Draft Meeting Minutes
South Delta Fish Facilities (SDFF) Forum

February 18, 2003, 1:00-4:00, Room 1131

Agenda item 1: Design considerations in the development of the CALFED South Delta Fish Facilities

Dan Odenweller, NOAA, provided a briefing on the fish screening criteria of NOAA, USFWS and CDFG and the implementation of these criteria in the proposed Tracy Fish Test Facility and CCF Intake and Fish Facility. The original objectives of the planning a design process was to:

1) Meet Agency criteria,
2) Build a TFTF that could compare the performance of existing CVP and SWP south Delta Fish screens,
3) Demonstrate the ability to design, construct, operate and maintain a fish facility in the south Delta,
4) Begin with a 2500 cfs CCF Module 1 as a demonstration project,
5) Evaluate alternative screening concepts at TFTF,
6) Modify TFTF into a 2500 cfs production facility, and
7) Build additional modules at CCF as appropriate, until CVP and SWP in the south Delta were fully screened.

The NOAA, USFWS, and CDFG criteria for positive fish screens specifies requirements for screen approach velocity (Delta smelt), sweeping velocity (Chinook salmon), screen slot width (Chinook salmon, steelhead fry and Delta smelt) and screen exposure (Chinook salmon). The existing fish screening system at existing CVP and SWP fish facilities use louvers, a behavioral device designed to create turbulence and keep the fish away from the water intakes. Mike Aceituno indicated thought this information would provide food for thought, showing the relationship of the criteria to costs at the proposed screening facilities. Criteria such as flow, screen exposure and CHTR affect costs and benefits.

Significant Points of Discussion:

- The concept of “good enough” performance was brought up, especially in light of the "population-level effects” and magnitude of expenditures. However, population-level effects should not be the only measure of “adequacy”.
- Additional studies such as better information on predation losses may lead to better management decisions; however, deferring action for better Science information is a policy decision, not a Science program decision.
- We need to protect fish, but not at all costs”. Need to look at incremental decisions, cost-effective actions, and timing to get us the most benefits as soon as possible. We also need to be aware that resources for everyone will be very tight for the next 5 years.
- The cost to implement fish protection at SWP and CVP facilities needs to be reasonable. Cost v. take is important. Perhaps an 80% fish survival in a salvaging facility would be cost-effective enough.
- Smelt criteria are still uncertain. Incremental costs are also an issue. We could apply criteria sequentially.
- We need to think totally outside the box, combinations, joint facilities etc.
- Screening as well as non-screening alternatives for fish protection should be considered.
- ESA charges NMFS and FWS with avoiding “take”. Screening may be the only reasonable tool to assure the minimization of take. We know screens work, but we probably need to work on minimizing take and determine how cost-efficient screens are.
- What other tools can we use to avoid take? EWA, reduce pumping, others.
- Need to look at alternatives to fish screens for Delta smelt and salmon, such as VAMP period vs. salvage, timing of the TDF flows, water quality and fish.
- Need to look at fish population levels and what it will take to sustain them. If we can sustain them, a certain amount of take will probably be okay.
- The law says to minimize “take” within reason. The test facility was intended to establish a comparative baseline.
- Need to consider what to do with the fish once we screen them.

- The fish screen exposure time of 60 seconds is one criterion which affects the cost of a new fish facility the most.
- The fish screen exposure time of 60 seconds was based on laboratory tests, however, in order to change the criteria, the implementing agencies are being asked to satisfactorily complete three tests 1) TFTF field testing 2) GCID field testing (which is questionable) 3) UC Davis Treadmill lab testing (haven't finished all tests).
- We need to evaluate the reasonableness of the fish criteria.
- There are three potential courses of action: 1) Take the big step all at once, 2) Proceed in cost-effective increments, or 3) Achieve some benefits early for both fish and water.

Potential Issues Raised:

- What would be the (EIR/EIS) preferred alternative for fish protection in the south Delta?
- Are we going down the right path in implementing a positive barrier screen for fish protection in the south Delta? What are our alternatives? Do we have enough information to make this decision now?
- Should we use these criteria? How do we make the best decision? Who is going to decide? Are we going to use population effects and/or ESA Protection using positive barrier screens without consideration of their benefits and cost-effectiveness?
- When determining cost-effectiveness, we need to compare alternatives. What is the benchmark? It is different for each species and habitat.
- What goal are we trying to achieve with these criteria? 95%survival?

