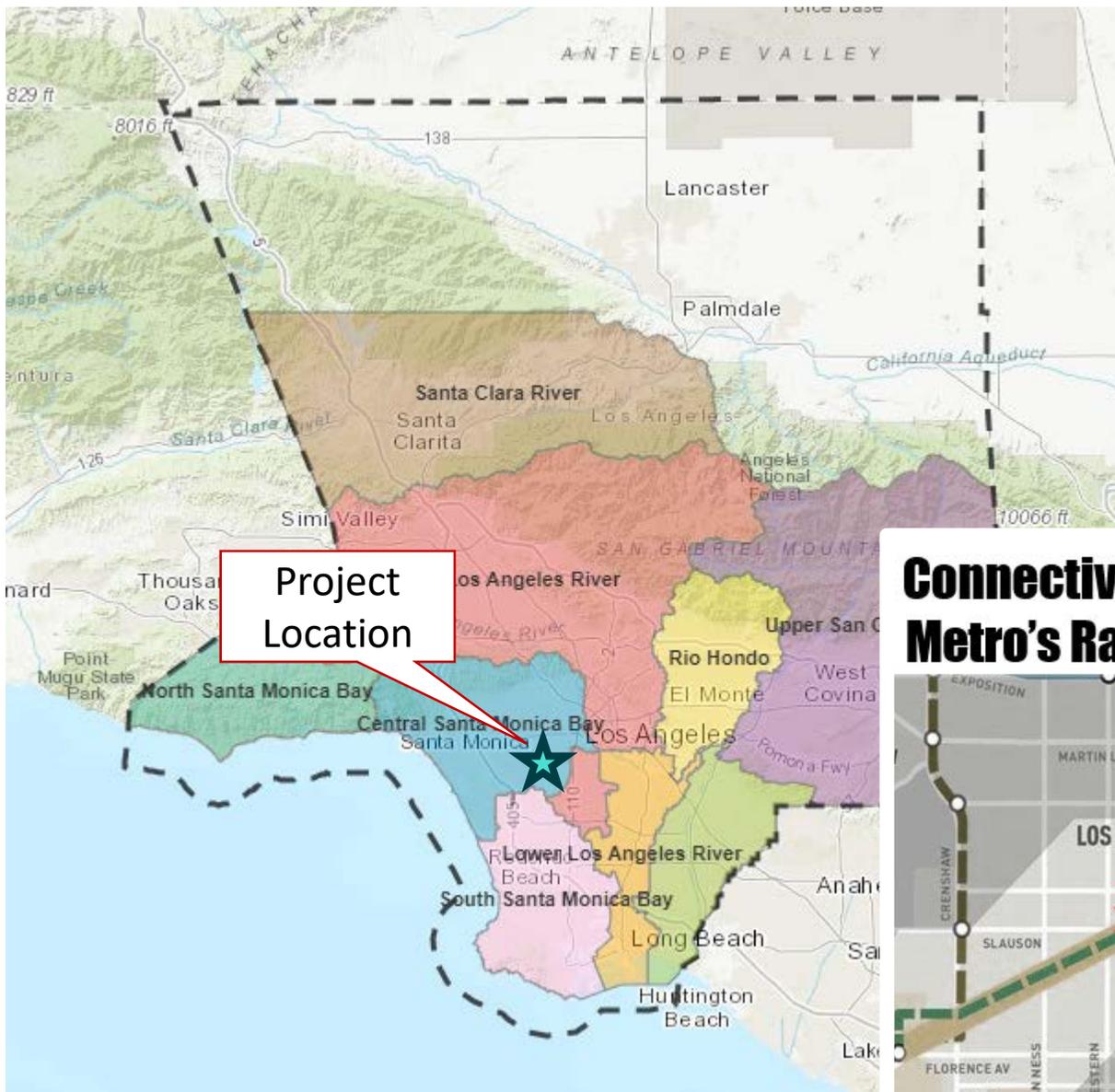
Green Stormwater Infrastructure in South LA, providing stormwater quality benefits and community resources to disadvantaged communities

<b>Primary Objective</b>	Achieve water quality improvement via capture, storage, and treatment and development of green alleys
<b>Secondary Objectives</b>	Provide a keystone element to a regionally significant sustainability project providing site remediation, centralized community benefit, open space in a park-deficient neighborhood, economic revitalization and business incubation for green infrastructure, education, and transportation connectivity for South LA; introduce private at-risk working capital for stormwater focused on local contractor development, and project risk transfer from sponsor communities.
<b>Phases Requested for Funding</b>	Planning, Design, Construction, O&M
<b>Total Funding Requested</b>	\$4,898,440 (phased to minimize initial burden to SCW Program)





# Project Location



## Project Location:

- City of Los Angeles:  
South Los Angeles (Wildasin)
- Metro Rail-to-(LA) River Corridor

## Watershed Area:

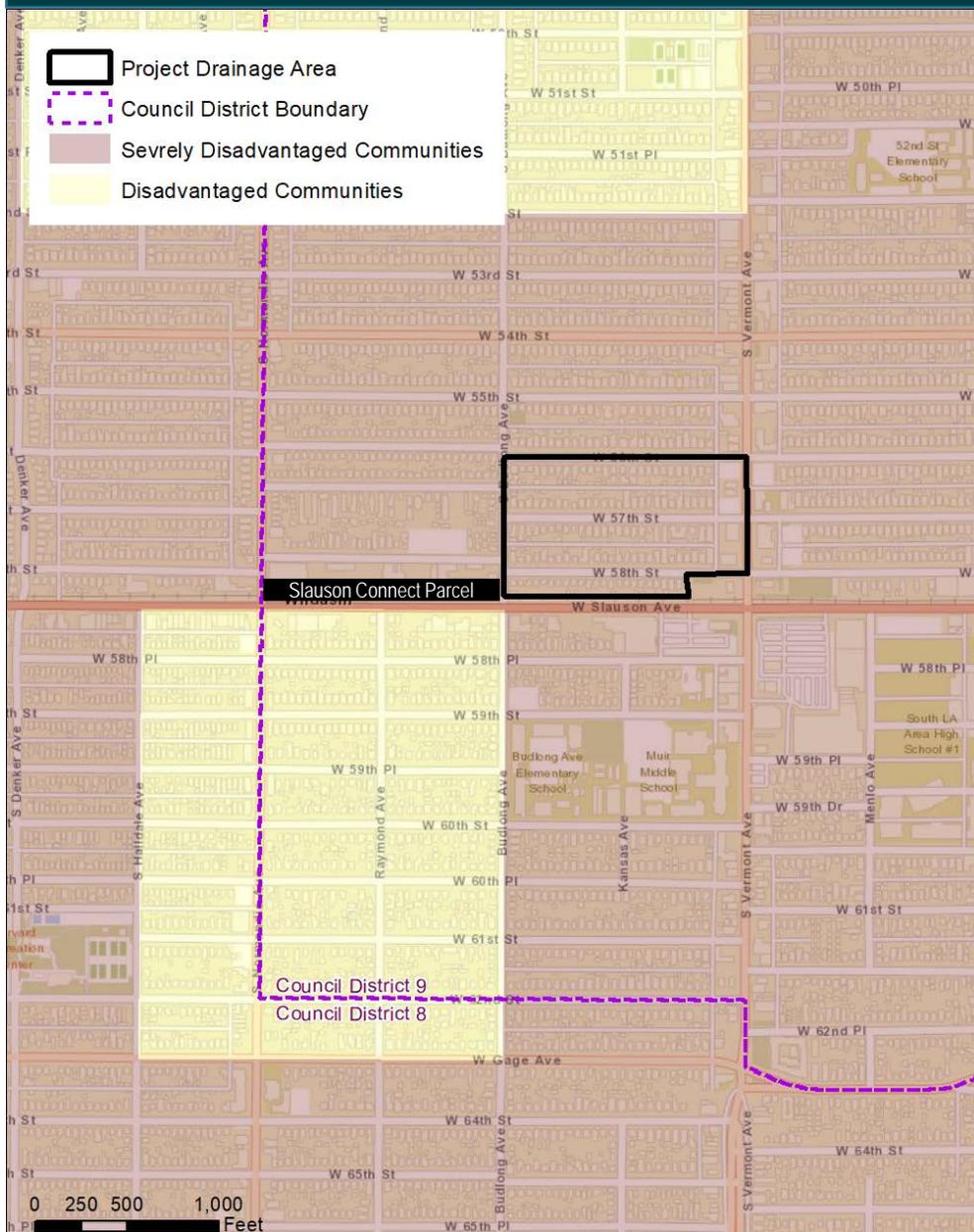
- Central Santa Monica Bay:  
Eastern Ballona Creek Watershed

## Connectivity to Water Body: Metro's Rail to River Project

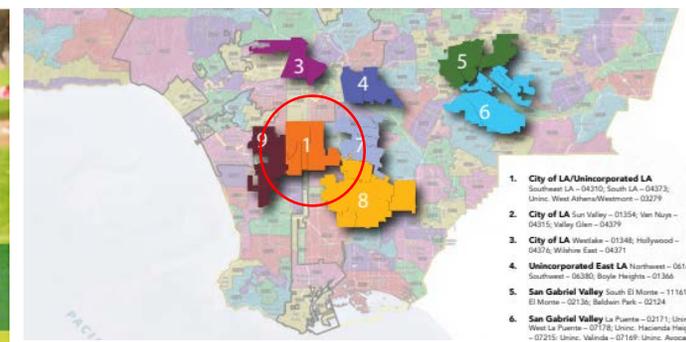




# Project Location (continued)



- Total drainage area is 22 acres, within SDAC
- Municipal benefits include:
  - Runoff volume and pollutant load reductions
  - Supports increased green & open space
  - Increased shade (trees)
  - Linked project elements
- Disadvantaged Community Needs
  - Open community spaces
  - Reduced localized nuisance flooding
  - Reduced impervious surfaces
  - Increased green space, including native trees
  - Place-making





# Project Location (continued)

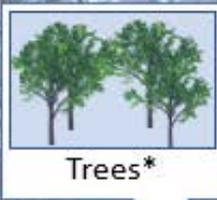
## Slauson Connect Project Elements



Community Center



Restrooms



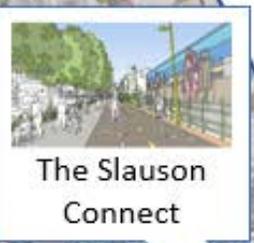
Trees\*



Green/Living Wall



Underground Cistern (SCW)



The Slauson Connect



Green Infrastructure Learning Area



Fencing/Gates



Open Grass Area





# Project Background

- Project Location:
  - Project location is a key component of proposed Slauson Connect Project, which includes site remediation, potential park and community center development within Council District 9.
  - Project is located on the Metro Rail-to-River corridor, adding connectivity between projects, and connectivity to the Los Angeles River
- Project Development:
  - Cistern component of Project to mitigates runoff from adjacent neighborhood to Ballona Creek with sustainable water resources elements for the Slauson Connect Project
  - Green alley components of Project consistent with *South LA Green Alley Master Plan*
  - Project will contribute to community place-making
- Regional Water Management Plan:
  - Project will contribute to pollutant load reduction pursuant to the Ballona Creek EWMP (for jurisdictional shed 107949)
  - Regional water resources benefits are limited due to regional hydrogeologic conditions (i.e., not a project-specific limitation)
- DAC Benefits
  - Create open community spaces, desired by Voices Neighborhood Council
  - Reduce localized nuisance flooding
  - Reduce impervious surfaces
  - Increase green space, including native tree species
  - Improvement of existing conditions and promotion of place-making



## Project conception/goals

- Provide Green Infrastructure to South LA neighborhoods and support SDAC
- Support Implementation of Green Alley Master Plan
- Improve Water Quality to Santa Monica Bay (volume and pollutant load reductions)
- Support Los Angeles City Council District 9's community-centerpiece project, ***The Slauson Connect***
  - Support activities for Community Center (Small Business Incubator, Education), facilitating access to the LA River and supporting Metro rest facilities
  - Support supplementation of funding through Prop 68 Grant Application for open space, restroom facilities, green wall
  - Provide captured and treated water for irrigation of open space and green amenities
- Private capital investment for local contractor utilization, development, and capacity building
- Use Private investment for greater risk transfer from public (City of Los Angeles) to private partner



## Slauson Corridor Today

Today the alignment sits blighted and underutilized. South LA has suffered from over 70 years of disinvestment and blighted corridors. Today, Councilmember Curren D Price Jr. is spearheading the effort to change that trajectory by paving the way for economic development and community revitalization in the Ninth District.

