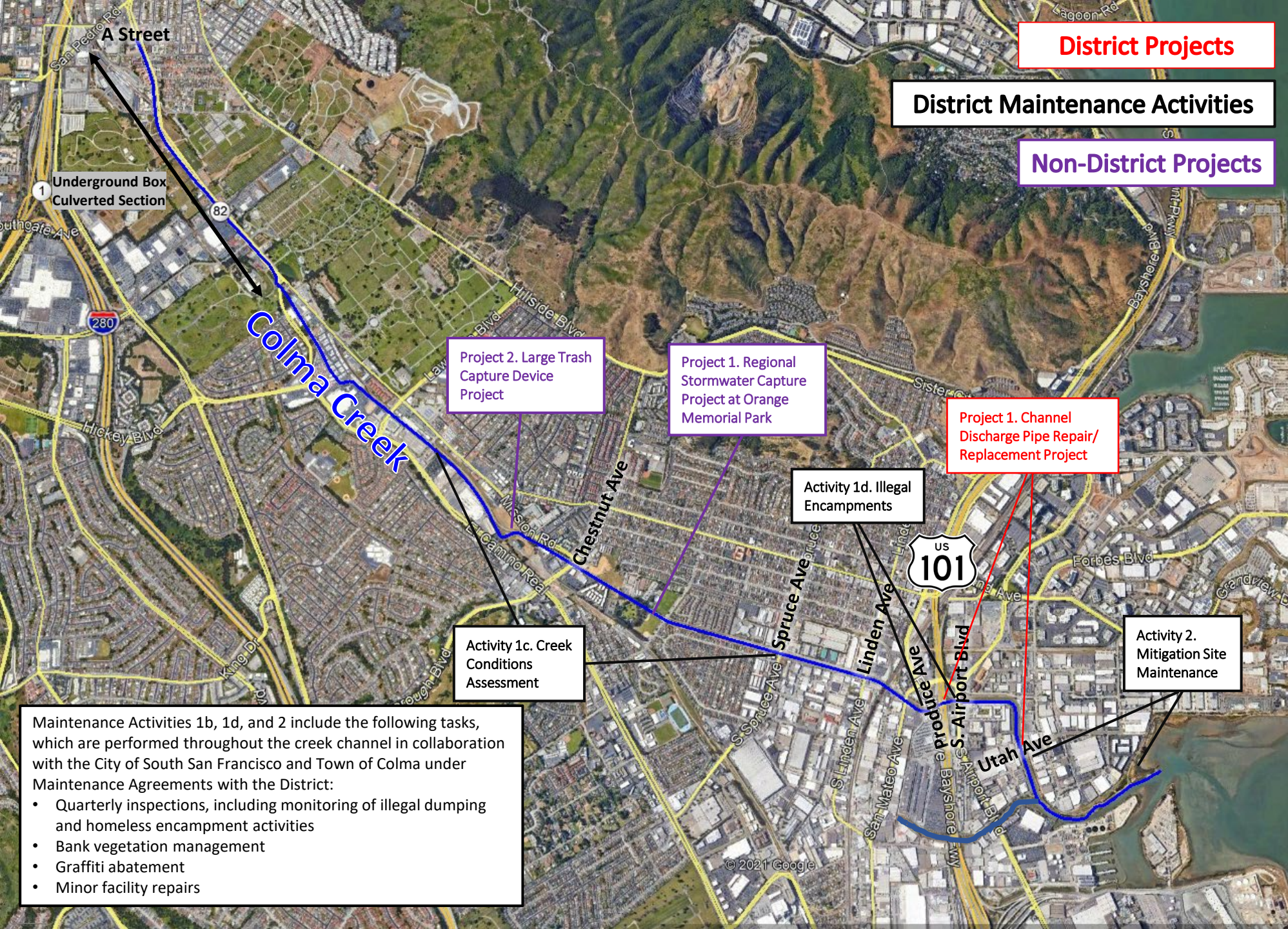


**March 12, 2024**

***Colma Creek Citizens Advisory Committee Meeting***

**AGENDA**

- I. Roll Call**
- II. Public Comment**
- III. Action to set the Agenda and approve the Consent Agenda**
  - a. Approve minutes of the December 12, 2023 meeting**
- IV. Update on Colma Creek Flood Zone Projects and Maintenance Activities**
- V. Presentation by the City of South San Francisco on their Orange Memorial Park Storm Water Capture Project Lessons Learned**
- VI. Adjournment**



# Agenda Item 4

## Update on Colma Creek Flood Zone Projects and Maintenance Activities

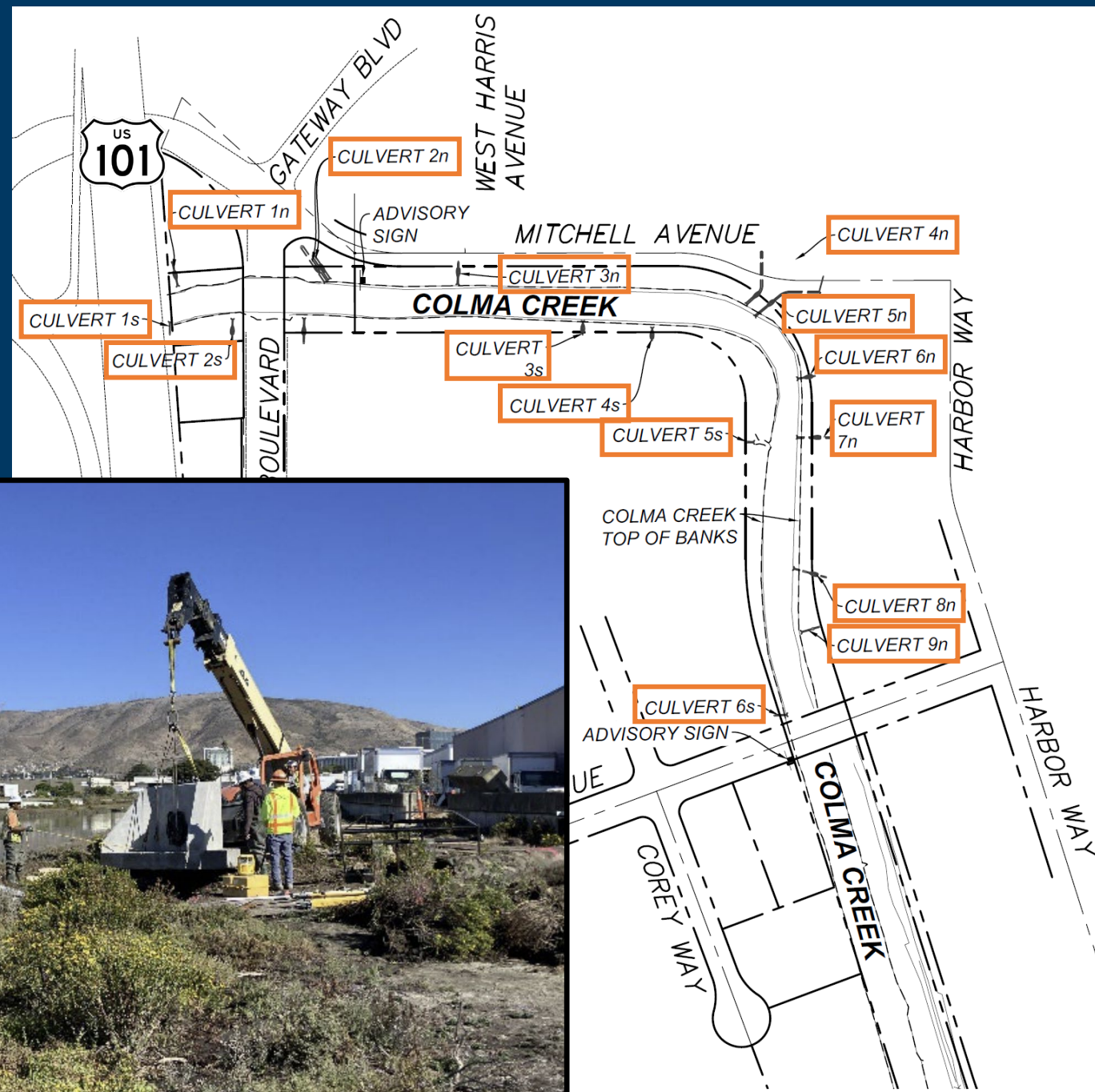
Maintenance Activities 1b, 1d, and 2 include the following tasks, which are performed throughout the creek channel in collaboration with the City of South San Francisco and Town of Colma under Maintenance Agreements with the District:

- Quarterly inspections, including monitoring of illegal dumping and homeless encampment activities
- Bank vegetation management
- Graffiti abatement
- Minor facility repairs

Map of Colma Creek Flood Zone Projects and Maintenance Activities

# Channel Discharge Pipe Repair/ Replacement Project

- Work continues in this construction season, to repair and/or replace stormwater culverts that drain to Colma Creek, between U.S. Highway 101 and Utah Avenue.
- Nesting Rail surveys are currently underway
- Pre-construction meeting to be scheduled in June
- Work anticipated to begin August 1, to be completed in mid-October.



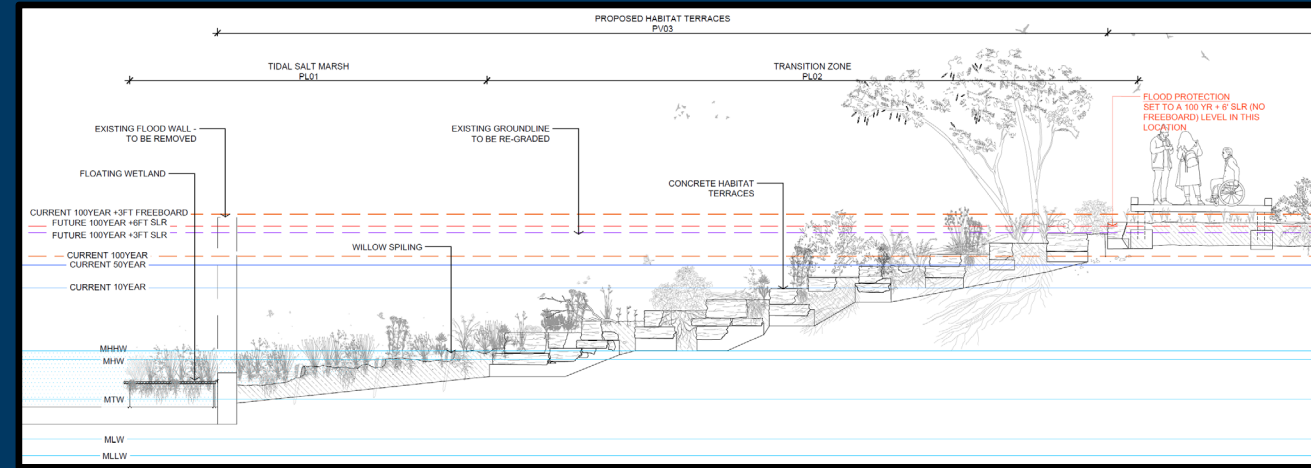
# Colma Creek Maintenance Activities

- 4 On-Call contractors have been secured by the County, to be approved by Supervisors on March 26
- Scope includes:
  - Sediment dredging, at San Mateo and Produce Ave crossings
  - Vegetation maintenance and debris removal, of non-native plants, and foreign objects
  - Cleaning and repair of culverts from Spruce up to SSF BART.
- Following Supervisor approval, pre-proposal site walks will be hosted in April.



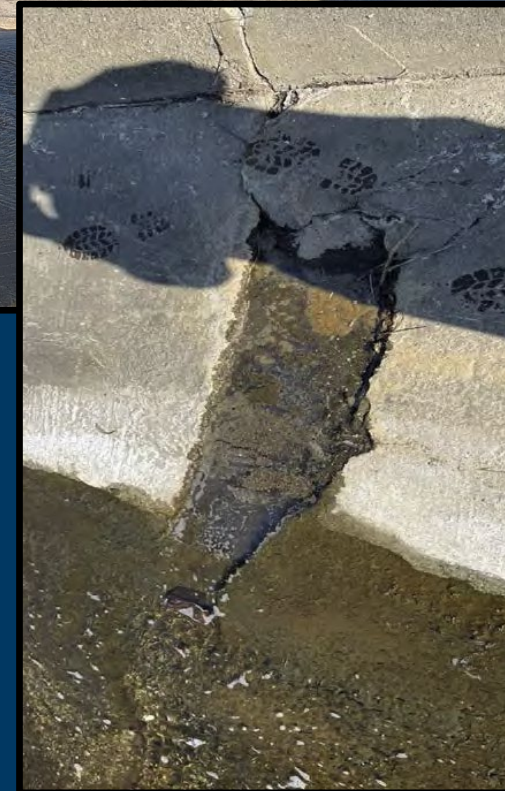
# Colma Creek Restoration & Adaptation Project

- We are continuing a partnership with Hassell, taking their design into the next stages of development.
- Seeking an element that is meaningful to our objectives for flood protection, environmental restoration, and community connectivity, while being achievable in the short term.
- OneShoreline is considering options for matching funding opportunities to support this work.