Agenda item 2: Science Presentation on South Delta Fish Facility – Science

Sam Luoma, CALFED Science Program, provided information on the Science perspective on fish protection in the south Delta – Assumptions for each action are not

always compared in a common way or basis. These programs and their actions are driven by policy, not by Science. Science can help with:

- Providing a framework for comparing options
- Developing common conceptual models
    - On population –level effects
    - Indirect effects an zone of influence questions
    - Take management
    - State of knowledge, biological, hydrodynamics, CCF predation
- Providing common assumptions
- Help with combinations of options

For instance, if CCF predation were only 40%, would this make a difference on how you look at alternatives? Previous studies on CCF predation show varying results.

Don Kurosaka, also gave a presentation on issues which were developed by the 2002 EWA Review Panel which consist of scientific experts. The Panel identified six specific Science challenges which they felt should be evaluated for the EWA Program. Their findings and recommendations were written in their report of December 12, 2002. The six issues or challenges are as follows:

1. To determine the combinations of physical conditions in the Delta (flow, transports, temperature) that give rise to 'entrainment events' of Delta smelt.

2. What are the growth and mortality rates, habitat use and movement patterns of juvenile Chinook salmon within the Delta?

3. To develop a quantitative synthesis of the life cycle of Delta smelt and Chinook salmon.

4. To determine the magnitude of predation mortality in Clifton Court Forebay, including elucidation of whether losses through the bay differ by species and vary as a function of prey density.

5. Optimizing Delta Cross Channel operations relevance to EWA.

6. Are there reservoir management strategies to improve the availability of cold water for in-stream habitat enhancements?

The first four items can have a direct bearing on how we design and operate fish facilities in the south Delta and brings up the question of whether we need to answer these questions before we make a decision on the use of positive barrier screens in the south Delta.

Significant Points of Discussion:

- Based on about 10 predation studies of CCF over a 12 year period, predation in the forebay is probably in the range of 65-100%, 75% is probably low. The average of all studies is about 88% and the median is probably higher. Under the four pumps negotiations, a 75% "administrative" loss was agreed upon.
- Science would like to see a comprehensive, common framework for analysis of benefits, and issues related to engineering, predation, fish handling, habitat restoration, and DCCTDF, EWA, and barriers operations. IEP is looking at some of these issues.
- Science is telling us that there are bigger questions that need to be answered. No one appears to be questioning the implementation of positive barrier screens.
- If fish populations go up, take goes up. Need to look at level of recovery. Population is a goal, not an indicator (NMFS).
- We need an integrated resources plan for fish similar to what we have for supply and water quality. A plan would have distinct alternatives, impacts and benefits. An integrated plan for fish should layout how we proceed with the information we have to make policy decisions. We should layout risk of decision, given unequal levels of uncertainty, and define the incremental steps we can take to reduce the risk.
- A one page summary of the various fish facility technical advisory teams, their charge and who's on them should be prepared. (This assignment was given to Perry Herrgesell by next meeting)
- Water users need more representation in the various process groups. Water users currently are represented on the Central Valley Fish Facilities Review Team (CVFFRT)

Potential Issues Raised:

- What is Delta Advisory Group (DAG)? Is it the same as the science/technology group in the SDFF process? We need to define whom we go to for answers on fish facilities, direct and indirect losses. Also, need to consider water user participation.
- Can we adequately manage take with the screens, indirects by VAMP, EWA (zone of influence), and populations by recovery?
- Need to evaluate effectiveness of diversions (hydrology, fish losses, etc.), DCC/Barriers/export management, facilities v.operations, and facilities v. environment.
- Need to consider a workshop on criteria and how they affect directs and indirects.
- An integrated plan needs a good understanding of all its components; however, it may not be practical to know everything equally.
- Proposed fish screen alternative: Use the tide gates to screen at flood tide and use fish friendly pumps to pump fish over barriers and back into the San Joaguin River. Sent idea to Ron Ott and haven't heard back yet. Consider directing the evaluation of this to one of our agency technical subteams.

Agenda item 3: Timing of South Delta Fish Facilities and which path gives the most cost-effective incremental benefits for water supply and fish protection – discussion

Don Kurosaka provided a presentation of two potential project schedules for CHTR, TFTF and CCF showing potential decision points in the schedule where the SDFF Forum could potentially make a decision on which direction to proceed with the project(s). Information on the benefits was not available and will take some time to prepare.

Significant Points of Discussion:

- Need to develop a master list of all options and how they fit together.
- Need to look at incremental benefits and cost effectiveness.

Potential Issues Raised:

- Is there a short-circuit option for Tracy? USBR is currently evaluating an option for a TFTF proposal which can readily be converted into a production facility.

Potential agenda items for March 19th meeting agenda:

1) Science for Dummies
2) Description and members of the fish facility advisory groups working on Delta fish facilities issues (Perry Herrgesell)
3) Develop and discuss a list of major fish and fish facility screening/protection issues in the Delta (Jim Buell)
4) Briefing on fish population information and needs
5) Update on schedules