Councilmember Price has partnered with Metro and local business owners, to transform Slauson Avenue into a corridor that will attract investment and upward economic mobility for its community members.





# Project Background (cont'd)

- Work within opportunities and constraints
  - Availability of significant parcel
  - Assess site conditions and scheduling (e.g., Metro remediation work)
  - Assess potential for groundwater recharge for water supply (insignificant)
  - Assess potential for capture and use (and demand)
- Coordinate with project partners
  - Council District 9
  - City of Los Angeles, Bureau of Sanitation, Bureau of Engineering, Department of Recreation and Parks
  - Los Angeles Metropolitan Transportation Authority
- Coordinate needs/desires with community (Voices Neighborhood Council)



**NEIGHBORHOOD COUNCILS**  
**EMPOWER LA**  
Department of  
**NEIGHBORHOOD EMPOWERMENT**





# Project Details

**THE AVALON GREEN ALLEY NETWORK DEMONSTRATION PROJECT**  
Lessons Learned from Previous Projects for Green Alley Development in Los Angeles & Beyond  
Luskia Center

**Green Alleys (South LA Green Alley Master Plan)**

**Cistern, Trees (for Regional Stormwater and EWMP)**

**green alleys**

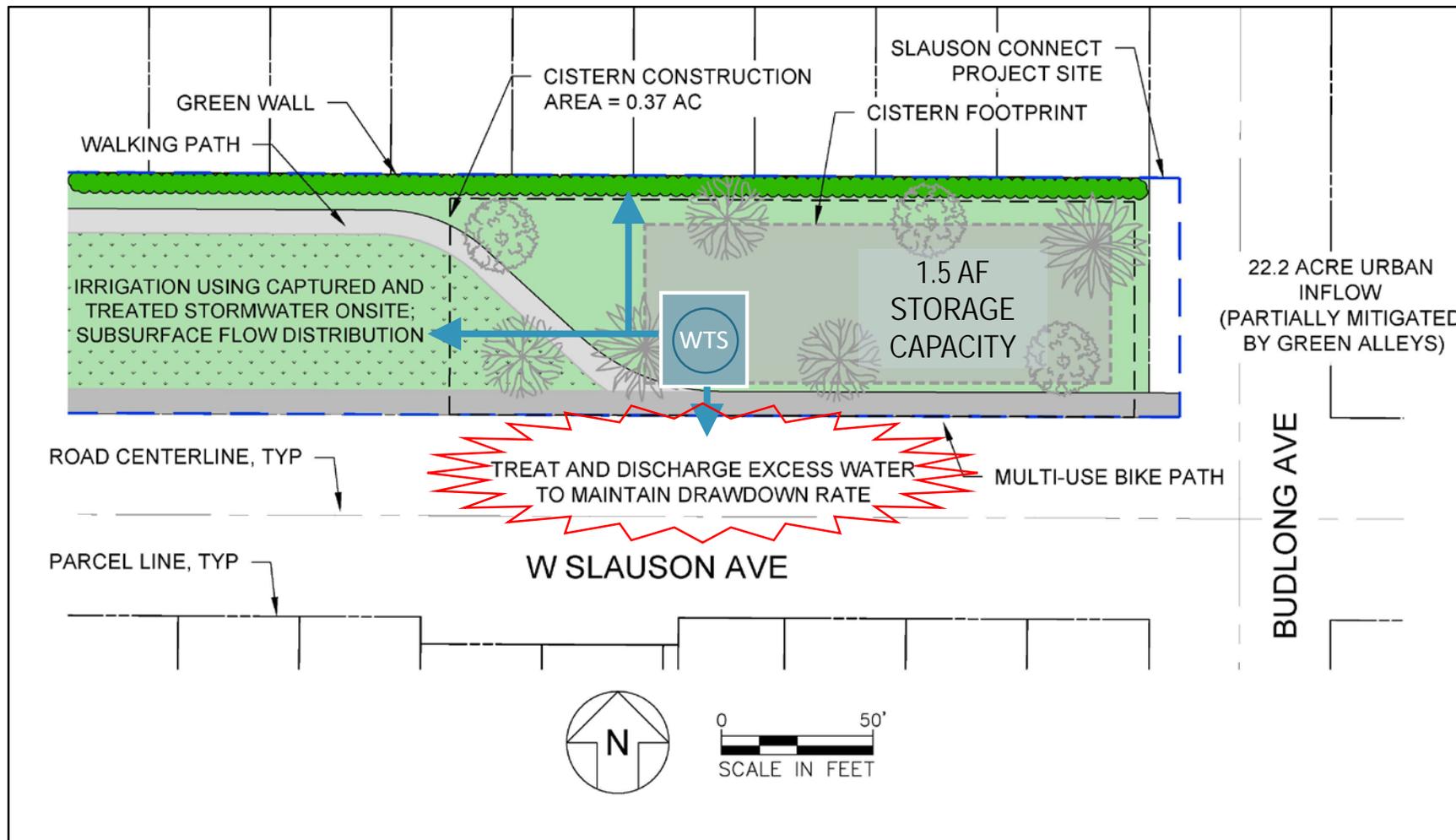
*Slauson Connect*

**Slauson Ave**  
W Slauson Ave

S Normandie Ave  
S Vermont Ave



# Project Details (Cont.)





## Project Details (Cont.)

- Project configurations were designed iteratively to consider the most beneficial and cost-effective alternatives and alignment.
- A review of potential utility conflicts (e.g., storm drain, water, gas, sewer, power, traffic signal) provided constraints that guided project concept development.
- A review of geotechnical constraints (on-site and nearby boring logs, cone penetration tests, and regional geologic maps) informed project opportunities and limitations (e.g., limiting potential for drywells).
- Site-specific soils remediation will be included as part of LA Metro project work; on-site and nearby environmental monitoring and background data (e.g. Geotracker) was conducted and found no fatal flaws.
- A hydrology study was conducted to use WMMS 2.0 LSPC and SWMM to quantify event-based and long-term water quality, water supply and flood reduction benefits.
- Establish Local Disadvantaged Subcontractor Fund to reduce payment float to small contractors



# Cost & Schedule

Phase	Description	Cost	Completion Date
Planning	Planning and Design	\$732,829	03/2022
Construction	Construction	\$3,510,099	06/2023
<b>TOTAL</b>		<b>\$4,242,928</b>	

Activity	Annual Cost
Maintenance	\$40,000
Operation	\$4,000
Monitoring	100,000

- Project Lifespan = 35 years
- Lifecycle Cost = \$7,174,397
- Annualized Project Cost = \$352,422



# Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$0*	Planning, Design	Early concept design; pre-project monitoring; site investigations; formal project design; CEQA and other environmental impact studies; permitting; intermediate and final project completion audits
2	\$732,829	Planning, Design	
3	\$1,966,081	Construction, Monitoring, Operations and Maintenance	Labor, equipment, material, overhead and contingencies; optimization of constructed systems
4	\$1,973,468	Construction, Monitoring, Operations and Maintenance	Labor, equipment, material, overhead and contingencies; optimization of constructed systems
5	\$226,063	Monitoring, Operations and Maintenance	Optimization of constructed systems
<b>TOTAL</b>	<b>\$4,898,444</b>		

\*Community Based Public-Private-Partnership (CBP3) funding approach assumes payment upon completion and will not require SCW funding to initiate planning and design on Year 1.



# Funding Request (Cont.)

## Concept: Community Based Public-Private Partnership Investment

Table 1 – Proposed Clean Water Act Funding Schedule

Safe, Clean Water Act Funding Schedule	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Planning & Design		\$732,829				\$732,829
Construction Costs			\$1,755,050	\$1,755,050		\$3,510,099
Annual O&M			\$105,113	\$108,792	\$112,600	\$326,505
Annual Monitoring			\$105,919	\$109,626	\$113,463	\$329,008
<b>Total Cost</b>	<b>\$0</b>	<b>\$732,829</b>	<b>\$1,966,081</b>	<b>\$1,973,468</b>	<b>\$226,063</b>	<b>\$4,898,440</b>



Table 2 - Completion Schedule

Completion Percentage	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Planning	100%					100%
Design	100%					100%
Construction		75%	25%			100%
Optimization / O&M			33%	33%	33%	100%
Monitoring			33%	33%	33%	100%

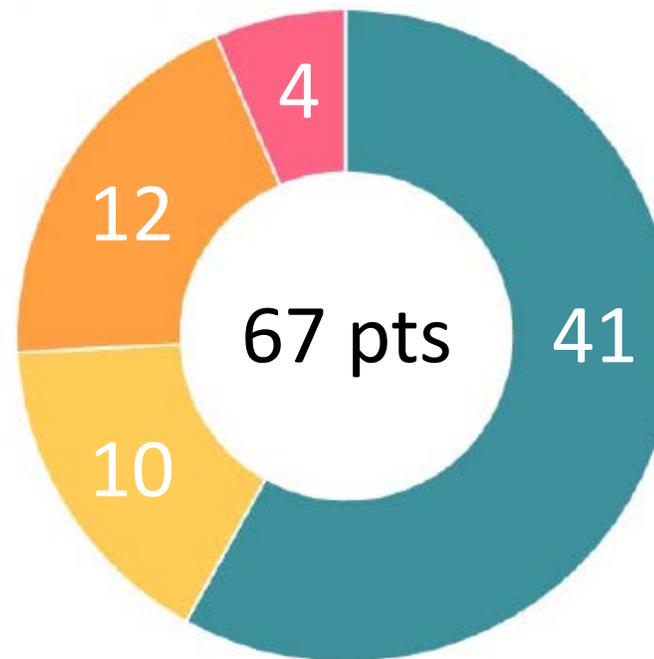
### Key Features:

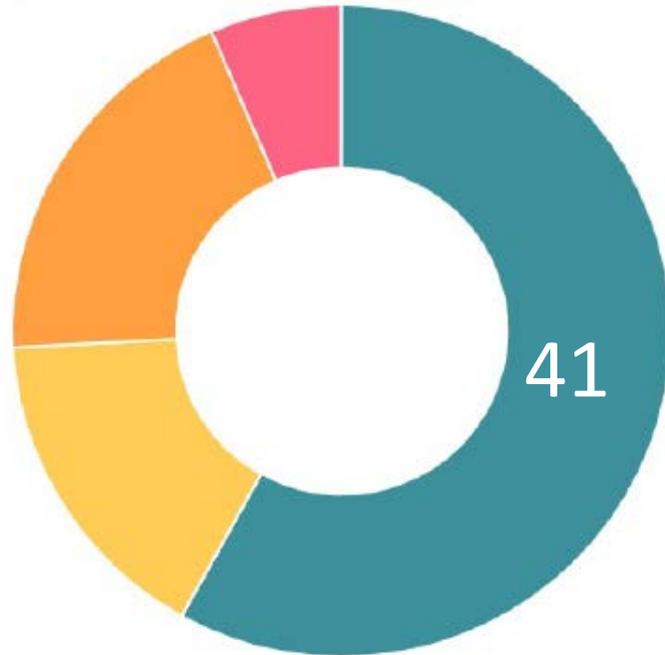
- 1) Upfront "At Risk" Private Capital to reduce project delivery risk for sponsor municipality (City).
- 2) Performance based delivery with deferred public payment at completion to maximize available funds for other projects in current FY.
- 3) Private working capital investment for incubator designed to increase M/W/S/E/DVBE participation.
- 4) Accelerated development and delivery of water quality benefits to local community through use of upfront private "at risk" capital.



