

# Safe, Clean Water Program

## Central Santa Monica Bay

### Watershed Area Steering Committee (WASC)

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#### **Meeting Minutes:**

Monday, February 1, 2021  
1:00pm – 3:00pm  
WebEx Meeting

#### **Attendees**

##### Committee Members Present:

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

##### Committee Members Not Present:

Jacob Lipa (Lipa Consulting)  
Rafael Prieto (Los Angeles)

\*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. She discussed housekeeping items related to the use of WebEx features.

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

#### **2. Approval of Meeting Minutes from January 21, 2021**

Kirk Allen (District) noted that approval of the meeting minutes from January 21, 2021 would be voted on at the next scheduled Committee meeting.

#### **3. Public Comment Period**

The District noted three public comment cards were received.

Sandrine Cassidy from the Ballona Creek Renaissance Organization commented that they are in support of the Ballona Creek TMDL Project.

Jim Stahl expressed his full support for the Ballona Creek TMDL Project and requested that it be given the maximum funding available. He indicated to be on the Los Angeles Regional Water Control Board but is expressing his support in his capacity as a practicing environmental engineer. He also submitted a comment card to provide an oral comment on Agenda Item 5b (ii) (See public comment card).

David Pedersen, Las Virgenes Municipal Water District's general manager, expressed his support for the Ballona Creek TMDL Project.

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David Kay, Board of Directors of the Ballona Discovery Park Partners, expressed their support of the Ballona Creek TMDL Project.

Robin Lifland, MacArthur Park Neighborhood Council President, commented that the SCWP is yet to be implemented in MacArthur Park even though a grant was approved. She is requesting assistance and follow-up with the MacArthur Project as there is a lack of clean water and sanitation. The District indicated they would follow-up (See public comment card).

Irma Munoz, Mujeres de la Tierra Nonprofit Organization, submitted a comment card and expressed their support for the Ballona Creek TMDL Project (See public comment card).

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

Kirk Allen (District) provided the District updates, noting; that the Scoring Committee completed the scoring of 62 Infrastructure Program (IP) projects submitted for round 2 and all but 3 of the projects submitted passed the minimum threshold score of 60 and will advance to the WASC for consideration.

The WASCs have selected all 12 Watershed Coordinators (WC). WC contracts are being executed, onboarding is anticipated by March 2021 and a kick-off meeting is to be held in early April.

The District noted that 80 of 86 municipalities have submitted documents for Transfer Agreements (TA); review of documents is ongoing and disbursements to the Municipalities are forthcoming. Additionally, the District received 18 Regional TAs; Scopes of Work and CEQA documents are currently being reviewed.

Finally, the District noted that the SCWP has a variety of tax relief options. 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 reduction application for property owners that are under a certain income threshold and a tax credit program for property owners who have invested in storm water management infrastructure on their property.

#### **5. Discussion Items:**

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

Sheila Brice disclosed that she is an employee and part of the LASAN project's management team and her staff would be presenting on the Ballona Creek TMDL Project.

Josette Descalzo disclosed that he is member of the Ballona Watershed Management Group representing the City of Beverly Hills and has been involved in receiving project and funding updates for the Ballona Creek Projects.

Bruce Reznik noted he had general discussions with SEITec but not on the topic of the Ballona Creek project.

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

i) Ballona Creek Low Flow Diversion Project – SEITec. Presented by Dr. Shahriar Eftekhazadeh.

Charles Herbertson asked about the impact of a rubber dam on flood control, what approvals would be needed for the rubber dam, and who would build and operate the dam. Dr. Shahriar Eftekhazadeh stated

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that the technology is well proven, it would need an approval from the US Army Corps of Engineers, and SEITec would build the dam and turn it over to City of LA for maintenance.

Cung Nguyen asked if the City of LA provided support for the project regarding long term maintenance and operations. Dr. Shahriar Eftekharzadeh stated that they have not had a fluid conversation about the project but maintained that the rubber dam system is a simpler and more cost-effective system and is confident the City would approve.

ii) Ballona Creek TMDL Project – LASAN. Presented by Brett Perry.

Bruce Hamamoto commented the Ballona Creek TMDL Project is supported by the County. He stated the requested funds have been reduced from \$30M to \$15M, and that the project, although not specifically located in a Disadvantaged Community (DAC), provides benefits to users from DAC.

Bruce Reznik asked why LASAN believes their proposal is better than SEITec's proposal. Brett Perry noted that the City of Los Angeles is confident in their proposed project design, City Council has selected their proposed scheme as the preferred alternative, and that their project partners have collaborated with them for over 5 years. LASAN received their federal 404 and 408 permits from the US Army Corps of Engineers for the project and any changes would incur a significant delay and expense. Brett Perry also noted that the carbon footprint has been considered for the project.

Cung Nguyen agreed with Bruce Hamamoto and added the Ballona Creek TMDL Project has been vetted, permit ready and CEQA compliant.

Charles Herbertson asked why ozone was picked over UV treatment, if there is any benefit for wet weather, and what would be the impact of removing water for recycling. Brett Perry noted that the proposed water balance has been reviewed and approved by CEQA EIR team as well as the California Department of Fish and Wildlife. Brett Perry stated that the ozone treatment option was thoroughly reviewed and was considered the most feasible, that the Project proposal is for dry weather only, and that diversion alternatives were considered during the EIR and design process.

Josette Descalzo asked if the Project considered using renewable energy for operations. Brett Perry stated that LASAN is working with SoCal Edison and LADWP to discuss sustainable power options.

Sheila Brice noted that the Ballona Creek TMDL Project from LASAN has had over 5 years of support and has permits from the US Army Corps of Engineers to proceed.

iii) Blackwelder Tract Lower Ballona Creek Green BMPs and Landscape Improvement Project – California Greenworks, Inc. Presented by Michael Saliba, Jenna D'Ottavio, and Chris Dorn.

iv) Hayden Tract Lower Ballona Creek Green BMPs and Landscape Improvement Project – California Greenworks, Inc. Presented by Michael Saliba, Jenna D'Ottavio, and Chris Dorn.

Jenna D'Ottavio presented on behalf of California Greenworks on Projects 5b (iii) and 5b (iv) simultaneously.

Bruce Hamamoto asked if the Projects have received right of way permissions. Jenna D'Ottavio stated that they have received permission from the US Army Corps of Engineers and the County of Los Angeles, but

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they do not have funding. California Greenworks has received written support from both Los Angeles County and Culver City.

Josette Descalzo asked about the volume of water captured by the 2 proposals and whether the 2 projects have received CEQA approval. Chris Dorn, the civil engineer for the project, indicated that the 24-hour treatment capacity for Blackwelder is a little less than one-acre foot and 2.6 acre-feet for the Hayden Track. Josette Descalzo also asked about the timeline for both projects. Jenna D'Ottavio stated they expect to maintain the projects for 30 years and that the projects would be completed within the first 5 years.

Charles Herbertson asked who would build, operate, and maintain the 2 projects. Jenna D'Ottavio noted that California Greenworks would oversee all maintenance but would contract locally for the workforce. Charles Herbertson also asked if the projects would be constructed in the public right of way only. Jenna D'Ottavio stated that they have received permission from the US Army Corps of Engineers for the public-owned land to proceed with the Project. California Greenworks has not established a relationship with Culver City Parks and Recreation for these projects.

Cung Nguyen stated that LA County Flood Control District cannot enter into an agreement with a private company, however, a private company can work with a municipality to enter into an agreement with the District. Jenna D'Ottavio stated they are aware of this issue.

#### **6. Public Comment Period**

Dr. Shahriar Eftekhazadeh from Ballona Creek Low Flow Diversion Project-SEITec commented that the rubber dam alternative was not carefully considered and that the rubber dam alternative would not delay the project.

No public comment cards submitted.

#### **7. Voting Items**

None.

#### **8. Items for Next Agenda**

a) Presentations for Infrastructure Program

- i) Normandie Ave ES - DROPS and Paving – LAUSD
- ii) Slauson Connect Clean Water Project – Corvias Infrastructure Solutions, Geosyntec Consultants
- iii) Venice High School Comprehensive Modernization Project – LAUSD
- iv) Webster MS - DROPS – LAUSD

#### **9. Adjournment**

Liz Crosson thanked the WASC members and public for their time and participation and adjourned the meeting. Next meeting will be on Thursday, February 18, 2021 10:00AM -12:00PM.

**CENTRAL SANTA MONICA BAY WASC MEETING -February 1, 2021**

		Quorum Present			
Member Type	Organization	Member	Voting?	Alternate	Voting?
Agency	LACFCD	Cung Nguyen	x	Carolina Hernandez	
Agency	West Basin MWD	E.J. Caldwell	x	Alex Heide	
Agency	LA Water & Power	Delon Kwan		Art Castro	x
Agency	LA Sanitation District	Sheila Brice	x	Michael Scaduto	
Agency	LA Recreation & Parks	Cathie Santo Domingo		Darryl Ford	x
Community Stakeholder	LAC Chief Sustainability Office	Rita Kampalath	x	Gary Gero	
Community Stakeholder	Lipa Consulting Company / Business Sector	Jacob Lipa		Alysen Weiland	
Community Stakeholder	The Solutions Project / SCOPE	Gloria Walton	x	Gloria Medina	
Community Stakeholder	LA Waterkeeper	Bruce Reznik	x	Kim Martin	
Community Stakeholder					
Municipal Members	Beverly Hills / West Hollywood	Josette Descalzo	x	Hany Demitri	
Municipal Members	Culver City	<b>Charles Herbertson</b>	x	Kim Braun	
Municipal Members	Los Angeles	Max Podemski	x	Ackley Padilla	
Municipal Members	Los Angeles			Rafael Prieto	
Municipal Members	Los Angeles	<b>Liz Crosson</b>	x	Susie Santilena	
Municipal Members	LAC Public Works	Bruce Hamamoto	x	Armando D'Angelo	
Municipal Members	Santa Monica	Curtis Castle	x	George Rodriguez	
	Total Non-Vacant Seats	15			Yay (Y)
	Total Voting Members Present	14			Nay (N)
	Agency	5			Abstain (A)
	Community Stakeholder	3			Total
	Municipal Members	6			

Other Attendees	
Alysha Chan	Ken Susilo
Aric Torreyson	Kim Braun
Armando D'Angelo	Leslie Frazier
Brenda Ponton	Lorena Matos
Brett Perry	Maritsa Dra
Carlos Moran	Michael Gagan
Christine McLeod	Michael Scaduto
Conor Mossavi	Sandrine Cassidy
Craig Cadwallader	Sarai Bhaga
Daniella Chupa	Shahram Kharaghni
David Kay	Shahriar Eftekhazsadeh
David Pedersen	taraned.nik-khah
George Rodriguez	Wendy Dinh
Honor Hayball	Ana Tabuena-Ruddy
Humphrey Egekeze	A M
Ilene Ramiez	Carmen Andrade
Irma Munoz	Chris Dorn
Jim Stahl	Marisol Ibarra
Johanna Chang	deb deets
Jon Ball	Joyce Amaro
Katie Harrel	Jacob A
Katie M	Jenna Dottavio
Robin Lifland	



# Ballona Creek Low Flow Diversion Project

Infrastructure Program (IP)

SEITec

Dr. Shahriar Eftekharzadeh, PhD, PE, PMP



## Project Overview

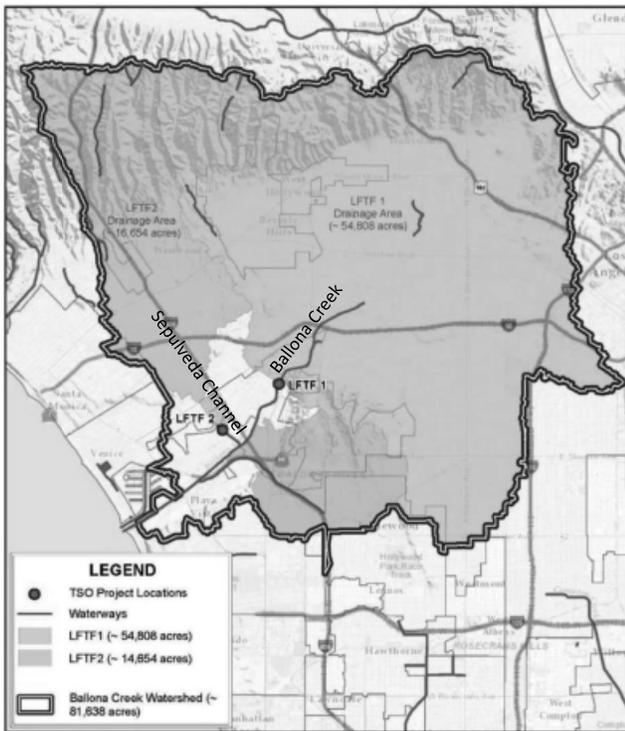
Project constructs two gravity diversion facilities to divert and treat Ballona Creek DWF, plus supply water to Hyperion WRP.

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| • <b>Primary Objective</b>       | Compliance with DWF Bacteria TMDL |
| • <b>Secondary Objective</b>     | Water Supply                      |
| • <b>Funding Request</b>         | Design and Construction           |
| • <b>Total Funding Requested</b> | \$ 14,951,000.00                  |



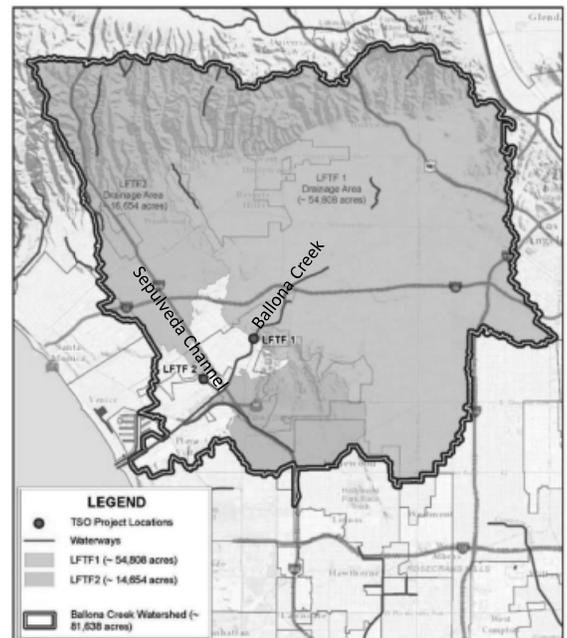


# Project Locations



# Project Background

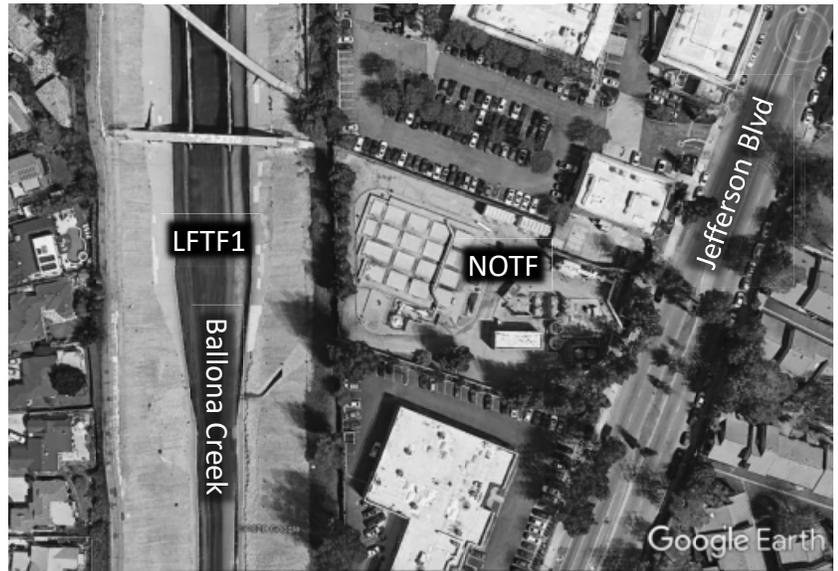
- **June 2006**, LARWQCB established the Ballona Creek and Sepulveda Channel Bacteria TMDL.
- **May 2008**, Bacteria TMDL became effective.
- **June 2012**, Bacterial TMDL was incorporated into the 2012 MS4 Permits.
- Final compliance date for DW Bacteria TMDL was **April 2013**.
- Permittees are the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, West Hollywood, the County of Los Angeles, and LACFCD.
- **June 2015**, LFTF1 and LFTF2 were included in the Ballona Creek EWMP.
- Permittees received Time Schedule Order (TSO) till **December 2019** to complete LFTF1 and LFTF2.
- The Permittees are currently negotiating an **extension of the TSO deadline** for LFTF1 and LFTF2.





