

The background of the slide is a light gray gradient, decorated with numerous realistic water droplets of various sizes. Some droplets are at the top left, others are scattered along the bottom, and a few are on the right side. The droplets have highlights and shadows, giving them a three-dimensional appearance.

Downtown Orinda San Pablo Creek Restoration: Phase I

Restoring ecological function to the creek while reducing the risk of flooding

Friends of Orinda Creeks 2022, V-2



Background

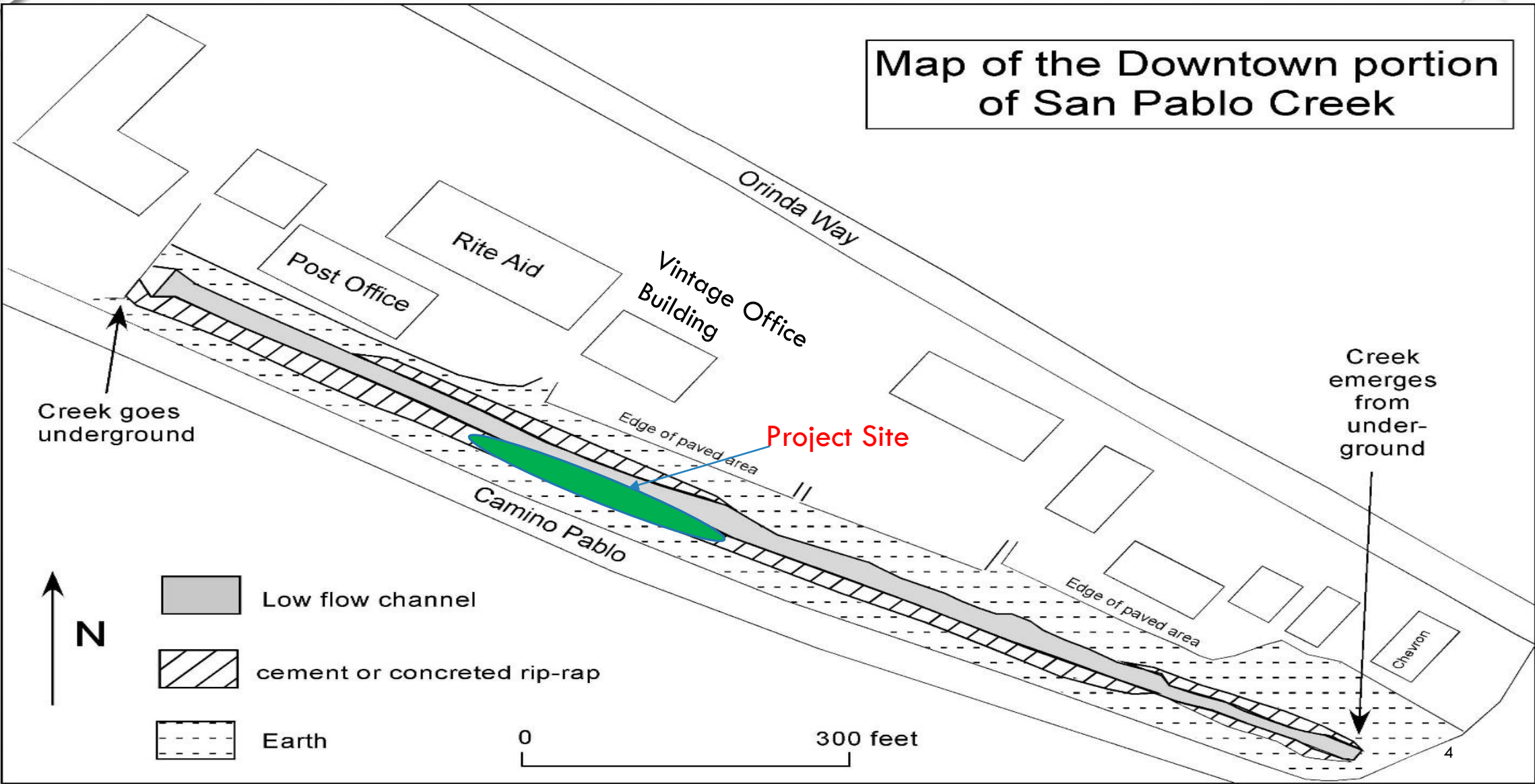
- There is a section of San Pablo Creek as it runs through downtown Orinda that is seriously degraded, contributes to the threat of downstream flooding, and ripe for minor restoration.
- The area comprises approximately 275 linear feet and is directly behind the Vintage Office Building. The County owns this creek property and supports restoration of this section. All creek restoration is on County land.
- The restoration would comprise the removal of several large concrete slabs that are loose in the streambed, to be replaced with three “step pools” formed by newly placed boulders.
- The “step pools” created by boulder weirs will help prevent sheet pile undermining/erosion and form natural pools for aquatic life including fish.