# Preliminary Score

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





- **Water Quality Benefit**

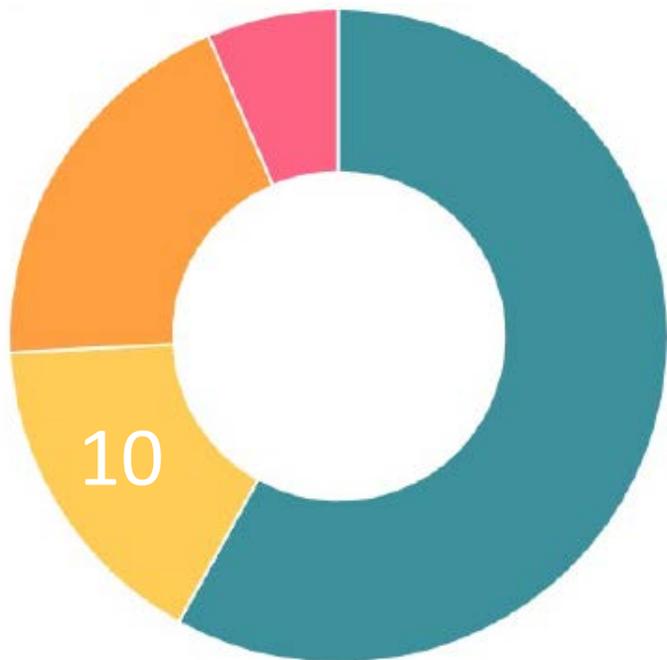
- Primary mechanisms to achieve water quality benefits claimed: green alleys, subsurface cistern with secondary treatment system (biofilter)
- Wet weather focus
- Tributary Area = 22 acres
- 24-hour management capacity = 2.25 acre-ft
- Pollutant load reduction = 84% (Zinc and bacteria)
- Water quality cost effectiveness = 0.53 acre-feet /\$MM

- **Water Supply Benefit**

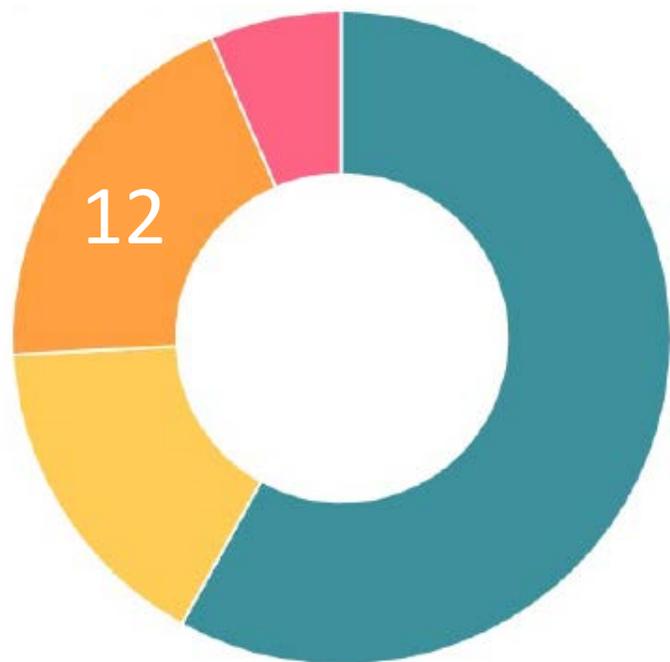
- Annual water supply volume = 9.1 acre-ft



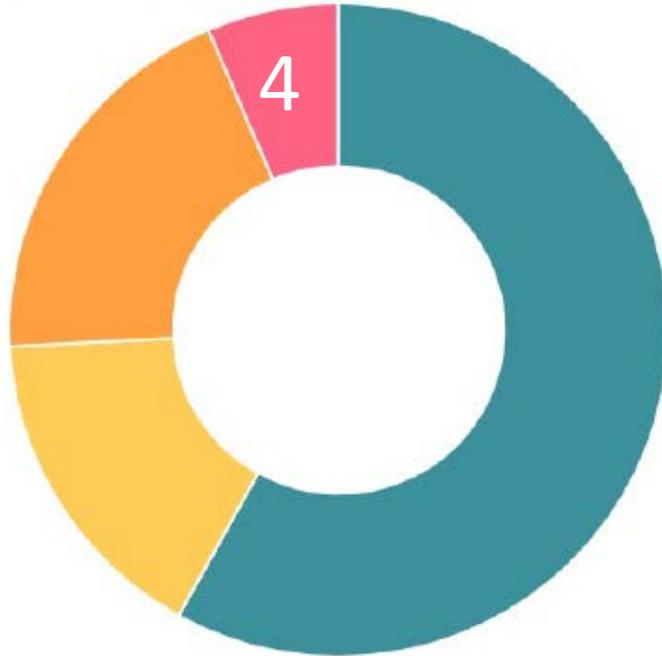
# Community Investment Benefits



- Flood risk mitigation: The proposed subsurface cistern and green alleys will reduce localized flooding by intercepting and infiltrating runoff.
- Create park space and recreational opportunities: The retrofit of the cistern parcel will enable new park space and will serve multi-benefits: water quality, economic, community identity, recreation, physical and mental health
- Public Access to Waterways: The project is on Metro's Rail-to-River alignment and connectivity to the LA River
- Reduce heat local island effect: The cistern parcel retrofit will remove impervious surfaces and include landscaping and trees to reduce urban heat island effect. The green alleys will also remove impervious surfaces and will include high-albedo pavers (lower surface temperature).
- Increase shade: The cistern parcel retrofit will include planting of 8 California native trees, which will provide up to 5,000 sq-ft shade at fully grown condition.



- Reduction of Impervious Surface: Retrofit of the cistern parcel to a park setting will reduce 50% impervious surface in comparison to the existing condition.
- Natural Process: Rely on retention and reuse to manage stormwater and correct precipitation-runoff response curve toward the natural, pre-development condition
- Landscaping: Cistern parcel retrofit will include planting of 8 California native trees and other miscellaneous landscaping. Additional landscaping is also included at the green alleys



- **Leveraging Funds**
  - Project is part of greater Slauson Connect community center development (value >\$15M)
  - City of Los Angeles in-kind contributions (\$190K)
  - Seeking \$3M in Prop 68 funding for open space with City of Los Angeles Rec and Parks
- **Community Support**
  - Letters of support received from:
    - Council District 9
    - Vermont Slauson Economic Development Corp.
    - Los Angeles Neighborhood Land Trust
    - Brotherhood Crusade
  - Community Outreach efforts initiated during FS
    - Presentation to Voices Neighborhood Council
    - Online survey



# Leveraging Funds and Community Support

# SLAUSON CONNECT Clean Water Partnership

Los Angeles City Council District 9, LA Sanitation & Environment, Corvias & Geosyntec



CURREN D. PRICE, Jr.



December 16, 2020

Mr. Greg Cannito  
Mr. Ken Susilo  
Slauson-Connect Clean Water Partnership  
448 S Hill St #1008  
Los Angeles, CA 90013

Email: greg.cannito@corvias.com  
Email: Ksusilo@geosyntec.com

### Re: Support for Slauson Connect Stormwater Project

Dear Messrs. Cannito and Susilo:

The Brotherhood Crusade is pleased to support the 2020-21 Measure W Regional Stormwater Investment Program funding application of Slauson Connect Clean Water Partnership. The project to be funded will bring much-needed environmental benefits to an underserved community and help spur the economic development opportunities Council Member Price and the community envision for the Slauson corridor.

Located at the mid-point along the first phase of the Rail-to-River Project, your proposed Stormwater Project is a key component of the Slauson Connect Community Center the Council Member is developing on the LA Metro site on Slauson between Normandie and Budlong.

The subsurface cistern at the Community Center site will reduce localized flooding in the neighborhood by intercepting and infiltrating area runoff. The captured stormwater will be used for landscape irrigation of the Community Center campus. As part of the cistern parcel retrofit, useable green space for the community will be created, reducing impervious surface and incorporating drought-tolerant native plant species. Two Green Alley features north of the Community Center will collect and treat stormwater and a new storm drain inlet will convey stormwater to the cistern.

A very significant aspect of the project is the way it will be implemented and maintained through the training, mentoring, and use of local small businesses, thus creating local economic impacts through the investment of dollars in the community and to build capacity for local businesses to complete projects in and for the community.

For these reasons and more, Brotherhood Crusade enthusiastically supports your Measure W funding application.

Sincerely,

Charisse Bremond Weaver  
President/CEO

*Sowing Seeds and Growing a Thriving Community*



Date: December 10, 2020

Mr. Greg Cannito greg.cannito@corvias.com  
Mr. Ken Susilo Ksusilo@geosyntec.com  
Slauson-Connect Clean Water Partnership  
448 S Hill Street #1008  
Los Angeles, CA 90013

### Re: Support for Slauson Connect Stormwater Project

Dear Messrs. Cannito and Susilo:

Los Angeles Neighborhood Land Trust is pleased to support the 2020-21 Measure W Regional Stormwater Investment Program funding application of Slauson Connect Clean Water Partnership. The project to be funded will bring much-needed environmental benefits to an underserved community and help spur the economic development opportunities Council Member Price and the community envision for the Slauson corridor.

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The subsurface cistern at the Community Center site will reduce localized flooding in the neighborhood by intercepting and infiltrating area runoff. The captured stormwater will be used for landscape irrigation of the Community Center campus. As part of the cistern parcel retrofit, useable green space for the community will be created, reducing impervious surface and incorporating drought-tolerant native plant species. Two Green Alley features north of the Community Center will collect and treat stormwater and a new storm drain inlet will convey stormwater to the cistern.

A very significant aspect of the project is the way it will be implemented and maintained through the training, mentoring, and use of local small businesses, thus creating local economic benefits through the investment of dollars in the community and to build capacity for local businesses to complete projects in and for the community.

For these reasons and more, the Los Angeles Neighborhood Land Trust enthusiastically supports your Measure W funding application.