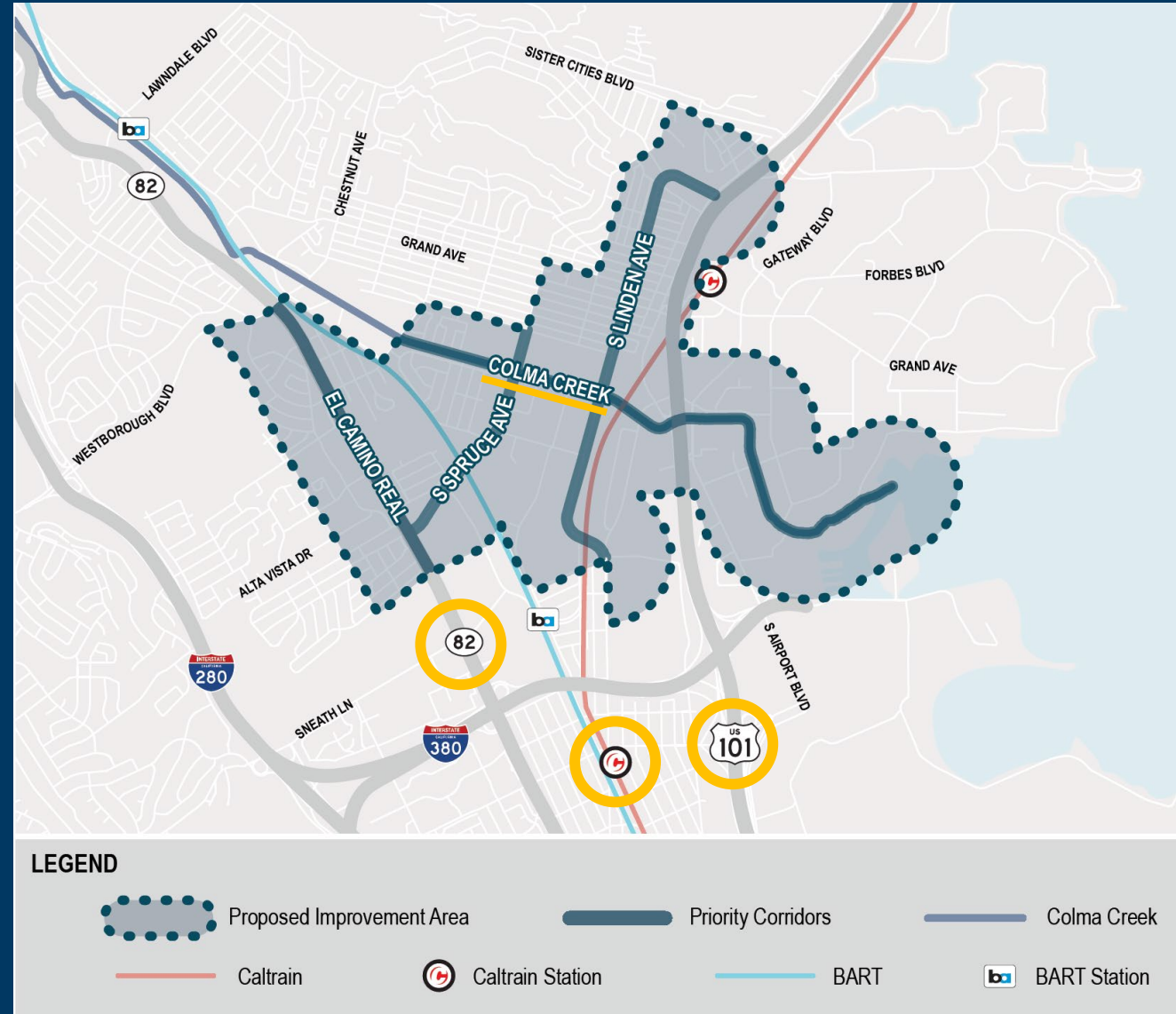
# Colma Creek Conditions Assessment

- In October, Schaaf & Wheeler completed a Conditions Assessment of a 1.5-mile reach of open channel from SSF BART station to Spruce Ave.
- The draft Assessment has identified apparent settling and displacement of the channel walls between Orange and Spruce Ave.
- In response, we have requested a proposal from S & W to perform a geotechnical exploration of this condition, and recommend mitigative measures.



# Caltrans' Reconnecting Communities Grant to Connect4SSF Project

- The Transportation Authority's Connect4SSF seeks to strengthen connections between transit, housing, jobs, and open space, focused on 4 barriers.
- Caltrans' "Reconnecting Communities: Highways to Boulevards Program" established \$148M for these efforts.
- In September 2023, the TA submitted an application for these funds, and today, Len Materman and our Board Chair Dave Pine are accepting this award.
- This collaborative effort supports our vision to transform the Creek from a walled-off liability into an attractive community asset.





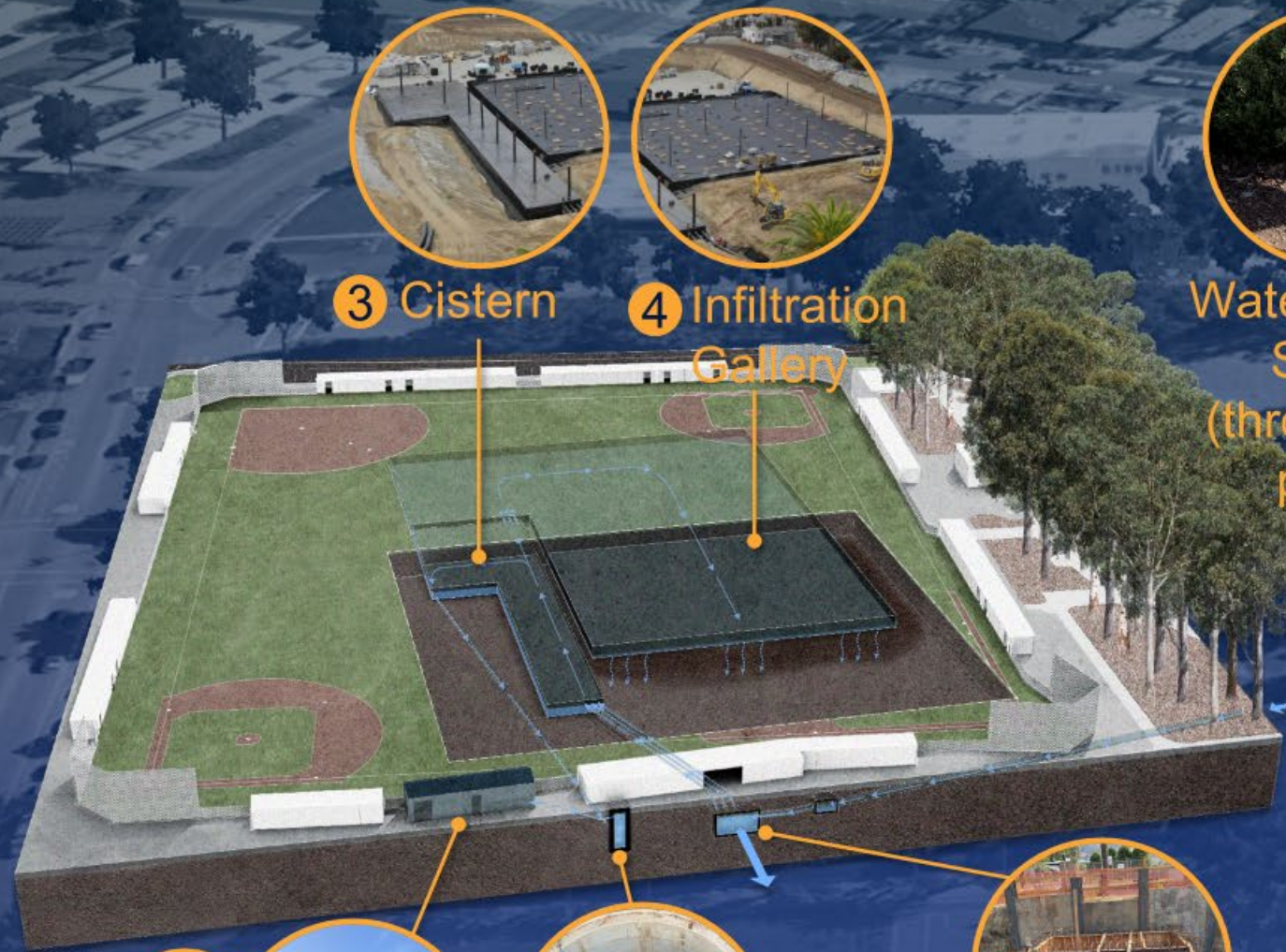
# Orange Memorial Park Storm Water Capture Project Lessons Learned

Colma Creek Citizens Advisory  
Committee Meeting

March 12, 2024



# ORANGE MEMORIAL PARK STORMWATER CAPTURE PROJECT OVERVIEW



3 Cistern



4 Infiltration Gallery



Water Reuse Signs (throughout park)



1 Upstream Diversion & Pretreatment



2 Flow Splitter



5 Wet Well



6 Water Treatment Building

# Post-Construction Lessons Learned

## Higher bed load than expected

- The pretreatment structure was designed mainly on predicted *suspended sediment* load.
- In reality, a lot of *bed load* washes into and can eventually clog the instream diversion.
- During the rainy season, monthly cleaning of the diversion has become part of the Maintenance Plan, which is more than expected but allows for less cleaning of the main grit chamber.



