

## Selection Panel (Primary) Review

– **Fund** (a proposal recommended for funding at the amount sought or funding in part of selected project tasks or subtasks)

**X Reconsider if Revised** (a proposal that is a high priority but that requires some revision followed by additional review prior to being recommended for funding)

– **Not Recommended**

**Amount Sought:** \$3,373,313

**Fund This Amount:** \$0

**Conditions recommended** (Conditions that applicants would need to meet to obtain funds may be recommended for proposals suggested for either full or partial funding. For proposals recommended for partial funding, conditions that identify the funded tasks or subtasks must be recommended.)

Please provide a brief explanation of your rating, including an explanation of the reasons for any conditions that the panel recommends. Revisions required of proposals recommended for reconsideration should be outlined, together with a justification for the suggested revisions:

This proposal is recommended for reconsideration, if revised. The Technical Panel concluded this proposal was “adequate” and that it was a well–integrated study of several restoration efforts on Clear Creek, and the regional rating is “high.” The project is likely to produce information on the achievements of the ERP, have value for resource managers and decision makers in assessing progress, and for evaluating and modeling trends in population growth and productivity of Clear Creek. However, the Selection Panel has several serious concerns that would need to be addressed in a revised and re–submitted proposal, including the following:

- Identification and justification of control or reference sites
- Tasks described in enough detail to allow clearer technical evaluation.
- Clear description of existing knowledge on baseline conditions.
- Justification of the groupings of tasks within tiers and the prioritization of tiers.
- Clear budgeting for the separate tiers
- Provision of budget information in detail and in units that allow identification and evaluation of levels of effort.
- Clarification of whether this project includes fall run Chinook surveys.
- Addressing other identified reviewer concerns, including those identified in the budget reviews.
- Consideration of the approaches used in the Tuolumne Irrigation District's proposal (#97).

# Technical Panel (Primary) Review

*adequate*

## Explanation Of Summary Rating

There is plenty of potential for good science in this proposal, but the cost is exceptionally high. Providing details in tabular form would greatly assist in evaluating the scientific merits of the monitoring and analytical elements.

## Review Form

### Goals And Justification

This is a big ticket interdisciplinary research proposal with 12 separate tasks. At almost \$3.4 M it requests roughly one–sixth of the total funds available to this program. The goals are stated pretty clearly: to continue a comprehensive examination of restoration actions on aquatic biota in the Clear Cr. watershed. Project elements include a variety of fish monitoring efforts and life history studies, geomorphological investigations of habitat restoration, and an ambitious suite of modeling work to tie it all together and provide a framework for adaptive management. The question is, is it worth the large price tag?

An alternative approach to funding the Clear Cr. studies would be to break the proposal into three parts – (1) salmonid abundance, life history, and genetic investigations, (2) characterization of the physical and trophic systems and the changes produced by restoration (the aquatic invertebrate studies would actually go here), and (3) development of modeling tools to forecast ecological changes and support management planning. On the other hand, a strong argument can be made to keep the elements together in one funding package to ensure that important pieces of the effort are not dropped. Because Clear Cr. falls rather close to the “active management” end of the restoration spectrum (by including, for example, annual additions of large amounts of spawning gravel and creating floodplain channels for winter habitat), there is definitely merit in maintaining the strong interdisciplinary monitoring program in place to provide a long–term record of restoration effectiveness that can be compared to other watersheds where restoration strategies have been more passive, i.e., less dependent on bioengineering.

Overall, the conceptual framework is laid out so each study element can be placed in a broader context of watershed restoration. The nature of the investigations is not really experimental in the sense of having treatments and controls but the study elements are listed

and their relationship to one another seems fairly clear.

## **Approach**

It is difficult to comment on the adequacy of each of the 12 project elements because there was not enough room within the length limitation of 20 pages to provide very much detail about any one of them. In many cases there were references to sampling protocols employed by agencies, but there was little or no discussion of the accuracy and precision of these protocols, if a power analysis has been completed to determine if the monitoring objectives were feasible, or if alternative less expensive methods had been considered. Perhaps most importantly, the proposal did not identify what control or reference sites would be used as benchmarks to evaluate various restoration actions, or at least give a description of how suitable controls would be located. Without such details it was difficult to know how well restoration was working.

With suitable modification, some of the approaches can provide better information. Two suggestions include (1) re-orienting the benthic macroinvertebrate studies to include habitats other than augmented spawning gravels in order to provide information relevant to the trophic structure of Clear Creek in restored and unrestored areas, and (2) expanding the 2-D model to three dimensions in order to better characterize flow and habitat properties.