Sincerely,

Tori Kjer, PLA  
Executive Director

1689 Beverly Blvd. Los Angeles, CA 90027  
<https://www.lanlt.org/>

# Questions?

**Greg Cannito, [greg.cannito@corvias.com](mailto:greg.cannito@corvias.com)**

**Ken Susilo, [ksusilo@Geosyntec.com](mailto:ksusilo@Geosyntec.com)**



# LOS ANGELES UNIFIED SCHOOL DISTRICT



## VENICE HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Safe, Clean Water Infrastructure Program FY21-22

Project Lead: Los Angeles Unified School District

Presenter: Scott Singletary, Senior Project Development Manager



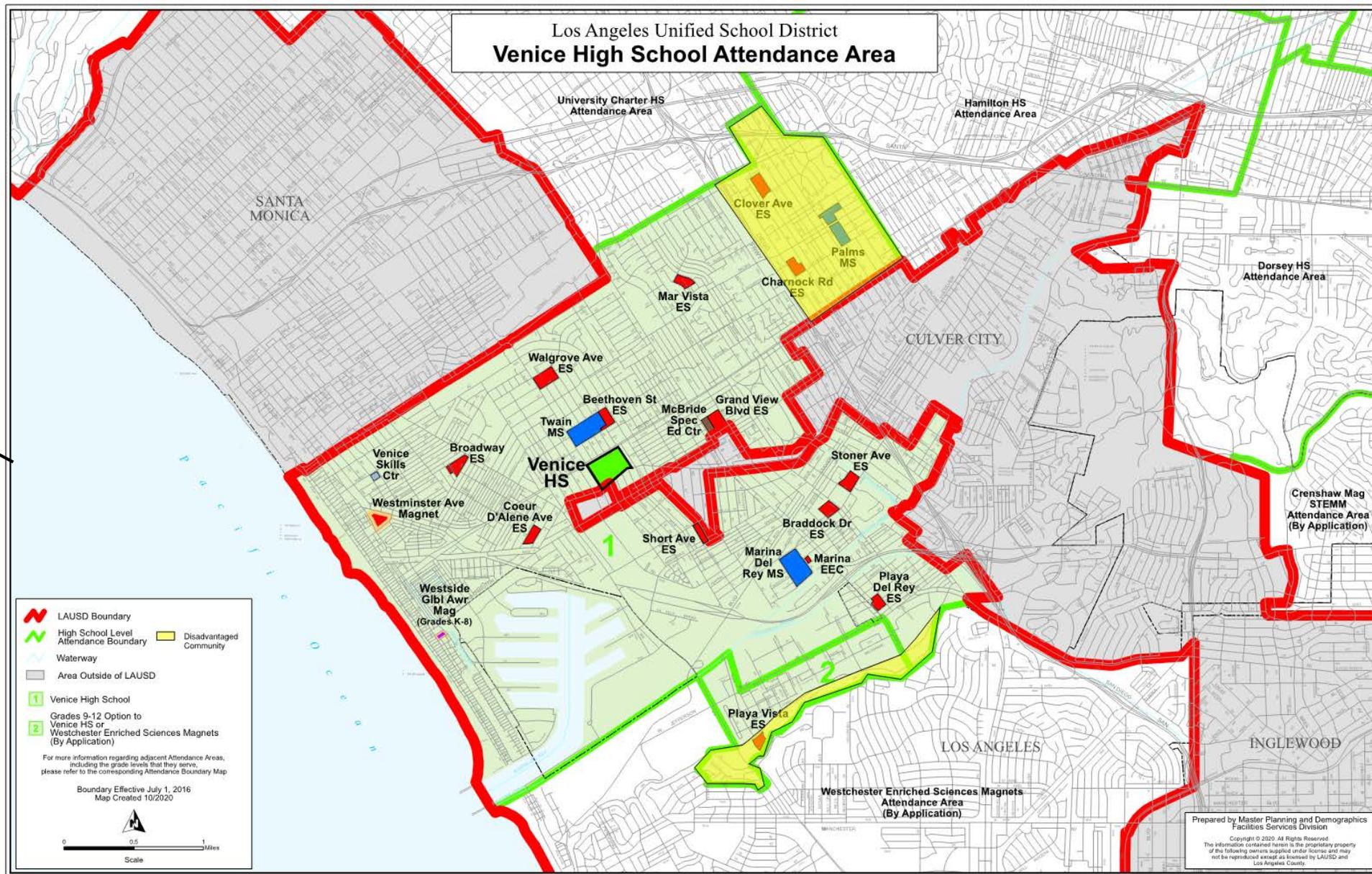
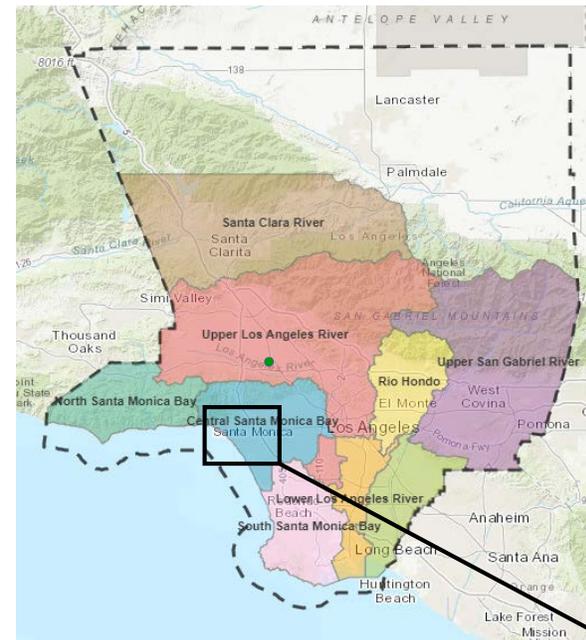
# Project Overview

The VHS Comprehensive Modernization encompasses the demolition of four existing buildings, construction of three new classroom buildings, new baseball and softball fields, and a new football field over a stormwater infiltration system.

- The goal of the Project is to modernize and replace aging school facilities to provide safe and updated schools for 21<sup>st</sup> century learning.
- The \$149M Comprehensive Modernization project is funded by local bonds and will be completed in 2022. SCW funding is being requested for the construction cost of the storm water quality portion of the project and for operation and maintenance of the storm water system.
- \$6,088,250 Total Funding Requested.



# Project Location



- Venice High School is located in the Central Santa Monica Bay Watershed.
- Venice High School serves students from two Disadvantaged Communities.

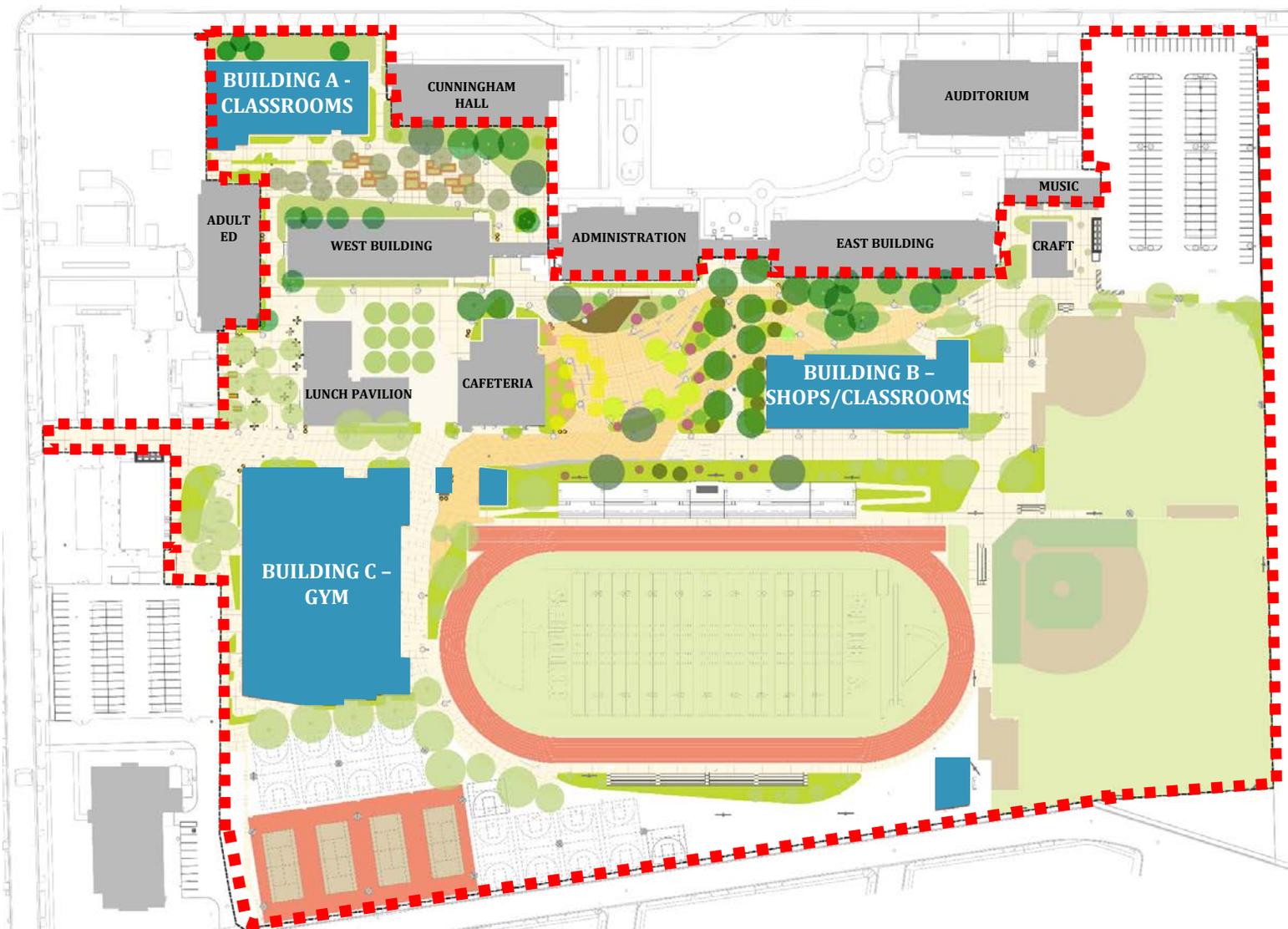


# Project Background

- Venice High School originally open in 1911. The primary existing campus buildings are historic, dating from the 1930's.
- The Comprehensive Modernization of the campus includes three new classroom buildings for graphics, autoshop, art and the STEMM programs computer science labs.
- The project includes a new storm drain system that incorporates biofiltration and a subgrade infiltration system located outside the limits of the football field and a 1,000 cubic feet surge tank to provide flood control.
- The proposed treatment system will not only treat the storm water but will alleviate the flooding and control the rate of water leaving the campus. The project goal is to comply with the allowed rate of 1.12 cfs/acre set by the LADPW Design Division.
- Venice High School provides play field areas and sports courts for the student community (as well as the general local community, through the means of civic center permits), green play areas in which the student community will be able to safely engage in field-related physical team sport activities.