# Post-Construction Lessons Learned

## Filter membranes need protection from pumps

- Several membranes in the ultrafiltration system ripped in the first year of operation.
- The problem was fixed by installing a water hammer arrestor and changing the check valves to non-slam design on both the intake and output sides of the system.

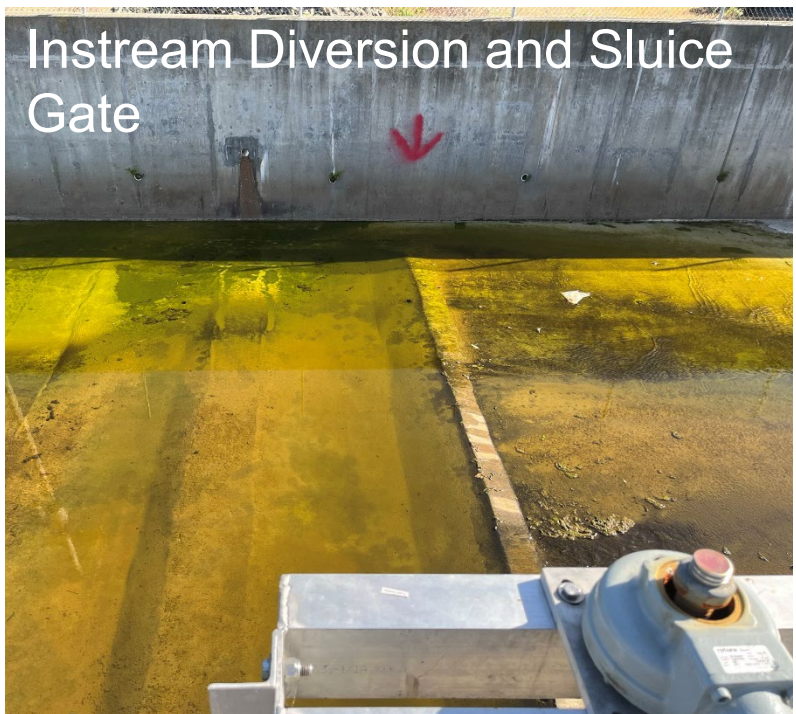


# Operations & Maintenance

**Post-Construction monitoring and O&M costs were ~\$300K for the first year**

- Weekly inspections and training (~\$40K)
- Cleaning out the diversion & pretreatment structure (~\$150K)
- O&M of water reuse treatment system, including commissioning (~\$40K)
- Flow and water quality monitoring & reporting required by terms of permit from Water Board (~\$70K)

# Post-Construction O&M and Monitoring



Instream Diversion and Sluice Gate



Vents over Pretreatment Structure



Treated Water Distribution System



Water Reuse Treatment Building



Reuse Treatment System

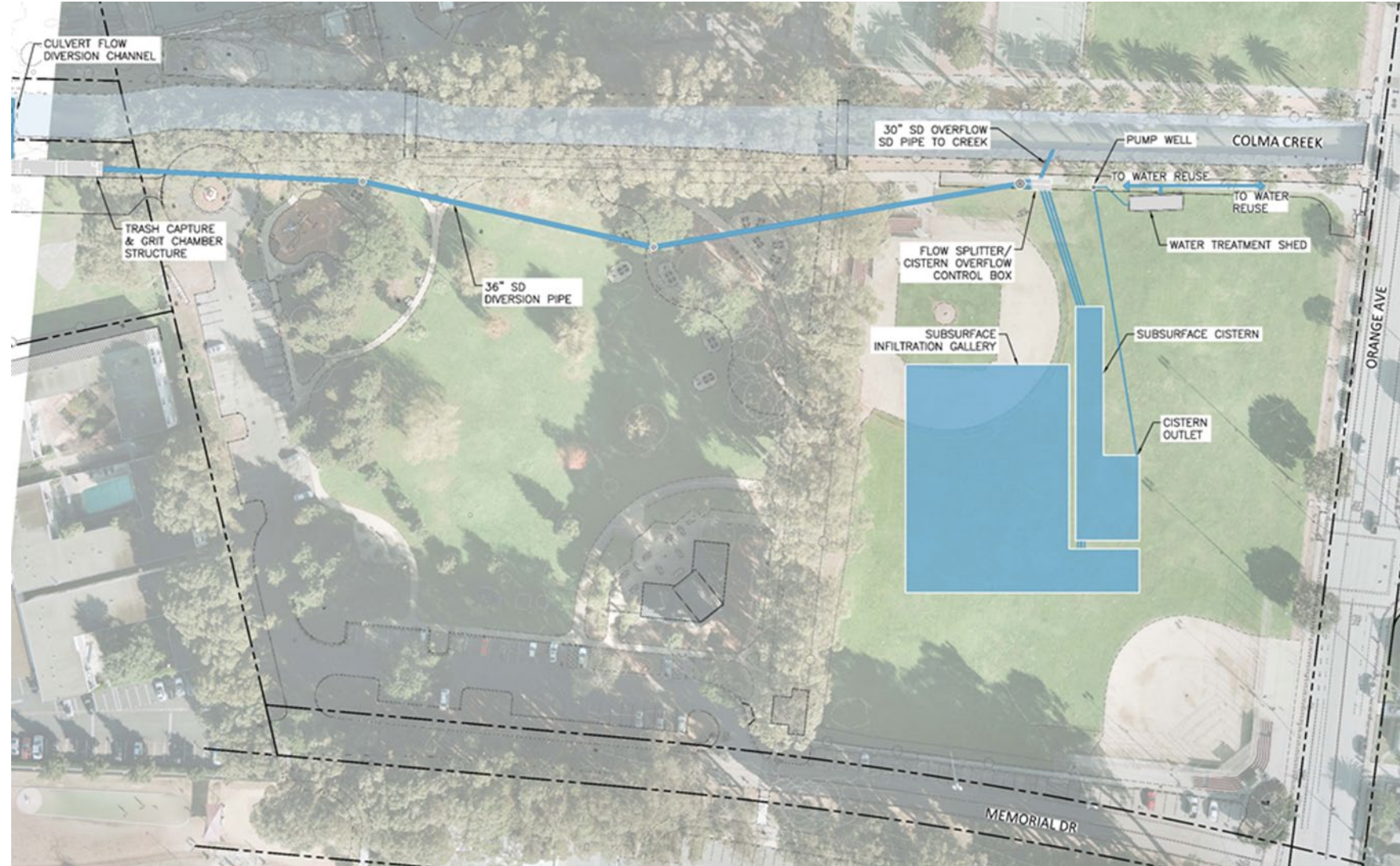


Storage under Future Ballfield

# Operations & Maintenance

## Project Elements

- Instream Diversion
- Grit/Trash Chamber
- Flow Splitter
- Cistern & Infiltration Gallery
- Water Quality Treatment Shed



# Operations & Maintenance

## Project Elements

- **Instream Diversion**
- Grit/Trash Chamber
- Flow Splitter
- Cistern & Infiltration Gallery
- Water Quality Treatment Shed





