

# South Delta Fish Facilities Forum

## Meeting Summary and Action Items

April 2, 2003, 1:00 - 4:00 PM

Resources Building Rm. 1206

Sacramento, California 95814

### Attendees

Kirk Rodgers .....	USBR (Forum Co-Chair)
Tim Quinn.....	MWDSC (Forum Co-Chair)
Diana Jacobs .....	DFG (Forum Co-Chair)
Michael Aceituno, Miles Croom, Dan Odenweller.....	NMFS
Bruce Oppenheim, Rick Wantuck .....	NMFS
Kathy Kelly, Don Kurosaka, Terry Mills, Roger Churchwell .....	DWR
Rick Soehren.....	DWR
Bruce Herbold.....	EPA
Perry Herrgesell, Pat Coulston, Bob Fugimura .....	DFG
Dave Harlow, Bill O'Leary, Ryan Olah .....	USFWS
Dan Nelson, B.J. Miller.....	SLDMWA
Alex Hildebrand (via Phone) .....	SDWA
Tina Swanson .....	Bay Institute
Serge Birk .....	CVPWA
Laura King Moon.....	SWC
Rick Sitts, Jim Buell, Dennis Majors (via phone).....	MWDSC
Ron Silva, Mike Chotkowski, Ken Lentz, Tom Morstein-Marx .....	USBR
Jon Bureau, Pete Smith, Larry Smith.....	USGS
John Beuttler .....	CSPA
Doug Lovell .....	FFF (Fish First)
John Winther .....	Delta Wetlands
Dale Flowers .....	DF & Assoc
Ron Ott, Darryl Hayes, Sam Luoma (via phone).....	CBDA

### Agenda

Introductions.....	All
Agenda Review .....	Dianna Jacobs
Announcements .....	All
IEP Fish Facility Teams .....	Perry Herrgesell / Roger Churchwell
Overview of Fish Losses .....	Ron Ott
Predation Losses in CCF .....	Jim Buell
Review of Alex Hilderbrand's South Delta Concept .....	Pat Coulston
Future Meeting Discussion.....	Dianna Jacobs

Note: Handouts and presentation materials from this meeting and previous ones will be available on the CALFED website soon. More information to come next month:

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## **Agenda Review**

The Forum will focus on fish losses due to pumping effects in the Delta. The Forum will not resolve policy issues on related issues such as species recovery, water supply, ecosystem, or other areas. The ultimate resolution and integration of these and additional issues will be addressed in other forums. Recommendations on an approach and/or alternatives to resolving screening issues at the SWP/CVP pumps will be made by this Forum. This could include a benefits analysis.

A Delta map was displayed showing the general areas of fish losses that the Forum will explore. The areas included "Far-Field Losses," "Near-Field Losses," "Pre-screen Losses," "Facility Losses," and "Collection, Handling, Transportation, and Release Losses."

This meeting was intended to look what we know and don't know about the "Pre-Screen Losses"

## **Announcements**

None

## **IEP Facility Teams**

Perry Herrgesell outlined the IEP organization including the IEP Coordinators, Management Team, and Technical Teams. A few points were highlighted:

- The IEP was pulled together in 1972 to evaluate the biological impacts of the Peripheral Canal, but since its defeat, it has taken on many Delta monitoring programs;
- Fish Facilities was a significant program element until 1982. Until recently, it has not focused much effort on that program element. Fish Facilities is now a program element with a focus on CHTR studies;
- Annual IEP budget is \$14 million/year, funded primarily by state and federal contractors. Specific projects with their own budgets can be brought into the IEP;
- The Agency Directors meet once a year to adopt the program and budget;
- Agency Coordinators set priorities, the Management Team delegates the studies to Project Work Teams (PWT);
- PWT's have specific charges, and typically go away after completing their tasks. The PWT's include stakeholder representatives;
- The Central Valley Fish Facility Review Team (CVFFRT) reports to the Agency Coordinators; they oversee the fish facility development priorities and form PWT's from this group;
- The IEP activities are guided by a Management Advisory Committee. Science is part of this oversight;
- The IEP is well known inside the agencies, but not understood well outside the Agencies;
- The IEP publishes a quarterly newsletter on program activities and holds an annual conference;

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- The IEP is not geared to research only – it has significant management advisory and project collaboration functions;
  - Agency Coordinators have decision authority, not stakeholders;
  - Although stakeholders are welcome to observe the Agency Coordinators meetings they may not participate.