There were, however, adequate provisions for providing information, once obtained, to decision-makers thanks to the modeling components. Because the project has been underway for about 5 years (although some of the tasks are new), the investigators have had some time to work out sampling problems.

## **Feasibility And Likelihood Of Success**

Technically, the tasks seem feasible given the limitation on details in the proposal. There are three tiers of study elements given, with the top priority elements assigned to Tier 1, the second priority elements to Tier 2, and the lowest priority elements to Tier 3. Two of the technical reviewers had problems with the priority assignments, not surprisingly because of their own particular expertise. What the proposal did not indicate was whether the tiers also represented the belief of the scientists involved in the likelihood that different tasks would succeed, or simply represented items that would fill knowledge gaps of different perceived importance.

Overall we were impressed with the linkage between different tasks, with the exception of the “Macroinvertebrates in augmentation gravels task”. In this task, macroinvertebrate samples would be taken from gravels dumped into Clear Cr. to mitigate for loss of natural gravel recruitment in salmon spawning areas after completion of Whiskeytown Dam. Why

macroinvertebrate communities in gravels added primarily to enhance salmon spawning habitat would be of interest, as opposed to macroinvertebrate abundance in summer and winter rearing locations for fishes, was not clear.

To return to the question of feasibility, it is difficult to rate the tasks when there was insufficient room in the proposal form to describe details of the individual studies. This is one of the main drawbacks of placing a large number of tasks into a single, expensive proposal. It is impossible to recommend one study task over another, should the project be funded for less than the full request, when there are relatively few details of study design.

## **Performance Measures**

Since documenting salmonid population response to various habitat improvement actions is the central theme of the proposal, it is worth knowing, as one reviewer pointed out, the current and historical status of the fish populations. Other than general comments about populations being depressed, or shifting from one life history strategy (anadromy) to another (completely fluvial), we were not certain how well the populations are currently understood. If they are well known it will make trends easier to detect; if not, it will be very hard to know if restoration is working, or what actions are working and what actions aren't. The proposal wasn't very clear about the existing knowledge base, both demographic and genetic.

For the most part, performance measures for each task are clearly identified – probably as well as they could be given the space limitation. With regard to the decision support model, 2-D model (characterization of physical spawning and rearing space within the channel and floodplain), and development of habitat suitability indices – Tasks 8–10 – it is assumed that the appropriate performance measures would be verified in some way and uncertainty in the accuracy of model outputs would be clear to decision-makers.

We emphasize once again that the proposal needs to do a better job of identifying control units for the restoration evaluation studies so that restoration effectiveness can be tracked over time.

## **Products**

It was clear that state and federal agencies, and watershed organizations associated with Clear Cr., are strong supporters of the effort and intend to use the information generated by the tasks to refine restoration actions and improve the status of fish populations. This is one topic where having an integrated proposal is an advantage; cooperators can give each other encouragement and help, as well as provide stimulation and ideas. Performance measures and milestones are clearly identified in Table 1.

The contractors appear to be well qualified and have a good track record for delivering.

Publications in the peer-reviewed literature are fairly scarce to date.

## **Capabilities**

It was hard to judge the qualifications of the team because so many people will be involved in the 12 tasks. The broad mix of disciplines is definitely an asset, although the proposal was not clear about how often everyone actually gets together to discuss results. However, there appears to be no reason to believe that team members are not qualified to do the work. As mentioned above, contractors (e. g., for genetic analysis and CCDAM [decision support] modeling) appear very well qualified.

## **Budget**

This is a very hard question to answer, given the complexity of the study. The field research will be very labor intensive and technician costs will be high, which is why labor is generally the most expensive category in the 3-year budget. Consultant costs are quite high in year 1 – about \$585 K. Other than providing the dollar estimates, there is little basis given for judging whether the budget elements are reasonable or adequate (e.g., number of man-years, itemized list of equipment needs, etc.).

## **Regional Review**

The regional review rated this proposal “high”. The information it would potentially provide was viewed as critical, but there were some concerns about the project’s high cost, ESA consultations (overhandling listed steelhead), genetic investigations that are “already being conducted”, and the need to sunset some of the study tasks that have already produced reasonably complete answers (e.g., floodplain stranding study).

## **Administrative Review**

Prior-phase funding was reviewed by two people. One noted a few delays in progress reports and a couple instances of overbilling. The other reviewer noted the loss of some key project staff that contributed to reporting delays.

The environmental compliance review did not identify significant barriers, but did mention the need for consultation when handling listed species.

The budget administrative review identified a large number of issues that would need to be addressed prior to final funding. Most concerned lack of details and rolled up costs that were

given in the proposal's budget. Some of the issues appear fairly serious and will require careful reconciliation.