# Operations & Maintenance

## Project Elements

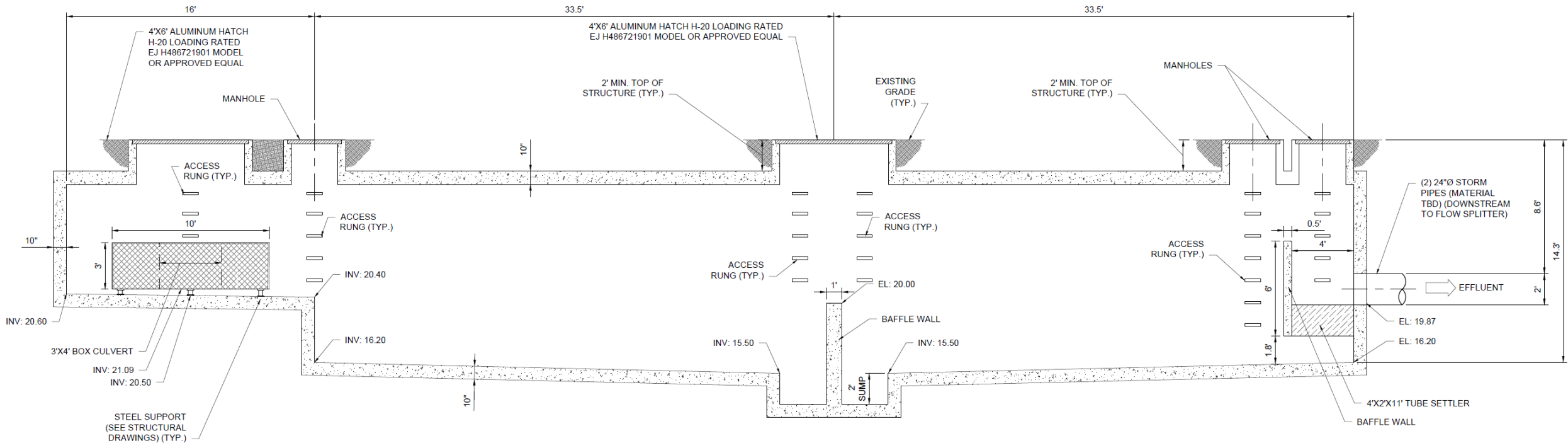
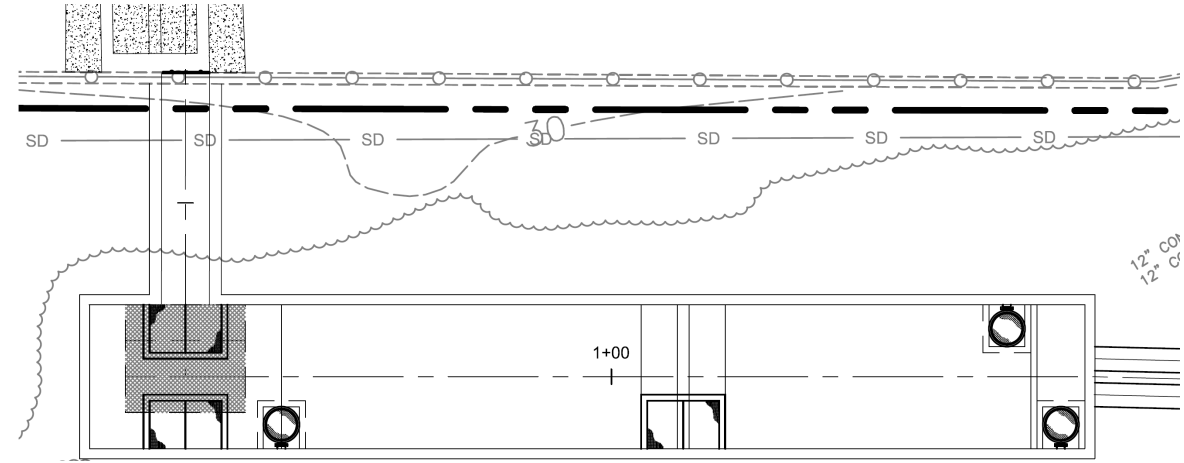
- Instream Diversion
- **Grit/Trash Chamber**
- Diversion Pipe
- Cistern & Infiltration Gallery
- Water Quality Treatment Shed



# Grit/Trash Chamber

## High Maintenance Requirements

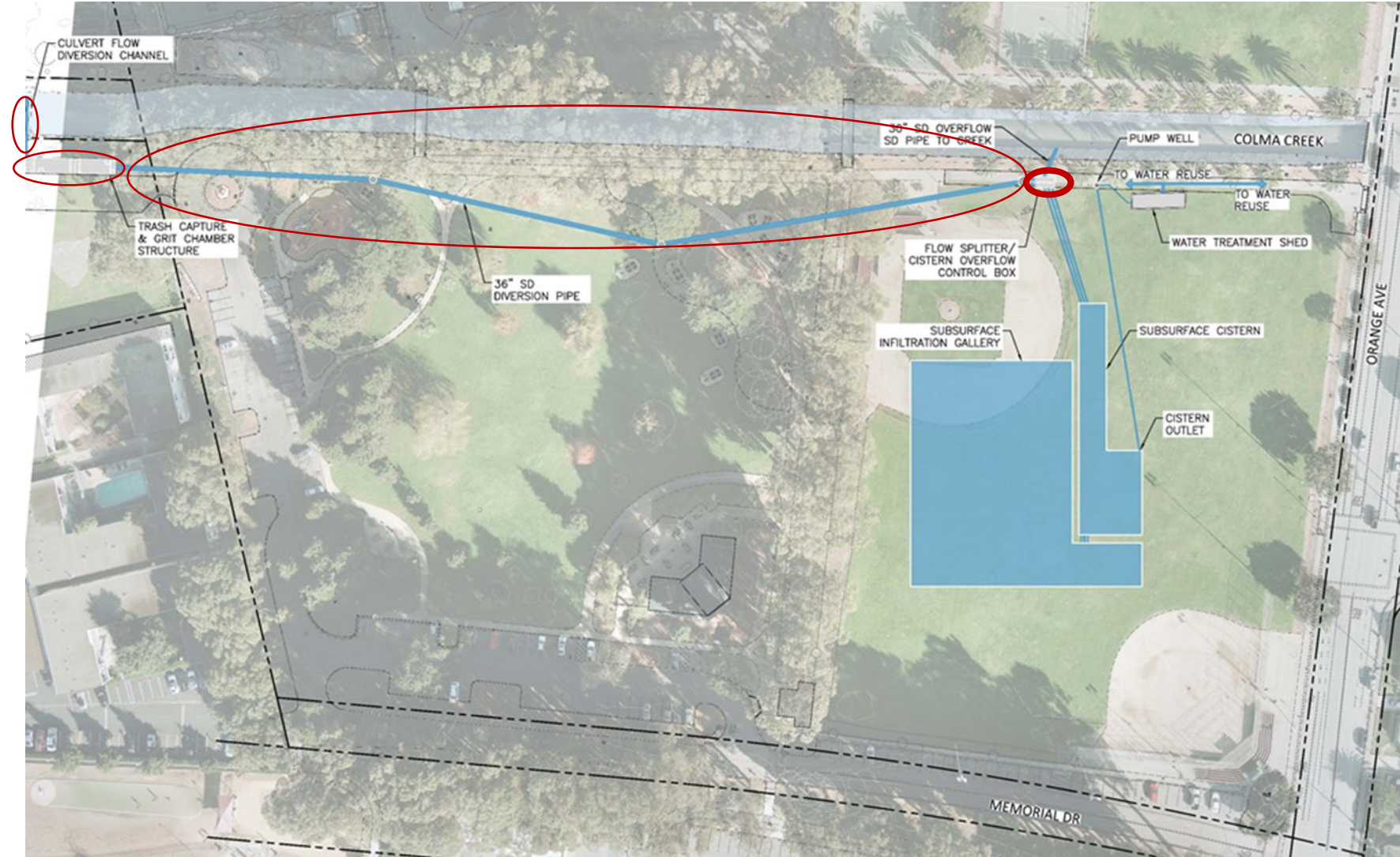
- Expected to clean out the whole thing 2X/yr
- Wound up cleaning trash rack ~6X/yr (along with the instream diversion) but the grit chamber only 1X/yr