## Project Locations – LFTF1

- U/S of monitoring station
- Utilizes NOTF Site
- Near NOS



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## Project Locations – LFTF2

- U/S of monitoring station
- Near D/S of Sepulveda Channel
- No Diversion to HWRP



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## Project Benefits

- **Water Quality**
  - Compliance with NPDES Dry Weather Bacteria TMDL
- **Water Supply**
  - More than 5,000 AF/YR diverted DWF for future beneficial use
  - DWF Management of 71,000 acres drainage area
- **Community Investment**
  - Supports REC-1 and LREC-1 beneficial uses d/s
- **Nature Based Solutions**
  - Greening of project sites
  - Gravity diversion (no pumping)
- **Local Support**
  - NGOs
  - LARWQCB

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## Project Details

# Low Flow Treatment Facility #1 (LFTF1) Diversion Facility





# Project Site

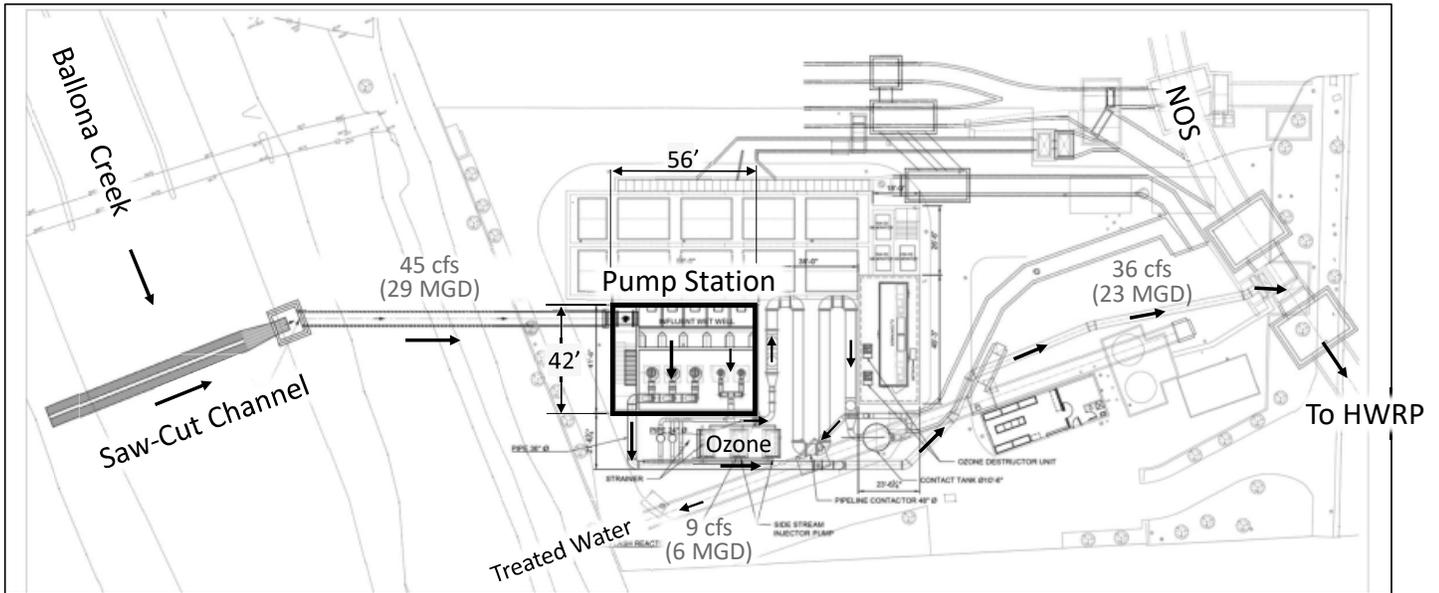


# Project Site





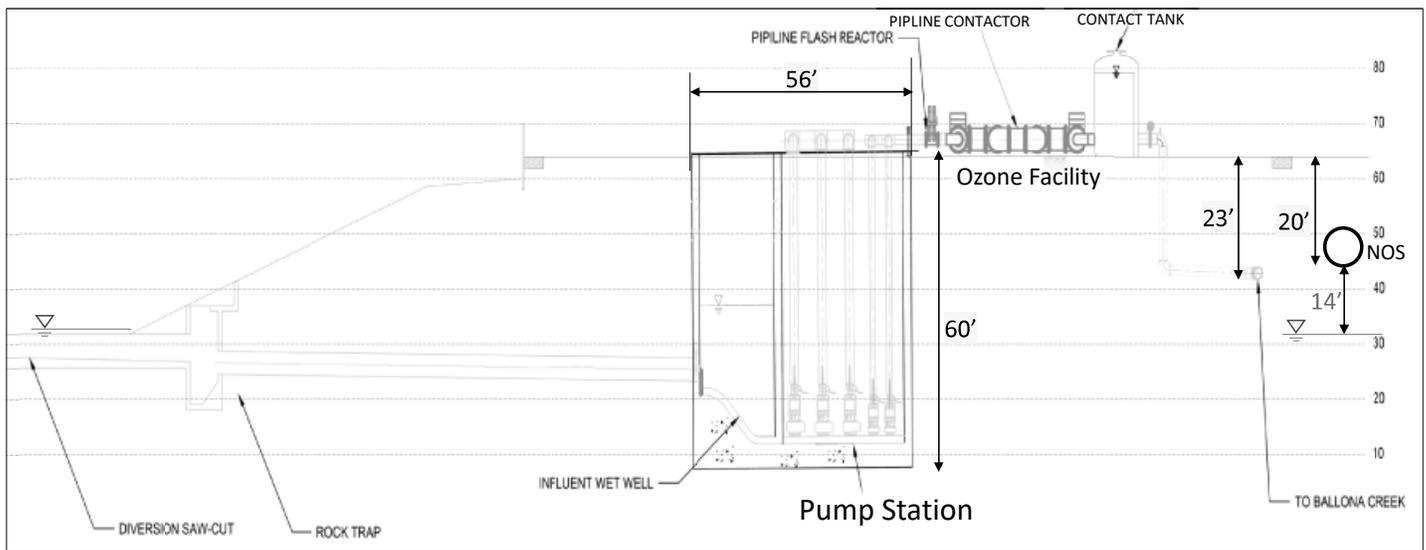
# Pump Station Alternative 1 – Shored Excavation (LASAN)



**PLAN**



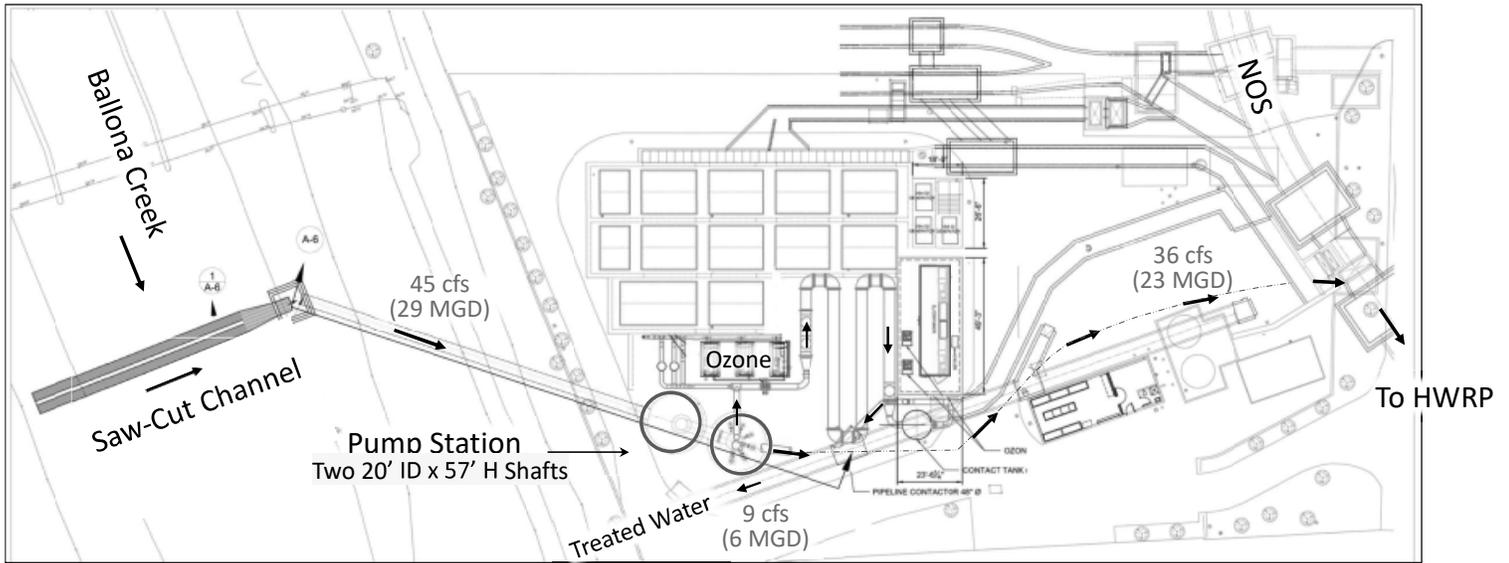
# Pump Station Alternative 1 – Shored Excavation (LASAN)



**PROFILE**



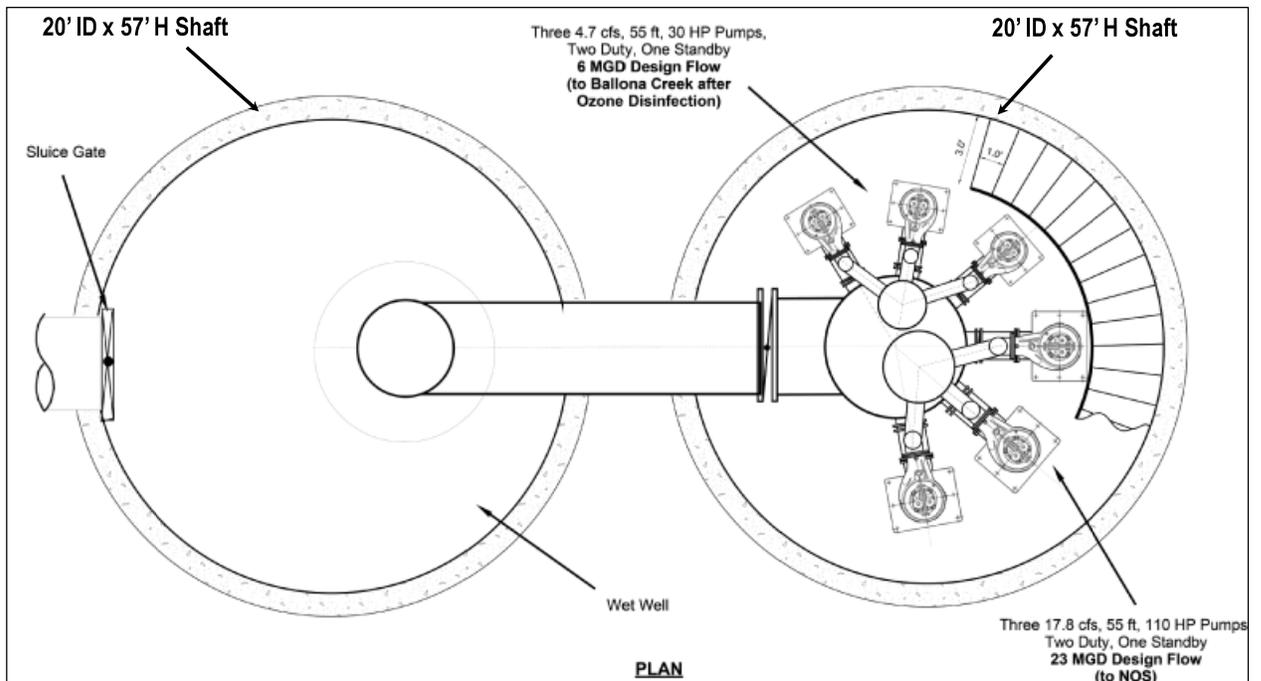
# Pump Station Alternative 2 – Drilled Shaft (SEITec)



**PLAN**



# Pump Station Alternative 2 – Drilled Shaft (SEITec)



**PLAN**



# Pump Station Alternative 2 – Drilled Shaft (SEITec)

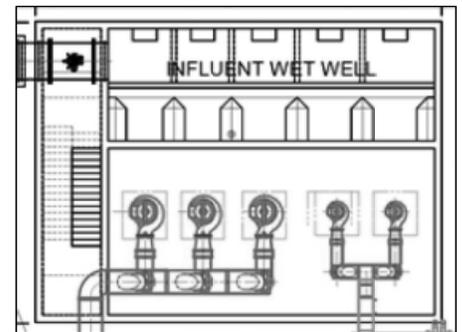


**PROFILE**



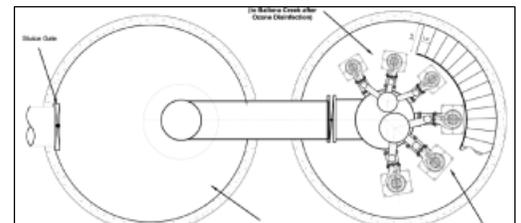
# Comparison of Pump Station Alternatives

Parameter	Shored Excavation (LASAN)	Drilled Shaft (SEITec)
Footprint, sf	2,300	905
Excavation Depth, ft	70	70
Excavation Vol., cy	5,960	2,350
Construction Dewatering	Yes	No
Site Demolition	Extensive	Minimal
Peak Power Demand, hp	310	300
Energy Use	High	High