## **Additional Comments**

The technical reviewers were a bit overwhelmed with the breadth of the studies and with the cost of the project but none identified any fatal flaws, although they each noted many opportunities for improvement. A proposal this large and diverse is bound to generate many questions; however, there is definitely value in conducting a broadly integrated study of fish population and habitat recovery in a heavily bioengineered watershed. The results should be of considerable regional interest if the investigators can deliver on their objectives.

The proposal's overall rating can be increased to "above average" if the investigators can provide additional study details (included the critical information about suitable controls) before being considered for funding.

Technical Review Panel's Overall Evaluation Rating:  
*adequate*

# Sacramento Regional Review

*High*

## *Review:*

### *1. Applicability to ERP goals and regional priorities.*

This proposal addresses 17 milestones and MSCS Big R species, fall, late–fall, and spring–run Chinook and steelhead. It also addresses ERP goal 1, recovery of at–risk species, goal 2, rehabilitating ecological processes, goal 3, maintain or enhance harvested species populations, and goal 4, restoring habitats. The proposal addresses CVPIA, EWP and ERP efforts on Clear Creek which is a priority stream in all three programs.

### *2. Links with other restoration actions.*

The proposal is linked to other gravel studies on the Mokelumne and American Rivers by CSUS. It supports CCDAM as an adaptive management tool for Clear Creek and links with other flow, geomorphic and riparian work on Clear Creek.

### *3. Local Circumstances.*

There are some concerns with regard to permitting for upper screw trap and overhanding of steelhead and spring–run Chinook juveniles. The upper screw trap may not be permitted by NOAA at this time, but consultation should not be difficult. Steelhead and spring Chinook outmigrants can be trapped and held for a time until enough individuals are captured and marked. Some of these fish are released upstream and recaptured in the upper trap as part of the trap calibration. After recapture in the upper trap, the fish are released where they can again be captured a third time in the lower trap. This represents a great deal of potential handling stress to these listed species.

### *4. Local involvement.*

There is close coordination with local RCD and stakeholders.

### *5. Local Value.*

Certain aspects of the proposal represent critical data needs for Clear Creek, particularly adult and juvenile monitoring. Others appear to be less important.

### *6. Other comments:*

1. In general the cost seems excessive compared to similar work conducted by other agencies. 2. Task 2; Adult salmonid escapement and distribution monitoring is a critical task to continue. Costs might be reduced by decreasing the frequency of sampling. 3. Task 3; Juvenile Salmonid Production monitoring is also a critical task to continue on Clear Creek. The upper screw trap may not be permitted by NOAA at this time, but consultation should not be difficult. There are also concerns with excessive holding times and handling of T steelhead and spring-run Chinook. Steelhead and spring Chinook outmigrants can be trapped and held for a time until enough individuals are captured and marked. Some of these fish are released upstream and recaptured in the upper trap as part of the trap calibration. After recapture in the upper trap, the fish are released where they can again be captured a third time in the lower trap. This represents a great deal of potential handling stress to these listed species. The need for weekly trap efficiency estimates may be excessive given that the flow regime is fairly stable in Clear Creek. 4. Task 4; Genetic identification of Chinook runs. This work seems unnecessary and redundant to work already being conducted. Carlos Garza with NOAA is currently completing a three year CalFed study that should represent the definitive genetic work for Central Valley Chinook salmon. If this current work is funded, all genetic samples should be provided to the central repository established by an MOA between NOAA, FWS and DFG. 5. Task 5; Juvenile Habitat Use (Floodway Restoration Project) will be a valuable study if the 2005–2006 channel rehabilitation work is funded and completed. 6. Task 6; Gravel Quality and Survival to Emergence does not appear to represent a significant study need for Clear Creek. Natural production of fall Chinook in Clear Creek has already increased 5–10 fold. Since natural production is occurring well, it is questionable if we need a study to augment fall-run production with hatchery fish from Coleman. There appears to be no need to introduce hatchery product in Clear Creek. In addition, the success rate of fry emergent traps (redd-capping) is evidently questionable. There are also questions with the reliability of water quality analyses using Hach Test Kits. 7. Task 7; Benthic Macroinvertebrates in Augmentation Gravels appears to be a useful study. 8. Task 8; CCDAM Application. There are some concerns within the TAC that this model is costly, cumbersome, lacks reliability, and is not user friendly. 9. Task 9; 2-D Modeling is a valuable effort and tool that should be completed. 10. Task 10; Juvenile Habitat Suitability Index is important work to complete and will be necessary for the 2-D modeling. 11. Task 11; Floodplain Stranding studies have been ongoing for three years and there have been no reports of problems. This study may not be necessary to continue. However, this work could provide useful data for other streams where stranding is an issue. 12. Task 12; Scour Channel Studies appears to be an important study that can be used to design future floodplain restoration projects in the Central Valley.