# Operations & Maintenance

## Project Elements

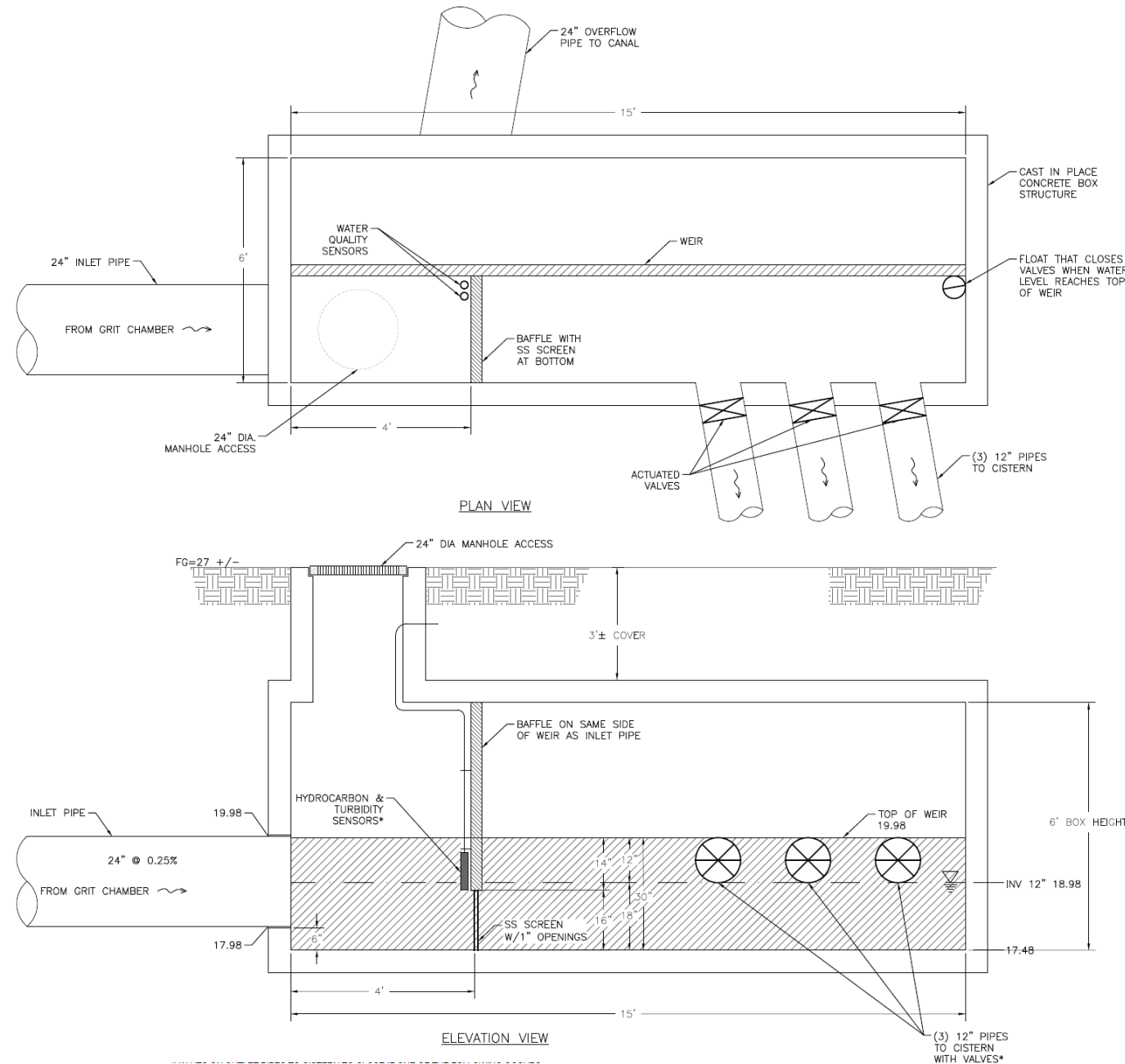
- Instream Diversion
- Grit/Trash Chamber
- **Flow Splitter**
- Cistern & Infiltration Gallery
- Water Quality Treatment Shed



# Flow Splitter

## Low Maintenance Requirements

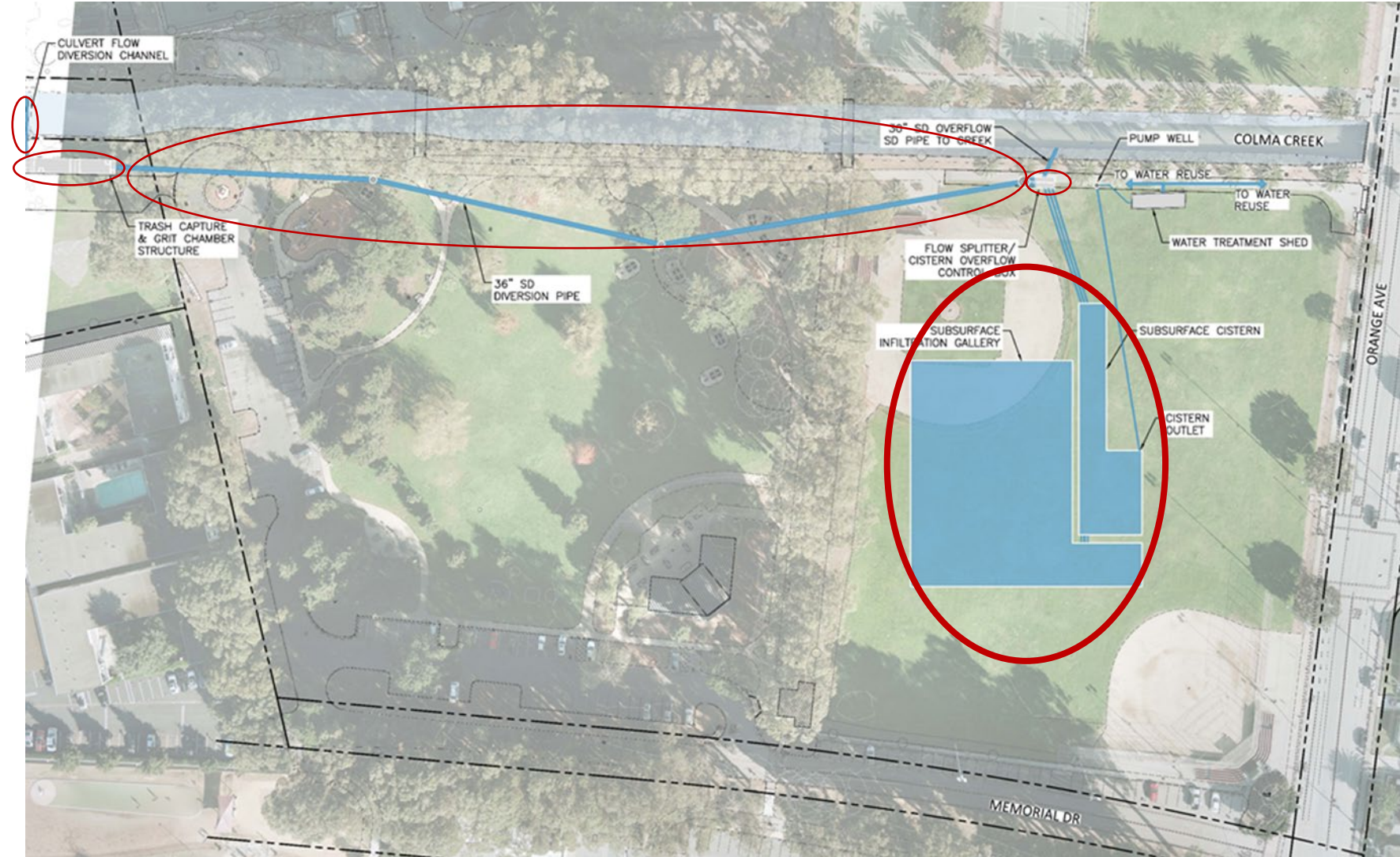
- As expected, only occasional removal of sediment



