

AGENDA | Wednesday, December 7, 2011, 10:30am-12pm

Dry Creek Advisory Group

Russian River Instream Flow & Restoration Program

Location

Don Clausen Fish Hatchery

Behind the Visitor Center at Lake Sonoma

Contact Information

Anne Crealock, Sonoma County Water Agency, 707-547-1948, annec@scwa.ca.gov

Time	Agenda Item
10:30	Tour of Coho Broodstock Program (Ben White)
11:30	Post-Tour Meeting <ul style="list-style-type: none">- Updates regarding the Demonstration Project and Tributary Projects (Dave Manning)- Discussion, Questions & Feedback
11:55	Wrap Up (Anne Crealock)

Meeting Notes

Coho Broodstock Program Tour (10:30-11:30)

Ben White and Peter LaCivita from the US Army Corps of Engineers (USACE) spoke to the group about the Coho Salmon Captive Broodstock Program.

The Program began in 2001 after a drastic decline in wild coho with the goals of preventing extinction and reestablishing a self-sustaining population. From 2001 to 2003, program staff collected 200-300 wild coho for use in the program. By 2004, wild coho were virtually gone from local streams.

Fisheries biologists at the hatchery take great care to minimize inbreeding and maximize genetic variation. For example, when choosing mates for the coho, fisheries biologists hand-pick 4 males to pair with the eggs of each female to minimize inbreeding. Additionally, in 2006, fisheries biologists began "outbreeding" in which Russian River fish are paired with wild fish from Olema Creek in Marin County. These fish are close enough together in the wild that there would have been natural mixing between the two gene pools. The offspring that contain some genes from the Olema fish have higher survival rates.

Fish are raised in tanks at the newly constructed coho facility and then released at several different ages by hand to several different tributaries of the Russian River from mid-October to mid-November and sometimes in the spring either as newly-hatched fry or as smolts that immediately begin their migration. The younger fish do better at imprinting on their new stream but they have higher mortality rates. The older fish don't imprint as well but are more likely to survive. Therefore, the program releases some fish at each of several different ages to balance the risks. Biologists are also developing ways to enhance imprinting by keeping fish in holding tanks adjacent to their destination creeks that are filled with water from those creeks. This allows them to imprint on their new "natal" creeks before leaving for the ocean.

Each year thousands of coho are released; reaching a total of 173,000 in 2011. Many of those fish are released in the fall, when fish that are just a few months old, called parr, are released with plenty of time to allow them to imprint on their new creeks before outmigrating to the ocean. A few adults are also released in the fall, particularly in Salmon Creek, to allow them to spawn and create a new generation of offspring that are imprinted on their natal creeks. In February and March, fish that are still too young to spawn, but are old enough to head to the ocean, called smolts, are released.

After the fish are released, they are monitored by UC Cooperative Extension (and the Sonoma County Water Agency). The accuracy of monitoring is enhanced by the use of PIT tags that are implanted in approximately 10% of the fish before they leave the hatchery. PIT tags are about the size of a grain of rice and are similar to the microchips that are sometimes implanted in household pets. PIT tags help fisheries biologists develop individually-based estimates of growth, abundance, movement, and survival within particular streams. From this stream-specific information, managers can then weigh the benefits to the population of stocking particular streams.

(In response to a question: If you've seen orange-painted rocks along Dry Creek, you've seen evidence of some of SCWA's monitoring efforts for Chinook. These rocks are placed adjacent to redds ("nests" created by steelhead, Chinook or coho) to track spawning activity over time.)

Post-Tour Meeting (11:30-12:00)

Demonstration Project Update

On November 15, the Water Agency's Board of Directors approved the Demonstration Project and adopted its CEQA document. It also approved the right-of-way process for negotiating with each landowner. Talks with landowners within the project area are going on now. The Water Agency must now get permits from regulatory agencies to do the work and is hopeful that at least some work will begin in 2012. Most of the work will take place in 2013, however.

The project will include several different techniques to create habitat within the channel and in newly created backwater channels and ponds. Logs and rocks will be used and vegetation would be managed to create and diversify habitat.

Question from Supervisory McGuire: Some residents are concerned about flooding. How will this issue be addressed?

Response: Inter-Fluve is designing the project to handle high winter flows. For example, large boulders may be used to anchor logs in place. The resulting project will actually increase flood capacity.

Question: To what extent is flooding a result of releases from the dam?

Response: The USACE follows specific protocols to manage releases to maximize safety and prevent flooding. They give advanced notice to property owners along the creek so they know when larger releases will happen. One thing that has changed fairly recently is their ramping rate (i.e. the USACE must now increase or decrease flows more gradually). The changes help fish because they reduce the risk of stranding.

Question: What's the cost of this work?

Response: About \$6 to \$8 million per mile. The Water Agency had to guarantee the funding for the ongoing maintenance, to take care of the project areas after the construction is complete. Funds come out of a fund set up back when the dam was constructed to cover the maintenance of the dam and address the environmental consequences of the dam. All property owners in the County contribute to this fund as a line item in their property taxes. Neither the County nor the Water Agency can tap into that money for other purposes.

Question: What about sedimentation behind the dam?

Response: This reservoir experiences a low sedimentation rate so it will be a long time before it's a problem. The sedimentation rate at Coyote Valley Dam is higher so that issue will need to be addressed sooner at Lake Mendocino.

Question: Does this project address erosion?

Response: About 600 feet of the first mile includes bank stabilization to reduce erosion.

Question: What do you do if you need to repair your bank if you're not part of the Water Agency's project area? Who do you call?

Response: Sotoyome RCD sometimes helps with emergency repairs. Whatever you do, you need a permit to work on the banks or channel of Dry Creek so you'll need to talk to Fish and Game as well as other agencies.

Tributary Projects Update

The Water Agency is required by the Biological Opinion to complete 5 fish passage projects on tributaries of the Russian River.

This year the Water Agency completed two fish passage projects. One project is located on Crane Creek and involved work with landowners Doug Lipton and Cindy Daniel of Home Farm and Ronald and Pamela Wollmer as well as the Sotoyome RCD and Prunuske Chatham. Near the estuary, on Willow Creek, the Water Agency replaced a box culvert with a free-standing bridge.

During the summer of 2012, the Water Agency will tackle two box culverts; one on Grape/Wine Creek and another on Wallace Creek.

A fifth project, habitat restoration on Wine/Grape Creek was constructed in 2009 and 2010 and was monitored in 2011.

Ongoing Fisheries Monitoring

The Water Agency is also conducting ongoing fisheries monitoring on Dry Creek. Staff is monitoring tagged fish and determining growth rates of steelhead. In the spring, staff will trap outmigrating juvenile fish as they leave Dry Creek. The trap by West Side Road bridge is out for the season.

Question: Is there a way to inform landowners in Dry Creek about the monitoring?

Response: Currently, the Water Agency notifies all affected landowners along the creek whenever any monitoring activities are planned. Would it be helpful if SCWA staff work with the DCVA to include information in the SCWA newsletter? (It was decided that SCWA staff would include information in the newsletter to update residents on SCWA's fisheries monitoring activities on Dry Creek.)