# Project Details



-  EXISTING BUILDING
-  NEW BUILDING
-  LIMITS OF WORK



# Venice High School – Aerial View of the Campus





# Venice High School – Main Quad





# Venice High School –Natural Processes

Green open space between buildings

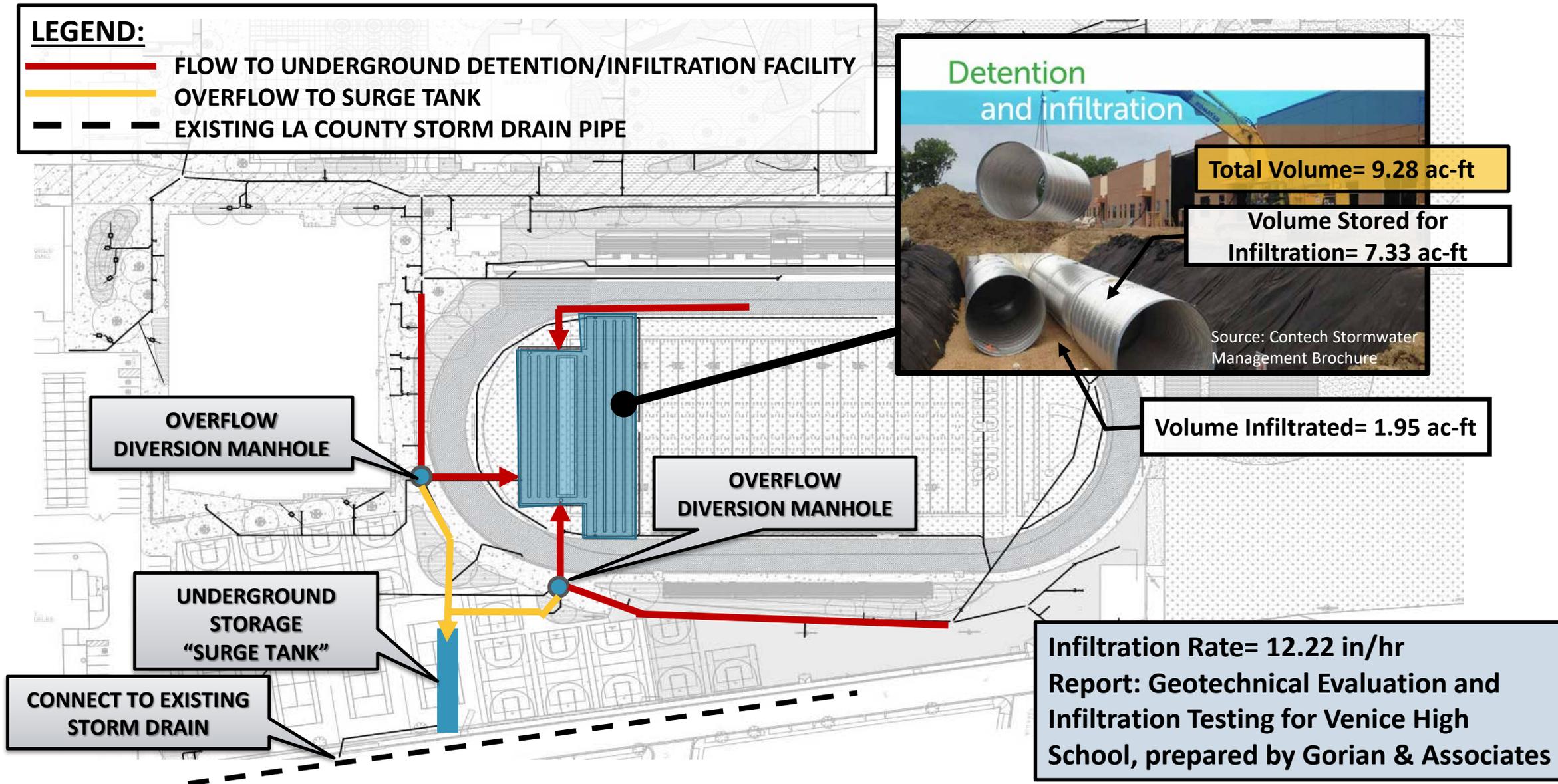




# Venice High School – Overall Storm Drain Plan

## LEGEND:

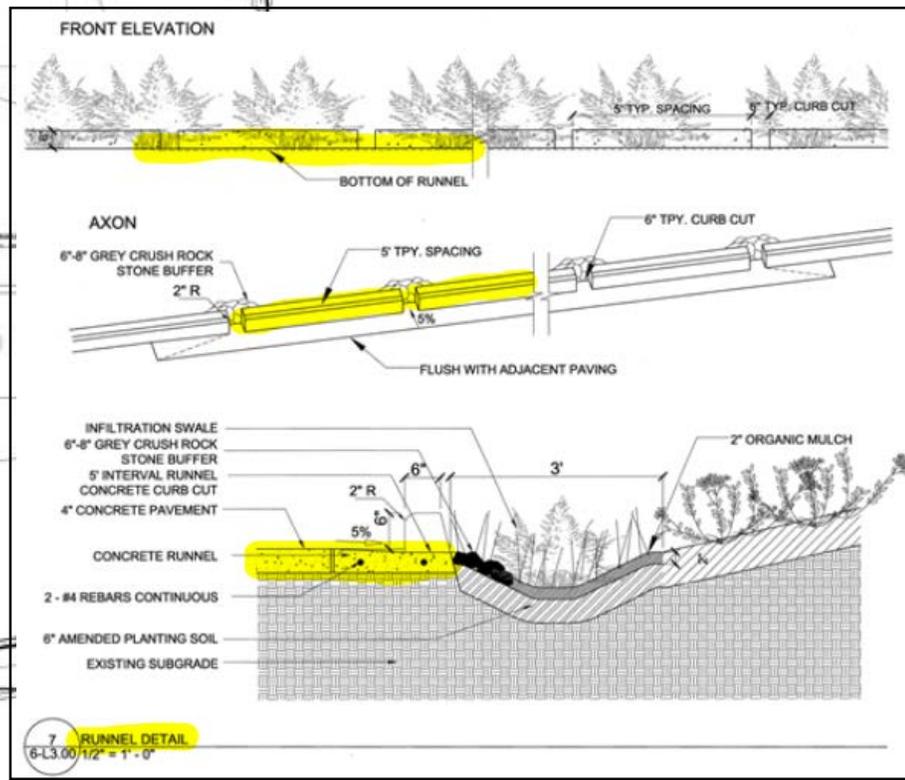
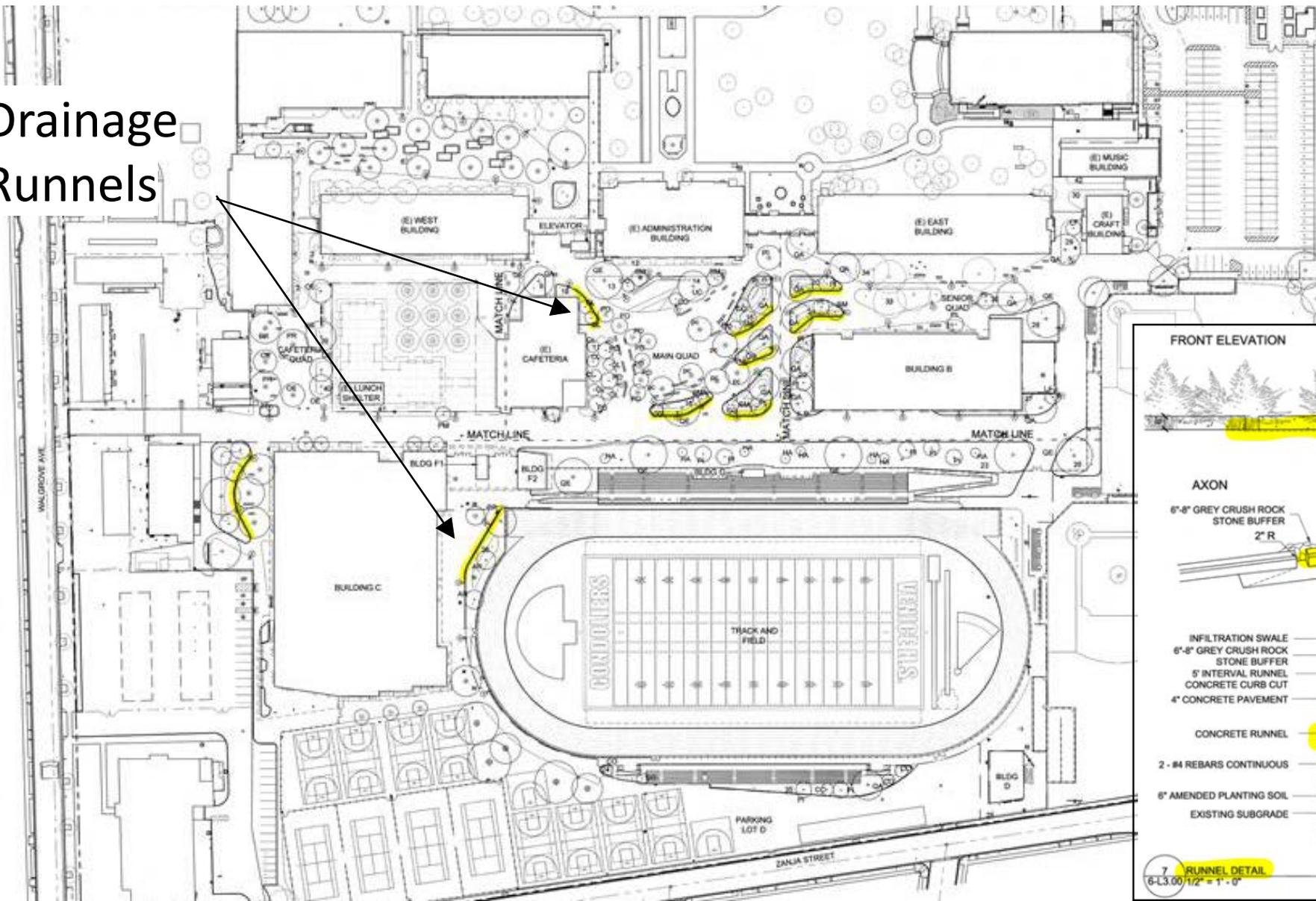
- FLOW TO UNDERGROUND DETENTION/INFILTRATION FACILITY
- OVERFLOW TO SURGE TANK
- EXISTING LA COUNTY STORM DRAIN PIPE





# Venice High School – Biofiltration

Drainage  
Runnels





# Cost & Schedule

Phase	Description	Cost	Completion Date
Construction	Construction	\$5,893,250.00	06/2022
<b>TOTAL</b>		<b>\$5,893,250.00</b>	

- Total Cost of Construction for Comprehensive Modernization \$149M
- Project Lifespan is 30 Years with a Lifecycle Cost of \$7,107,677.57.



# Funding Request

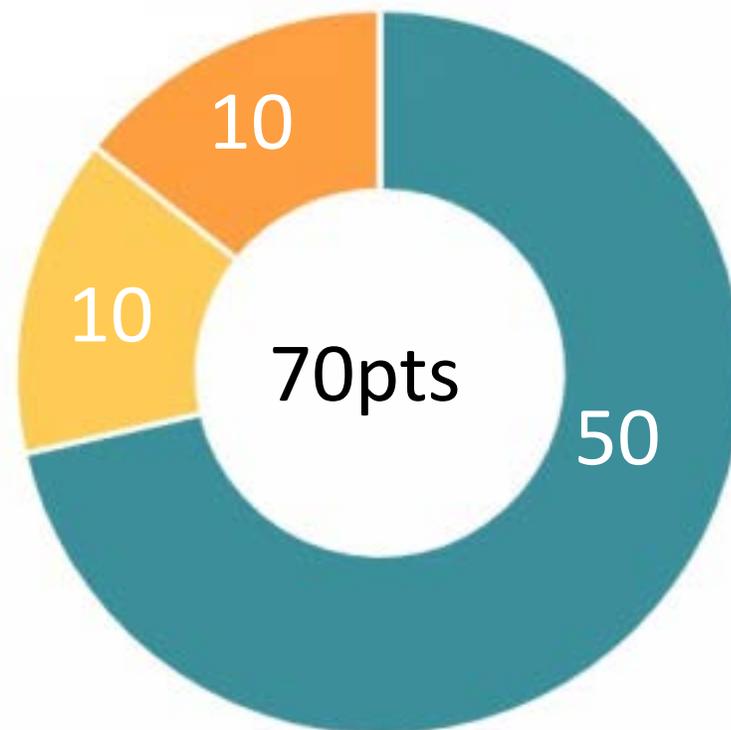
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$5,014,665	Construction Phase	2021
2	\$878,585	Construction Phase	2022
3	\$65,000	O&M, Monitoring	2023
4	\$65,000	O&M, Monitoring	2024
5	\$65,000	O&M, Monitoring	2025
<b>TOTAL</b>	<b>\$6,088,250</b>		

- Future potential SCW funding requests would include Operations and Maintenance and Monitoring costs.



