

# Searsville Dam Removal



A unique opportunity for all

Presented by the Beyond Searsville Dam Coalition

San Francisquito Creek flows into the San Francisco Bay near the Palo Alto Airport and Golf Course seen at left. The three main tributaries of the approximately 45 square mile watershed (USGS) flow from their headwaters in the Santa Cruz Mountains seen in the distance.







San Francisquito Creek, seen here flowing between Menlo Park and Palo Alto, is one of the last, semi-natural, urban streams in the entire San Francisco Bay.



Under a thick riparian canopy the upper creek meanders through agricultural and protected lands.



Dozens of pristine and protected headwater streams, such as Bear Gulch Creek, flow from the mountains supporting diverse ecosystems and critical wildlife migration corridors.



Searsville Dam, built in 1892, stands 65 feet tall and 275 feet wide, is over 90% filled-in with sediment, and provides no power, flood protection, or drinking water





The dam and artificial reservoir (at left) are owned by Stanford University and occur within their Jasper Ridge Biological Preserve (red boundary shown).

Over a century of sediment from upstream creeks is trapped behind the dam and has reduced water storage capacity in the reservoir from 350 to 15 million gallons.

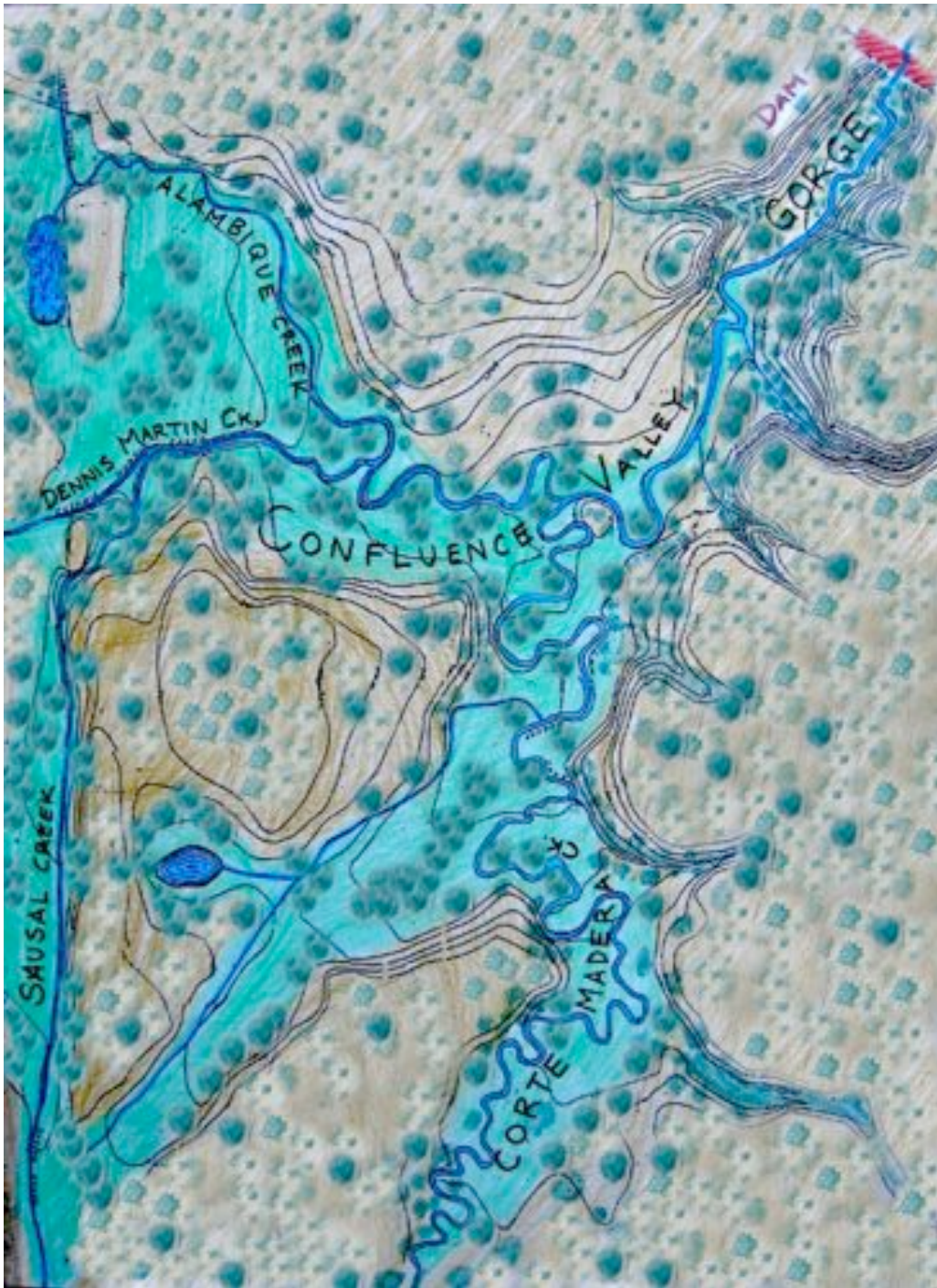


The original reservoir, outlined in blue, has almost filled in with over 1.5 million cubic yards of trapped sediment.





Pre-dam survey map (late 1800's) showing the topography and creeks upstream of the proposed "dam site" (upper right) that occurs in the deep gorge of Corte Madera Creek. The dam was built in this location and buried one of the most unique ecological areas in the entire San Francisco Bay region.



Colored added to the pre-dam map to show the biologically-rich habitat that historically occurred upstream of the dam (shown in red). The dam and reservoir submerged the confluence of over six creeks, historic wetlands, and a gorge. Much of this natural habitat and miles of stream can be restored with dam removal.



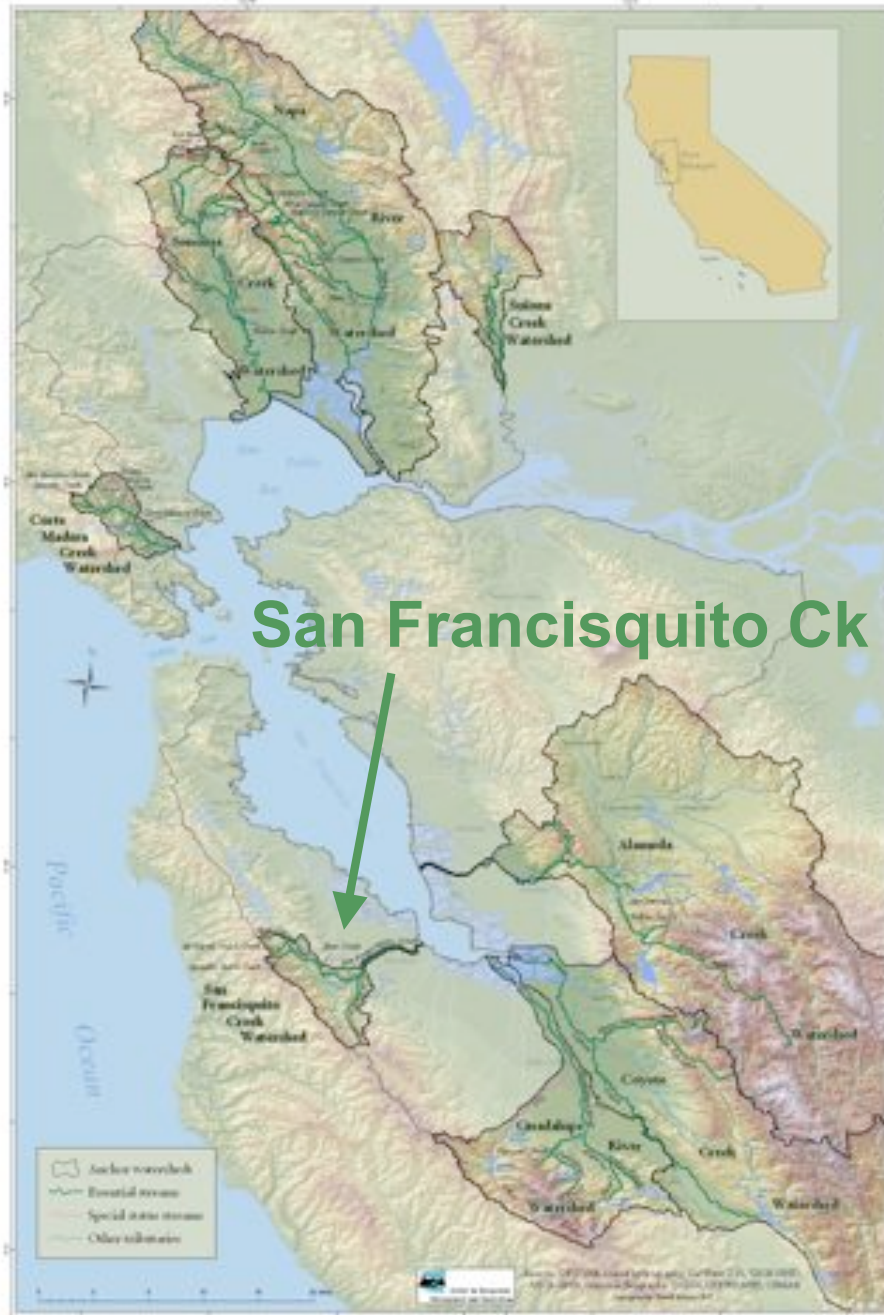
The stagnant and artificial Searsville Reservoir, evaporates stream flows, impacts water quality, and supports non-native species that prey upon and competing with native wildlife.



