July 29, 2005 update

The SFPUC will be meeting soon with state and federal regulatory agencies to discuss revising their 1997 agreement for stream flow releases from Calaveras Reservoir and an interim operations plan to protect native fish populations. The Alameda Creek Alliance offers the following draft proposal of the measures that should be included in the interim operations plan.

Proposed SFPUC Interim Operations Plan

To protect resident rainbow trout in Alameda Creek, and to provide suitable habitat for anadromous steelhead trout when fish passage projects in lower Alameda Creek are completed, the Alameda Creek Alliance proposes that the SFPUC adopt the following interim operations plan for Calaveras Reservoir, San Antonio Reservoir, and Alameda Diversion Dam. This operations plan would begin immediately and guide water releases and management activities to maintain native fish populations in good condition until the Calaveras replacement project is completed.

Agreement on an interim operations plan is preferable to citizen's groups having to file a lawsuit under Fish and Game Code 5937 or for illegal take under the Endangered Species Act, or to pursue stream flows by filing a water rights complaint with the state Water Board. This operations plan should revise and supersede the 1997 Memorandum of Understanding (MOU) the SFPUC signed with the CA Dept. of Fish and Game (CDFG). The interim operations plan should be memorialized through a new MOU signed with the CDFG and eventually a Habitat Conservation Plan (HCP) agreement with NMFS, to remove the SFPUC's liability for illegal take. An HCP process separate from the HCP currently under consideration for SFPUC's Alameda Watershed management may be needed, since that process could take many years.

The interim operations should include:

- Minimum flow releases from both SFPUC reservoirs
- Reservoir management to maintain suitable habitat for reservoir trout populations
- Interim operation of Alameda Diversion Dam
- Exclusion of cattle from instream fish habitat and adjacent riparian areas
- A monitoring program

Minimum flow releases

The SFPUC should begin immediately providing the stream flows agreed to in the 1997 MOU with CDFG.

Beginning immediately, release 7 cfs from Calaveras Reservoir or sufficient water to maintain minimum flow and water temperatures adequate for rearing of resident trout from March 16 to October 31. The minimum flow proposed in the 1997 MOU with CDFG for this period was 7 cfs in Alameda Creek at the confluence with Calaveras

Creek, or 3,150 af of water for this period. Beginning this fall, maintain 5 cfs in Alameda Creek at the confluence with Calaveras Creek from November 1 to January 14 (742 af) and 20 cfs from January 15 to March 15 (2,376 af), or sufficient water to provide adequate flow for passage and spawning of resident trout.

It should be noted that much of these minimum flows will be met by natural stream flow from Alameda Creek in most water years, thus requiring minimal releases from Calaveras Reservoir except for summer releases, which would likely be the only truly enhanced stream flow. It should also be noted that sufficient water is currently available for these flow releases, as the SFPUC is processing Calaveras water well in excess of these amounts through the SVWTP.

These seasonal flows could and should be revised as information becomes available on the biological requirements for passage and spawning and rearing habitat for resident trout and steelhead. The required winter flows should also be revised to provide adequate pulse attraction flows and passage for steelhead trout when anadromous fish have access to the system due to downstream fish passage projects.

If additional flows are required from Calaveras Reservoir, a fixed percentage of the water diverted by SFPUC for treatment at the Sunol Valley Water Treatment Plant (SVWTP) from Calaveras Reservoir should be made available to provide the required minimum stream flow at the confluence of Alameda and Calaveras Creeks. The SFPUC should ensure there is an accurate and functional stream gauge at the confluence of Alameda and Calaveras Creeks to measure flows.

The SFPUC should also immediately release minimum flow from San Antonio Reservoir sufficient to maintain and enhance riparian vegetation in San Antonio Creek below the dam. If this minimum flow is not currently known, the release should be ½ cfs or enough to wet the San Antonio Creek channel down to the confluence with Alameda Creek. The flow should be revised as information becomes available on the status of riparian vegetation and potential trout habitat in this reach.

The SFPUC should make the adjustments or modifications to the Calaveras cone valve and San Antonio valve necessary to allow for scheduled releases. A monitoring program must be put in place to monitor fish populations and habitat suitability in all the affected reaches.

