Geographic Review Panel 3 – American River/Eastside Tribs

Proposal number: 2001-K201 **Short Proposal Title:** Genetic structure of Central Valley Salmon

1. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA priorities, and relevance to ERP and CVPIA priorities for your region. The proposal correctly identified chinook salmon as a first priority species and genetic assessment as one of the targeted actions.

2. Linkages/coordination with previously funded projects or other restoration activities in your region. The degree of linkage between this project and similar efforts by UCD is unclear. This project would duplicate work that is already done or underway at Bodega Bay or UC Davis, partly with CALFED funding. Some of the existing database will apparently be used, but the project would benefit from coordination with these other researchers. As far as restoration activities, the study results would be provided to the Central Valley Multi Species Conservation Strategy Planning Team, helping to maintain regional coordination.

3. Feasibility, especially the project's ability to move forward in a timely and successful manner. The project manager for this study has left DFG, leaving the management of this study in question. This could substantially affect the initial progress of the study. Technical reviewers expressed concern about the technical feasibility of otolith analysis, which we agree with. We would feel more comfortable with this study component if DFG could demonstrate that their otolith analysis capabilities had passed the "method development" phase (see below).

4. Qualifications of the applicants and others involved in implementing the proposed project. As noted above, the project manager for this study has left DFG, leaving the management of this study in question. The study team seems otherwise qualified for the effort, although it appears that Dr. Garza has not worked with chinook.

5. Local involvement (including environmental compliance). The applicants appear to have the necessary authority under FESA and CESA to conduct the study. There is no apparent local involvement with watershed groups, etc, but this is not essential for a study of this nature.

6. Cost. This is a relatively expensive study. This proposal would be more attractive if the results of the pilot NMFS/DFG genetics effort were presented first.

7. Cost sharing. Cost share for this study is in the form of in-kind services. Panel defers to Staff Review which valued this in-kind cost sharing at 23%.

8. Additional comments. Although genetic assessment of salmonids is considered a stated CALFED action, we question whether the present study would provide substantially more information for management than existing efforts by other researchers

(UCD). For example, the answer to the applicant's Hypothesis 1 is already known ("Yes") and Hypothesis 3 is partially known ("Yes, there is already evidence of reproductive isolation").

Regarding the otolith aspect of the proposal, several reviewers expressed reservations that have merit. First, it is not clear how analyses of otolith microstructure will help test the hypotheses proposed. According to the proposal, "Otolith microstructure will be analyzed to confirm the pattern of run timing for each fish sampled." This could make sense if the analyses are intended to prevent say confusion of carcasses of fish that have held over the summer with fish that have recently entered the stream. (In this case, it would be nice to have some preliminary data to show that the approach would work, although it seems likely that it would.) However, the discussion in the proposal mainly concerns aspects of juvenile life history, which raises more serious questions about feasibility. Depending on environmental conditions, spring-run may adopt a typical fall-run life juvenile life history pattern Most Butte Creek spring-run emigrate as fry, for example. Accordingly, it seems doubtful that fish from the spring and fall runs of Butte Creek could be distinguished by juvenile otolith microstructure. The proposal does not address this sort of difficulty.

Regional Ranking

Panel Ranking: Medium

Provide a brief explanation of your ranking: The team seems well-qualified, but we question the future of the study without the Project Manager. We would prefer to see the results of initial studies on genetics and otoliths to help justify the costs of this study. We agree with the TARP that the project needs to be reviewed carefully to assure that it doesn't duplicate existing research—this distinction was not clear in the proposal.