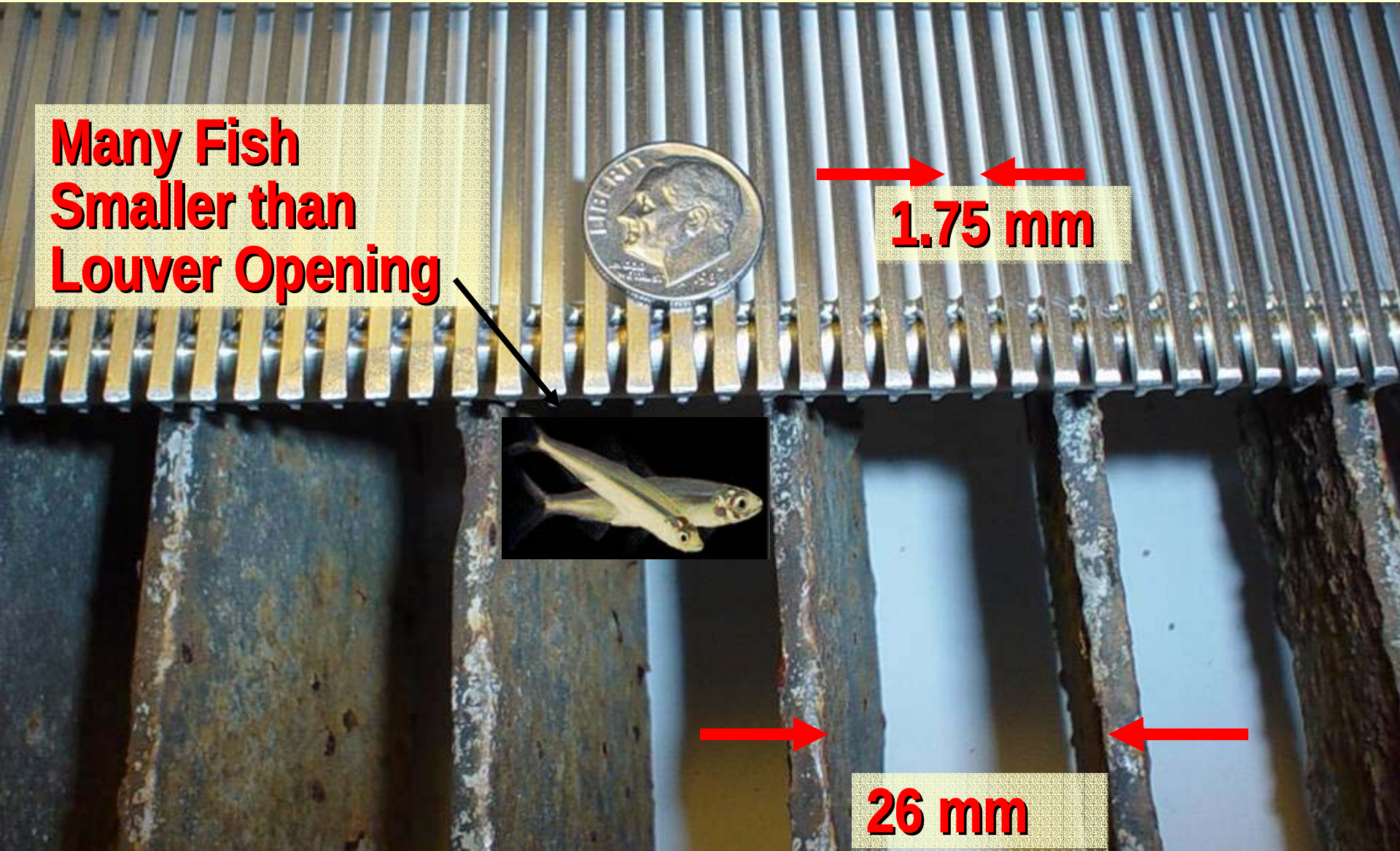
ONE OF OUR CHALLENGES

A screen opening that is 14x smaller



Design Considerations Used in the Development of the CalFed - South Delta Fish Facilities Program

Presented by:
Dan B. Odenweller, Fishery Biologist

NOAA Fisheries, Southwest Region
Habitat Conservation Division
Fisheries Engineering Team
Sacramento, California
(916) 930-3615
Dan.Odenweller@NOAA.gov

The Program Goals:

- ***To provide the "decision makers" with the information needed to select a preferred alternative.***
- ***To design a facility that complies with regulatory requirements.***
- ***To build the project in a way that does not impair project deliveries during the construction period.***
- ***To avoid stranded resources.***

The original objectives of the planning and design process for the project were:

- ***Meet the current Agency design criteria for a "low approach velocity, positive barrier" fish screen.***

- ***Build a TFTF that could be compared to the existing CVP and SWP south Delta fish screens (louvers).***

- ***Use the TFTF to demonstrate our ability to design, construct, operate and maintain a fish facility in the south Delta,***

Then continue, to:

- ***Build a 2500 cfs "Module 1" at Clifton Court, as a full-scale demonstration project.***
- ***Conduct studies to evaluate other (alternative) screening concepts against the "Agency design" criteria screens. The TFTF would be used for this work.***
- ***Modify the TFTF into a full 2500 cfs intake module for the CVP (by enlarging the intake channel).***

Prior to this step, as called for in the ROD, a decision on a "Joint Point of Diversion" would be made, and

- ***Build additional modules as appropriate, until the CVP and SWP diversions in the south Delta were fully screened.***

AGENCY DESIGN CRITERIA USED FOR TFTF PLANNING ASSUMPTIONS (Positive Barrier Screen)

Design *Criterion	NOAA	USFWS	CDFG	Criteria used for Planning	Controlling Factor *
*Approach *Velocity Va	0.33 fps	0.20 fps	0.33 fps	0.20 fps	Delta Smelt *
*Sweeping *Velocity Vs	> Va	None	>2(Va)	>2(Va)	Chinook Salmon*
*Screen	2.38mm	None	2.38mm		Chinook Salmon*
	1.75mm	None	1.75mm		Steelhead Fry *
*Slot Width	None	1.75mm	None	1.75mm	Delta Smelt *
* Screen * Exposure	60 sec	None	None	60 sec	Chinook Salmon*

For the EIS/EIR process:

- ***The existing "Louver" facilities would be the "no-project" alternative, and***

- ***the TFTF configured to the "Agency design criteria" would be the "base condition."***

- ***Finally, as alternatives, both variations of the "positive barrier screens," and/or "experimental screens" could be evaluated.***

So Where Do We Go From Here? We could:

- *Establish actual louver efficiencies for species of concern at the CVP and SWP facilities, and demonstrate that they are adequate to the task, or*

- *Continue with the TFTF and the south Delta Fish Facilities program as planned, or*

    - *with a modified schedule, and/or*
    - *with a modified TFTF, or*

- *Reinitiate studies in the south Delta (as recommended by Science), and defer any other action called for in the ROD for the immediate future, and*

- *With any of these options, do we proceed with planning efforts to move the CCFB connection to a location behind the screens?*