Objectives

1. Flood control: Remove concrete slabs to prevent potential blockage of the downstream culvert in a severe storm
2. Reduce the undercutting of the sheet pile wall. The wall supports the steep bank below Camino Pablo Road
3. Naturally stabilize the creek channel to allow free water flow without erosion
4. Improve creek aquatic habitat and esthetics by removing concrete slabs and installing three “step pools”
5. Provide a template for 3 to 4 future similar, minor restorations upstream and down

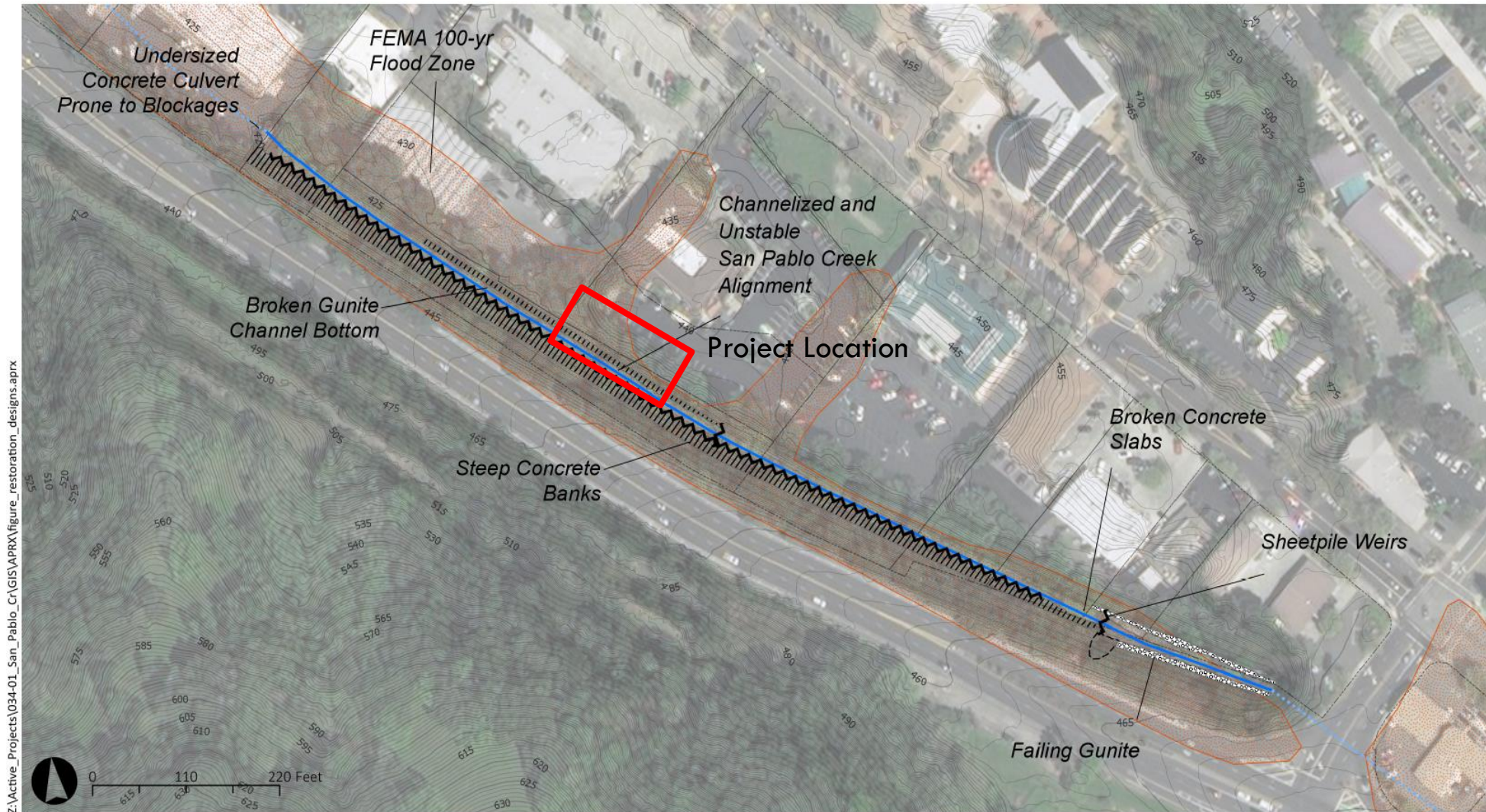
Project Vicinity Map

Map of the Downtown portion
of San Pablo Creek



Project Location and Existing Conditions