# Operations & Maintenance

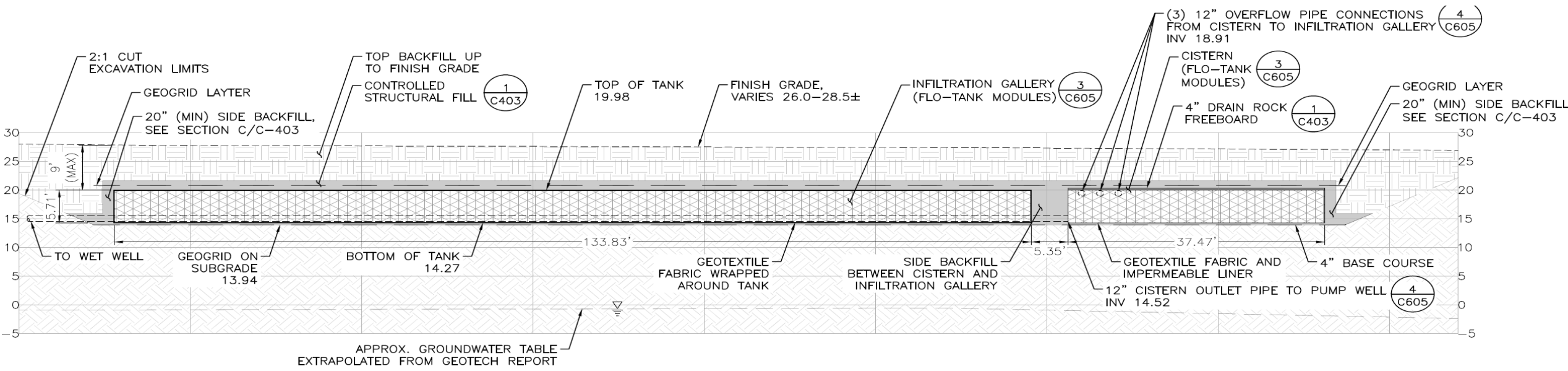
## Project Elements

- Instream Diversion
- Grit/Trash Chamber
- Flow Splitter
- **Cistern & Infiltration Gallery**
- Water Quality Treatment Shed



# Subsurface Storage Reservoir – Cross Section

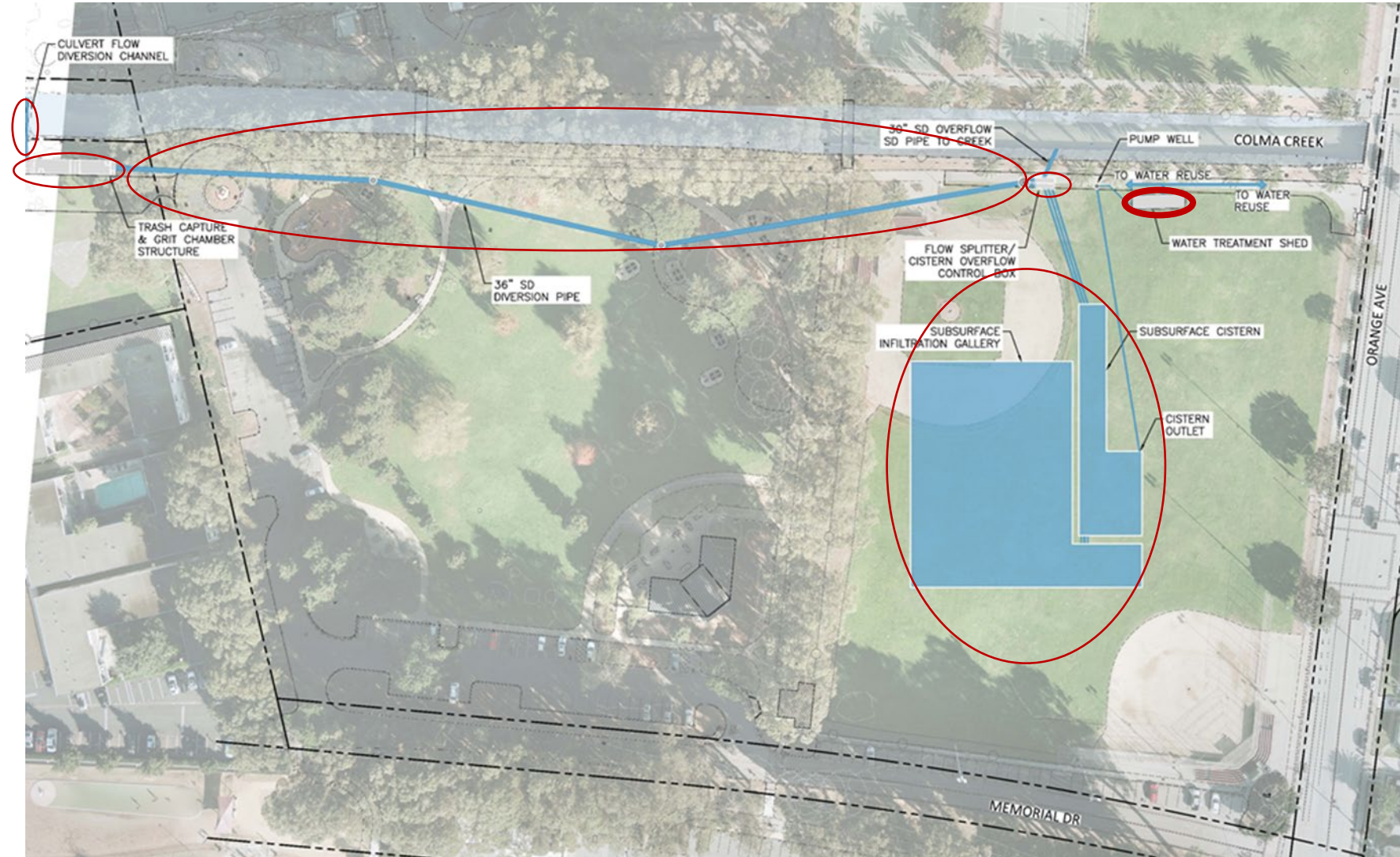
- Expected very low maintenance needs
- Only visual inspection of cistern has been required; no sediment build-up observed