Roger Churchwell described the CVFFRT function and oversight:

- The CVFFRT is composed of Agency and stakeholder technical representatives that discuss and coordinate fish facility activities and in the Central Valley. Active projects include the South Delta Fish Facilities research programs and the CVPIA Anadromous Fish Screen Program;
- Fish Facility communication to the IEP Agency Coordinators is through Ron Ott for CALFED. He is a Coordinator member;
- The Review Team does not manage projects or have a budget.
- “Grapes” are project activities that the team coordinates. Like PWT’s, a “grape” is formed or disbanded as needed.
- Fish Population issues are not a function of the CVFFRT;
- The CHTR went to the CVFFRT due to necessary participants in place and their knowledge;
- The CVFFRT has an Expert Panel of fish facility advisors to use as necessary.

**Action Items:**

***The SDFF Forum leads (Jacobs, Quinn, Rogers) had the following response to the presentations:***

- ***They agreed that the structure currently in place was good for addressing the Forum’s questions since their issues are not only facility related. The group will not address species recovery – even though that issue must be resolved in other forums ;***
- ***The SDFF Forum must coordinate findings with actions and decisions in the other groups. They will serve by helping formulate and frame issues appropriately;***
- ***The SDFF Forum will also look for “low hanging fruit,” recommending actions on those projects;***
- ***CALFED does not need much additional outside support or review in its SDFFF process as laid out during the last meeting, because IEP already can provide much of that support and review.***

**Overview of Fish Losses**

The IEP and CVFFRT will pull together information on what we know about other losses in future meetings.

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## **Predation Losses in Clifton Court Forebay**

Jim Buell described the current state of knowledge on Clifton Court Forebay predation in a PowerPoint presentation. Jim was presenting the available data on the subject as a member of the CVFFRT. The presentation was previewed by the CVFFRT and the CCFTAT before this meeting. Summaries of many of the studies are presented in an IEP technical report #55. Fish loss calculations/equations used by the SWP and CVP to estimate "Take" and fish survival were handed out. A summary of the major points on "pre-screen" losses are as follows:

- Loss estimates from eight studies on salmon losses across CCF between 1972 and 1993 (radial gates to trash boom) range from 63-99+%, with a median greater than 85%;
- Additional "pre-screen" losses between the trash boom and louvers range between 10 – 75%, indicating both reaches need to be addressed if the predation problem is to be solved;
- SWP "pre-screen" losses are calculated at 75% (a negotiated rate based on the average of the first three studies);
- CVP "pre-screen" losses are calculated at 15% (a negotiated rate with little or no basis);
- Striped bass losses for two studies were 70 and 94% to the boom and 60-90% from the boom to the louvers;
- Potential CCF predation hot spots are at the radial gates (high turbulence), in the intake channel, and at the trashracks;
- While there are potential biases to the results, the data is clear that significant losses occur in CCF;

### **Discussion Items:**

- When polled by the SDF Forum leads, the IEP technical experts at this meeting did not disagree with the results Jim presented;
- Delta smelt losses in CCF are not known, so losses are indexed to salvage only;
- Loss estimates on smelt and other fish may not be possible since these fish can not be tagged or found in significant numbers for a study;
- There are few post-release predation studies, but most feel that post-release facility related predation occurs too. This is not counted in loss or "take" calculations;
- CHTR losses and possible post-release solutions, such as acclimation net pens, will be investigated in the CHTR studies proposed;
- Delta smelt may be of greater concern in the planning of South Delta fish facilities than are salmon or striped bass. Smelt are not migratory species in the same way and the South Delta is in their habitat;
- A concern was raised if it was better to keep delta smelt out of the forebay or to develop better ways to salvage them;

