



December 2006

FOR FISH AND FOLKS

If a steelhead trout can dream, it probably has visions of cool, clear water, lots of tasty insects, and free passage upstream to the best spawning grounds. For “Brutus”—an 11-pound steelhead—and the other five wild fish caught and carried upstream by volunteers last winter on Alameda Creek, those visions are getting closer to reality, thanks to a groundswell of activity and interest—and a formal agreement signed in October among 17 public agencies and non-profits to collaborate on water flow and fish habitat studies throughout the watershed.

Alameda Creek drains nearly two-thirds of the East Bay. This huge watershed—bounded by Mount Diablo to the north, Mount Hamilton to the south, Altamont Pass to the east, and the Bay to the west—falls under the jurisdiction of several water and flood control agencies. The challenges involved in restoring it are both numerous and complex—but not insurmountable, says Jeff Miller, who founded the non-profit Alameda Creek Alliance in 1997. Miller has seen a huge shift in agency attitudes about the creek—“at one point the biggest barrier to restoration”—since he first began advocating for restoration and was told by some regulatory agencies to forget even trying, that any steelhead in the stream were probably hatchery strays. For 10 years, Miller’s group has rescued fish blocked from moving upstream at what is known as “the BART weir”; the group also had DNA testing performed on fin clips. Those tests showed that the fish were most closely related to other wild steelhead in the central California coast region, as well as to resident trout in Alameda Creek. This suggests that returning adult steelhead may, in fact, be native to Alameda Creek (see “People,” ESTUARY, August 2006).

In 1999, after years of advocacy, fish rescues, and media events, Miller helped put together the Alameda Creek Fisheries Restoration Workgroup comprised of stakeholders including water and flood control agencies, utilities, and environmental groups. Although progress has been slow,

everyone seems to be on the same page at last, says Miller. “All of the agencies that own barriers blocking fish from moving upstream are interested in restoring steelhead and are pursuing funding to have them modified or removed to allow fish passage,” says Miller. “It’s just a question of finding the money and making that happen.”

The focus until recently has been on the creek’s many dams—including three inflatable rubber dams belonging to the Alameda County Water District, three S.F. Public Utilities Commission dams in the upper watershed, several small Zone 7 Water Agency barriers (on tributaries), and the dreaded BART weir, a complete barrier to fish migration in the lower creek that belongs to the Alameda County Flood Control District. But the discussions are now taking a more holistic view of restoration challenges, says the SFPUC’s Tim Ramirez. “The workgroup has moved beyond just looking at barriers to fish migration—now we’re focused on stream flow studies to determine what habitat conditions are necessary to restore and support steelhead.”

The recently-signed agreement will fund studies of the range, magnitude, timing, duration, frequency, and location of the water flows needed to restore a steelhead fishery and other native species—while making sure water supply operations aren’t compromised. “Steelhead have the advantage of not needing optimum flows every year, and can really thrive and rebound in a good water year,” says Miller. “But obviously there are going to be critical times when they need water. We know there is suitable spawning and rearing habitat; the limiting factor is probably adequate cold water for rearing in the summer, and late winter and spring flows for getting smolts out to the Bay.”

In the meantime, physical obstacles continue to come down or be made less onerous for fish. In 2001, the East Bay Regional Park District removed two small swim dams from upper Alameda Creek in the Sunol Regional Wilderness area. In 2004, the Zone 7 Water Agency built two fish ladders on the Arroyo Mocho and Arroyo de las Positas tributaries as a proactive step. “We’re eliminating the barriers in case there is a chance steelhead make it up this far,” says Zone 7’s David Houts. “Right now, there are too many barriers downstream.” Zone 7 is also modifying several check dams in the creek that are too broad or too high for fish to get around, or that create velocities too great for them to navigate. Concurrently, the Alameda County Water District was awarded a \$1 million grant from the National Fish and Wildlife Foundation to

remove its rubber dam below the BART weir; that agency is also putting a fish screen on one of its larger diversions—two projects it aims to have completed by 2007, says the Water District's Eric Cartwright.

In the meantime, the workgroup is looking for funds to alter the biggest physical barrier on the creek, the BART weir, a 12-foot-high sloping concrete grade-control structure. Designed by the U.S. Army Corps of Engineers as part of the flood control project that straightened and channelized lower Alameda Creek in 1972, it protects the BART and railroad tracks that cross the creek and because of that, cannot be removed altogether, according to the Alameda County Flood Control District's Laura Kidd. The District is studying two different solutions, she says, including a "vertical slot fishway" with a series of one-foot jumps going up the weir, and a "natural fishway" that would re-grade one side of the creek and the weir with boulders that would allow fish to get up and over the weir—all while maintaining the same flood capacity. Estimates for both projects are several million dollars, says Kidd.

In August, the SFPUC removed the more than 120-year old Niles Dam from Niles Canyon; 105-year old Sunol Dam came tumbling down quickly after in September. Enviro's also hope to see the PUC's Alameda Creek Diversion Dam removed or modified, and the PUC is conducting fish passage studies at this location and several other spots in the watershed as part of the effort to construct the Calaveras Dam Replacement Project. A new, and hopefully more fish-friendly, dam will be built just downstream of the existing Calaveras Dam. The plan is to keep the existing dam in place while the new one is being built, so the reservoir of impounded water won't have to be drained, which will protect the trout in the reservoir. Ramirez says construction is scheduled to begin in 2009 and be finished by 2012. The Alameda Creek Alliance wants to see the new dam operated with adequate minimum flow releases for steelhead and other native fish, and built in such a way as to make flow releases for fish possible (the outlet on the current dam doesn't allow low-flow releases). An additional plus would be a fish ladder or a trap-and-haul operation to move some of the adult steelhead migrating upstream from the Bay above the dam, and some of the juvenile reservoir fish below the dam. "We want to try to re-connect the landlocked reservoir trout population with the ocean-running fish, to keep the gene flow going and both populations viable," says Miller.

The biggest challenge, everyone seems to agree, will be making sure there is enough water for both the fish and the millions of customers who get their water supply from the creek and its groundwater via the SFPUC, Zone 7, and the Alameda County Water District. “We’re trying to achieve sustainable restoration within modern-day constraints, which is tricky,” says Zone 7’s Houts. “But it gives us the opportunity to be consistent with our mission—providing reliable water supply in an environmentally sensitive way. And that goes along with being good watershed stewards—when you protect the watershed, you protect the groundwater basin too.” Adds Ramirez, “All of the workgroup members share responsibility as stewards of the creek. The flows studies agreement maps out a course for us as we plan to restore steelhead while continuing to provide reliable water supplies. It’s not a question of one or the other; we need to do both.”

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