**Shored Excavation**

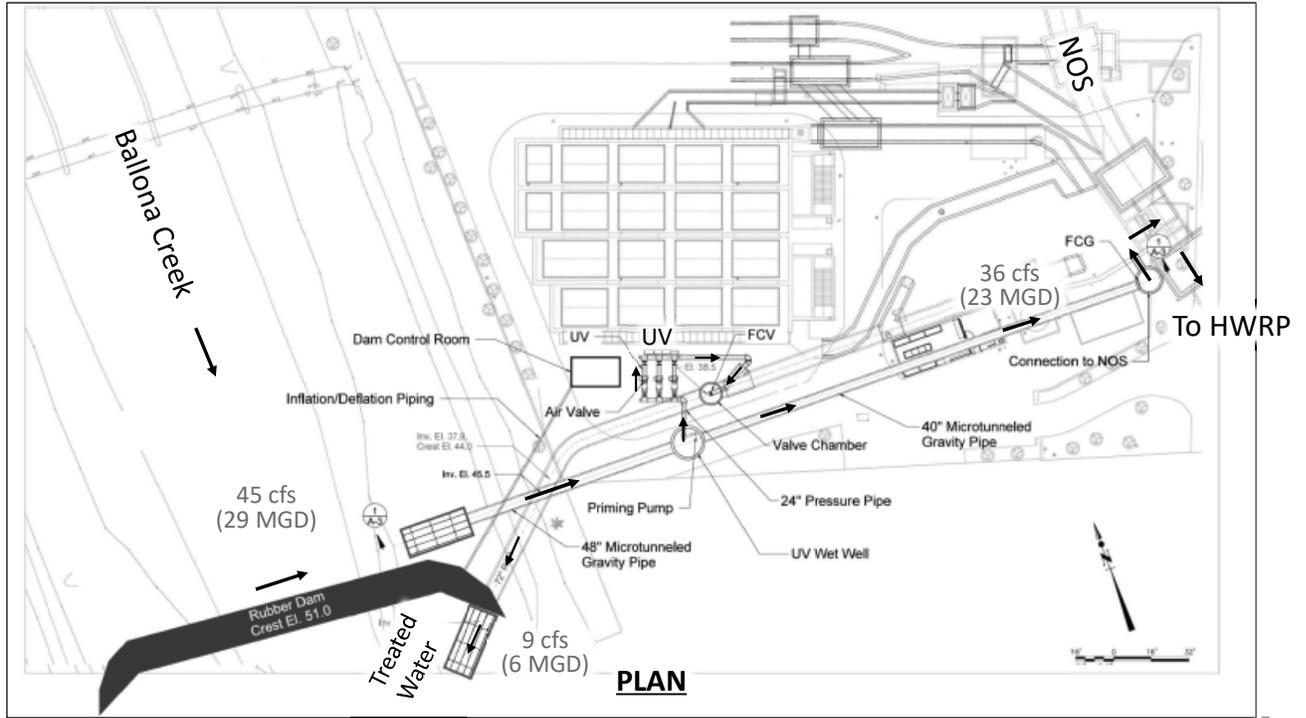
- Drilled Shaft Pump Station Alternative provides significant cost and schedule savings
- Pumping requires large power and consumes significant energy



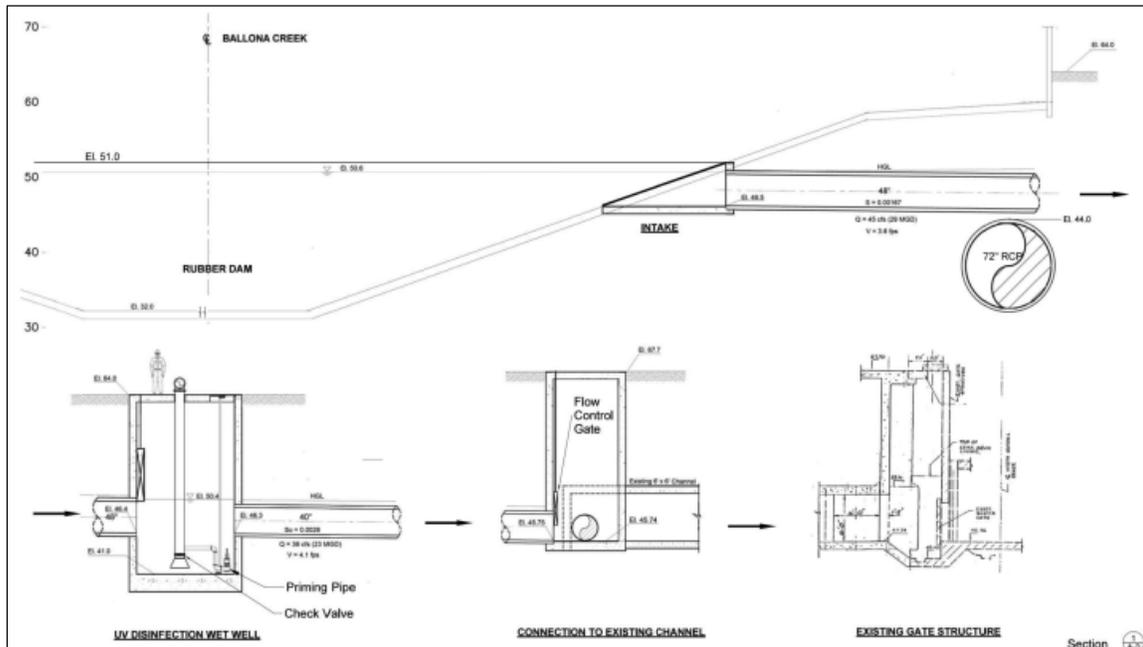
**Drilled Shaft**



# Gravity Alternative 1 – Rubber Dam

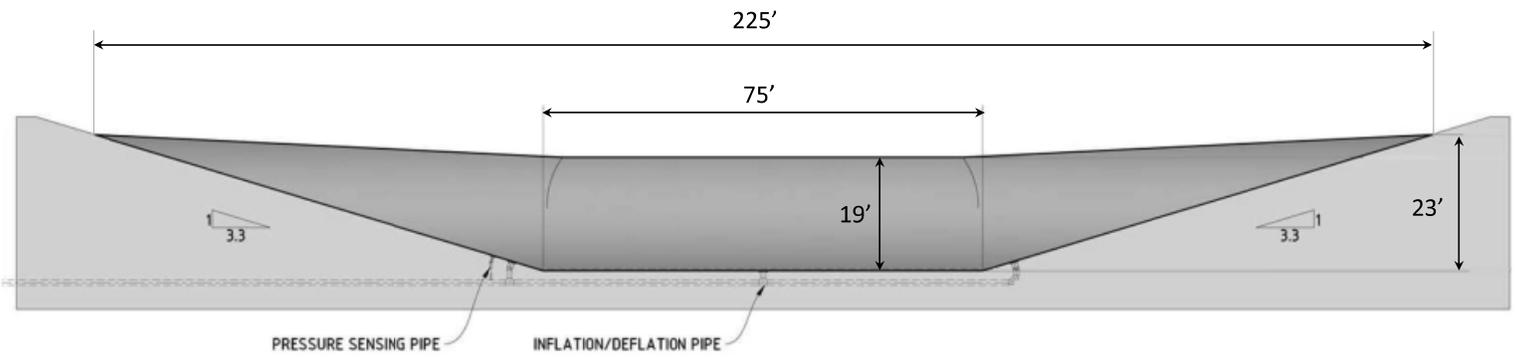


# Gravity Alternative 1 – Rubber Dam





# Gravity Alternative 1 – Rubber Dam



ELEVATION



# Gravity Alternative 1 – Rubber Dam





## Rubber Dam Reference Projects

### Azmak-I, Azmak-II, and Kirpilik Rubber Dams

**Location:** Ermenek River, Mersin, Turkey  
**Inflated Height:** 16.4 ft (5.0 m)  
**Bottom length:** 157.5 ft (48.0 m) per span  
**No. of Spans:** 1  
**Inflation Medium:** Water  
**Application:** Hydropower  
**Installed:** 2009



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## Rubber Dam Reference Projects

### Yuyangxia Rubber Dam

**Location:** Wufeng, Hubei Province, China  
**Inflated Height:** 18.5 ft (5.65 m)  
**Bottom length:** 131.2 ft (40.0 m) per span  
**No. of Spans:** 1  
**Inflation Medium:** Water  
**Application:** Hydropower  
**Installed:** 2006



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## Rubber Dam Reference Projects

### Zhangjiagang Rubber Dam

**Location:** Jiangsu Province, China  
**Inflated Height:** 19.7 ft (6.0 m)  
**Bottom length:** 164 ft (50.0 m) per span  
**No. of Spans:** 1  
**Inflation Medium:** Water  
**Application:** Water Supply  
**Installed:** 2013



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## Rubber Dam Reference Projects

### Ramspol Inflatable Barrier

**Location:** Ramspol, Netherlands  
**Inflated Height:** 27.4 ft (8.35 m)  
**Bottom length:** 246 ft (75.0 m) per span  
**No. of Spans:** 3  
**Inflation Medium:** Air-Water  
**Application:** Storm Surge Protection  
**Installed:** 2002





## Rubber Dam Reference Projects

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**No. of Spans:** 3  
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**Application:** Storm Surge Protection  
**Installed:** 2002



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## Rubber Dam Reference Projects

### Tempe Town Rubber Dam

**Location:** Tempe, AZ, USA  
**Inflated Height:** 16.0 ft (4.9 m)  
**Bottom length:** 240 ft (73.1 m) per span  
**No. of Spans:** 8  
**Inflation Medium:** Air  
**Application:** Recreation  
**Installed:** 1999  
**Replaced:** 2010



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## Rubber Dam Reference Projects

### Tempe Town Rubber Dam

**Location:** Tempe, AZ, USA  
**Inflated Height:** 16.0 ft (4.9 m)  
**Bottom length:** 240 ft (73.1 m) per span  
**No. of Spans:** 4  
**Inflation Medium:** Air  
**Application:** Recreation  
**Installed:** 1999  
**Replaced:** 2010



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## Rubber Dam Reference Projects

### Tempe Town Rubber Dam Temporary Replacement

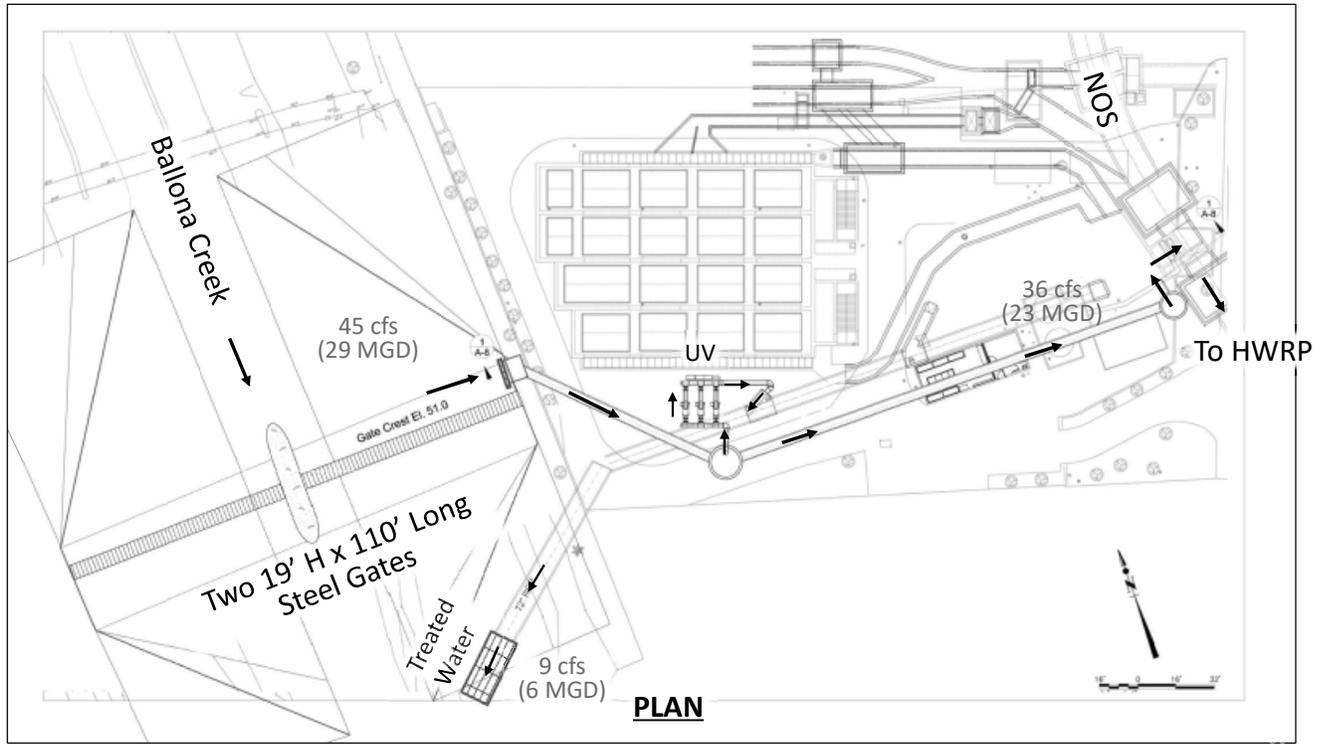
**Location:** Tempe, AZ, USA  
**Inflated Height:** 16.0 ft (4.9 m)  
**Bottom length:** 240 ft (73.1 m) per span  
**No. of Spans:** 4  
**Inflation Medium:** Air  
**Application:** Recreation  
**Installed:** 2010  
**Removed:** 2016



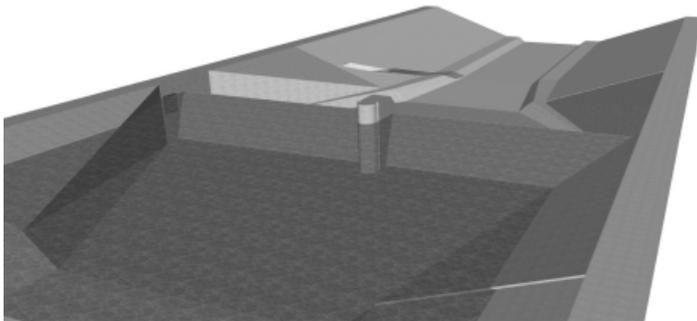
28



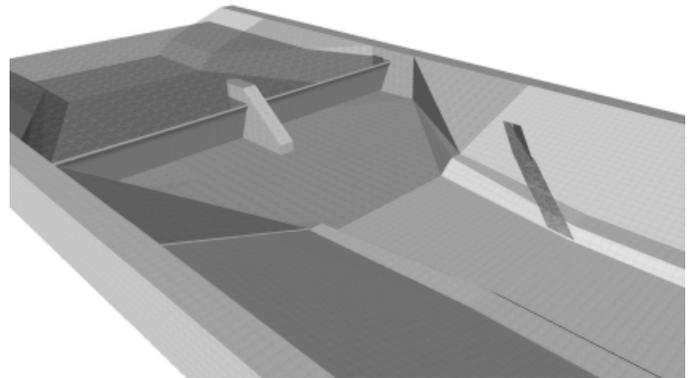
## Gravity Alternative 2 – Steel Gates



## Gravity Alternative 2 – Steel Gates



Upstream



Downstream



## Gravity Alternative 2 – Steel Gates



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## Steel Gates Reference Project

