

TFTF/UCDAVIS COLLABORATIVE RESEARCH PLANNING MEETING
CDWR ENVIRONMENTAL SERVICES OFFICE
SACRAMENTO, CA
JULY 14, 2000

Draft of Notes

Comments in red italics are by Buell (20 July 00)

Attendees

Charles Liston	USBR - Mid-Pacific	CRList@aol.com
Dan Odenweller	CDFG	Dodenwel@delta.dfg.ca.gov
John Andrew	CDWR	Jandrew@water.ca.gov
Ron Ott	CALFED	Ronott@water.ca.gov
Darryl Hayes	CALFED	Dhayes@ch2m.com
Jim Buell	SWC	Buell@interserv.com

An interagency sub-group from TTAT was developed to examine proposed collaborative research for TFTF with UC Davis, and to continue, as a proposed steering committee, as research proceeds. The initial formal meeting was held July 14, 2000, though previous informal gatherings and information exchanges have transpired during 1999 and 2000. In addition to attendees listed above, other official members may include Brent Mefford (USBR - Denver), representatives from UC Davis, Ron Brockman (USBR - MP), Rick Wantuck (NMFS), and Ryan Olah (USFWS).

The 14 July meeting accomplished much because it was relatively small (6 participants). I strongly recommend striving to maintain a small, highly focused group. This was discussed in the meeting. Mefford would add important technical assets, and his participation was discussed in the meeting. No other names came up. The notes should accurately reflect this.

◆ Major areas of initial TFTF/UCD research the next two years are:

- * Refinement of approach velocity/fish behavior relationships, including variable debris loadings, using the existing "treadmill" and research support facilities at UCD.
- * Understanding trashrack/fish interactions using a large, experimental flume; trashracks to be tested would be similar in materials, angle, and spacings to those planned for the TFTF.

NO !! This is backward. Several trashrack array patterns should be tested, and the most successful should be planned for TFTF, as discussed in this meeting...this is the whole reason for doing the tests! Several configurations for trash rack arrays not presently planned for the TFTF were discussed in the meeting, with the clear intent to test them at Skinner and modify the TFTF plans if tests showed superior performance, either for fish or debris (or both) for configurations not presently in the TFTF plans. If we would only test the conventional configuration already planned for the TFTF, what would we learn?

* Development and evaluation of experimental fish crowders to assist downstream movements of Delta fish in fish protection facilities.

With the clear understanding that minimizing time spent by fish within any facility is a high priority, this should only be done if testing various trash rack array patterns determines it is necessary or prudent. As a secondary priority, testing of crowding technologies could occur when other, higher priority tests are substantially completed.

- ◆ Support for the above initial TFTF/UCD studies would come from the allotment agreed to in the 1999 USBR proposal to CALFED which received funding in FY2000 for TFTF development; however, any support required for construction of facilities to enable this research to proceed would need to come from another source.
- ◆ The research with the treadmill would begin April 1, 2001, and continue to May 31, 2002.

*We emphasized that this work would only commence pending completion of a final report for work already completed, commencement of treadmill work on American shad, and execution of a fish collection contract with CDFG, since there had been much consternation over the lack of timely performance by UC Davis contractors. We agreed that a strong message would be sent to the contractors warning them that future work is hanging in the balance. This needs to be accurately reflected in the notes. The message was apparently received, since Andrew has been assured by Cech that the final report on Treadmill work will be submitted in mid-August when Cech returns from a conference in Scotland. Odenweller will be receiving an executed sub-contract for fish collection today; collection of American shad began two days ago, and treadmill work will commence "soon". I submit that this tells us **exactly** what style of supervision/management is needed for the future, and I strongly suggest we consistently employ it at all appropriate levels.*

- ◆ Initial studies on trashracks and fish crowders will require a larger flume, similar in size to flow channels existing at the State Skinner Facility and the secondary louver channel of the Tracy Facility.