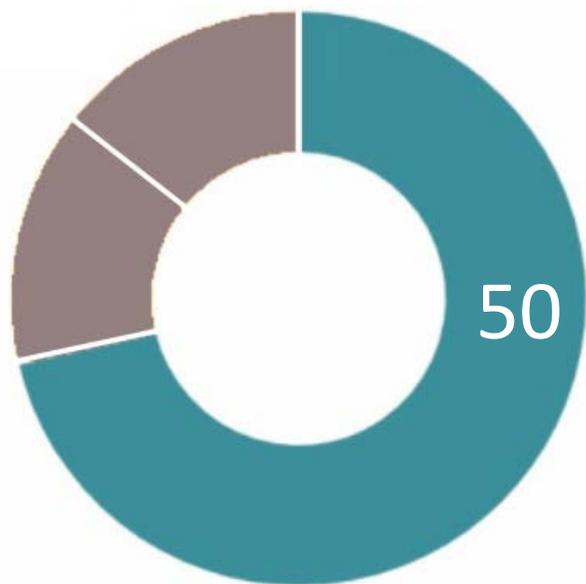
# Preliminary Score

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





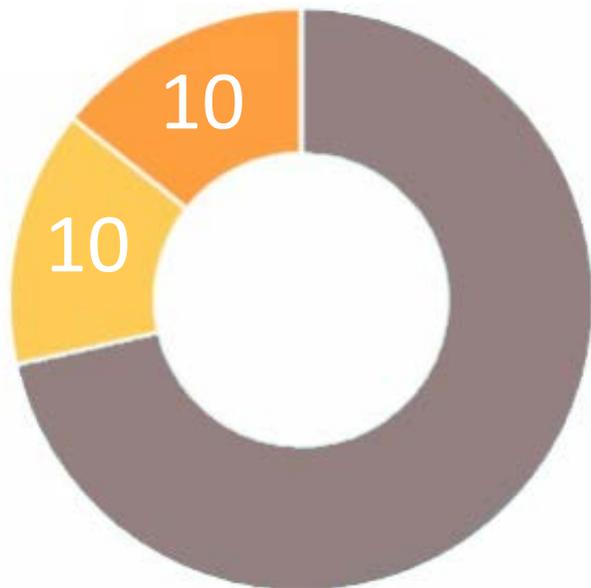
# Water Quality Benefits



- The new storm drain system will be designed to collect all surface runoff from the project site and from roof drainage.
- The project encompasses a 19.66 ac capture area with a 11.21 ac impervious area.
- The project will decrease the impervious area through additional planted areas and is therefore anticipated to decrease storm water runoff.
- The project infiltration facility has a 0.3 ac footprint and a 6.5 ft ponding depth. The module generated storage volume is 1.9500 ac-ft.
- The infiltration system provides stormwater runoff treatment through a variety of natural mechanisms: filtration, absorption, and biological degradation as water flows through the soil profile.
- The treatment system will not only treat the storm water but will alleviate flooding and control the rate of water leaving the campus.



# Community Investment Benefits and Nature Based Solutions



- Community Investment Benefits

- The Venice HS system provides flood control. It is designed to collect and treat an 85<sup>th</sup> percentile storm through infiltration.
- Any overflow drains through a surge tank designed to minimize the peak flow rate for a 10-year design storm, in order to accommodate the Los Angeles County Flood Control Districts connection requirements.
- The project provides restoration of the football, baseball and softball fields and basketball and volleyball courts. The project creates a new planting berm under the bleachers.
- Areas of existing asphalt will be replaced with natural color concrete paving to reduce the heat island effect.

- Nature Based Solutions

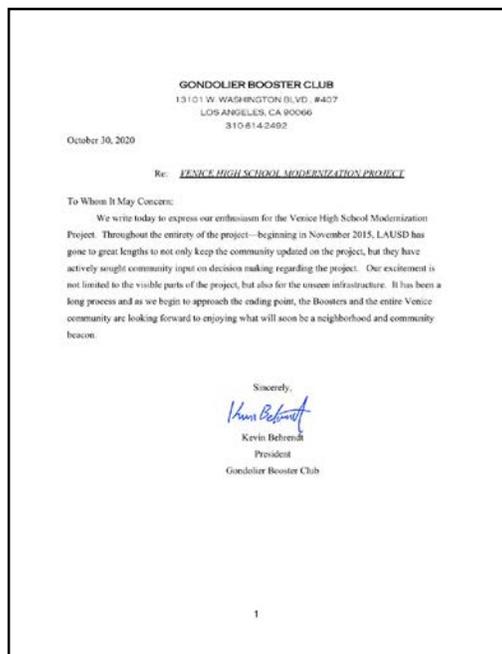
- The campus landscape design incorporates 203 new trees, green areas and planters throughout the exterior circulation spaces and in the main Quad using a California native planting pallet increasing ecological function and shade for students and teachers.



# Leveraging Funds and Community Support

- Community Support

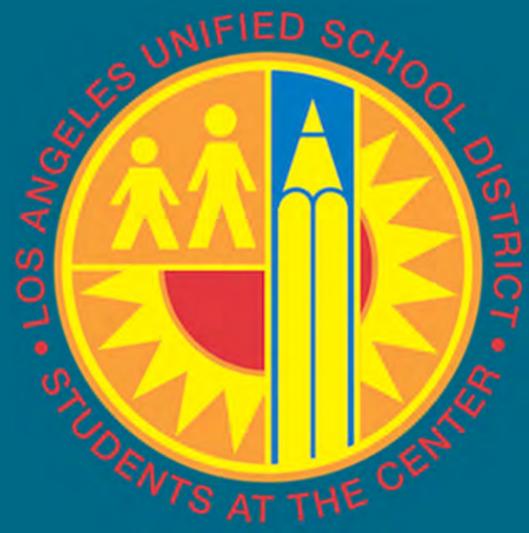
- The LAUSD outreach process is initiated by the assembly of a comprehensive contact list for each project that includes parents, staff, neighbors within 500 ft of the school, neighborhood councils, community-based organizations, and local elected officials and anyone who provides contact information.
- Community meetings are held at each milestone of the project. All community input is responded to and documented for follow up by the design team and LAUSD officials.
- Informational bulletins are sent out on a regular basis throughout the life of the project.
- Venice HS has a historically active and engaged local community that supports the modernization and greening projects underway on the campus as shown in the letter of support from the Venice Gondolier Booster Club.



A high-speed photograph of a water droplet suspended in mid-air above a pool of water. The droplet is perfectly spherical and reflects light, creating a bright highlight. Below it, the water surface is disturbed, showing concentric ripples that spread outwards. The background is a soft, out-of-focus blue.

**Thank you.**

**Questions?**



# Webster Middle School DROPS Project

Safe Clean Water Infrastructure Program FY 21-22

Los Angeles Unified School District

Presented by:

Christos Chrysiliou, AIA, CCM, LEED AP BD+C

Director of Architectural and Engineering Services

Maintenance and Operations





# Presentation Outline

Project Overview

Project Location and Disadvantaged Communities

Project Information

- Project Background
- Project Details
- Project Photos

Cost and Schedule

Funding Request

Preliminary Score

- Water Quality Benefits
- Community Investment
- Nature Based Solutions



## Project Overview

The Webster Middle School DROPS (Drought Response Outreach Program for Schools) Project includes installation of bioretention areas, permeable pavers, native plant landscaping, ADA upgrades, and school wide asphalt replacement with solar reflective coating.

- Project objectives
  - Create a safe, enriched learning environment for students through playground improvements and new recreational green spaces.
  - Provide accessibility upgrades to current ADA codes.
  - Mitigate stormwater run-off through bioretention and new permeable pavement areas in accordance with County LID Standards.



# Project Overview

- ADA and Paving Scope
  - Replace deteriorated asphalt throughout playground areas and parking lots
  - Provide accessible path of travel including required ramps, gates, and ADA parking
  - Upgrade restrooms
  - Upgrade drinking fountains
  - School entrance and sidewalk repair and improvements
- Community Investments Scope
  - Bioretention Areas
  - Pervious Pavers
  - Native Planting and Greening Areas
  - Solar Reflective Asphalt Coating
- The total project cost is \$11.74 Million and the project was completed in June 2020.
- SCW funding is being requested for cost of construction and O&M for Community Investment scope for a total of \$1,632,382.



