



# Alameda Creek Update

## Wild steelhead spawning documented

By Jeff Miller

— Alameda Creek Alliance —

*Author Jeff Miller, Executive Director of the Alameda Creek Alliance, updates us in this article on wild steelhead restoration efforts and progress on California's Alameda Creek since he last wrote about it three years ago. To learn more about the Alliance, visit [www.alamedacreek.org](http://www.alamedacreek.org).*

**T**he restoration of steelhead to Alameda Creek has accelerated since the article published in the May 2006 issue of *The Osprey* on our efforts to restore native fish to the largest tributary to southern San Francisco Bay. Numerous fish passage projects for anadromous fish have been completed or are moving forward, environmental review is beginning on several major water infrastructure projects, and critical decisions on stream flows for native fish will be made in the next few years.

### Fall 2006 — Two Dams are Removed

The San Francisco Public Utilities Commission removed two obsolete dams from the Niles Canyon reach of Alameda Creek. Niles Dam, first built in the 1840s, was demolished by August, and the last rubble from Sunol Dam, which had stood since 1901, was removed during a ceremony in September. Sunol Dam is the largest dam yet removed in the Bay Area for fish restoration.

Seventeen public agencies and non-profit organizations began jointly-funded flow studies to determine how much water might be needed at critical times to support a viable steelhead population in Alameda Creek, while also considering other native fish and wildlife, and minimizing potential impacts to drinking water supplies.

The ongoing cooperative technical study is being conducted by renowned independent fisheries consultants McBain & Trush.

### Summer 2007 — Fish Barrier Removed

Zone 7 Water Agency and the Livermore Valley School District completed removal of a concrete crossing that was a potential fish passage barrier from Arroyo Mocho, an Alameda Creek tributary behind Granada High



One of two steelhead to spawn in Alameda Creek last year. Photo courtesy Alameda Creek Alliance.

School in Livermore. The project enhanced creek habitat by restoring a more natural stream channel, reduced the amount of trash thrown in the arroyo, and helps potential steelhead migration through the Arroyo Mocho tributary.

The Alameda County Flood Control District and Alameda County Water District signed an agreement to design a fish ladder that will allow steelhead to bypass a cement barrier known as the BART weir and an adjacent inflatable water supply dam in the lower Alameda Creek flood control channel, the main barriers to fish migration into Alameda Creek. The agencies

announced their goal to have the fish ladder constructed by 2010.

### Spring 2008 — Fish Screens Installed

The Alameda County Water District (ACWD) completed installation and dedicated four state of the art fish screens on the ACWD water supply diversion below Mission Boulevard in the Alameda Creek flood control channel. These screens will reduce the potential for out-migrating juvenile steelhead or other fish to be trapped in the diversion pipelines and adjacent groundwater recharge ponds at Quarry Lakes Regional Recreation Area.

### Fall 2009 — Fish Passage Provided

The Alameda County Water District is completing construction on two additional fish passage projects in the Alameda Creek flood control channel. The ACWD has permanently removed the fabric portion of its lowermost rubber dam from the channel and has discontinued use of an unscreened water diversion at this location. A section of the dam's remaining foundation was notched and a low-flow fish ladder was installed to allow for fish passage under all conditions. The ACWD is also finishing installing a fish screen at the Bunting Pond water diversion to eliminate the potential for entrainment of out-migrating juvenile steelhead at the intake location.

The ACWD and the Alameda County Flood Control District are proceeding with planning for installing a modified vertical slot fish ladder over the infamous BART weir and middle inflatable dam, targeted for construction next year. The draft environmental review

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documents for the project should be released this fall, and geotechnical studies in support of design for the fish ladder are under way in the vicinity of the BART weir. The design of the fish ladder has many challenges due to the need to accommodate the operations of the middle rubber dam and fish migration under the widest and most relevant range of flows for fish to bypass the BART weir.

The Alameda Creek Alliance launched an Alameda Creek Fish Barrier Removal Scorecard to measure the progress of all dam removal and fish ladder projects over major and minor barriers. So far, 38% of all fish passage projects in the watershed needed to get steelhead to their spawning grounds have been completed and an additional 25% are in the planning stages and scheduled for completion in the next few years. Nine of the 10 barriers on mainstem Alameda Creek are likely to be remediated within the next three years. These projects will make up to 20 miles of Alameda Creek and its tributaries accessible to ocean-run fish for the first time in over half a century.