### Tempe Town Lake Steel Gate (Rubber Dam Replacement)

**Location:** Tempe, AZ, USA

**Raised Height:** 17.0 ft (5.2 m)

**Length:** 106 ft (32.3 m) per span

**No. of Spans:** 8

**Activation Mechanism:** Hydraulic Pistons

**Application:** Recreation

**Construction Start:** June 2014

**Operation Start:** May 2016



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## Steel Gates Reference Project

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# Comparison of Gravity Alternatives

Parameter	Rubber Dam	Steel Gates
Site Civil Work	Standard	Extensive
Weight on Foundation	Minimal	Large
Channel Widening & Transitions	No	Yes
No. of Spans	1	2
Center Pier	No	Yes
Mechanical Equipment	Modest	Considerable
Construction Complexity	Low	Moderate
Design Life	25 years	50 years

- Rubber Dam Alternative provides significant cost and schedule savings
- Steel Gate Alternative remains an option if Operator (City of Los Angeles) prefers



**Rubber Dam**



**Steel Gates**

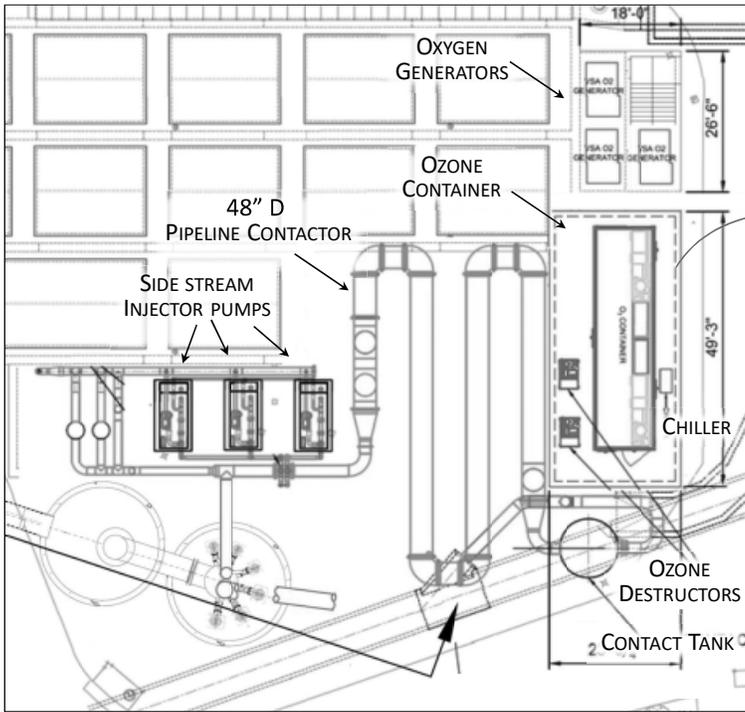
## Project Details

# Low Flow Treatment Facility #1 (LFTF1) Treatment System

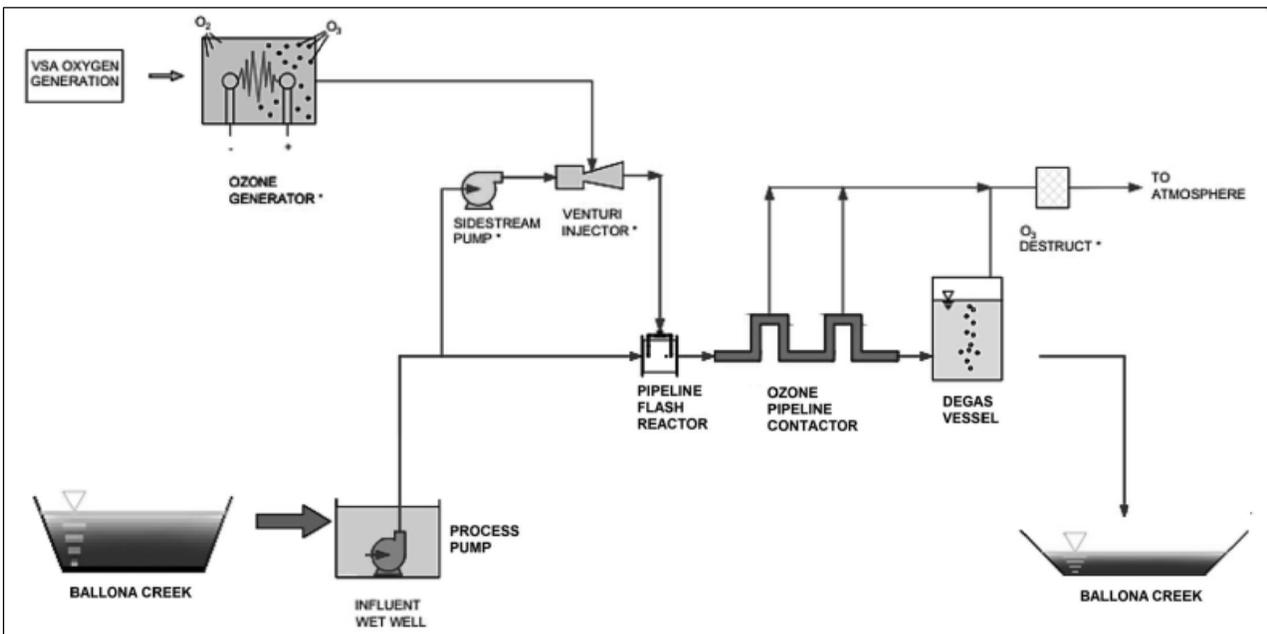




# Treatment System Alternative 1 – Ozone

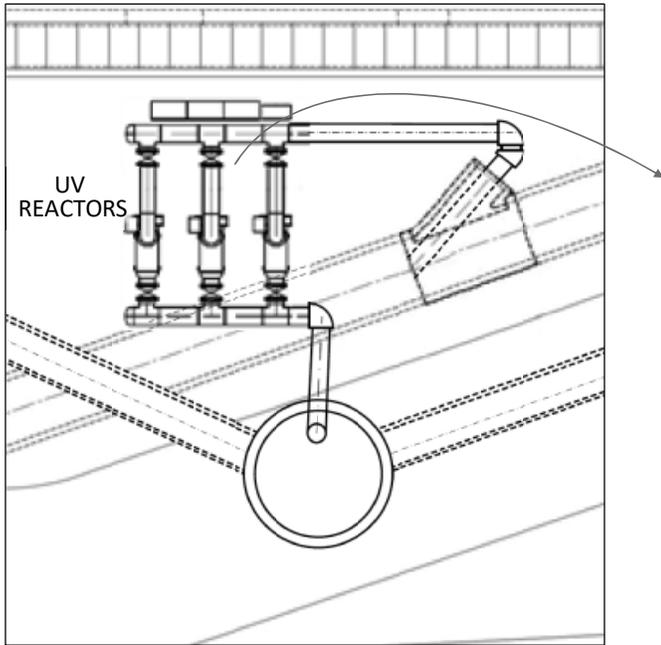


# Treatment System Alternative 1 – Ozone Process





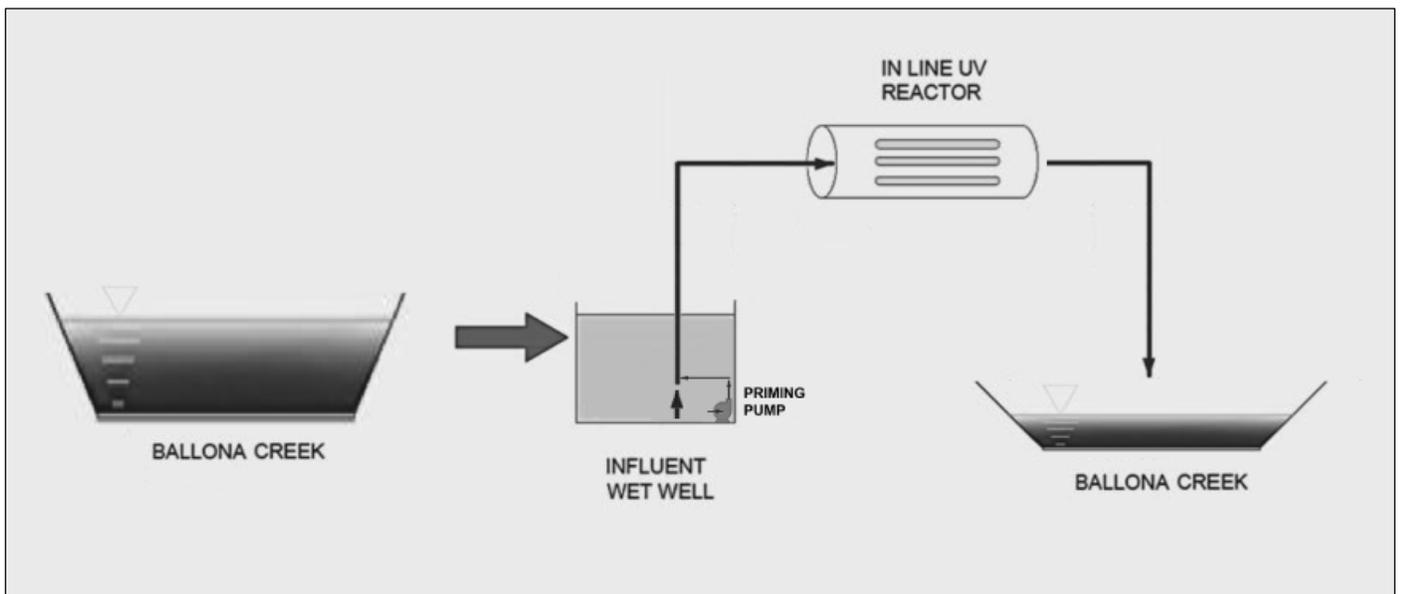
## Treatment System Alternative 2 – UV



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## Treatment System Alternative 2 – UV Process



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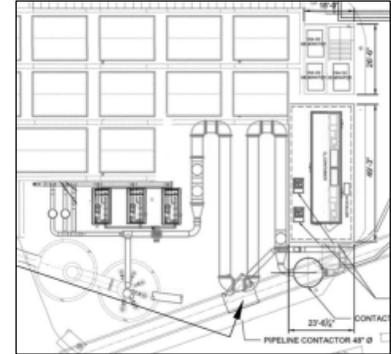
# Comparison of Treatment Alternatives

Parameter	Ozone	UV
Process	Complex	Simple
Footprint	Large	Small
System Components	Many	Few
Requires Process Pumps	Yes	No
Process Controls	Complex	Simple
Power Consumption	Very High <sup>1)</sup>	Modest <sup>2)</sup>

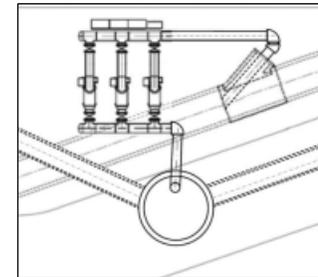
**Notes:**

1. 6,500 kWh/day, Equivalent to 220 Average US Households
2. 1,000 kWh/day, Equivalent to 35 Average US Households

- UV Alternative is much simpler with significantly less power consumption and O&M costs



**Ozone**



**UV**

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## Project Details

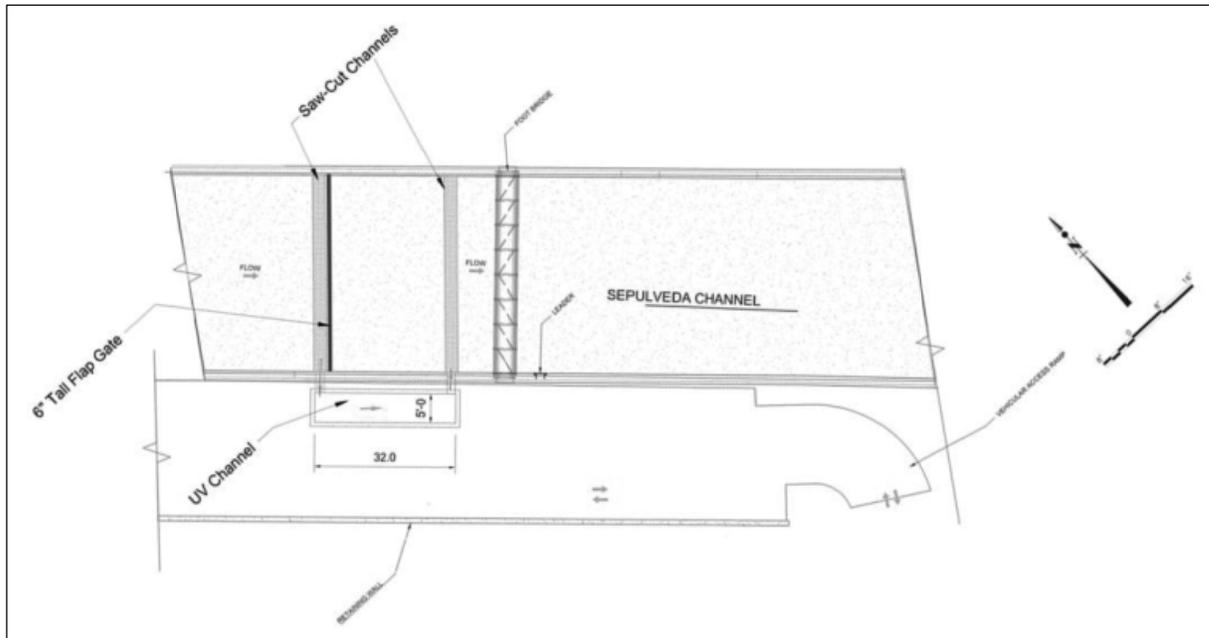
### Low Flow Treatment Facility #2 (LFTF2)







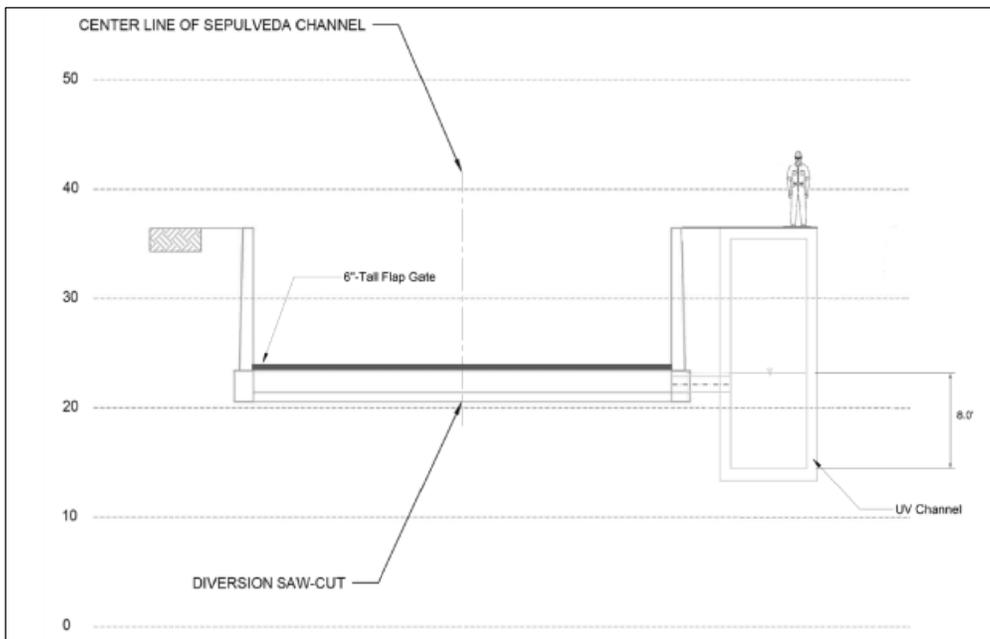
# Alternative 1 – Gravity with UV Treatment (SEITec)



