Fish hit barriers on breeding trail

Steelhead attempt to spawn futile

By Matt Carter
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What had practically become an annual ritual — helping a handful of steelhead trout swim up Alameda Creek to breed — is no more.

Every year since 1997, conservationists who hope to restore runs of the ocean-going fish to historic spawning grounds have hand-carried a few steelhead around dams in Fremont and released them upstream in Niles Canyon.

Now, as plans to build fish ladders around those barriers and demolish others become more concrete, it no longer seems like such a good idea to help a small number of fish get upstream.

One worry is that helping the tiny number of steelhead that mysteriously show up each year to reproduce could create a population with a limited — and ultimately unsustainable — gene pool.

"The (state and federal wildlife) agencies are concerned about genetic inbreeding," said Jeff Miller, a spokesman for the Alameda Creek Alliance. "If we move just a few fish over the barrier and they spawn successfully, you end up with a bunch of fish that are all brothers and sisters."

In addition, the steelhead recently gained federal protection as a threatened species, and any mishap in handling the fish could have resulted in prosecution.

So last weekend, Miller and other admirers of the graceful fish watched helplessly as steelhead hurled themselves futilely at one of the most significant obstacles to fish migration in the creek — a concrete weir that protects a BART rail crossing in Fremont from erosion.

Fish jump at barrier

Although the long-term prognosis for steelhead in Alameda Creek is looking brighter, "It's just kind of disheartening to see the fish jumping at this barrier, wanting to go upstream, and there's nothing you can do," Miller said.

Like salmon, steelhead trout are born in freshwater streams, migrate to the ocean, and return upstream to reproduce. Unlike salmon, steelhead don't die after they breed, and can make the long journey several times during their lifetimes.

In Alameda Creek and its tributaries, that cycle was disrupted by the construction of dams and the conversion of natural streambeds into concrete-lined flood control channels. The Alameda Creek Alliance belongs to an 11-member coalition of local, state and federal agencies that's trying to reverse or reduce the impacts of these projects on the federally-protected steelhead.

The coalition — known as the Alameda Creek Fisheries Restoration Workgroup — is looking for money to build fish ladders around the BART weir and several inflatable dams used to divert drinking water from the creek.

That work could be completed by 2004, and the East Bay Regional Park District has already removed two small swim dams upstream in the Sunol Regional Wilderness.

With those and other barriers gone, it's possible steelhead might again swim through Fremont, Sunol, Livermore and Pleasanton on their way to historic breeding grounds, a study commissioned by the workgroup found.

It's something of a mystery as to where the steelhead that show up in Alameda Creek during the rainy season are coming from, Miller said. They could be wild steelhead born in other streams feeding into San Francisco Bay. Or they might be landlocked rainbow trout from Alameda Creek and its tributaries.

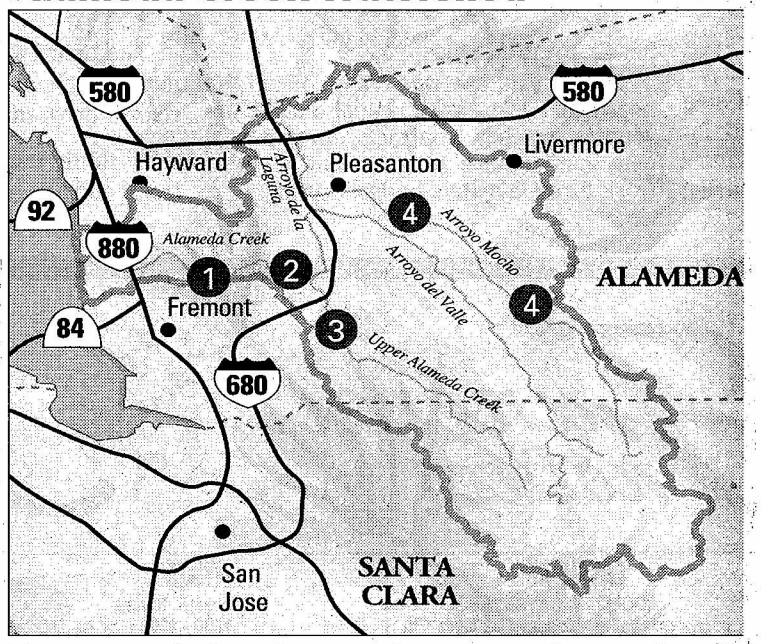
If that's the case, a few fish are apparently able to migrate out to the ocean, but aren't able to make it back upstream.

Genetic tests show landlocked rainbow trout trapped behind dams above the Calaveras and San Antonio reservoirs may be descended from wild steelhead. If so, they could be used to restore the steelhead run.

"If those fish are genetically diverse and native, which we believe they are, that would be a better way of reseeding the (Alameda Creek) watershed" than helping a few fish around barriers in Fremont, said Pete Alexander, fisheries specialist for the East Bay Regional Park District.

Not just any trout can be used to reestablish the steelhead run. There are many families of steelhead up and down the West Coast, each specially adapted to local conditions.

Alameda Creek watershed



Recommendations for restoring access for steelhead trout include:

1. Provide passage for returning steelhead around a 13-foot-hig inflatable dam and an 8-foot weir that prevents erosion aroun BART tracks in Fremont.
2. Build fish ladder or remove the 12-foot-high Sunol Dam in Nile Canyon.
3. Modify the 10-foot-high PG&E gas line crossing in Sunol Valle to improve passage by building a fish ladder or weirs.
4. Improve passage to Arroyo Mocho by building small weirs or fish ladders at Stanley Boulevard weir and Lawrence Livermore Lab pumping station access road.