### Historic Spawning Steelhead Pair

In late February 2008 a pair of adult steelhead dubbed “Bonnie and Clyde” were given a helping hand upstream past barriers in lower Alameda Creek and radio tagged to monitor their movements. Bonnie was a 27 inch long, 8.5 pound female and Clyde was a 28 inch-long, 8 pound male that migrated up the Alameda creek flood control channel to the impassable BART weir. The moved and released fish swam together up Niles Canyon to the tributary Stonybrook Creek, where they were exhibiting spawning behavior in early March. They consummated the first steelhead spawning in suitable habitat in the Alameda Creek watershed since the early to mid-1960s, a significant milestone in the decades-long effort to restore Alameda Creek. In May hundreds of young steelhead trout thought to be the offspring of this historic steelhead pair hatched in Stonybrook Creek, the first natural reproduction of steelhead in the watershed in over four decades. Alameda Creek Alliance volunteers helped East

Bay Regional Park District fisheries biologists monitor the young fish over the summer and fall. Despite a critically dry summer and fall and the subsequent loss of most of the fry, a handful of juvenile steelhead apparently survived the drought and dry season low-flow conditions in the creek.

### Calaveras Dam Rebuild

With all major fish passage projects in the watershed now underway, the last piece of the puzzle for Alameda Creek restoration is water. The San Francisco Public Utilities Commission (SFPUC) is beginning environmental review on its project to rebuild the seismically challenged Calaveras Dam

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*In February 2008, a pair of steelhead spawned in Alameda Creek — the first to do so since the mid-1960s.*

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in upper Alameda Creek, as part of the \$4 billion program of retrofits to San Francisco’s aging water system.

San Francisco, voted the second greenest city in the U.S., should be operating their water system in an ecologically responsible fashion, but sadly that is not what is being proposed for Alameda Creek. The SFPUC dismissed consideration of the impacts of its three dams in the watershed on steelhead trout in Alameda Creek when certifying the programmatic environmental impact report for their Water System Improvement Program in fall of 2007.

The SFPUC needs a federal permit for the dam rebuild and had urged the Army Corps of Engineers to make a determination of “no effect” on steelhead trout and issue a permit without a formal consultation with federal regulators under the Endangered Species Act. In April of 2008 the National Marine Fisheries Service announced that formal consultation will be required for the project and rejected

the “no impact on steelhead” determination.

The SFPUC has since significantly changed their position and will be evaluating potential steelhead impacts during environmental review for the project and has agreed to minimal flow releases for fish, but is still proposing dam operations and flow schedules for Calaveras Dam inconsistent with restoring a sustainable run of steelhead below the dam. The SFPUC already diverts 86 percent of the stream flows of the upper Alameda Creek watershed and operates Calaveras and San Antonio reservoirs with no minimum bypass flows to keep native fish downstream in good condition. Their programmatic Environmental Impact Report contemplates diverting almost all of the winter and spring stream flows from upper Alameda Creek at the Alameda Diversion Dam.

We are working hard to ensure that the replacement project includes operating the new dam to provide favorable steelhead habitat below the dam. We are confident that we can secure suitable water flows for steelhead when Calaveras Dam is rebuilt, as required by state laws and the Endangered Species Act.

We support San Francisco making needed retrofits to its water system; however SFPUC dams in Alameda Creek currently operate in violation of state wildlife protection laws, and to rebuild a major dam without a commitment to provide adequate water releases to allow restoration of steelhead trout to downstream habitat in Alameda Creek is unacceptable. We anticipate a major campaign of education, outreach, lobbying San Francisco politicians and regulatory agencies, providing expert comments, and potential litigation to improve the Calaveras Dam replacement project.

The coming few years will be critical for restoring our native fish runs and more natural stream flow and habitat in Alameda Creek. Get involved and help us restore Alameda Creek. For more information visit the Alameda Creek Alliance web site at [www.alamedacreek.org](http://www.alamedacreek.org).

