

Butano Channel Restoration and Resiliency Project Description

March 16, 2017

Background

Pescadero Marsh Natural Preserve is a special place with a very high level of community, public agency, and NGO interest in its management. Home to many state and federally listed threatened and endangered species, resource management for the marsh can also have direct implications for the adjacent community that was built in its floodplain in the early 1800s.

Historic land use, including logging and channelizing creeks, road construction, agriculture, and development in the watershed (including a town in the floodplain) dramatically increased the volume of sediment entering the marsh. Routine dredging in the marsh historically conducted by local farmers ended when the State of California acquired the marsh and lagoon in 1974 as a natural preserve, along with environmental regulations, notably: Endangered Species Act (1973), Clean Water Act (1977), and California Coastal Act (1976).

Lower Butano Creek, where it runs through the marsh, has completely filled in with sediment. This blocks threatened steelhead trout and endangered coho salmon from the entire watershed for spawning, rearing their young, and finding critical refuge during storms and droughts. In addition, annual mass deaths of steelhead in the marsh from poor water quality have garnered significant media attention, even as far away as the Washington Post

Chronic flooding of the main road into Pescadero cuts the community off from emergency services and the primary access to State Highway 1. There used to be 14 feet of clearance under the bridge. Now a sediment filled channel exacerbates flooding and road closures. In addition to safety and emergency response, this severely impairs commercial activity in town. Even the perception that the road may be closed deters people from coming to town, resulting in economic impacts.

Project Benefits

The goals of the Project are to:

1. Restore fish passage and migration, opening access to 10.1 miles of anadromy.
2. Reduce the flooding of Pescadero Creek Road and affected private properties, improving accessibility to the town, safety, and the town's economy during rain events.
3. Reduce the risk or severity of fish kills.
4. Improve habitat for several protected species (coho salmon, steelhead trout, San Francisco garter snake, California red-legged frog).
5. Provide resilience for salmonids by providing refuge in drought, flooding, and poor water quality conditions.

To accomplish these goals, the Project will dredge as needed to re-establish 8,000 feet of the historic creek channel, remove 45,000 cubic yards of sediment, and re-use the dredge material to fill historic human-made pits to restore 28 acres of degraded marsh.

Timeline

- August 2017: 60% designs
- November 2017: Draft and submit permit applications
- February 2018: 90% designs completed
- May/June 2018: 100% designs and permit acquisition
- June 2018: Release bid package for construction
- August/September 2018: Project implementation

Partnerships

The San Mateo Resource Conservation District has a 77 year history of helping people protect, conserve, and restore natural resources. The RCD has an excellent reputation for partnership and for accomplishing complex, high priority, multi-stakeholder restoration projects.

State Parks has been partnering extensively for the best management of the property, including co-developing the Pescadero Lagoon Science Panel with the California Department of Fish and Wildlife. Parks is contributing cash, biological and archeological monitoring, and topographic surveys.

San Mateo County and the RCD have partnered extensively on restoring the watershed and reducing impacts from flooding. County Supervisor Don Horsley is requesting \$1 million as a cash match.

Multiple other collaborations in the watershed integrate with or leverage this project:

- State Parks, NOAA, the RCD, and CDFW are moving forward with interim measures to prevent fish kills until larger restoration actions solve the problem.
- The Regional Water Quality Control Board is developing a Total Maximum Daily Load plan for the watershed to address excessive sedimentation.
- The RCD is working with local farmers, domestic water providers, and NGOs to improve water security while reducing demand on creeks during the critical low flow months.
- The RCD and County Parks removed the remaining human-made barrier to fish passage in Pescadero Creek, opening 62.5 miles of some of the best spawning habitat in the watershed.
- San Mateo County's "Sea Change San Mateo County" initiative will complete its sea level rise vulnerability assessment, in which Pescadero is a central focus.

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Appendix: Photos



Image 1. Flooding on Pescadero Creek Road



Image 2. Dead Steelhead during from 2014 Pescadero fish kill, credit: Trout Unlimited



Image 3. January 18, 2017 Community meeting regarding flooding. About 100 people attended



Image 4. Strong community sentiment for solutions to flooding



Image 5. Butano Creek channel through Butano Marsh and Pescadero Lagoon