**PLAN**



# Alternative 1 – Gravity with UV Treatment (SEITec)



**SECTION**



# Alternative 1 – Gravity with UV Treatment (SEITec)



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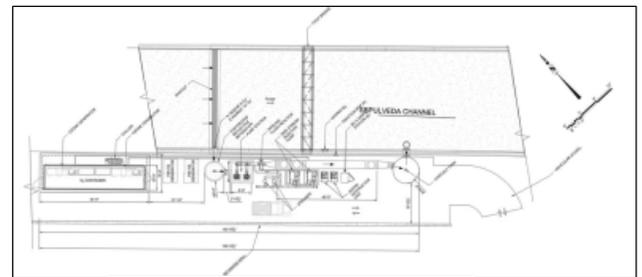
## Comparison of Alternatives

Parameter	Pump Station with Ozone	Gravity with UV
Process	Complex	Simple
Footprint	Large	Very Small
Above Ground Equipment	Extensive <sup>1)</sup>	None
Site Civil Work	Extensive	Minimum
O&M	Complex	Simple
Energy Consumption	High <sup>2)</sup>	Modest <sup>3)</sup>
Construction Complexity	High	Low
Design Life	15-20 years	50 years

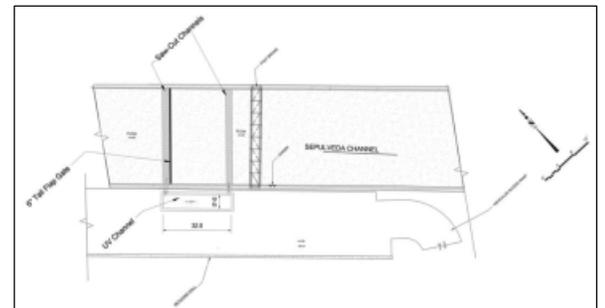
**Notes:**

1. Equipment along Ballona Creek overbank (Flood Hazard)
2. 1,400 kWh/day, Equivalent to 45 Average US Households
3. 400 kWh/day, Equivalent to 13 Average US Households

➤ Gravity with UV Alternative is much simpler and the least cost option



**Pump Station with Ozone**



**Gravity with UV**

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## Cost and Schedule

Phase	Description	Cost	Completion Date
Design	Prepare plans and specs. Apply for all permits.	\$ 1,194,000.00	10/2022
Construction	All civil, structural, and piping.	\$ 8,254,000.00	10/2023
Construction	Installation of rubber dam, UV system and all other equipment.	\$ 5,503,000.00	10/2024
<b>TOTAL</b>		<b>\$ 14,951,000.00</b>	

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## Description of Annual Costs

Item	Total	LFTF-1	LFTF-2	
UV System (kWh/day)	1,700	1,300	400	56 kW at LFTF-1, 16 kW at LFTF-2, 24 hrs/day
Power Cost (\$/kWh)	0.2	0.2	0.2	
Power Cost (\$/year)	\$117,000	\$90,000	\$28,000	
UV Lamp Replacement	126,000	\$120,000	\$6,000	430 lamps LFTF-1, 20 lamps LFTF-2, \$280 each
Materials	\$15,000	\$10,000	\$5,000	Allowance
Total Additional Staff (FTE)	1.2	0.7	0.5	
Operation (FTE)	0.5	0.3	0.2	Fully automatic operation
Maintenance (FTE)	0.5	0.3	0.2	Scheduled maintenance and screen cleaning
Lab and Admin (FTE)	0.2	0.1	0.1	Monthly sampling and testing
Total Add. Staff Cost (\$/year)	\$125,000	\$73,000	\$52,000	1 FTE = 2080 hrs/year @ \$50 per hour
<b>TOTAL O&amp;M</b>	<b>\$383,000</b>	<b>\$293,000</b>	<b>\$91,000</b>	

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## Life Span & Lifecycle Cost

- **Life Span** 50-years <sup>1)</sup>
- **Lifecycle Cost** \$24,140,000 <sup>2)</sup>

- 1) Bladder replacement at 25 years included in construction cost estimate
- 2) At 3.375% rate and 50 years

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## Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$ 1,194,000.00	Design	Prepare plans and specs. Apply for all permits
2	\$ 8,254,000.00	Construction	Perform all Civil, Structural, and Pipe work
3	\$ 5,503,000.00	Construction	Install rubber dam, UV, and all electrical and instrumentation
<b>TOTAL</b>	<b>\$ 14,951,000.00</b>		

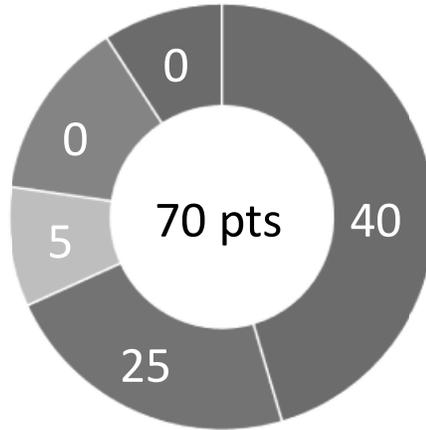
- No Leveraged Funding
- No future potential SCW funding requests

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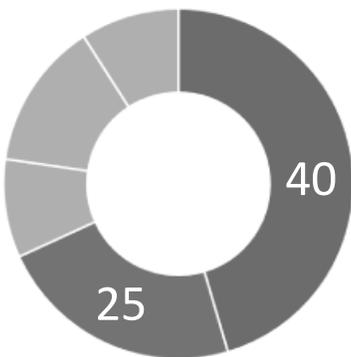


# Preliminary Score

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



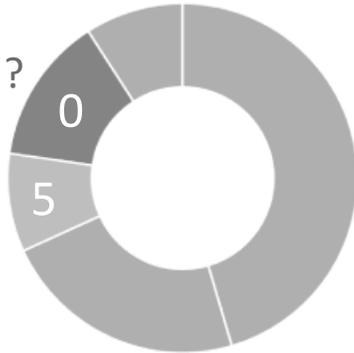
# Water Quality & Water Supply Benefits



- Diverts and treats 100% Dry Weather Flow
- Tributary Area: 71,358 acres
- 29 MGD Diversion Capacity,
- 6 MGD Treatment Capacity
- 100% Compliance with DW Bacteria TMDL
- 5,290 ac-ft per year Water Supply
- \$191 per ac-ft
- Water Supply Use for Future Recycled Water Production



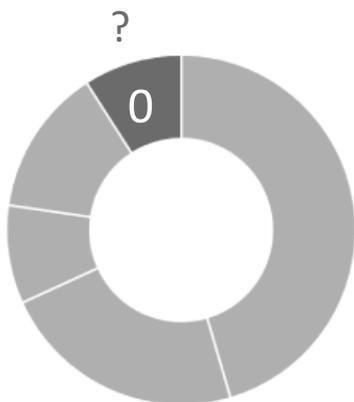
# Community Investment Benefits and Nature Based Solutions



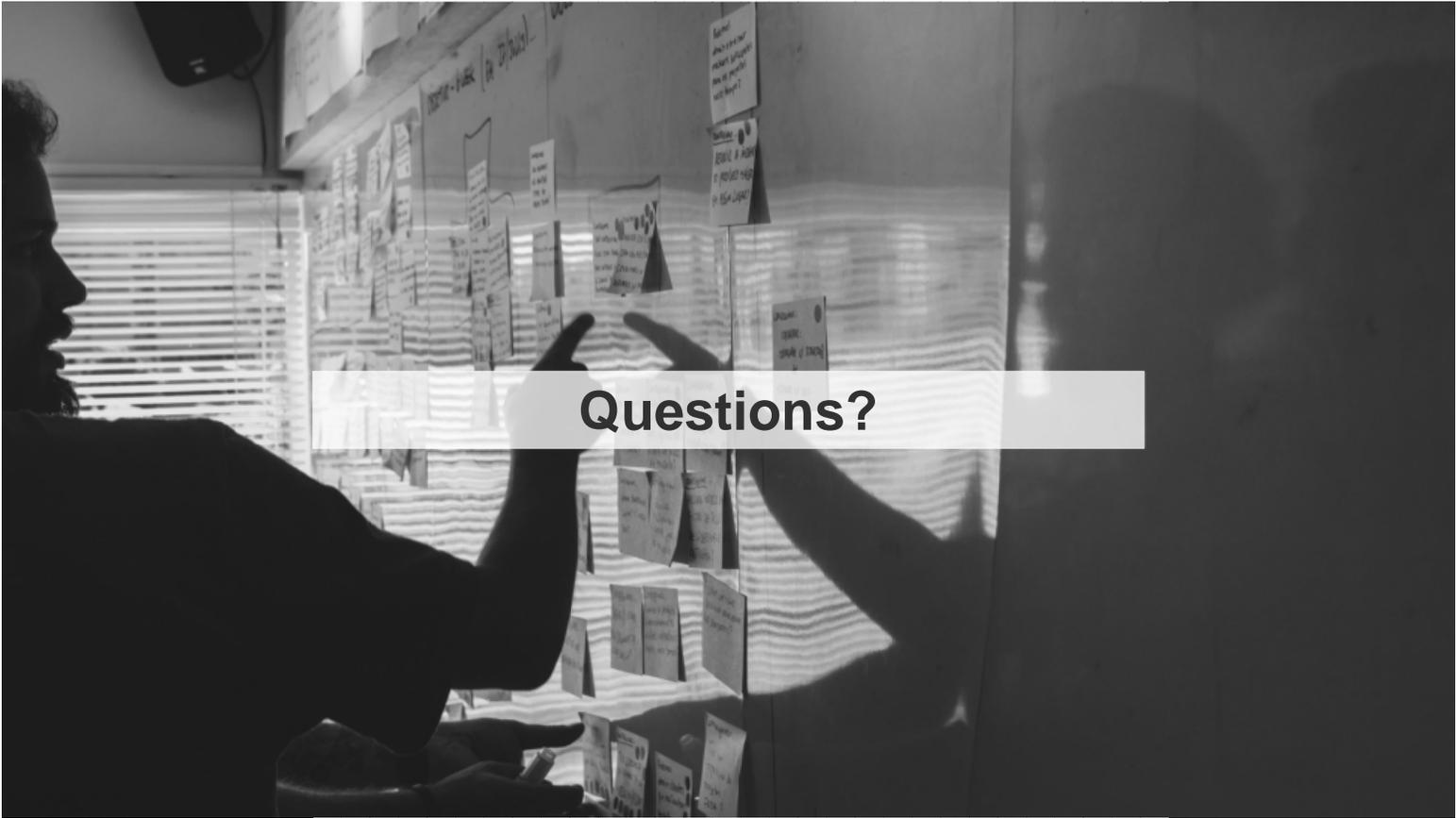
- **Community Investment Benefits**
  - Description of community investment benefits provided
  - Enables easing/removal of access restrictions to Ballona Creek because of Bacterial pollution
  - Supports REC-1 and REC-2 beneficial uses downstream
- **Nature Based Solutions**
  - Onsite and site perimeter landscaping with new trees
  - Rubber dam lake induces cooling



# Leveraging Funds and Community Support



- **Leveraging Funds**
  - No leveraging of funds
  - 0% funding matched
- **Community Support**
  - Supported by NGOs, LARWQCB, Council Districts, and member agencies in BC EWMP Group



**Questions?**

# Ballona Creek TMDL Project

CSMB WASC - Infrastructure Program

LA Sanitation and Environment

Brett Perry



## Project Overview

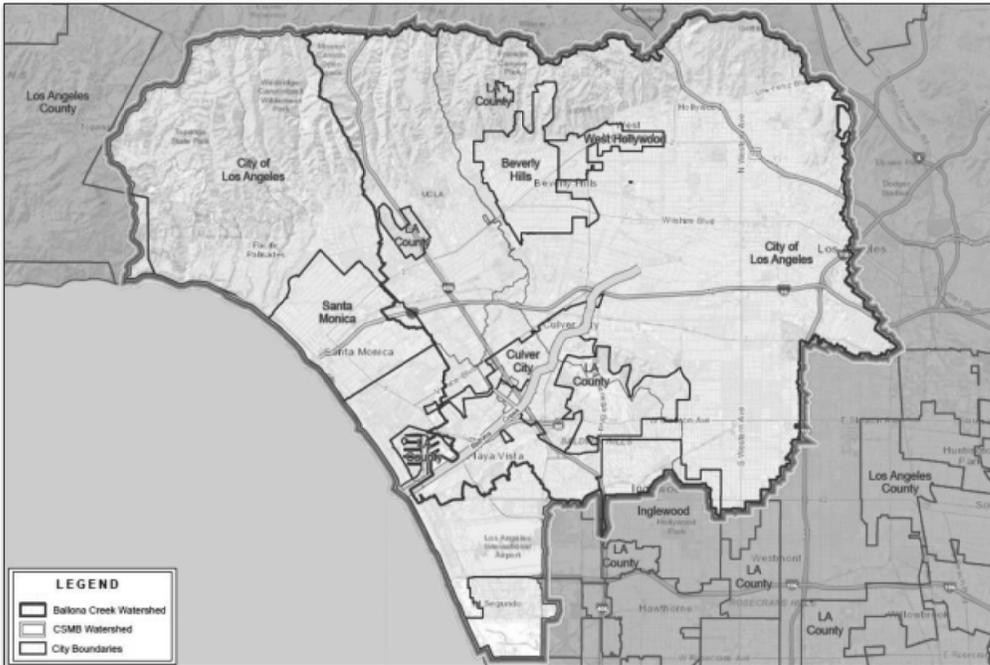
Two projects designed to attain the water quality objectives of the Ballona Creek Dry Weather Bacteria TMDL throughout the entire Ballona Creek Watershed.

