Meeting Summary
Fisheries Management Technical Feedback Group Meeting
Tuesday, June 25, 2013

Reclamation, 2800 Cottage Way, Sacramento, CA 95825
Cafeteria Conference Room C 1003

Attendees

Matt Bigelow, California Department of Fish and Wildlife
Jason Faridi, Fishbio
Elif Fehm-Sullivan, National Marine Fisheries Service
Carlos Garza, National Marine Fisheries Service
Ben Gettleman, Kearns & West
Margaret Gidding, U.S. Bureau of Reclamation
Julia Golomb, Kearns & West
Chuck Hanson, Technical Advisory Committee
Zac Jackson, U.S. Fish and Wildlife Service
Bill Luce, Friant Water Authority
Palmer McCoy, Henry Miller Reclamation District
Rod Meade, U.S. Restoration Administrator
John Netto, U.S. Fish and Wildlife Service
Don Portz, U.S. Bureau of Reclamation
Rhonda Reed, National Marine Fisheries Service
John Rueth, U.S. Fish and Wildlife Service
Monty Schmidt, Natural Resources Defense Council
Erin Strange, National Marine Fisheries Service
Tom Taylor, Cardno ENTRIX
Janet Thomson, Kearns & West
Kim Webb, U.S. Fish and Wildlife Service
Michelle Workman, U.S. Fish and Wildlife Service

Introductions, Meeting Purpose, Agenda Review

Kim Webb, U.S. Fish and Wildlife Service (USFWS), opened the meeting and welcomed the meeting participants. Ben Gettleman, facilitator, reviewed the meeting objectives, which included updates on spring-run Chinook salmon (spring-run) reintroduction rules, results from recent fisheries-related studies, and information about upcoming fisheries-related studies.

Update on Proposed Spring-Run Reintroduction Rules

Rhonda Reed, National Marine Fisheries Service (NMFS), provided an update on the proposed spring-run Chinook salmon reintroduction rules and a summary of the comments received on the proposed rules. The proposed reintroduction rules include processes for: collecting and propagating fish under Endangered Species Act (ESA) section 10(a)(1)(a), designating an experimental population of fish under ESA section 10(j), and enabling take exemptions under ESA Section 4(d) for conservation purposes. Both the proposed rule (circulated in January 2013) and the associated Environmental Assessment were available for public comment. NMFS will respond to these comments, as part of the process to finalize the rules, before the end of the year.

Ms. Reed summarized the comments on the documents, which included concerns that:

- It may not make sense to release spring-run Chinook salmon prior to completing restoration actions in the river.
- There may not be adequate funding to complete the activities.
- Mill Creek may not be an appropriate source population of spring-run.
- It may be difficult to measure success of the reintroduction effort.
- It may be difficult to prevent the hybridization and inadvertent comingling of spring- and fall-run Chinook during program implementation.
- The experimental population designation should be either larger (including all of the Delta or the east side tributaries) or smaller (by excluding the associated waterways and flood control structures identified in the preferred alternative).
- The documents should analyze program durations of varying alternatives.
- There were some inconsistencies in the documents regarding the take exemptions for receiving or diverting water as part of the de minimus requirements of the original Settlement Agreement. *Note – NMFS is forming a small group to discuss the process by which NMFS will develop a technical memo regarding the method for calculating the expected number of fish coming from the San Joaquin River that would be exempted from the take provisions, as well as the triggers that might affect water supply operations in the Delta. Anyone interested in participating in that group should contact Ms. Reed.*

Results from Recent Fisheries-Related Studies

PIT Tag Initial Results

Don Portz, Bureau of Reclamation, provided preliminary information about the results of Passive Integrated Transponder (PIT) tag studies from 2013. Reclamation has two aims with PIT tag studies: determining how to improve upon PIT tag antennas, and ascertaining where to put PIT tag arrays to ensure the most effective monitoring.

