

CAMT DSST Entrainment Proposal Review

11/14/2014

Welcome to the invited Review Panel Members, fellow presenters, and other guests. Thank you to the Delta Stewardship Council's Science Program for hosting and facilitating this review. I speak to you as Co-Chair of the Delta Smelt Scoping Team (DSST) whose task was to guide the development of an independent proposal for investigation of the factors affecting entrainment of Delta Smelt at the State and Federal Water Project facilities in the southern Sacramento-San Joaquin Delta. We thank you for your willingness to participate in the Delta Science Program's review process which has become the standard for scientific review within the public sphere of Delta-related Agency science and policy information generation. We know this process has been somewhat truncated due to time-constraints and the need for the entire CAMT effort to meet pre-determined deadlines, and we look forward to the time when these discussions will not face such severe policy-level time pressures. We know that scientific discussion, debate, and deliberation are imperative to the development of durable California water policies and regulation.

We have four main points we feel will help frame the substance of your review:

- 1) **We endorse a package of phased investigation activities.** The entrainment proposals present a phased approach to the completion of a package of studies commenting on the mechanics of entrainment, conditions resulting in higher risk of entrainment, the impact of entrainment to the Smelt population, and simulation modeling of smelt movement with respect to Delta water quality conditions and responses to Water Project Operations. We welcome the phased approach since it facilitates planning, review, and funding tasks associated with the work, but requires completion of the entire package to assemble a meaningful work product regarding "smelt entrainment." For example, we see the modeling component of this work as an ideal way to explicitly integrate our conceptual models of smelt responses to environmental conditions as water quality changes propagate throughout the Delta, building on what we have learned about smelt behavior using more empirical approaches. Stopping short of this model-integration phase will unnecessarily limit the amount of information we hope to gain via this CSAMP/CAMP-sponsored investigative effort. [Potential digression – "low-hanging fruit" might just be that which is actually rotting on the ground....] We know this desire for maximum benefit increases costs and demands additional time for implementation – but we're unsure what other efforts there are pursuing these investigations should the CAMT effort decide to limit its scientific reach. If we don't complete these packages here, within the

CSAMP/CAMT it's unclear (to me at least) how we will be filling such management-relevant information gaps in the near-future.

- 2) **We support the necessary step of independent review at the design and end-product stages.** We have had disagreement within the Delta Smelt Scoping Team (DSST) over what constitutes known information, what information is of relevance to the stated goals of the CSAMP/CAMT process, what is, as yet, unresolved regarding smelt information for management purposes, and the usability of available datasets. Nonetheless, *and importantly*, we have arrived at a mutually-agreeable framework from within the Scoping Group that has now been responded to by the investigative team and that we feel meets the purposes stated for the CSAMP/CAMT efforts. We hope our effort at framing these issues for the investigators to digest and to respond to is an acceptable precursor to what now will be an independent appraisal of those discussions and of that draft proposal. The emphasis on management-relevance at management time scales has proven a challenge to those of us more schooled in the scholarly pace of traditional scientific proposal development, peer-review, and competitive proposal solicitation submission process. The expedited nature of this scoping and proposal process has meant that the dividing line between “scoper,” investigator, preparer, reviewer, and arbiter has been, at times, difficult to discern. That is one reason we now turn to an outside, INDEPENDENT [stress INDEPENDENT] review panel to provide a reality-check and ground-truth to what has been proposed. We look forward to your inputs for improving the proposal for eventual funding by the CSAMP/CAMT. We look forward as well to your follow-up review of final products we anticipate as the outcome of this proposal implementation.

- 3) **We continue to encourage an open, collaborative science discussion that emphasizes the proper balance of Agency-relevant research and independent scientific thought.** We're looking for information that will inform managers and regulators (in part, through consideration of such information during any update of the existing Biological Opinion), but understand that increasing scientific relevancy will not, in-and-of-itself, solve policy impasses. We acknowledge that relying on a strictly “open call” proposal solicitation won't necessarily or expeditiously meet management needs and timetables. We also understand that “threading the needle” of *credible* policy-relevant science on policy-relevant time scales means that the results will likely be less-definitive and less-timely than either scientists or policy-makers will wish – there will be compromises involved in such an effort. We believe the current CAMT effort represents a workable combination of science and policy in pursuit of better information. However, management decisions will still require difficult trade-offs and policy calls, regardless of the quality or quantity

of the science applied. Applied science information does not often *directly* result in clear policy recommendations, at least in my experience at understanding and managing ecological systems such as the Bay-Delta Estuary. Nonetheless, the proposals before us today do offer, in our collective opinion, an opportunity to demonstrably improve the knowledge stream regarding the risks of entrainment of Delta smelt in the winter/spring period. We hope you will agree and can help us improve the existing package of proposals.

- 4) **We value the use of independent collaborative investigations to produce information ready for consideration during the development of Agency biological opinions.** The CSAMP/CAMT process shows value and promise by demonstrating an additional method of soliciting and generating relevant science for consumption by the remanded Agencies and others. We welcome this and any additional proposal implementation effort that improves the data and information stream to the regulatory and associated Agencies. However, we have not anticipated that generation of policy-relevant information through a scientifically-acceptable and -reviewable format will, *ipso facto*, result in specific policy or regulatory revision or outcome. We do, however, anticipate *acceptable* outcomes of both relevancy and timeliness when implementing the proposal under discussion today – perhaps THE major achievement of the entire CSAMP/CAMT process regardless of any additional benefit. If the dialog we have discovered and encouraged that has resulted in us being here today continues because of our collective collaborative efforts, then we think it will be apparent and necessary that the CSAMP/CAMT experiment continue for these and related issues to the benefit of the Delta-associated Agencies and stakeholders into the foreseeable future.

Thank you all again for your efforts on our behalf. We look forward to your counsel and suggestions.