- Shovel-ready, collaborative approach to achieve TMDL goals, provide new locally sourced water, and observably enhance conditions throughout the watershed.
- Funding requested for design and construction.
- **Total Funding Requested: \$15,000,000**





## Project Location



### Watershed

- **Area:** 128 square miles
- **90<sup>th</sup> Percentile Dry Weather Flow Rate:** 29 MGD
- **Prominent Land Uses:** Residential, Transportation, Commercial, Industrial
- **8 TMDLs**

### Watershed Area

- City of Los Angeles: 80%
- Los Angeles County: 3.8%
- City of Culver City: 3.8%
- City of Beverly Hills: 4.5%
- City of West Hollywood: 1.4%
- City of Inglewood: 2.3%
- LACFCD: N/A

3



## Project Location (cont.)



### **Low Flow Treatment Facility #1 (LFTF-1)**

### **Low Flow Treatment Facility #2 (LFTF-2)**

### Project Characteristics

- Watershed-Wide Project
- Collaborative Solution
- Highly Cost Effective
- In Development for 5 Years: -Shovel Ready
- 69,361 Acre Drainage Area

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# Project Background

- Project Development since 2015:
  - Ballona Creek Enhanced Watershed Management Plan
- Project Partners:
  - County of LA, Los Angeles County Flood Control District, the Cities of Los Angeles, West Hollywood, Beverly Hills, Culver City, Inglewood
- Final Design:
  - Most feasible and cost effective
  - Safest alternative for public and environment
  - Influenced by extensive technical analysis
  - Honed during 7 permit review iterations with LACFCD/ US Army Corp
  - Aiming for Platinum ENVISION Certification

## Completed

- 80% facility design
- CEQA and Full EIR
- 1602 California Fish & Wildlife Permit
- LACFCD O&M Agreements and Letters of No Objection
- US Army Corp 404 and 408 Permits
- Technical Analysis: Geotechnical, Structural, Hydrological, Surveying, Bench Scale Ozone Testing, Long Term Monitoring

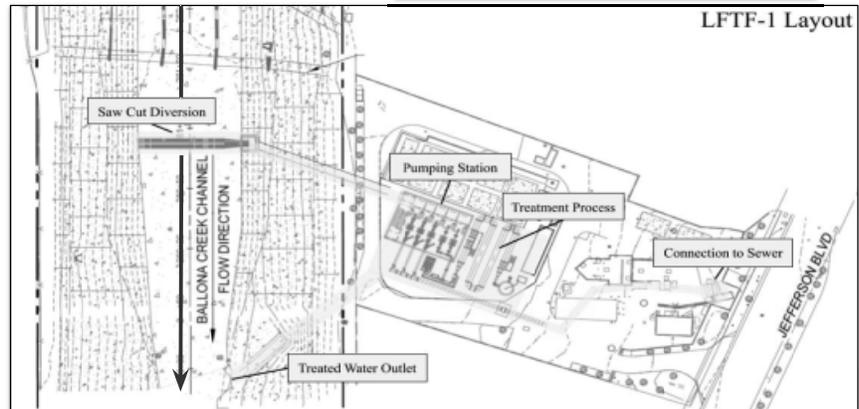
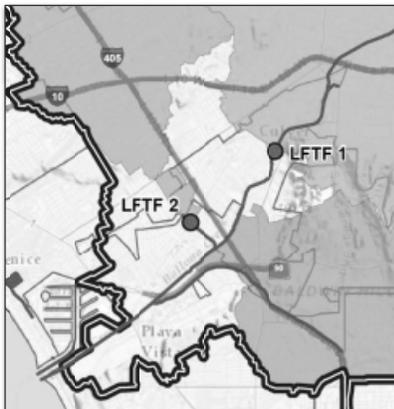


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# Project Details: LFTF-1

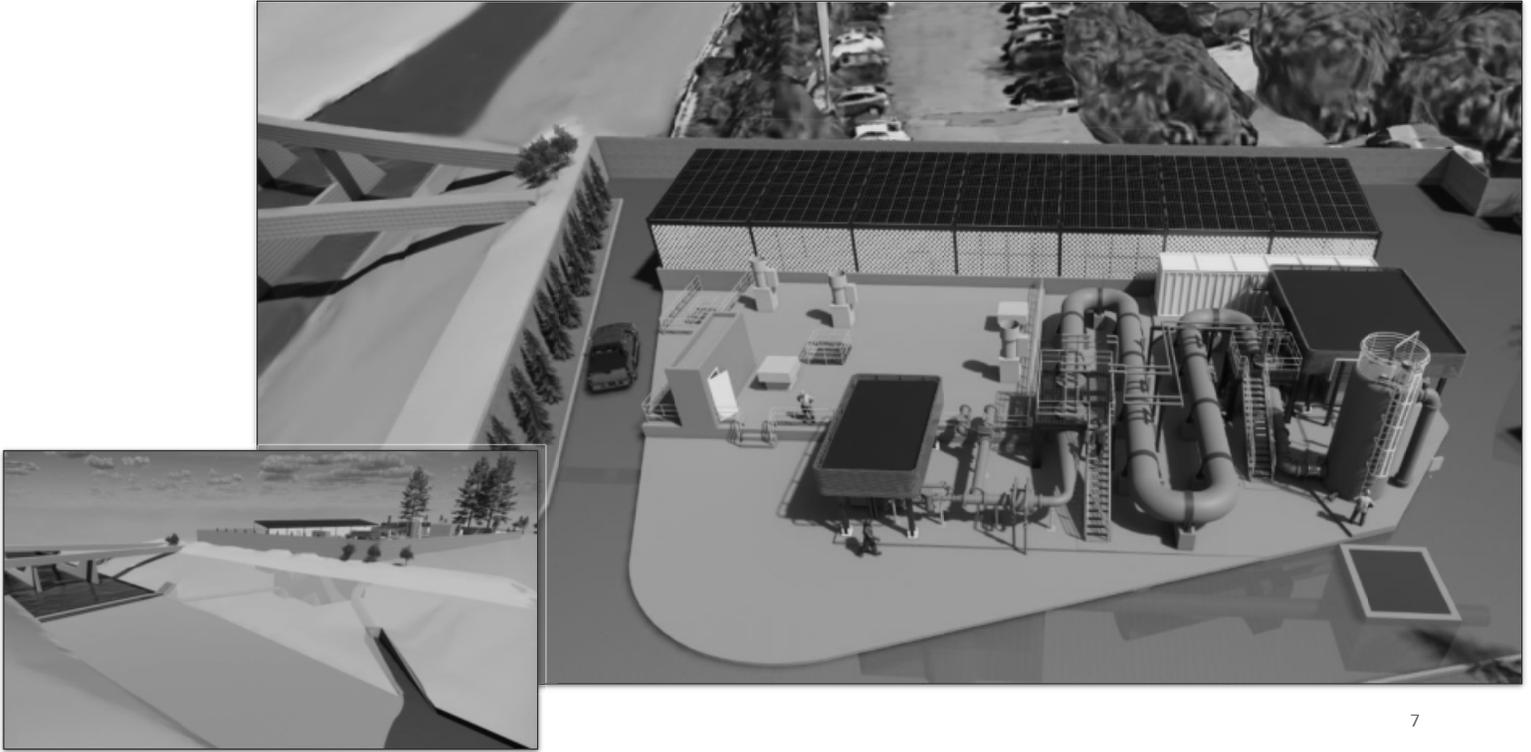
- Dry Weather
- Ballona Creek Reach 2
- Drainage Area: 54,572 Acres
- Design Capacity: 29 MGD
- 6 MGD for ozone disinfection
- Up to 23 MGD for conveyance to HWRP for recycling
- Retrofit abandoned City infrastructure



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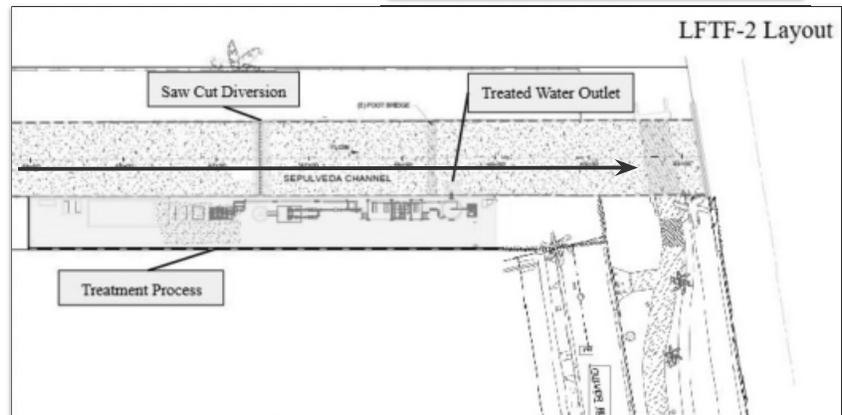
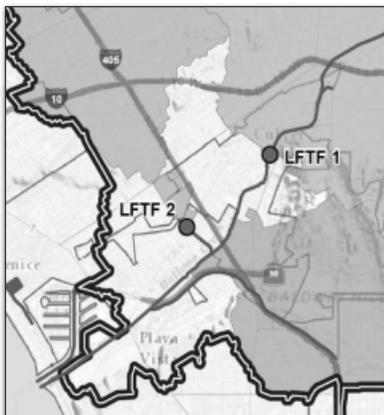


# Project Details: LFTF-1 (cont.)



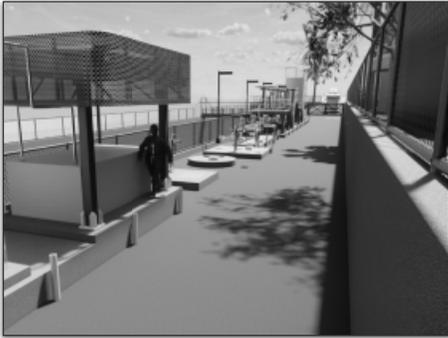
# Project Details: LFTF-2

- Dry Weather
- Sepulveda Channel
- Drainage Area: 14,789 Acres
- Design Capacity: 1.3 MGD
- Up to 1.3 MGD for ozone disinfection
- Newly constructed facility on LACFCD right of way





## Project Details: LFTF-2 (cont.)

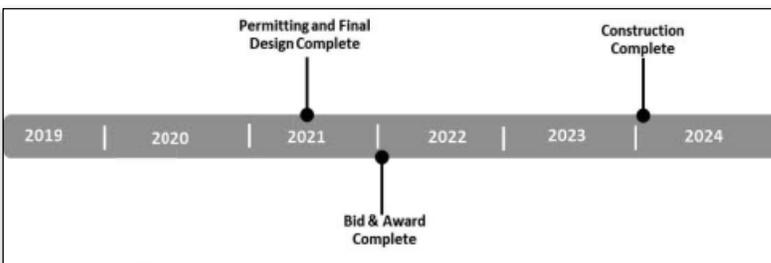


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## Cost & Schedule

Phase	Cost	Completion Date
Design	\$1,633,000.00	06/2021
Construction	\$30,261,000.00	06/2024
<b>TOTAL</b>	<b>\$31,894,000.00</b>	



### Annual Costs

- Annual Maintenance Cost: \$639,000.00
- Annual Operation Cost: \$520,000.00
- Annual Monitoring Costs: \$39,577.00

### Project Life

- Lifespan: 50 years
- Lifecycle Cost: \$60.6 million

### Next Steps

- Execution of LACFCD Permits
- Receive LARWQCB 401 Permit
- 100% Design

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# Funding Request

Year	SCW Funding Requested	Phase
1	\$3,000,000	Design/Construction
2	\$3,000,000	Construction
3	\$3,000,000	Construction
4	\$3,000,000	Construction
5	\$3,000,000	Construction
<b>TOTAL</b>	<b>\$15,000,000</b>	

- Leveraged Funds (53%):
  - Project partners committed to securing remaining \$16,894,000
  - Prop 1 Round 2: \$10 million dollars requested
  - Project partners plan to cost-share remaining costs based on land area within the drainage area
  - LACFCD has committed \$1.5 million dollars in addition to covering permitting fees
- City of Los Angeles has front-funded development and will for construction completion in 2024.

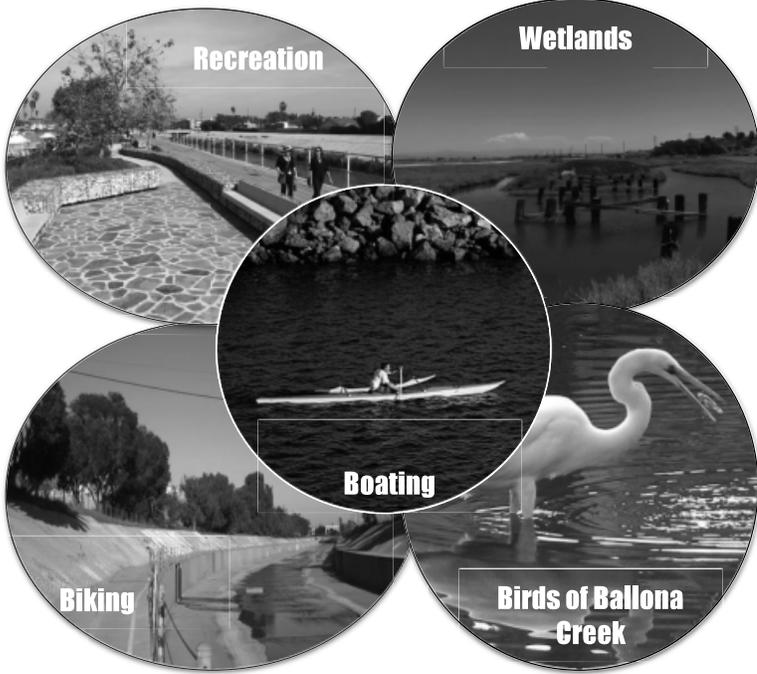


# Project Score





# Water Quality & Water Supply Benefits



### Regulatory Water Compliance

- Ballona Creek EWMP
- Dry Weather / 330 days per year
- Culver City's Mesmer Low Flow Diversion
- 14 Beneficial Uses

### Public Health

- Basin Plan designations (REC-1, REC-2)
- Protects adjacent households, local communities, and regional tourists
- Observably improved conditions

### Ecosystem Enhancement

- Ballona Creek, Estuary, Wetlands and Santa Monica Bay
- Lower levels of bacteria, organic chemicals, trash, metals



# Water Quality & Water Supply Benefits (cont.)

### Increase Local Water Supply

- 5,060 AF/year diverted for recycling (1.6 billion gal/year)  
- \$499.58 per AF
- 100% water recycling at Hyperion Water Reclamation Plant 2035
- Membrane Bioreactor Pilot Facility and Advanced Water Purification Facility



<u>LETF-1 Flows:</u>	Average Flow Rate (MGD)	Design Flow Rate (MGD)
Treat and Release	5.5	6
Water Recycling	5	23
<b>Total Average Flow</b>	<b>10.5</b>	<b>29</b>





# Community Investment Benefits and Nature Based Solutions

## 1. Ballona Creek Bike Path

8 miles, 13 Access Points, Culver City to Playa Del Rey



## 2. Education

Local community organizations host nature trips to thousands of visitors and students per year in the Ballona Watershed.



Courtesy: Friends of Ballona Wetlands

## 3. Sustenance Fishing

Low-income fisherman depend on fish caught in the Ballona Estuary for nutrition.

-Palos Verdes Shelf EPA Study (2014)



## 4. Regional Resource

"A total of 2.8 million people live within easy driving distance of Ballona Creek, including 616,809 youth under 18, more than half of them in severely disadvantaged households."