Reclamation used several different types of arrays to accommodate the needs of recreationists while enabling to track as many tagged fish as possible. In 2013, arrays were located at Lost Lake State Park, Owl Hollow, Scout Island, Gragnani Farms, the Chowchilla bifurcation structure, and San Mateo crossing. Reclamation released 3,536 fish that were held in the net pens below Friant Dam for 24-48 hours prior to release in order to assess mortality. Eighty percent of the fish were not tracked at the first array (Lost Lake), indicating that they were either eaten or not detected by the array. Because there is very little spawning habitat at Lost Lake, in the future, Reclamation may release fish below Lost Lake so that the fish have more available spawning habitat.

Reclamation is analyzing the fish movement data and comparing it to data from 2012. In 2012, the water flows were higher and there was greater fish movement; however, fish movement is not necessarily correlated with flows. Reclamation will be looking at the relationship between the recorded water temperatures and fish movement. Individual fish movement seemed to vary widely, with some fish spending long periods of time in one location, other fish moving very slowly through the system and others moving over a mile an hour down the river. Reclamation's analysis will be captured in a report released in September 2013.

Next year, Reclamation intends to use more array locations throughout the river, release a greater number of fish (multiple times), increase the monitoring duration beyond Memorial Day, design permanent arrays on some structures, get better flat-plated designs, develop a real-time data query on the program website, send some fish down Reach 5, and conduct improved outreach to river recreationists.

Acoustic Tag Study Initial Results

Michelle Workman, USFWS, explained that the goals for the 2013 acoustic tag study included assessing fish survival and movement in Reach 1 and Reach 5 in a critical high/dry water year with no connectivity, and studying how fish were moving through mine pit habitat in Reach 1 to determine whether there is holding behavior in the pool right below Friant Dam. USFWS released the majority of the Feather River fall-run fish below Friant Dam, as well as some in Reach 5.

USFWS had 41 receivers in the river between Friant Dam and Mendota Pool, with additional receivers in Reach 5, at the mouths of the downstream tributaries (Merced, Tuolomne, and Stanislaus), and access to arrays used by other groups studying systems downstream. USFWS also conducted mobile tracking in early May.

The downstream stationary receivers recorded 43 of 51 fish at the first receivers downstream from the release; 13 of the 47 fish from the Reach 5 release were detected downstream of the Stanislaus River (the lowest receiver). USFWS is still processing the data from the upstream release, though preliminary results indicated that the fish all went downstream nearly immediately after the release. USFWS is still processing data from the mobile tracking study in the Sycamore Island complex. Preliminary results indicate that quite a few fish were off the channel in the mine pits (which were available during all flow conditions) as well as in the mid-channel.

USFWS will download the data from the receivers one more time and then summarize the data, calculate survival estimates for each release group, calculate the movement rate for each group, and add in the data from downstream Delta receivers. USFWS will also collect and summarize the data from the mobile tracking study and make assessments about predation and mortality detections. Lastly, USFWS will be preparing study plans for 2014.

Steelhead Monitoring Plan

Don Portz, Reclamation, provided an update on the development of the Central Valley steelhead monitoring plan, which is available on the Program website: http://restoresjr.net/. The intent of the plan is to document the presence of steelhead in the Restoration Area – as they may be attracted by Interim Flows – and move any steelhead that are found towards downstream spawning habitat. The steelhead are extirpated from all waters upstream of the confluence of the Merced and San Joaquin Rivers but are believed to have been present up to Mammoth Pool in the past.

Steelhead monitoring occurs every year from January to March in the entire wetted section of Reach 5, including adjoining sloughs. Reclamation uses electrofishing, fyke nets, trammel nets that are designed for steelhead, and the Hills Ferry Barrier. No steelhead were caught in 2013. The most common species in the river were common carp, as well as bluegill, black crappie, goldfish, largemouth bass, spotted bass, and white catfish. Non-native fish comprise the majority (94 percent) of the fish found in the river.

The 2014 sampling will be performed from the confluence of the Merced and San Joaquin Rivers to the furthest upstream section of continuous wetted river channel. Reclamation will contact Jonathan Nelson from the California Department of Fish and Wildlife (CDFW) to discuss how the Reclamation steelhead monitoring plan might integrate with the CDFW steelhead monitoring plan.