San Pablo Creek Restoration - Existing Conditions



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Existing Conditions: the Channel is Degraded



Damaged Side-Walls and Creek Bed



- The Creek was channelized in 1958 and realigned within a concrete and gunite trapezoidal channel. The Channel was severely damaged in a 1962 storm. Subsequent storm flows have undermined the walls and broken up the concrete into large slabs creating potential flow blockage⁶ at the downstream culvert.

Camino Pablo Road

Sheet Pile Wall



Loose Concrete Slabs

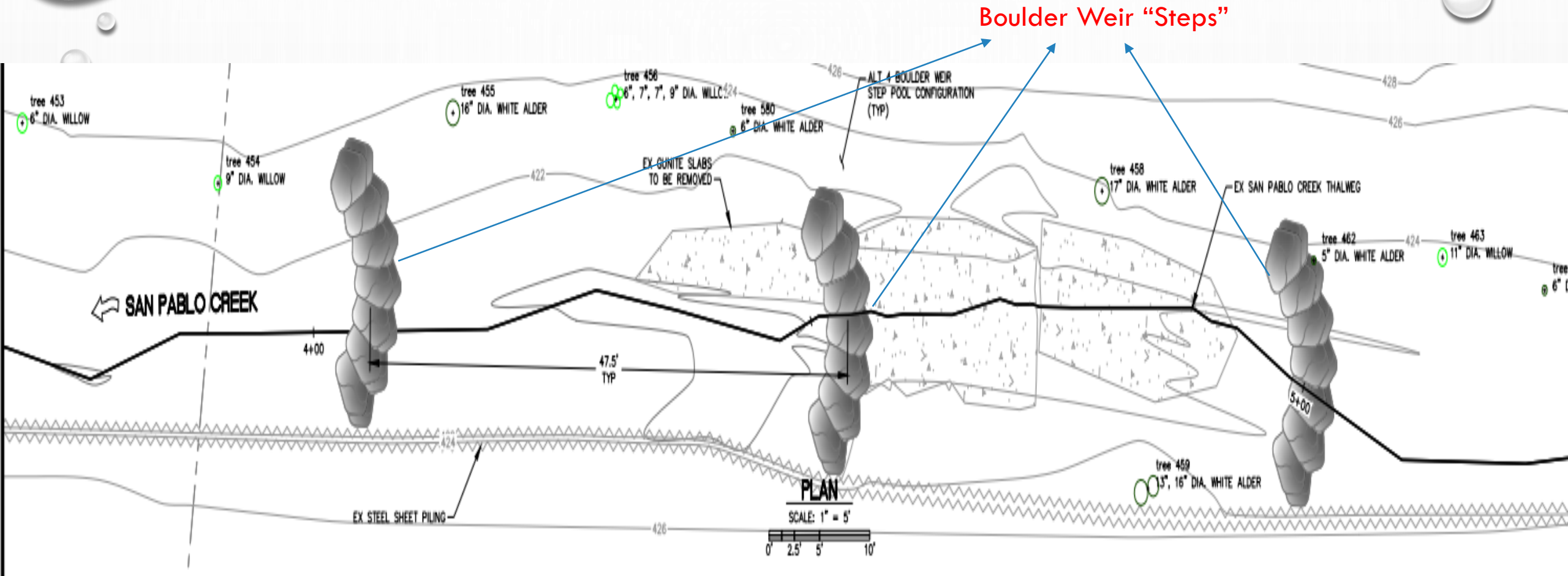
Sheet Pile Wall Showing Water Undercutting the Base