Bass, bullfrogs and other Invasive species thrive in the artificial reservoir where they are able to spread upstream and downstream. These voracious predators not only prey on native aquatic species, like steelhead trout, they also eat small mammals and birds. Dam removal would eliminate or dramatically reduce these exotic species.



Map 3: Anchor watersheds and essential streams of the SF Estuary

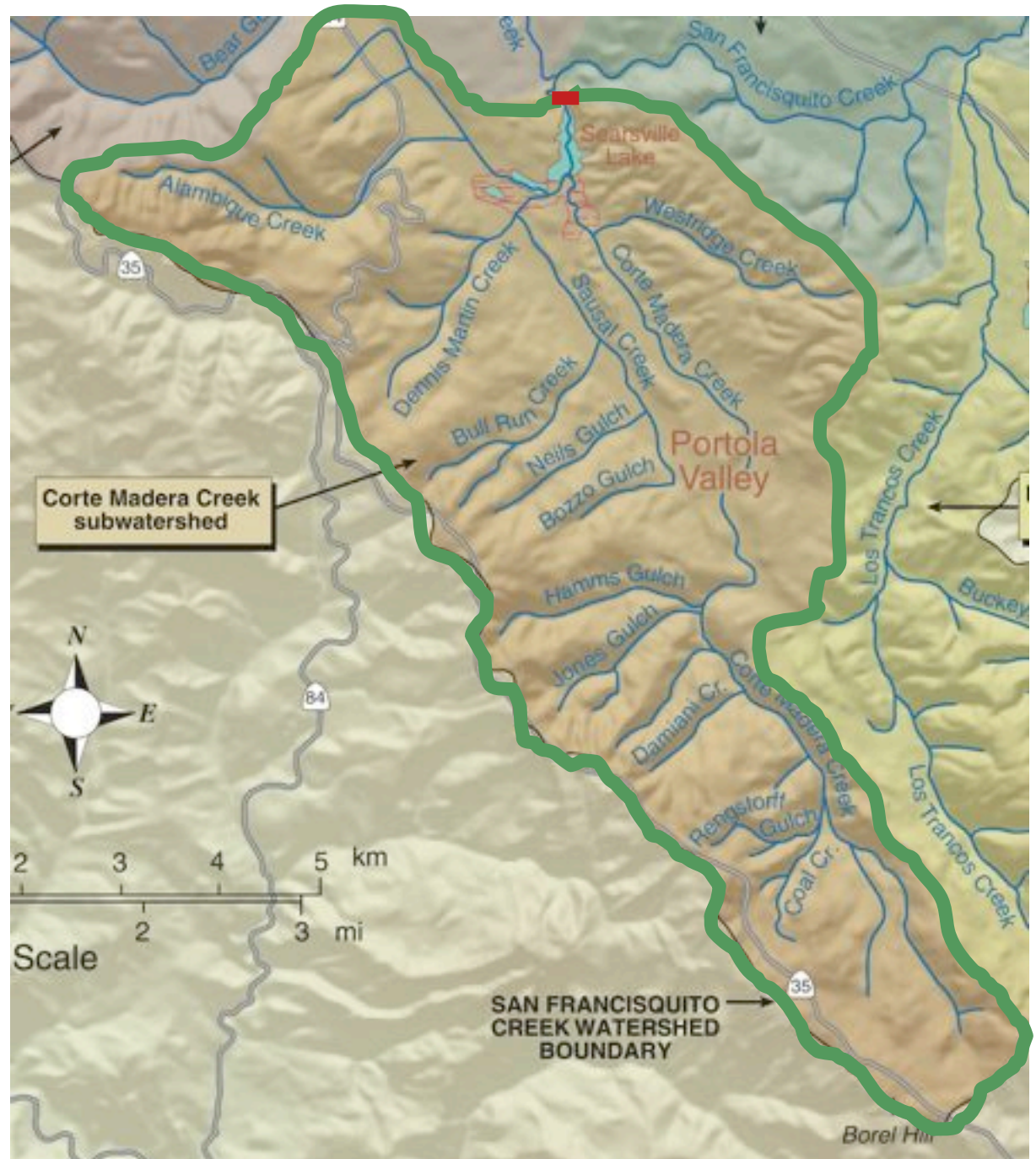


San Francisquito Creek has been identified by the Center for Ecosystem Management and Restoration as one of the critical “anchor watersheds” for threatened steelhead trout recovery in the San Francisco Bay and supports one of its last, wild, steelhead runs.



This San Francisquito Creek steelhead was rescued below a small dam in Woodside where diversions were drying out the downstream habitat.

Searsville Dam (shown in red) blocks steelhead, and other wildlife, from migrating upstream to over ten miles of historic spawning and rearing habitat in Corte Madera Creek and its tributaries (outlined in green).





Historic steelhead habitat in Corte Madera Creek and its tributaries is blocked by the dam.



Wild rainbow trout, descendants of sea-run steelhead, remain upstream of the dam in several tributaries. The dam has genetically isolated this population at risk.

Steelhead trout are known in conservation biology as an ‘umbrella species’, which is a wide-ranging species whose requirements include those of many other species. Actions to restore steelhead have benefits to an array of native wildlife, our watershed, San Francisco Bay, and the ocean beyond. Searsville Dam is the most limiting factor to steelhead migration in the watershed.



Juvenile steelhead provide a source of food for many other species in our watershed, such as the kingfisher.





While migrating between San Francisquito Creek and the sea, steelhead feed animals in the San Francisco Bay, such as sea lions and gulls.



While migrating at sea, steelhead provide nutrients to a diversity of fish, sharks, and marine mammals, like the oca above, thousands of miles away.



Adult steelhead that do return to San Francisquito Creek to spawn each year can each bring up to 15 pounds of ocean nutrients with them to spread throughout our bay and watershed ecosystems.