Upcoming Fisheries-Related Studies/Plans

Adult Transport Plan

Matt Bigelow, CDFW, noted that the department is in the process of updating study plans. CDFW plans to use 2012 trapping locations with the exceptions of Mud Slough and Salt Slough. CDFW received reports in 2012 that some Chinook had traveled further upstream beyond CDFW's trapping locations, so the department is hoping to improve trap rates this year. CDFW is also looking to optimize the type of trapping gear used at each location, to optimize feasibility (access roads) while ensuring that channel velocities are conducive to trapping. To date, the transport, loading, and release methods have worked well with very low mortality.

CDFW aims to improve on the telemetry locations in 2013. In some cases the channel splits, so the department will try to have telemetry locations in both channels to track the fish. CDFW will also be focusing on increased carcass and spawning surveys; this is an area where the department will be refining the study plan methods.

The streamside spawning worked well in 2013 (with almost 94 percent survival from egg to swim-up). In order to get bigger fish, CDFW will try to spawn the fish earlier, if feasible, depending on water temperatures. The department will experiment with using larger net pens for cage rearing and will continue to investigate the causes of gas bubble disease (which is likely caused by water releases from the dam). CDFW is discussing potential changes to release locations with Reclamation.

2014 Studies/Actions Planning

John Netto, USFWS, described the USFWS process for guiding research for the San Joaquin River Restoration Program. The 2014 fisheries actions are intended to inform direct reintroduction methods and plan for reintroducing fish into the system, and to inform large-scale actions and future management decisions.

The spring-run reintroduction strategy includes direct stocking of spring-run juveniles into the Restoration Area, the construction of the conservation facility, and development of the captive broodstock program. The captive broodstock program will be initiated in the spring of 2013, with small-scale juvenile releases starting in the spring of 2014 and expanding over time. The small-scale actions will enable USFWS to test and refine methods so that optimal production, rearing, and release approaches are determined by the time the river has been sufficiently restored to handle larger numbers of released fish.

The fall-run strategy involves working with the existing populations within the system to enable them to re-colonize the San Joaquin River. This program centers on river restoration activities. The major actions include testing adult capture and transport methods (observing behavior and success in

spawning areas) and testing methods for streamside spawning and rearing and direct releases into the Restoration Area.

The Monitoring and Analysis Plan (MAP) process is the monitoring and implementation planning framework for the program. The MAP process is focused on identifying central research questions and organizing/prioritizing so that appropriate interdisciplinary groups can guide the research. There are six steps to the MAP process:

1. Primary investigators submit past work in a report;
2. Comments are made on the past work;
3. Primary investigators revise the reports based on comments;
4. Small Interdisciplinary Groups (SIGs) develop a linkage of the study back to the originally identified questions;
5. SIGs use information from the study to answer questions and to reprioritize actions;
6. The program technical experts will incorporate the reprioritized actions, revised questions, and study information into the MAP.

The themes for the draft framework currently include flow scheduling, rearing habitat, fish reintroduction, predation, fish passage, conveyance capacity (temperature), spawning and incubation, entrainment protection, adult migration paths, water management, and long-term monitoring. Many of these are interrelated. The program experts will discuss the questions and uncertainties associated with these themes and work to refine the state of knowledge within each theme.

An example of the research questions the program will examine is how run segregation will be accomplished. The program will look into whether physical separation will be needed to segregate spring-run and fall-run fish based on where the fish use habitat. The Fish Management Work Group has been looking into the use of adult segregation weirs based on understanding habitat availability and usage.

Next Meeting

The next meeting will be scheduled around early October 2013 and will be held in Turlock. Suggested topics for the next Fisheries Management TFG included:

1. Draft study plan from the SJRRP MAP process;
2. Additional results from the PIT tagging study, including integrated results from the PIT and acoustic tagging studies, if possible;
3. Update on CDFW rotary screw trapping efforts;
4. Update on reintroduction rules.

Meeting Adjourned