-Ballona Wetlands Restoration Project EIR (2019)



# Leveraging Funds and Community Support

## CEQA / Environmental Impact Report

State Clearinghouse # 2017021047

- **Notice of Preparation:** February 17, 2017
- **Public Scoping Workshop:** March 2, 2017
- **Public Review and Comments Draft EIR:** August 17 - Oct. 16, 2017
- **Public Comment Workshops:** September 20, 2017
- **Completion of Final EIR:** March 2018
- **State Clearinghouse Certification:** August 1, 2018

### Permitting Agencies:

- LAWQRCB
- Army Corp of Engineers
- California Department of Fish and Wildlife
- LA County Flood Control District
- LA DOT, LA DWP, SoCal Edison, METRO

### Community Outreach:

- Ballona Creek Renaissance
- Friends of Ballona Creek
- Heal the Bay
- LA Waterkeepers
- Surfrider Foundation
- Council for Watershed Health
- Natural Resource Defense Council
- LA Council Districts 5,6,10,11
- Neighborhood Councils (Westchester, Del Rey, West Adams)
- Del Rey Residents Association
- Tongva Ancestral Territorial Tribal Nation
- Gabrieleño Band of Mission Indians - Kizh Nation
- Gabrielino-Tongva Indians of California Tribal Council





# Final Considerations

- Shovel-ready, regional approach to achieve major TMDL goals throughout the Ballona Creek Watershed
- Result of over 5 years of community, regulatory, permitting, and engineering development
- Observably enhanced conditions throughout the watershed for the majority of the year



## Project Supporters

- Ballona Creek Renaissance
- Baldwin Hills Conservancy
- 7th Generation Advisors
- Ballona Discovery Park Partners
- Friends of Ballona Wetlands
- Mar Vista Family Center
- North East Trees

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Projects: **Hayden Tract Lower Ballona Creek Green BMPs and Landscape Improvement Project** and **Blackwelder Tract Lower Ballona Creek Green BMPs and Landscape Improvement Project** and



Funding Program: Infrastructure

Presenter: Michael Saliba

Project Lead:



**OVERVIEW: HAYDEN TRACT AND BLACKWELDER TRACT**

- ❖ BIOFILTRATION AT THE HAYDEN TRACT IMPROVES WATER QUALITY AND RESTORES LOCAL ECOSYSTEMS WHILE PROVIDING EDUCATIONAL AND GREEN COMMUNITY RESOURCES.
- ❖ DESCRIPTION OF PRIMARY AND SECONDARY OBJECTIVES
  - ✓ THE PRIMARY OBJECTIVE OF IS TO IMPROVE LOCAL WATER QUALITY BY REDUCING/DIVERTING URBAN RUNOFF AND FILTERING OUT POLLUTANTS .  
THE SECONDARY OBJECTIVES: INCLUDE PROVIDING MULTIPLE COMMUNITY BENEFITS BY CREATING A NETWORK OF GREEN SPACES THAT OFFERS EDUCATIONAL AND RECREATIONAL OPPORTUNITIES SUCH AS BIKING PATHS AND POCKET PARKS.
  - ✓ THE USE OF NATIVE VEGETATION FOR THE BMPs WILL HELP TO RESTORE LOCAL ECOSYSTEMS WHILE KEEPING MAINTENANCE COSTS MINIMUM.
  - ✓ THE PROPOSED IMPROVEMENT WILL PROVIDE NEARBY DISADVANTAGED COMMUNITIES WITH GREATLY NEEDED GREEN SPACE THAT LOCAL RESIDENTS CAN USE TO PERFORM MULTIPLE OUTDOOR ACTIVITIES SUCH AS WALKING, BIRD WATCHING, AND CYCLING WHILE ALSO RECEIVING EDUCATIONAL RESOURCES ABOUT THE BENEFITS OF THE BMPs.
- ❖ PROJECT STATUS (WHICH PHASES ARE WE REQUESTING FUNDING)
  - ✓ PLANNING, DESIGN AND ENGINEERING, PERMITTING, CONSTRUCTION, OPERATION AND MAINTENANCE
- ❖ TOTAL FUNDING REQUESTED: \$ 5,120,579 .00 *Hayden Tract*
- ❖ TOTAL FUNDING REQUESTED: \$ 5,848,773.76 *Blackwelder Tract*

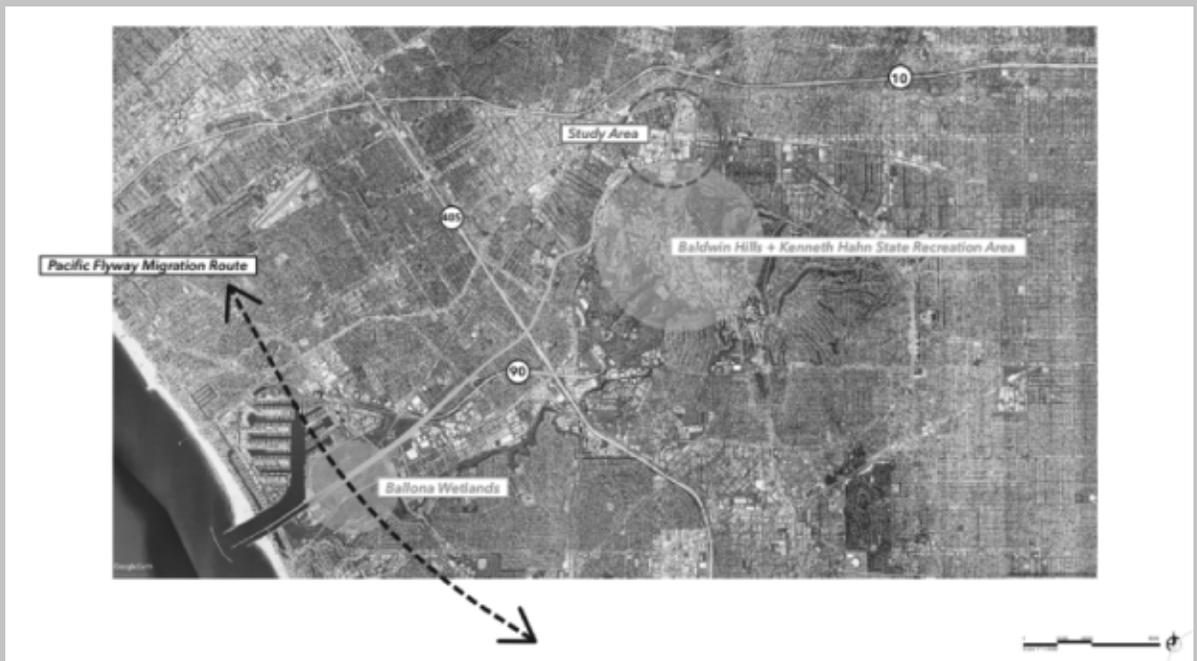
# PROJECT LOCATION

WATERSHED AREA:  
CENTRAL SANTA MONICA BAY

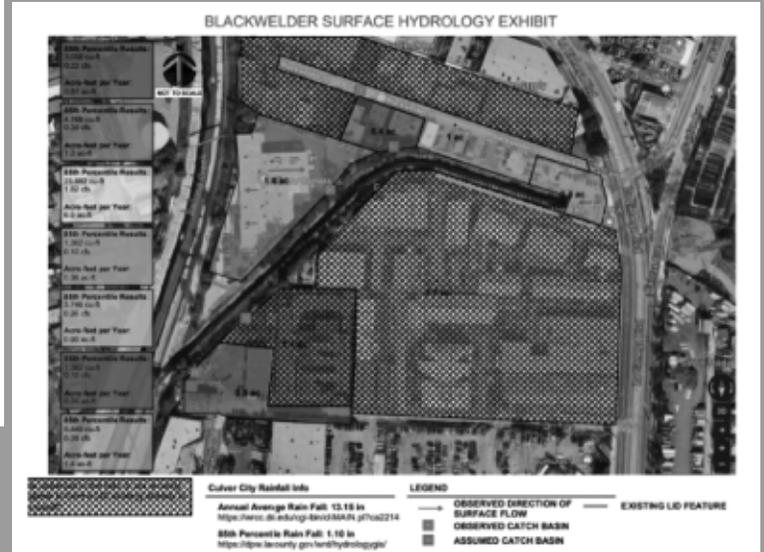
Figure 5b: Hayden Tract Location



# PROJECT LOCATION: VICINITY MAP



# PROJECT LOCATION:



# SERVING DISADVANTAGED COMMUNITIES

Legend:

Purple line, Blackwelder Tract

Blue line, Hayden Tract



# PROJECT BACKGROUND

**Reason for Location Selection:** The easements along this part of the Ballona Creek are lined with local businesses located within a Disadvantaged Community. The primary objective is to improve local water quality while providing multiple social and economical benefits to residents and local businesses in the area. By repurposing this under-utilized easements along the Ballona Creek Corridor, we seek to transform it into a green space that promotes stormwater capture and management and increases community access to healthy green spaces.

**Methodology of Project:** CGW developed the lower Ballona Creek planning and feasibility study from 2018-2019 with funding from Baldwin Hills Conservancy and City of Los Angeles. A macro-level hydrology analysis was performed to determine overall drainage patterns and quantify runoff at discharge locations along an approximately one mile stretch of the Ballona Creek from Washington Boulevard to Higuera Street. Sites were then narrowed down by the volume of stormwater runoff, placing priority on sites closest to the largest clusters of Municipal Separate Storm Sewer System (MS4). After review and consideration of multiple sites for maximum potential for reclaiming stormwater and benefits to DACs, two sites along the creek were identified by California Greenworks (CGW) and other key stakeholders as the most promising locations.

## MUNICIPALITY BENEFITS: DESCRIPTION OF BENEFITS TO MUNICIPALITY/ MUNICIPALITIES

The 9.9 acres north of the Hayden site drains in the direction of the location. Only 3.6 acres of the 9.9 acres already have stormwater treatment devices installed.

Of the total 13.4 acres surrounding the site, 3.3 acres of the Hayden Tract tributary area flows either directly onto the site and/or into the adjacent catch basins.

# 100%

THE TWO RECOMMENDED PROJECT SITES, **HAYDEN AND BLACKWELDER TRACTS**, PROVIDE OPPORTUNITIES TO **CREATE A NETWORK** OF OPEN SPACES IN THE CITY OF LOS ANGELES AND CULVER CITY. DESPITE THE LACK OF CONTIGUOUS UNDEVELOPED LAND, BOTH SITES SET THE STAGE FOR A BROADER **GREEN NETWORK** WITH THE POTENTIAL TO **EXPAND INTO WESTSIDE NEIGHBORHOOD PARK TO THE EAST**, AND TO THE BALLONA CREEK WETLANDS AT THE CUSP OF THE PACIFIC OCEAN TO THE WEST. MULTIPLE CONNECTION POINTS WILL BE ADDED TO PROVIDE PEDESTRIAN ACCESS TO THE PROJECT AREAS. ACCESS POINTS WILL **PROMOTE ENGAGEMENT** THROUGH INTERPRETIVE DISPLAYS AT THE INFILTRATION GARDENS AND ALONG THE LOWER BALLONA CREEK CHANNEL. THE **PUBLIC CONNECTION** WITH THE GREEN NETWORK WILL BE **EXPANDED** BEYOND THE EXISTING BIKE PATHS LOCATED AT THE TOP OF THE GREY INFRASTRUCTURE CHANNEL, LEADING TO INCREASED INTERACTION WITH THE PLANT MATERIALS AND EXHIBITED INFILTRATION SYSTEMS.

## ■ Disadvantaged Communities: Description of how the Feasibility Study or Project Concept will provide Disadvantaged Community (DAC) Benefits

- Our proposed improvements at the Hayden Tract and black welder Tract will **create a natural extension** of a **green network** and open space directly south of the Baldwin Hills Scenic Overlook. The recommended BMPs (bioswales/infiltration gardens) can serve as interpretive gardens that provide outdoor learning and recreation opportunities to the general public and visitors from surrounding communities.
- In addition, by utilizing limited space along both sides of the channel, the landscape design provides insight into how a composition of smaller elements combine to create a robust green network and habitat corridor that feeds directly into the Lower Ballona Creek.
- As such, the Blackwelder Tract offers efficient, purposeful solutions to stormwater management while offering the opportunity to create a new and improved landscape experience for the entire community.

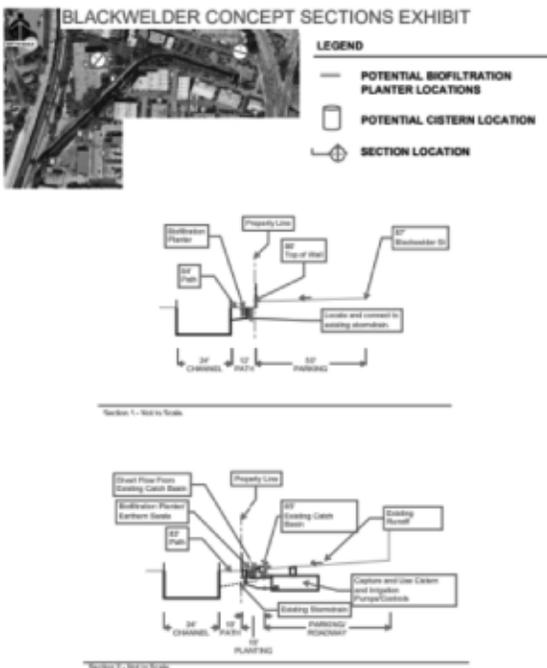
# DESCRIPTION OF CURRENT SITE CONDITIONS AND COMPLETED STUDIES/ANALYSIS: PROJECT DETAILS

A. WE PERFORMED A MACRO-LEVEL HYDROLOGY ANALYSIS

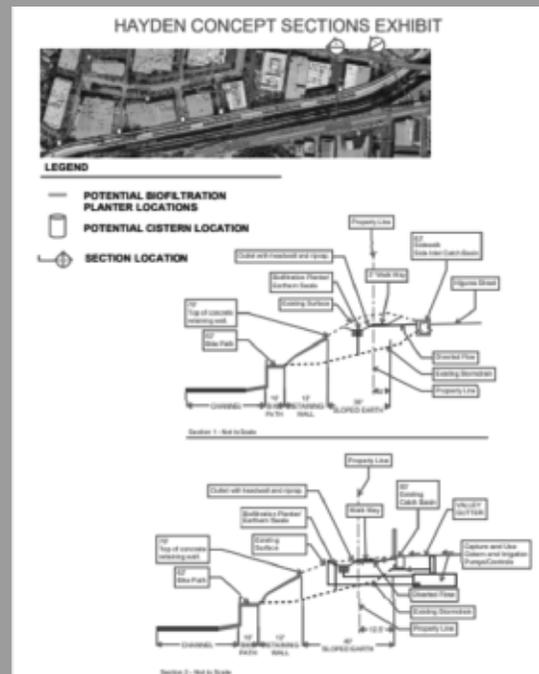
B. THE SURVEY GENERATED PHYSICAL PROPERTY ATTRIBUTES INCLUDING TOPOGRAPHY, WHICH IS CRITICAL FOR ASSESSING SURFACE RUNOFF.

C. AFTER IDENTIFICATION OF TRIBUTARY AREAS AND DISCHARGE LOCATIONS, CITY OF LOS ANGELES LOW IMPACT DEVELOPMENT MANUAL CALCULATIONS WERE UTILIZED TO DETERMINE THE COLLECTABLE RUNOFF OF EACH TRIBUTARY AREA

## BLACKWELDER TRACT CONCEPT EXHIBIT



## HAYDEN TRACT CONCEPT EXHIBIT



## ALTERNATIVES CONSIDERED:

### A. Underground Cisterns

were considered for Water supply benefits. However, due to the difficulty and cost efficiency of their maintenance, it was decided that biofiltration BMPs were the best method for stormwater water treatment.