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- Kirk Rogers felt that CCF predation estimates should be reduced by expected predation in the channels. There are some rough estimates of that, but they were not presented today;
  - A question was raised about what the group's expectation would be if the CCF was "replumbed" or if the new fish screens were placed in front of CCF. Some expressed concern that re-plumbing CCF into an afterbay would only redirect predation elsewhere. Predators now in CCF would be redistributed to the Delta channels where these fish would continue to prey on listed fish. Direct losses would then be converted to indirect losses;
  - In the past, Fisheries agencies discussed implementing a major fish loss experiment that could estimate predation, facility and release losses. Basically, simultaneous releases of Coded Wire Tagged (CWT) fish groups would be released at the radial gates and at the fish release sites over time and operating conditions. Differences in adult fish returns several years later (to hatcheries) could explain south delta losses, including predation.

**Action Items:**

- *None*

**Review of Alex Hilderbrand's South Delta Concept**

Alex Hilderbrand described an alternative facility concept that could address fish protection, flow and water quality. The concept involves circulating flow through South Delta channels (i.e. over permanent barriers using fish-friendly lifts) to prevent the sump effect at the present SWP/CVP intakes. Fish screens across the SWP/CVP intakes would not have salvage facilities in this concept. Pat Coulston and Darryl Hayes presented a map of facilities and flows as described in a memo from Alex. General operating guidelines were presented, but not fully explored or modeled to date.

Pat Coulston had distributed the concept proposal to several biologists and engineers for comment prior to the meeting. A summary was prepared, but not distributed. Time constraints prevented a thorough discussion of comments received.

**Discussion items:**

- Impacts on delta smelt and circulation of fish through this concept is probably significant;
- The concept could draw more San Joaquin fish into the South Delta through the increased water draw. This was not seen as an advantage;
- Without hydraulic modeling, biological impacts would be difficult to determine;
- Pumps could be slowed to improve objectives of circulation;
- Carriage water impacts unknown, but may have water quality impacts. Difficult to evaluate without modeling.

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## Action Items:

- ***A process to evaluate new concepts such as this one needs to be established. Guidelines for evaluation should also be prepared, including how they fit with the CALFED Bay-Delta Program objectives and ongoing efforts. The CVFFRT was suggested as a review clearinghouse;***
- ***Pat Coulston should distribute the concept comments he received to the Forum for review.***

## **Suggested Agenda Items for Future Meetings:**

Present information on delta smelt knowledge relative to pumping impacts – Kevin Flemming, DFG suggested speaker with input from Wim Kimmer, Bill Bennet, others.

CHTR Studies – Bob Fugimura or Pat Coulston suggested to presenter.

Predation in South Delta Channels (salmon) – What we know/don't know.

Mortality in the Delta – Discussion of USFWS release studies showing central Delta losses and possible discussion on conceptual models being investigated.

Population Significance – Discuss limitation of studies and their meaning as was recently presented at a workshop. This may be a future meeting agenda.

Biological Opinions (OCAP/SDIP)– Information that will be used in developing these. A workshop will be held in June by NMFS. The SDF Forum may be a good place to share results or to prepare for this workshop.

Integration of SDIP and Screens – A discussion on how the barriers could influence the salvage operations.

Incidental Take -- What is reasonable?

CVFFRT and IEP MT Tools – results of discussion by the these teams on ideas and on-going/past investigations that could help address SDF issues.

## **Next Meeting**

May 16, 2003, 9 – 12 Noon

Tentative Location: California Bay Delta Authority Office  
650 Capitol Mall, 5<sup>th</sup> Floor  
Bay-Delta Room