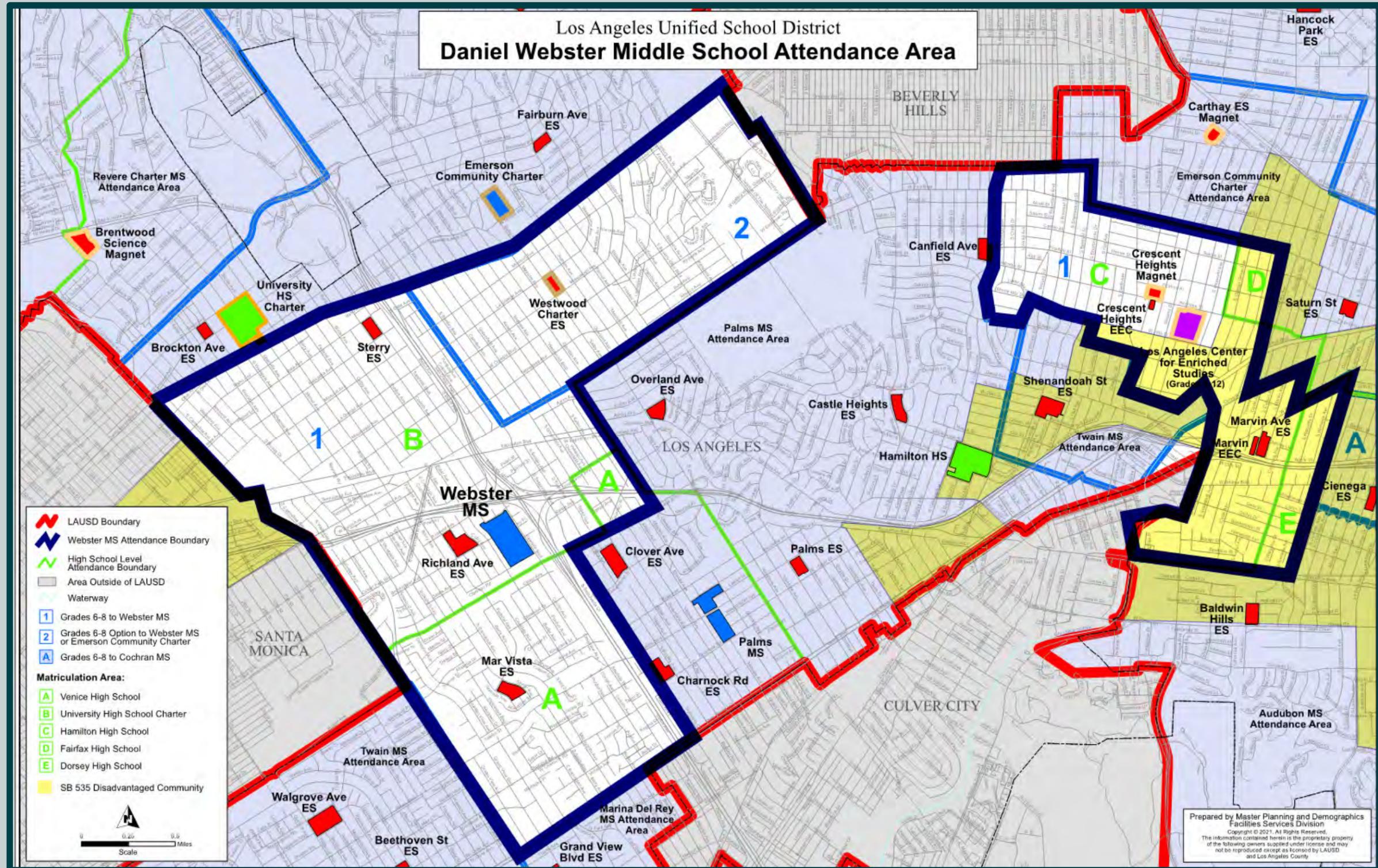
# Project Location

## Watershed Area - Central Santa Monica Bay





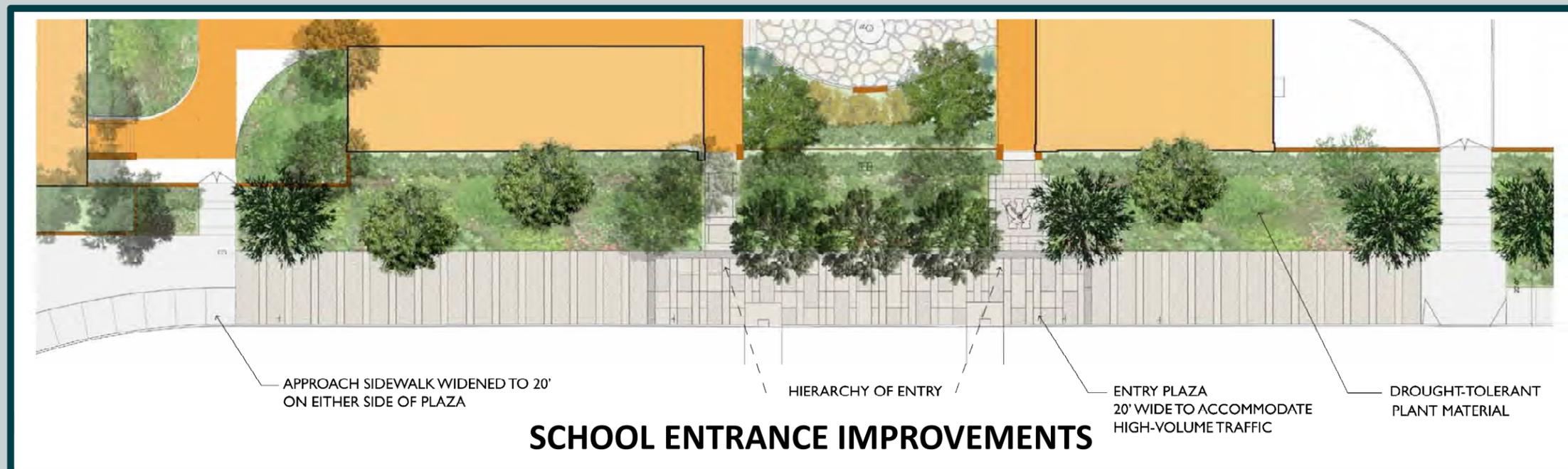
# Project Location – SB 535 Disadvantaged Communities





# Project Background

- Webster MS was selected to be repaved as part of LAUSD's Critical Repair Program.
- LAUSD saw this as an opportunity to increase greening at the site, while taking advantage of the favorable soil conditions for stormwater infiltration.
- The school serves a Disadvantaged Community Area and the project will benefit students, staff and the neighboring areas through site improvements, water conservation, and stormwater pollution reduction





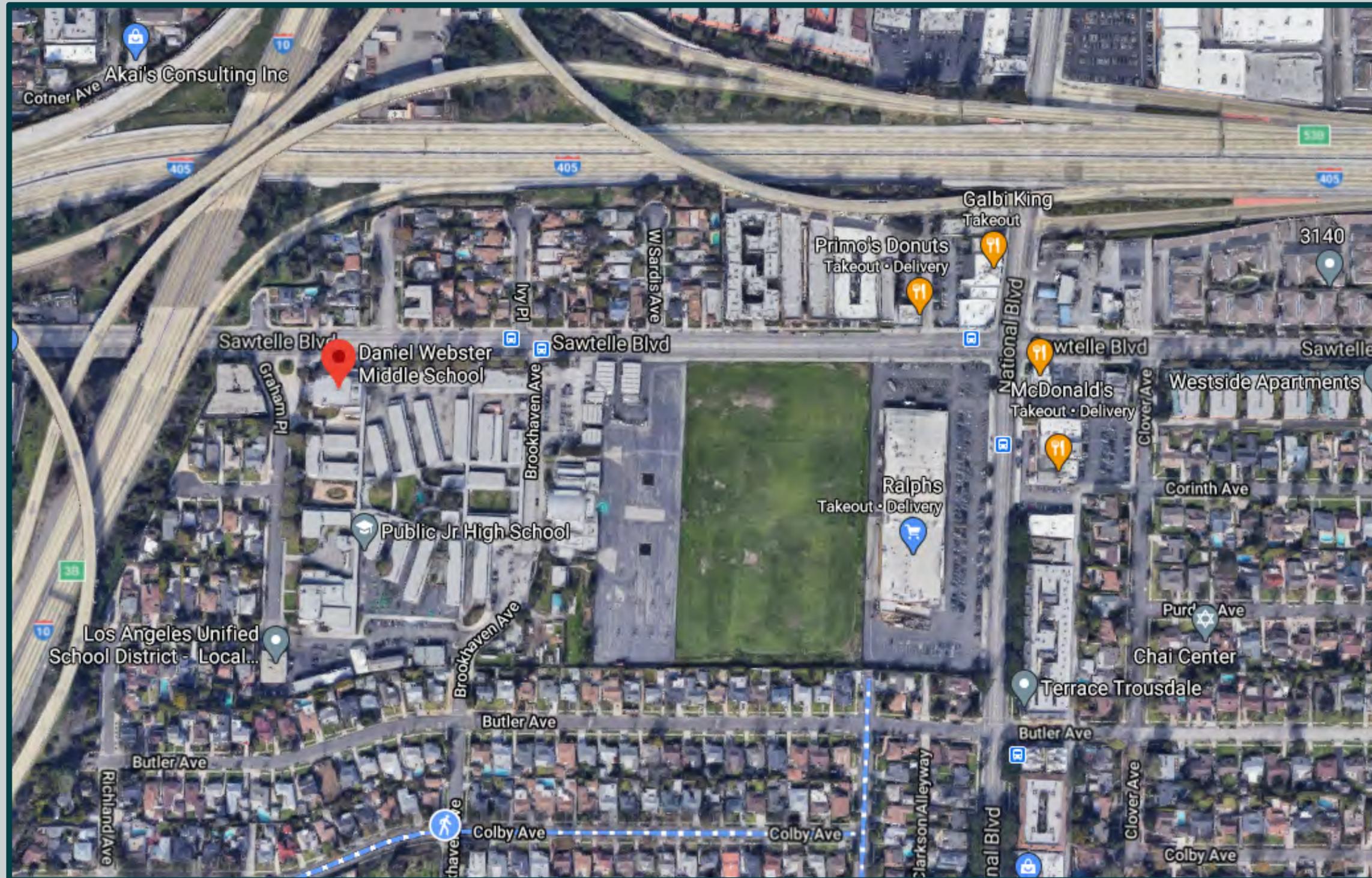
# Project Background

- The DROPS program provided community outreach by educating and increasing public understanding of environmental and water sustainability benefits in the area.
- Registered as part of the Integrated Regional Watershed Management Plan.
- Addresses highest contributors to the pollution burden scores which consists of Ozone, Traffic, and Hazardous waste.
- Reducing asphalt surfaces and increases green spaces for site beautification and stormwater quality improvement.





# Project Details – School Site Before



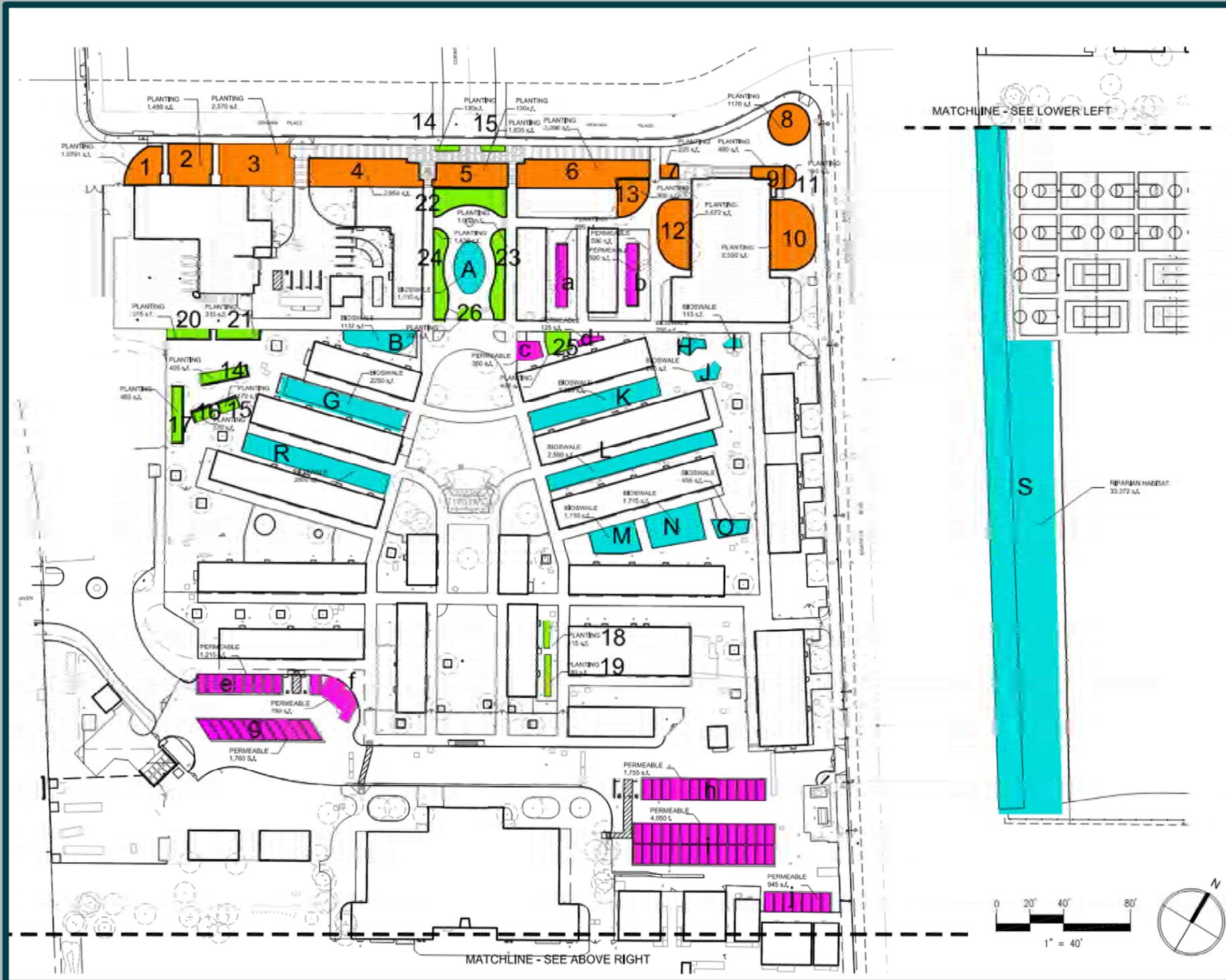


# Project Details – School Site After





# Project Details – BMP Plan



**PERVIOUS PAVERS**

a	590 SF
b	590 SF
c	350 SF
d	125 SF
e	1215 SF
f	780 SF
g	1760 SF
h	1755 SF
i	4050 SF
j	945 SF
<b>TOTAL</b>	<b>12,160 SF</b>

**DROUGHT TOLERANT PLANTING**

14	405 SF
15	170 SF
16	170 SF
17	485 SF
18	115 SF
19	180 SF
20	315 SF
21	315 SF
22	1,426 SF
23	1000 SF
24	1000 SF
25	438 SF
26	205 SF
<b>TOTAL</b>	<b>6,224 SF</b>

**BIORETENTION AREAS**

A	1,115
B	1,132
G	2,250
H	250
I	115
J	245
K	2,300
L	2,500
M	1,110
N	1,715
O	455
R	2,600
S	33,372
<b>TOTAL</b>	<b>49,159</b>

**TURF TO NATIVE PLANTING**

A	1,100 SF
B	995 SF
C	240 SF
D	400 SF
E	7,980 SF
F	765 SF
G	1,700 SF
H	685 SF
I	260 SF
J	218 SF
K	190 SF
L	630 SF
M	566 SF
N	280 SF
<b>TOTAL</b>	<b>16,900 SF</b>



# Project Photos

- Native plant landscaping and new hardscaping installed at school entrances and quad provides enhanced green spaces for students and beautifies the neighborhood.