Severe Flooding is a Risk

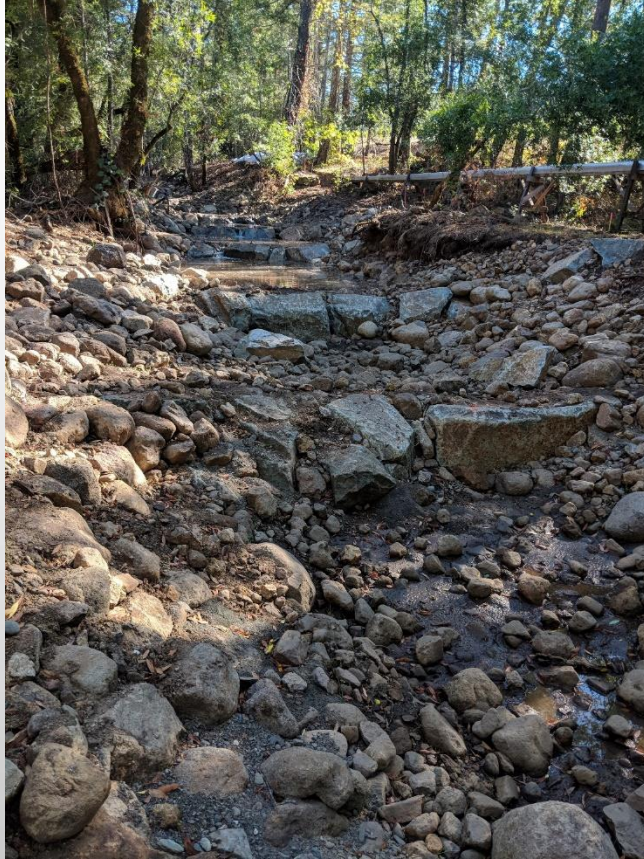


Flooding has occurred in parking lots and businesses behind Safeway, Bank of America and the Post Office, usually as a result of a tree or large concrete slab blockage of the downstream culvert.

Restoration Detail



Natural Channel: Replace Concrete with Boulder Weirs forming Step Pools



“Yellowjacket Creek step pool project during and post-construction, Sonoma Co”



Remove concrete channel lining and install 3 boulder “steps” separated by pools. The boulder steps will provide fish passage, improved aquatic habitat and channel esthetics.

Project Status as of June 2022

- The Project Plan is at 100% Level
- Access Agreements with County and Property Owner Signed
- Permits Approved (Awaiting any possible amendments from RWQCB)
 - City of Orinda: Categorical Exemption under CEQA; Watercourse Alteration Permit
 - CDF&W §1600 • US Army Corps of Engineers § 404
 - RWQCB § 401 • US Fish & Wildlife Service (ESA Consultation)
- Insurance Certificates Secured and Provided to County and Property Owner
- Bridges Construction Services, Inc. Contract Signed - Start August 1, 2022
- Revegetation Plan to be Designed, Awaiting RWQCB Input
- Meet With City for Final Input or Requirements & RBK Funding – June 16, 2022
- Remaining Funding Needs and Sources Identified (see next slide)

Phase I San Pablo Creek Restoration: Budget

Project Costs	
Contractor Bid	\$85,675
Inflation clause	\$6,500
Contingency	\$8,568
Permit Fees	\$3,060
Interpretive Sign & Plaque	\$10,500
Flowest	<u>\$40,000</u>
Total Project Costs	\$154,303
Costs Paid To Date	
Contractor Deposit	\$1,000
Flo West	\$28,230
Insurance	\$1,771
Permit Fees	<u>\$3,060</u>
Total Costs Paid To Date	\$34,061
Difference	\$120,242
Donations Committed/Secured	
Gateway Settlement Fund Alliance	\$10,000
CCF&W Grant	\$7,500
FOC Restoration Budget*	<u>\$52,000</u>
Total as of 6/1/2022	\$69,500
Remaining Funds To Raise	\$50,742

Notes:

- To date, Friends of Orinda Creeks has raised \$103,561 or 67% of total project costs.
- Creek Partners:
 - Orinda Parks & Recreation
 - Rotary
 - Pease Family Fund
 - Chevron
 - FOC Members & Board Outreach
 - Gateway Settlement Fund Alliance (GSFA)
 - Orinda Garden Club
 - City of Orinda/RBK Restoration Donation