# Operations & Maintenance

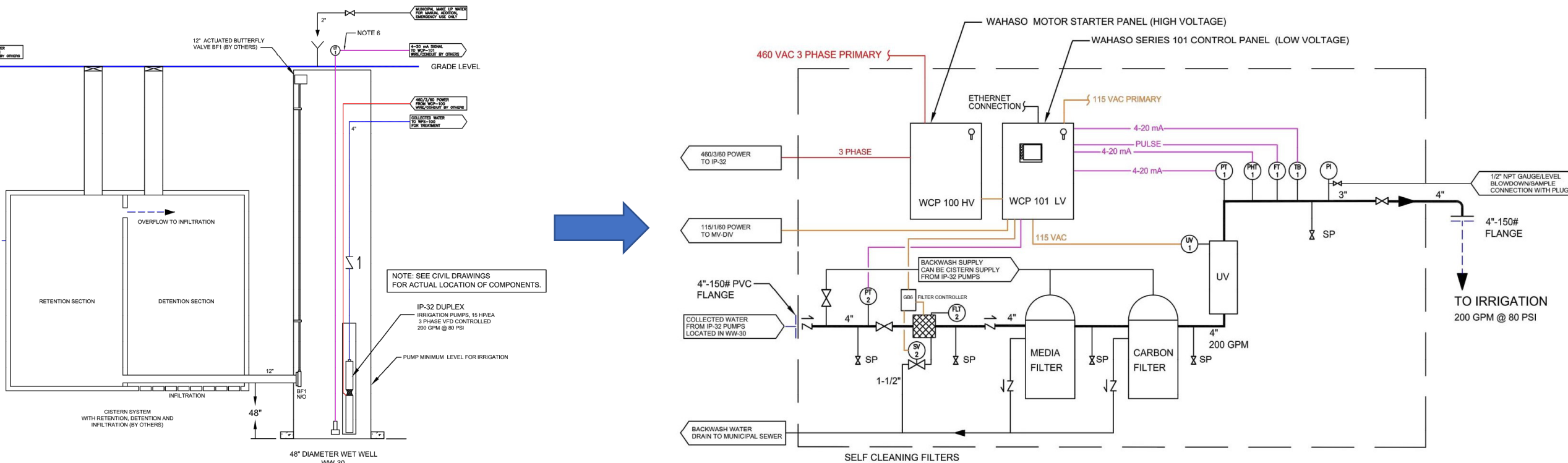
## Project Elements

- Instream Diversion
- Grit/Trash Chamber
- Flow Splitter
- Cistern & Infiltration Gallery
- **Water Quality Treatment Shed**



# Water Treatment System

- High maintenance as expected
- Design flaws led to multiple ruptures of treatment membrane, resulting in system being out of commission for extended periods
- Fully commissioned system brought online in January 2024.



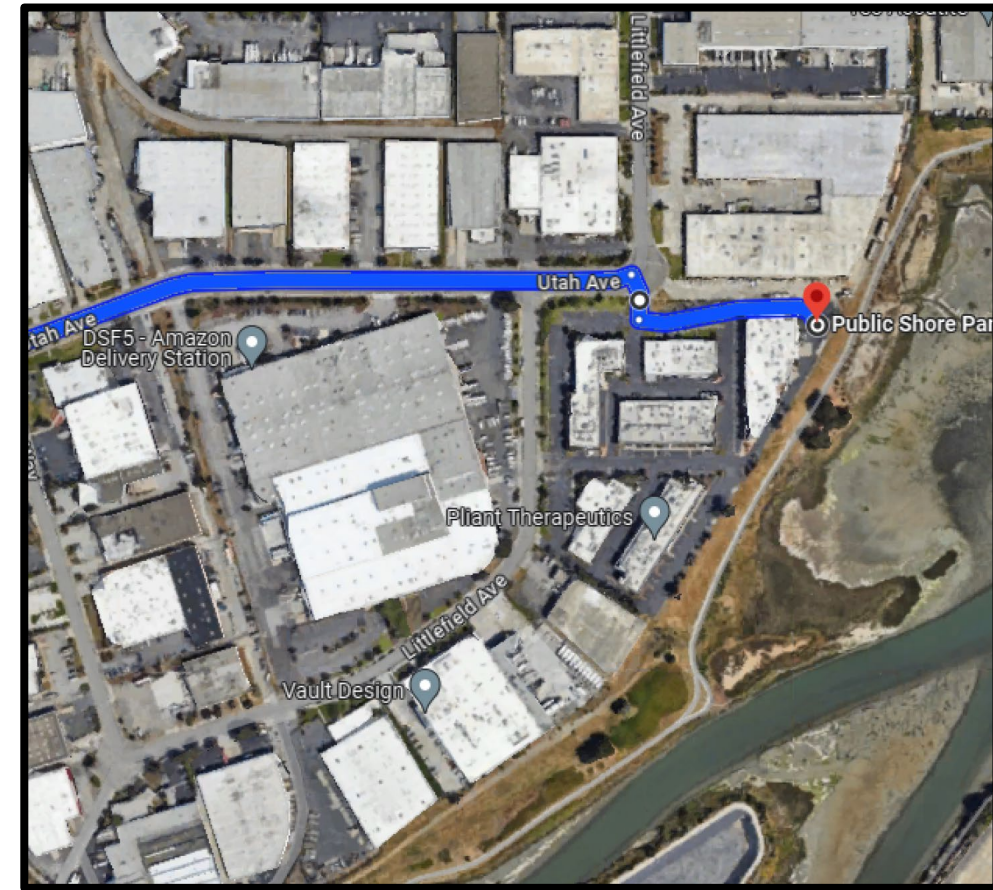
Thank you!

## Members of the Colma Creek Citizens Advisory Committee

Member Name/Designation	Appointed By	Member Since	Term Expiration
<i>City/Town Appointed Representatives (Members)</i>			
Helen Fisicaro, Town of Colma Representative	Colma Town Council	April 1, 2002	March 31, 2026
<b>Sue Vaterlaus, City of Pacifica Representative</b>	<b>Pacifica City Council</b>	<b>April 1, 2018</b>	<b>March 31, 2024</b>
Mike Futrell, City of South San Francisco Representative	South San Francisco City Council	July 23, 2014	March 31, 2026
Marty Medina, City of San Bruno Representative	San Bruno City Council	April 1, 2020	March 31, 2026
Raymond Buenaventura, City of Daly City Representative	Daly City Council	April 1, 2019	March 31, 2026
<i>Board Appointed Representatives (Members "At Large")</i>			
Gail DeFries, City of Daly City Member At Large	OneShoreline Board of Directors	April 1, 2002	March 31, 2026
Edward Bortoli, City of South San Francisco Member At Large	OneShoreline Board of Directors	December 31, 2014	March 31, 2026
<b>Ryan Mayfield, City of South San Francisco Member At Large</b>	<b>OneShoreline Board of Directors</b>	<b>April 1, 2020</b>	<b>March 31, 2024</b>
Lissette Morales, City of South San Francisco Member At Large	OneShoreline Board of Directors	December 13, 2022	March 31, 2025

# 2024 Habitat Restoration & Cleanup Event

- Come join OneShoreline and the County of San Mateo's Public Works Department for a fun day of planting native plants and picking up trash along the mouth of Colma Creek.
- Make sure to bring water, sunscreen, comfortable clothes, and closed-toe shoes.
- All tools and equipment will be provided, but you are welcome to bring your own gloves if you'd like!



Meet at the Bay Trail behind 310 Utah Avenue

**Saturday April 13**  
**9:00AM – 12:00PM**



**OneShoreline**  
Building Solutions for a Changing Climate





**Next scheduled Committee Meeting**

**Tuesday, June 11, 2024**

**3:00 p.m.**