IMPROVEMENTS TO SCHOOL ENTRANCE ALONG  
GRAHAM PLACE



BIORETENTION AREA AND NATIVE PLANT LANDSCAPING  
NORTH OF MAIN QUAD



## Project Photos

- Downspouts from buildings are directed to bioretention areas to infiltrate stormwater and recharge local water table, while reducing run-off to city storm drain system.
- Demolished concrete was recycled and re-used as splash blocks and along the sides of bioretention areas to control erosion.



NEW BIORETENTION AREA IN BETWEEN CLASSROOM BUILDINGS



# Project Photos

- Solar reflective coating installed at physical education yard to reduce high temperatures from urban heat island effect.



SOLAR REFLECTIVE COATING AT BASKETBALL COURT



SOLAR REFLECTIVE COATING AT VOLLEYBALL COURTS



# Project Photos

- Permeable pavers in between buildings and at parking lots reduces pollutants from reaching water bodies carried by run-off



PERVIOUS PAVERS NEAR CLASSROOMS



PERVIOUS PAVERS AT PARKING LOTS



# Project Photos

- West end of the play field was converted into a large natural habitat bioswale area
- Allows water infiltration and eliminated mud and stagnant water in this area.



NEW BIORETENTION AREA AT WEST END OF PLAYFIELD AND PE YARD



# Overall Project Cost

Phase	Description	Cost	Completion Date
Planning	Environmental and Site Assessment	\$189,390	11/2015
Design	Plans and Approvals	\$627,283	11/2017
Construction	Construction Cost	\$10,918,353	06/2020
<b>TOTAL</b>		<b>\$11,735,026</b>	

- Additional Community Investment benefits estimated cost is \$2,121,699, see next slide.
- DROPS program provided total of \$1,268,556 of which \$1,051,126 was allotted for construction cost of Stormwater features.



# Additional Community Benefits Cost & Schedule

Phase	Description	Cost*	Completion Date
Planning	Environmental and Site Assessment	\$189,390	11/2015
Design	Plans and Approvals	\$102,651	08/2017
Construction	Construction Cost	\$1,829,658	06/2020
<b>TOTAL</b>		<b>\$2,121,699</b>	

\*Costs shown above include:

- Bioretention Areas
- Pervious Pavers
- Native Planting and Greening Areas
- Solar Reflective Asphalt Coating



# Funding Request from Safe Clean Water Program

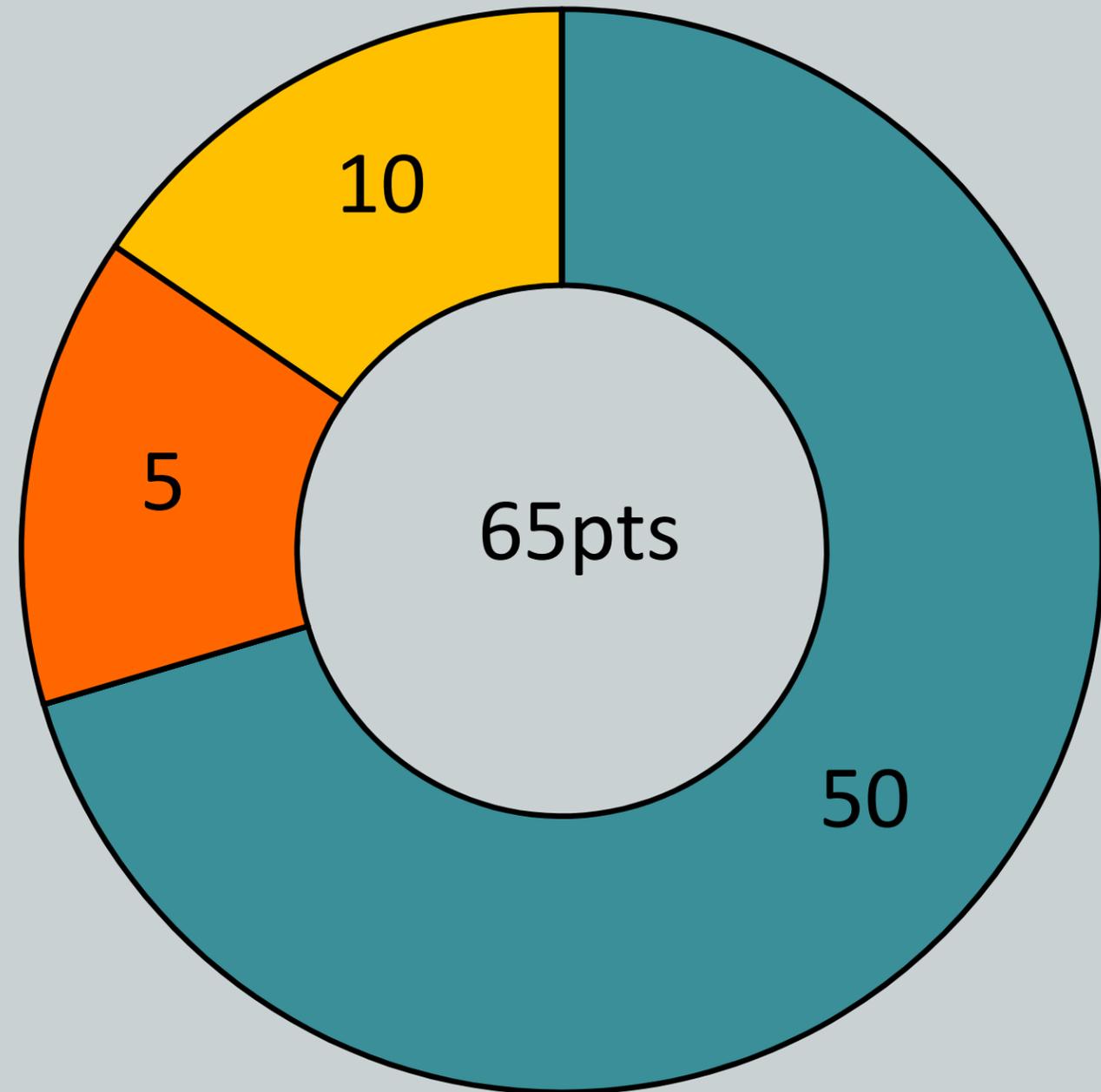
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$990,310	Construction	1 <sup>st</sup> Year Construction Cost
2	\$631,503	Construction & O&M	2 <sup>nd</sup> Year Construction and Maintenance Cost
3	\$3,523	O&M	3 <sup>rd</sup> Year Maintenance Cost
4	\$3,523	O&M	4 <sup>th</sup> Year Maintenance Cost
5	\$3,523	O&M	5 <sup>th</sup> Year Maintenance Cost
<b>TOTAL</b>	<b>\$1,632,382</b>		

- Future potential SCW funding requests would include Operations and Maintenance and Monitoring costs.
- Project lifespan is 50 years with a total lifecycle cost \$2,297,849.



# Preliminary Score

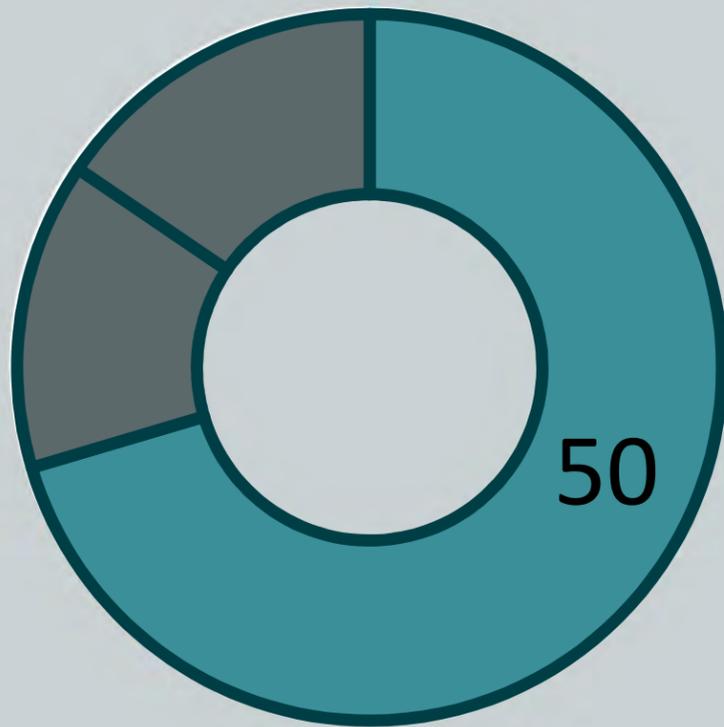
- Water Quality  
50 points
- Community Investment  
5 points
- Nature Based Solutions  
10 points



\*No Points received for Water Supply or Leveraged Funds and Community Support



# Water Quality Benefits



## Water Quality Benefits (50 points)

- Bioretention and permeable pavement areas designed to collect surface runoff.
- 8.029 acre capture area (Wet weather BMP Project).
- BMP storage capacity is 3.32 acre ft. Overall project site has a maximum 24hr BMP capacity of 5.73 acre ft.
- 100% pollutant reduction for E Coli (primary), Nitrogen (secondary), Zinc, Copper, Lead, and Phosphorus.
- Water Quality Cost Effectiveness is greater than 1 acre ft per million dollars.



# Community Investment and Nature Based Solutions

## Community Investment Benefits (5 points)

- Bioretention areas are designed to take in runoff and infiltrate utilizing the soil high draw down rate to help mitigate flood risks. Native planting enhances green spaces and provides shade.
- Reduced asphalt pavement areas, solar reflective coating, and new landscaped areas reduce local heat island effect.

## Nature Based Solutions (10 points)

- Project surface is graded at minimal slopes to slow runoff flows and direct stormwater towards bioretention areas.
- Drought tolerant plants help with erosion control and reduce runoff through water consumption and infiltration.
- Restores native shrubland and creates areas for natural habitat.