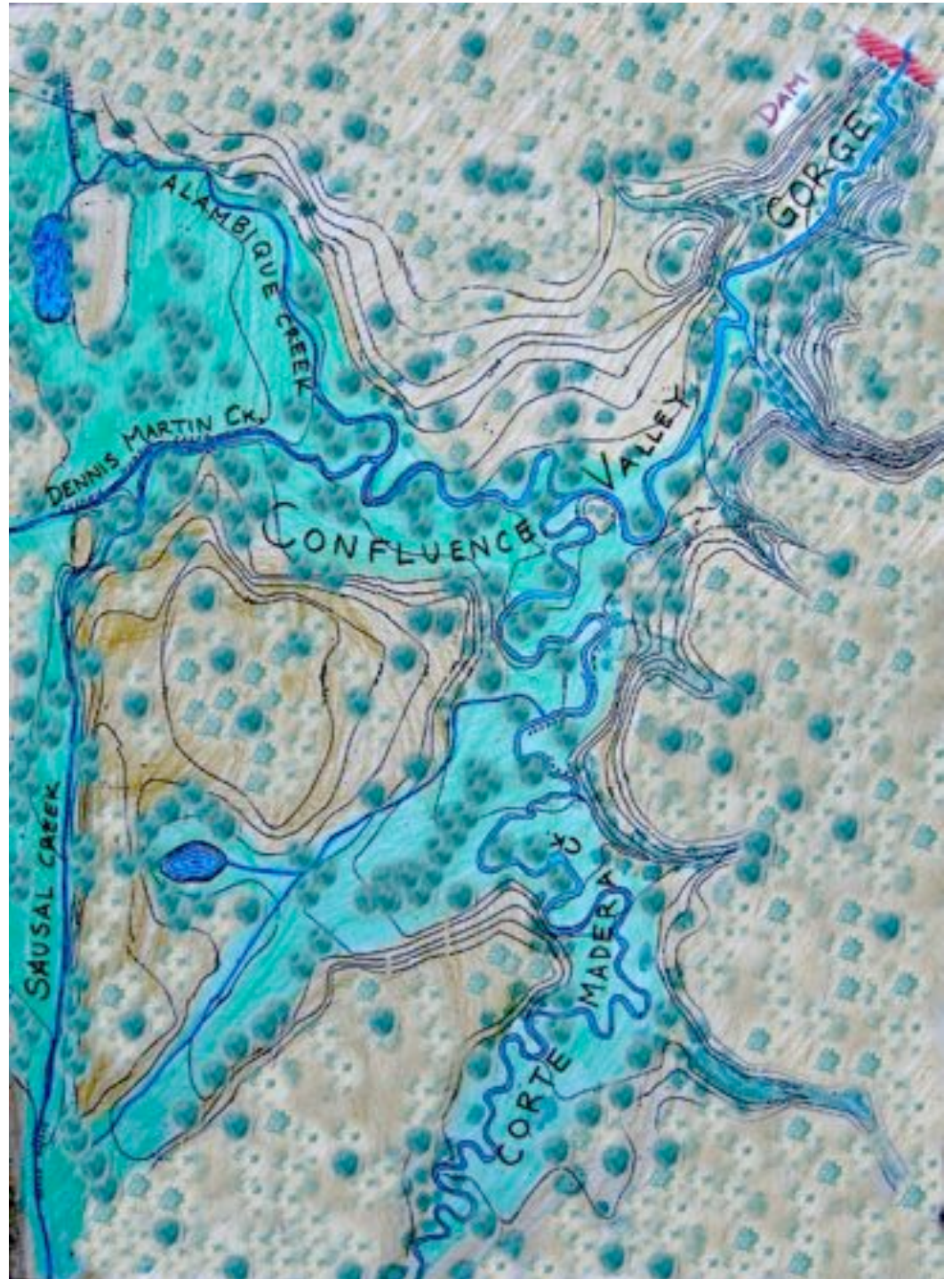


Flooding in lower San Francisquito Creek communities is a serious safety matter. Searsville Dam was not built, nor does it operate, to provide flood protection. A dam removal project can include, as seen elsewhere in the country, funding to reduce flooding.



Other examples of watershed-wide efforts to reduce flooding at downstream problem sites (such as undersized bridges and inadequate levees), as well as provide upgrades to impacted water supplies, have been shown to be more attractive and fundable when proposed in conjunction with an ecosystem restoration plan that includes dam removal and fish restoration.

In addition to needed downstream flood protection measures, removal of Searsville Dam will eliminate related upstream flooding and can be designed to maximize the benefit to flood protection downstream. Restoration of historic wetland habitat beneath the reservoir can provide a natural sponge to absorb and store peak flood flows.



## Earthquake Shaking Entire San Andreas Fault-1906



The over century old dam sits adjacent to the most violent earthquake shaking zone of the active San Andreas Fault and the dam is considered a high hazard dam by the Division of Safety of Dams because of the risk to downstream populations. A foundation inspection of the dam has not been conducted for 43 years.





The old dam and shrinking artificial reservoir.



Vision for the future. Natural streams, wetlands, wildlife..

Through dam removal, Stanford University, and our watershed community, have a unique opportunity to become leaders in progressive flood protection, ecosystem restoration, and sustainable water use.





For more information please visit [www.BeyondSearsvilleDam.org](http://www.BeyondSearsvilleDam.org)