### B. Four additional sites

were observed for their potential to capture stormwater runoff for beneficial re-use. The criteria for these sites include: 1) the volume of runoff that passes through the site; 2) the potential impact a revitalization project would bring to the community; 3) proximity to public access and transit.

### C. California Water Company Facility:

Stormwater runoff from roughly 130 acres of land flows through two storm drains that run parallel on Jacob Street and Smiley Drive. The proposed improvement would include interconnecting these two lines and diverting that flow to the plant site. The main constraint with this site is the size of the lot, and existing equipment making it unsuitable for public access and use.

### D. Syd Kronenthal Park :

Of all the alternative sites, it holds the largest potential for integration with the Creek due to its proximity to the bike path and Creek corridor. While this alternative site does provide benefits, the two (2) primary sites are of higher priority and provide the best opportunity to reclaim water through the transformation of currently unused land into new open spaces.

### E. La Cienega Place:

the location was determined to have minimal potential to provide a water supply benefit, but landscape improvements for aesthetic purposes may as well have a positive impact on wildlife habitat,

### F. Ballona Creek Embankments :

The embankments along Ballona Creek were investigated for the opportunity to capture stormwater. However, due to limited space and the existing slope gradient, the potential for reclamation onsite is minimal compared to any other alternative locations identified

# COST & SCHEDULE : HAYDEN TRACT

Phase Costs			
Phase	Description	Cost	Completion Date
Planning	The planning phase includes outreach conducted, project management, obtaining environmental documents, land services, permit and other fees.	\$ 1,148,384.40	12/2022
Design	The Design phase includes Engineering, Landscape design, and Geotechnical Bore and report.	\$ 1,026,432.00	12/2022
Construction	Construction costs represent any costs incurred during the construction phase and include but are not limited to the cost of materials such as plants, mulch, benches, as well as labor costs, insurance bonds, excavation, construction management.	\$ 1,785,120.00	12/2023
<b>Total Funding:</b>		<b>\$ 3,959,936.40</b>	

### Annual Cost Breakdown

<b>Annual Maintenance Cost:</b>	<b>\$ 20,400.00</b>
<b>Annual Operation Cost:</b>	<b>\$ 12,000.00</b>
<b>Annual Monitoring Cost:</b>	<b>\$ 6,300.00</b>
<b>Project Life Span:</b>	<b>30 years</b>

### PROJECT LIFESPAN & LIFESTYLE COST

#### HAYDEN TRACT

**MODULE-GENERATED LIFE-CYCLE COST FOR PROJECT IS \$ \$ 4,682,987.89**

**MODULE-GENERATED ANNUALIZED COST FOR PROJECT\* IS \$ \$ 250,648.31**

# COST & SCHEDULE: BLACKWELDER TRACT

Phase Costs			
Phase	Description	Cost	Projected completion date
Planning	The planning phase includes outreach conducted, project management, obtaining environmental documents, land services, permit and other fees.	\$1,003,016.00	12/2022
Design	The Design phase includes Engineering, Landscape design, and Geotechnical Bore and report.	\$972,960.80	12/2022
Construction	represent any costs incurred during the construction phase and include but are not limited to the cost of materials such as plants, mulch, benches, as well as labor costs, insurance bonds, excavation, construction management.	\$1,697,395.00	12/2023
<b>Total Funding:</b>		<b>\$3,673,371.80</b>	

Annual Cost Breakdown	
Annual Maintenance Cost:	\$ 40,700.00
Annual Operation Cost:	\$ 30,000.00
Annual Monitoring Cost:	\$ 1,760.00
Project Life Span:	30 years

**PROJECT LIFESPAN & LIFESTYLE COST**

**BLACKWELDER TRACT**

**MODULE-GENERATED LIFE-CYCLE COST FOR PROJECT IS \$ 5,027,178.28**

**MODULE-GENERATED ANNUALIZED COST FOR PROJECT\* IS \$ 269,070.46**

## FUNDING REQUEST

Funding Requested by Year & Phase			
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$1,148,384.00	Planning	During 2021 and 2022, California Greenworks will be conducting the Planning phase and the Design phase of the project concurrently. For 2021, California Greenworks would like to request funds for the Planning phase and parts of the Design phase (Engineering). During this time, community outreach will be conducted, land services will be performed and environmental documents will be prepared. California Greenworks will also begin acquiring permits for the Hayden Tract and once all permits are acquired, the Design phase is expected to begin. Because California Greenworks plans to move forward with the Design phase and the Planning phase concurrently, the first 2 years of the project (2021 and 2022) will be dedicated towards satisfying all requirements before construction can take place.
2	\$1,028,432.00	Design	During 2021 and 2022, California Greenworks will be conducting the Planning phase and the Design phase of the project concurrently. For 2022, California Greenworks would like to request funds for completing the design phase. During this time, all permits will be finalized and engineering analysis at the Hayden Tract will take place as well as landscape design. A geotechnical bore will be performed to determine soil property and a geotechnical bore report will be prepared. By the end of 2022, California Greenworks expects to finish all non construction aspects of the Project and will be prepared to begin construction of the Hayden Tract Lower Ballona Creek Green BMP.
3	\$1,788,120.00	Construction	During 2023, California Greenworks plans on completing the construction phase of the biofiltration planter area at the Hayden Tract. California Greenworks will establish construction management through construction contracts and rent out site facilities for construction. Construction is expected to take 1 year and is expected to be completed by the end of 2023.
4	\$971,757.60	Operation & Maintenance	During 2024, the O&M phase will commence where the project is expected to be completed. California Greenworks Inc. will begin implementing the Operation and Maintenance plan and will continue to do so for the next 30 years. Vegetations and mulch layer will be maintained and the inspection of drainage areas will take place every 2 months.
5	\$188,885.40	Monitoring	California Greenworks Inc. will begin monitoring the biofiltration planter area for the remaining project life time. California Greenworks, Inc. will install flow monitoring devices and perform routine water tests on the project site.
<b>Total</b>	<b>\$5,129,679.00</b>		

**HAYDEN TRACT**

Funding Requested by Year & Phase			
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$1,003,016.00	Planning	During 2021 and 2022, California Greenworks will be conducting the Planning phase and the Design phase of the project concurrently. For 2021, California Greenworks would like to request funds for the Planning phase and parts of the Design phase (Engineering). During this time, community outreach will be conducted, land services will be performed and environmental documents will be prepared. California Greenworks will also begin acquiring permits for the Blackwelder Tract and once all permits are acquired, the Design phase is expected to begin. Because California Greenworks plans to move forward with the Design phase and the Planning phase concurrently, the first 2 years of the project (2021 and 2022) will be dedicated towards satisfying all requirements before construction can take place.
2	\$972,960.80	Design	During 2021 and 2022, California Greenworks will be conducting the Planning phase and the Design phase of the project concurrently. For 2022, California Greenworks would like to request funds for completing the design phase. During this time, all permits will be finalized and engineering analysis at the Blackwelder Tract will take place as well as landscape design. A geotechnical bore will be performed to determine soil property and a geotechnical bore report will be prepared. By the end of 2022, California Greenworks expects to finish all non construction aspects of the Project and will be prepared to begin construction of the Blackwelder Tract Lower Ballona Creek Green BMP.
3	\$1,697,395.00	Construction	During 2023, California Greenworks plans on completing the construction phase of the biofiltration planter area at the Blackwelder Tract. California Greenworks will establish construction management through construction contracts and rent out site facilities for construction. Construction is expected to take 1 year and is expected to be completed by the end of 2023.
4	\$2,122,685.00	Operation & Maintenance	During 2024, the O&M phase will commence where the project is expected to be completed. California Greenworks Inc. will begin implementing the Operation and Maintenance plan and will continue to do so for the next 30 years. Vegetations and mulch layer will be maintained and the inspection of drainage areas will take place every 2 months.
5	\$52,715.96	Monitoring	California Greenworks Inc. will begin monitoring the biofiltration planter area for the remaining project life time. California Greenworks, Inc. will install flow monitoring devices and perform routine water tests on the project site.
<b>Total</b>	<b>\$5,848,773.76</b>		

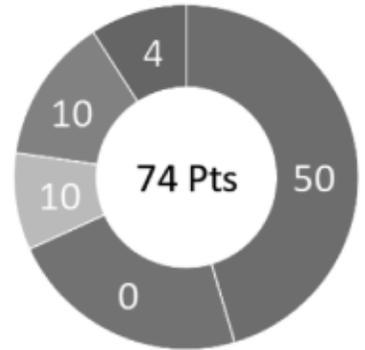
**BLACKWELDER TRACT**

# PRELIMINARY SCORES



## a. Hayden Tract

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



## b. Blackwelder Tract

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



## WATER QUALITY & WATER SUPPLY BENEFITS

# TRIBUTARY AREAS

BLACKWELDER SURFACE HYDROLOGY EXHIBIT



HAYDEN SURFACE HYDROLOGY EXHIBIT



# WATER QUALITY & WATER SUPPLY BENEFITS, HAYDEN TRACT AND BLACKWELDER TRACT



24-hour Storm Capacity Breakdown	
Effective Draw Down Rate:	2.5 in/hr
Stormwater Use During 24-hr Design Event:	0 gal
Calculated 24-hour Storm Capacity	
Module-generated 24-hr Capacity:	2.6520 ac-ft
Use Project Developer estimate instead?	No
Custom Value specified by User:	N/A

## WATER QUALITY & WATER SUPPLE BENEFITS

### Blackwelder Tract

Metric	Runoff from Capture Area	Minimally Treated Outflow from Project	Inflow into Project Inlet	Outflow from Project Outlet	Reduction by Project	% Reduction by Project
Runoff Volume (ac-ft)	2.756	0.359	2.756	0.359	2.397	86.983 %
Total Zinc (ug/L)	664.690	445.560	664.690	445.560	219.130	32.967 %
Total Zinc (lbs)	4.981	0.435	4.981	0.435	4.547	91.274 %
Total Copper (ug/L)	170.800	118.320	170.800	118.320	52.480	30.726 %
Total Copper (lbs)	1.280	0.115	1.280	0.115	1.165	90.983 %
Total Lead (ug/L)	143.730	97.020	143.730	97.020	46.710	32.498 %
Total Lead (lbs)	1.077	0.095	1.077	0.095	0.982	91.213 %
Total Nitrogen (mg/L)	6.507	5.214	6.507	5.214	1.293	19.866 %
Total Nitrogen (lbs)	48.761	5.086	48.761	5.086	43.675	89.569 %
Total Phosphorous (mg/L)	1.023	0.819	1.023	0.819	0.204	19.918 %
Total Phosphorous (lbs)	7.667	0.799	7.667	0.799	6.868	89.576 %
E.coli (#/100mL)	3.685E+005	2.953E+005	3.685E+005	2.953E+005	7.320E+004	19.867 %
E.coli (#)	1.252E+013	1.306E+012	1.252E+013	1.306E+012	1.122E+013	89.569 %
Toxics	N/A	N/A	N/A	N/A	N/A	N/A
Chloride	N/A	N/A	N/A	N/A	N/A	N/A
Trash	N/A	N/A	N/A	N/A	N/A	N/A

## POLLUTANT REDUCTION

### Hayden Tract

Metric	Runoff from Capture Area	Minimally Treated Outflow from Project	Inflow into Project Inlet	Outflow from Project Outlet	Reduction by Project	% Reduction by Project
Runoff Volume (ac-ft)	7.042	0.574	7.042	0.574	6.468	91.843 %
Total Zinc (ug/L)	770.160	495.720	770.160	495.720	274.440	35.634 %
Total Zinc (lbs)	14.749	0.774	14.749	0.774	13.975	94.749 %
Total Copper (ug/L)	187.820	120.890	187.820	120.890	66.930	35.635 %
Total Copper (lbs)	3.597	0.189	3.597	0.189	3.408	94.749 %
Total Lead (ug/L)	164.750	106.040	164.750	106.040	58.710	35.636 %
Total Lead (lbs)	3.155	0.166	3.155	0.166	2.990	94.749 %
Total Nitrogen (mg/L)	7.199	5.795	7.199	5.795	1.404	19.500 %
Total Nitrogen (lbs)	137.875	9.054	137.875	9.054	128.821	93.433 %
Total Phosphorous (mg/L)	1.131	0.910	1.131	0.910	0.222	19.595 %
Total Phosphorous (lbs)	21.669	1.421	21.669	1.421	20.248	93.441 %
E.coli (#/100mL)	4.000E+005	3.220E+005	4.000E+005	3.220E+005	7.801E+004	19.502 %
E.coli (#)	3.474E+013	2.281E+012	3.474E+013	2.281E+012	3.246E+013	93.433 %
Toxics	N/A	N/A	N/A	N/A	N/A	N/A
Chloride	N/A	N/A	N/A	N/A	N/A	N/A
Trash	N/A	N/A	N/A	N/A	N/A	N/A

## LEVERAGING FUNDS:

CALIFORNIA GREENWORKS, INC. IS A SMALL NON-PROFIT. WE SERVE THE MOST UNDERSERVED COMMUNITIES IN THE CITY OF LOS ANGELES.

THE BALDWIN HILLS CONSERVANCY AND CITY OF LOS ANGELES FUNDED OUR FEASIBILITY STUDY WHICH INFORMS OUR APPLICATION. WE PLAN TO LEVERAGE FUNDING FROM THE SAME SOURCES

THE SAFE AND CLEAN WATER ACT IS THE PRIMARY SOUGHT FUNDING HOWEVER, OTHER MATCHING GRANTS APPLICATION ARE IN PROGRESS

# COMMUNITY SUPPORT

## **Description of community support:**

California Greenworks, Inc's Lower Ballona Creek Green BMPs and Landscape Improvement Project **seeks to serve our communities** by utilizing green BMPs and Nature Based Solutions which focus on **sustainability, resiliency, improving water quality, and Community engagement**. We informed our feasibility study through unique community outreach which collected community and public ideas about green space improvements. From our outreach, our community suggested the following topics as most important priorities in creating a **green corridor**: Interpretive and educational signage, an increase of native plants, a bike trail with benches, shade structures, and increased access to birding.

Public stakeholders in the area have been highly engaged, assisting with creating a **long-term vision** for our communities and its green footprint.



**QUESTIONS?**





# Public Comment Form

Name\*: Irma Muñoz Organization\*: Mujeres de la Tierra  
Email\*: irmamunoz@yahoo.com Phone\*: 3233503306  
Meeting: WASC Central Santa Monica Bay Date: 2/1/2021

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

In support of Ballona Creek





## Public Comment Form

Name\*: Robin Lifland Organization\*: MacArthur Park

Email\*: robin.lifland@outlook.com Phone\*: (323) 428-5601  
NC

Meeting: Safe Clean Water Program Date: 2-1-21  
Watershed Steering Committee

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.

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(ex. "Public Comment: USGR 4/8/20").

### Comments

I would like an update on the MacArthur Park Project, why hasn't it been implemented as promised?