Reservoir management

The SFPUC should maintain water levels in both reservoirs needed to protect reservoir trout populations. CDFG and NMFS staff have proposed the following reservoir operations until the Calaveras Dam rebuild project is completed:

Maintain Calaveras Reservoir at all times between 690 and 705 foot elevations.

Between October 1 and December 1 the reservoir should be filled as quickly as possible to maintain hydrologic connectivity with Arroyo Hondo.

Beginning January 1, the level should rise to 705 feet hold there until June 1 to maximize the size of the pool and cold water for stream releases.

From June 1 to December 31 the reservoir should be maintained at 690 feet.

The SFPUC should gather information on water temperature and the dissolved oxygen profile in the reservoir and put in place a program to monitor reservoir fish populations and habitat suitability.

Only adit 1 in Calaveras Reservoir should be used for water withdrawals to the SVWTP. There should be no diversions through the drain (which has no fish screen) or adits 2 and 3 (an SFPUC agreement with CDFG prohibits use of these adits). It is currently thought that adit 1 does not pose an entrainment risk for juvenile trout. If necessary, the Calaveras as well as the San Antonio adits should be screened to prevent entrainment of juvenile fish.

The SFPUC should install an oxygenator in Calaveras Reservoir sufficient to maintain target oxygen levels for steelhead (the current SFPUC proposal to maintain a dissolved oxygen concentration of 5 mg/l is not adequate to protect fish).

Alameda Diversion Dam

The SFPUC should cease water diversions from the Alameda Diversion Dam until a feasibility study modeling different operational scenarios for the dam is completed. The feasibility study should consider management options including removing the dam, installing a fish ladder and fish screens, closing the tunnel during spring flow events, and any other operational scenarios to protect and enhance fish populations and habitat downstream and provide for resident trout and eventual steelhead passage upstream.

Cattle exclusion

Cattle should be immediately excluded from all fish spawning and rearing habitat above and below the reservoirs. Cattle are currently trampling spawning and rearing habitat in tributaries to both reservoirs. Cattle should be excluded from fish habitat in Arroyo Hondo Creek, Calaveras Creek, and the arm of Calaveras Reservoir where these creeks meet the reservoir. Cattle should be excluded from fish habitat in San Antonio, Indian and La Costa Creeks above the reservoir and San Antonio Creek below the reservoir. Fencing must be adequate to ensure cattle can not access stream habitat by going around fences when the reservoir surface level is lowered. Cattle access must be monitored and a budget provided for maintaining the exclusions and repairing fences.

Informational needs

The SFPUC should provide the following information to the Alameda Creek Fisheries Restoration Workgroup, to determine appropriate stream flows for interim operations:

What is the average annual natural stream flow at Calaveras and Alameda Creeks from the periods Nov. 1 to Jan. 14, Jan. 15 to March 15, and Mar. 16 to Oct. 31?

What are the annual diversions (in acre-feet) at Alameda Diversion Dam and when are these flows diverted?

Do average annual ADD diversions meet or surpass the proposed minimum flows in the 1997 MOU?

What is currently the maximum rate at which the SVWTP can process water from Calaveras Reservoir and what rate is anticipated after the SVWTP is enlarged?

How much water (in acre-feet) did the SFPUC process annually from Calaveras through the SVWTP before the reservoir drawdown ordered by the Division of Dam Safety and what has been the annual diversion since the drawdown?

What are the current and historical annual diversions at the Sunol Filter Galleries and what year did these diversions start?

Reference information

Calaveras Reservoir levels

	Elevation (ft)	Storage (af)
Full	756	96,000
DSOD max	705.5	38,000
DFG min	690	26,000
	675	16,000

Calaveras Outlets

727 feet	adit 3	fish screen 3/32”	can not be used currently
699 feet	adit 2	fish screen ½”	can not be used currently
663 feet	adit 1	debris screen 1 3/8”	can be used above 690
617 feet	drain	no screen	

Proposed flow releases from 1997 MOU with CDFG

Nov. 1 to Jan. 14	5 cfs	= 742 af	(9.9 af x 75 days)
Jan. 15 to March 15	20 cfs	= 2,376 af	(39.6 af x 60 days)
Mar. 16 to Oct. 31	7 cfs	= 3,118 af	(13.86 af x 225 days)
Annual Total		= 6,236 af	

1 cfs/day = 1.98 acre feet