

**Minutes of the Central Valley Fish Facilities Review Team Meeting
April 28, 1999**

Participants: Dan Odenweller*, John Andrew*, Marianne Hallett, Charles Liston, Serge Burke, Scott Siegfried, Kevan Urquhart, Ted Frink, Randy Beckwith, Paul Raquel, Kamyar Guivetchi, Ron Silva, Steve Hirtzel, Dave Robinson, Valerie Curley, Jim Buell, Arnold Sanchez, Mike Driller, and Bob Fujimura.
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I. Status of Butte Creek Farms Fish Screens

Marianne Hallett discussed the findings of the April 12 investigation on these fish screens. The downstream screen had collapsed and sand had chewed up the backwash pump. The backwash nozzles had eroded and the cleaning efficiency of the nozzles was significantly degraded. The sealed bearings were compromised and the seals and bearing shaft showed signs of erosion. One comment was the collapse of the screen was the likely result of a failure of the backwashing system to clean the screen surface. This failure may be site-specific; this site was relatively shallow and in the slow current section. Others commented that successful installations of similar types of fish screens were in deeper stream channels with scouring flows. It was also noted that the failed screen has no provisions for removal or routine maintenance without the use of divers. Because of the current problems with these types of fish screens, NRCS is delaying the implementation of planned small fish screens in the Sacramento River basin until the technical problems have been solved. DWR's diver inspection report indicates the backwashing nozzles to their fish screens on Sherman Island does not clean the screen surface uniformly. Marianne H. suggested that screen cleaning evaluations be conducted at USBR's Denver research facility. The Interagency Screen Team is analyzing the technical problems and suggesting possible solutions such as routine maintenance provisions and proper site installation guidelines.

Marianne H. mentioned that the NRCS's program to installed of fish screens on Russian River will continue. These fish screens are funded from a different source than the Sacramento River basin and the Russian River participants will remove their screens when not in use.

II. Fish Salvage Facilities QA/QC

Responding to a request that DAT wanting to oversee data collection and data analysis for fish salvage facilities, Scott Siegfried and Kevan Urquhart discussed current QA/QC procedures and planned improvements.

Scott Siegfried explained why a steelhead trout sample was included in a chinook salmon DNA monitoring program and discussed the current QA/QC procedures at the Tracy Facility. He pointed out that biologists check redundant data sheets daily, double checks used, and data is also reviewed by DFG staff. Plans for improving data collection and QA/QC include increasing staff, new data forms, and shifting Scott's work schedule to facilitate training and monitoring of Tracy staff.

Kevan Urquhart discussed the current training process for fish identification at the Skinner Fish Facility and possible improvements for verification of species identification. He mentioned that they plan to start cross-checking fish samples from the Skinner Fish Facility and the Tracy Fish Facility. Previously, they took and froze subsamples of the salvage counts for later verification of fish identification and size measurement, but T&E take restrictions makes these subsamples difficult to implement now.

During this section there were several suggestions for improving data collections at the facilities. It was mentioned that there has been some problems generated when new monitoring demands have been ordered without sufficient coordination of the fish salvage facilities staff or without sufficient funding to carry these tasks. DAT may be obtaining daily catch data from the Skinner Fish Facility operators without the usual QA/QC checks and there was concern over the risk of making critical management decisions based on unchecked data. It was expressed that to provide information in real time or to improve the identification accuracy of difficult larval stages will require additional funds. Routine testing of operators for fish identification, blind subsampling of fish counts, revision of fish identification keys, and several technical improvement methods were mentioned to improve the accuracy of the salvage counts. Dan Odenweller will summarize and report these points to the May 11th IEP Management meeting.

III. Mitten Crab Fish Facility PWT

DWR staff have received encouraging reports from the USBR Denver staff on guidance tests with mitten crab. According to Brent Medford, crabs appear follow barrier walls in laboratory trials. Based on these reports, DWR wishes to install a guidance barrier in front of the intake channel upstream of the Skinner Fish Facility to evaluate their potential to guide mitten crab. K-rails or parking blocks will be likely used and August 1 was the tentative date for installation. There was some comments concerning the need for informal consultation with NMFS and USFWS, impacts on entrainment or guidance of fish, barriers creating habitat for fish predators or creating debris and sediment problems. DWR staff will present their proposal to the parent Mitten Crab PWT.

Scott S. reported on USBR's Mitten Crab Management Plan for 1999. The plan will rely on the installation of travelling screens in the secondary louver bays to remove the mitten crabs. If the travelling screens fail to properly remove the mitten crabs, then either USBR will stop pumping or they will ask for permission to lift the primary louvers to pass the mitten crabs. It was recommended that USBR notified the appropriate agency representatives on these options. It was recognized that louver efficiency studies would be needed to assess the effect of the travelling screens on fish salvage efficiency.

IV. Morrow Island Fish Screens

DWR staff used the comments from the previous meeting to refine the construction plans for two designs for a fish screen at Morrow Island. These modifications include adding baffles for uniform flow over the flat plate screen, motorizing outlet valve system for increased velocity control, providing internally isolated outlet bays, and including a flow measurement system.

The design using conical screens will cost \$2.2 million and the flat plate screen design will cost \$1.6 million to install. Design plans were passed out and DWR wants any comments sent to Kamyar Guivetchi by the next meeting.

V. USBR Tracy Fish Facility Proposal

Charles Liston provided historial background and current efforts to develop a new fish facility at Tracy. Recently, CALFED support has changed from a large scale fish screening facility (2,500 cfs) to a smaller test facility (500-600 cfs) as the first phase. Liston's USBR Denver staff has submitted CALFED funds to develop this test facility using positive fish screens. UC Davis staff will participate with swimming performance evaluations and studies involving fish crowding research. DFG staff will investigate fish stocking and holding technologies. USBR will develop, construct the test facility, and continue with research on handling debris and mitten crabs. The second phase will be an intermediate scale facility (2,500 cfs).

VI. Other Business

It was announced that there will be a local public meeting on steelhead trout critical habitat. There is considerable interest in whether the San Joaquin River tributaries will be listed as critical habitat and if such listings could affect fish screening projects in this basin.

John Andrew is working with Alan Temple to hold the USFWS/NCTC Fish Passage Course this fall (tentatively Oct. 4-8). Dan O. wants a short course on East coast fish passage devices and barriers in the Spring of 2000.

There was more discussion on sponsoring and holding the Northwest Fish Screen Workshop in Northern California. Dan O. and Marianne H. will be the primary persons responsible for the initial organization. Kevan U. volunteered to organize an additional trip to visit the Delta fish facilities.

It was mentioned that there is RFP for repair work on Coleman Hatchery fish screens. The general problems and the nature of the repairs for these screens were discussed.