*I do not recall **any** discussion of the use of the secondary louver channel of the Tracy Facility. Unless this was discussed, it should not be presented in the notes as if it was (mentioning in passing does not constitute a discussion). What are the Tracy secondary channel's characteristics (dimensions, flow capacity, etc.)? What is its availability, and does this depend on the pumping schedule? Does it have full dewatering capability? Are hydraulic conditions subject to operations? Can flows, velocities, depths be controlled? Is there potential for a viewing window? In short, could it do what needs to be done and in a timely way?*

- ◆ The steering committee recommended that, given tight schedules, the initial work with trashracks and crowders be conducted using an existing channel at the Skinner Facility; the state would look into the facility modifications needs, and would implement them, while staff from UCD would perform the research, with guidance and assistance from the steering committee; research is planned for 2/1/01 - 5/31/02.

This is not correct. The group concluded that we will assume for the time being that all work on

trash rack arrays, crowders, etc. would be conducted at Skinner, **not** just "preliminary" work. The potential for future work at the UCD site was discussed, and specific examples were listed (see below). We discussed the **possibility** that some TFTF support work could be done at UCD, but that this work would be contingent on securing funding for completion of that facility, which would be justified **not** on the basis of trashrack and crowder work, but on the basis of testing of alternative screening technologies, etc. In this regard, it was **very clear** that any UCD work would supplement the primary work to be done at Skinner and **not** the other way around. This should be accurately reflected in the notes. I also do not think this bullet is correct as far as the schedule is concerned. I anticipate that some very significant work could commence this fall. Surely the relatively minor preparatory work could be completed in a rather short time frame, given the will to do it. This was discussed and the meeting notes should reflect this discussion.

- ◆ Design and development of the existing large flume at UCD would continue, assisted by an interagency team already working closely with south Delta fish facility technology development; a detailed study of the UCD flume would result, with recommendations for any alterations/modifications necessary for providing critical experimental data in fisheries engineering to future south Delta fish screen/salvage design engineers and biologists.

I do not believe this is a correct representation of the thrust of the meeting. I believe we decided that design and development of the large flume at UCD would be shelved (put on the "back burner" but not entirely abandoned) while work commenced at Skinner. I do not recall discussion of a "detailed study" of the UCD flume resulting in recommendations for alterations or modifications. I do recall that a "secondary priority" review of potential future uses along with design modifications that might facilitate such future uses was discussed, and that specific ideas put forward at the meeting included alternative screening technologies such as the Modular Inclined Screen (MIS), the Coanda screen and the high-velocity horizontal flat plate screen. None of the specific potential future uses of the UCD flume included trash racks, louvers or crowders; these elements were to be tested at Skinner. The meeting notes should accurately reflect this. It is entirely possible that the "critical experimental data in fisheries engineering to future south Delta fish screen/salvage design engineers and biologists" could be entirely undertaken at the Skinner site. Representations to the contrary are at best premature.

- ◆ Immediate follow-up activities planned are:

*J. Andrew will contact UCD staff and facilitate completion of a final report of past treadmill research at UCD;

*R. Ott will investigate contractual problems regarding UCD/CDFG agreements for DFG's provision of experimental fish to UCD this summer;

*J. Buell will provide justifications and rationale for using an experimental channel at the state's Skinner Fish Facility for gathering initial data on trashrack/fish interactions and crowders;

*D. Odenweller will investigate potential completion of treadmill research with American shad, and other species designated for testing under recent CALFED supported UCD programs.

*D. Hayes will provide a write-up on the construction modifications needed at Skinner to enable research to proceed in 2001;

*C. Liston will continue to serve as chair of the TFTF/UCD research steering committee, and will immediately contact Lev Kavvas of UCD, providing him with an update of the committee's work;

- ◆ The next meeting was set for August 8, 9:00 am, at the CDWR Environmental Services Office
- ◆ The committee's goal is to have the TFTF/UCD proposal, including research logistics and study plans, completed and available for review at the September 7 TTAT meeting.

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