Overall Ranking:

***High***

Provide a brief summary explanation of the committee's ranking:

The panel ranked this proposal High, but only for the continued monitoring in Tasks 2 and 3. Tasks 5, 7, 9, and 10 may also represent valuable studies, but would be a lower priority. Tasks 4, 6, 8, 11 and 12, should not be pursued due to the reasons presented in the "other comments" above. The project proponent has entered into several past CalFed contracts and therefore a review of past performance may be warranted.

# External Technical Review

## Goals And Justification

Goals seem reasonable – to examine the response of the fish and invertebrate community and the physical habitat to various restoration activities in Clear Creek. All project tasks seem to be reasonable areas of inquiry although the aquatic invertebrate work seems most problematic and least well justified. The proposal states few testable hypotheses, but I am not a fan of doing science by testing hypotheses with yes or no results. Typically we wish instead to weigh the comparative merits of competing hypotheses.

## Approach

I found myself unable to assess the merits of the proposed activities because inadequate details regarding methods are presented in the proposal. The proposal has SO many tasks that the authors merely reference previously published methodologies, many of which have not been published in the primary literature and are therefore unknown to the referee.

For the especially expensive proposed tasks, e.g. estimating juvenile outmigration or adult escapement, there are reference to sampling protocols, but there is no clear consideration of uncertainty in resulting estimates as they might relate to the proposed protocols. The juvenile outmigration program appears to rely on rotary screw traps that are fished every day. Why every day? Could traps be fished every other day and still allow a sufficiently accurate estimate of outmigration at much lower cost? Etc..

## Technical Feasibility

The technical feasibility is unclear due to the absence of detail in the methods, but in principal all tasks seem capable of execution.

The scale (read COST) of the project seems excessive.

Figure 4 is amusing!

## Performance Measures

One glaring missing item in the proposal is a summary of the current and historic status of anadromous salmonids in Clear Creek. I found a related earlier USFWS (Red Bluff) CALFED proposal that seems to have called only for the juvenile outmigration and adult escapement estimates. Surely there must be some data available from these earlier studies

that should be referenced in this proposal. At a cost of \$3+ million, there had better be substantial evidence of future potential for supporting anadromous salmonids and at least some evidence of current usage by anadromous salmonids. If such information is presented in the proposal, it is certainly not given high visibility.

## **Products**

The adaptive management scheme for this project seems better developed than for many other projects, but I did not focus on this issue.

Otherwise, the project seems to propose the usual annual reports and publications. Not much on this theme.

## **Capabilities**

The project pulls together the talents of numerous individuals with university and agency affiliations. They seem well qualified to address the project's many tasks, but I cannot comment on their ability to work together.

## **Budget**

Budget seems excessive and, as noted above, uncertainties in estimates are not considered thus leading to weak justification for the intensity and cost of the big ticket items (adult escapement, juvenile production). The invertebrate sampling work is expensive, just what one might do with it is uncertain as there is no companion work on food habits of fish, and there is scant attention to issues of selection of "control" and "treatment" areas – I can't imagine a useful control unless it were a before and after comparison, but it seems too late for that.

## **Additional Comments**

This project asks for LOT of money and it proposes LOTS of separate and related tasks. As a consequence, this referee felt incapable of providing a sound assessment of the likely merits of the proposed project because the CALFED format simply does not allow authors sufficient room to provide necessary details for each of the many tasks. I therefore suggest that this project be resubmitted as several related (and coordinated) projects that together would achieve the overall objectives of the proposed research. Perhaps adequate details for review might be included in such a reviewed submissions. As it stands, I cannot give this a favorable review on the basis of merit, however well-intentioned the project proponents or however valuable the data to be collected from the project.

I think that tasks 8 and 9 merit higher priority and should be in the first tier

# External Technical Review

## Goals And Justification

The proposal is very clear about what is to be monitored and how it will be done. Having some familiarity with the Clear Creek project, I believe the proposed work here is very important. Unfortunately, I was unable to view the Conceptual model in Figs. 2 and 3; however, from my reading of the proposal, it seems obvious that the proposers are working with a clear and logical set of premises about the interplay between habitat and biological response in the specific context of the Clear Creek restoration. The questions (hypotheses) asked are fundamentally important to evaluating the success of the restoration activities.

Also, the CCDAM modeling component is a key component of the long-term adaptive management of Clear Creek, and its further development should be supported in the context of the environmental monitoring effort.

## Approach

The key uncertainties addressed by the monitoring include response of fine sediment deposition to flushing flows, salmonid survival to emergence in introduced gravels, BMI response to gravel addition, increased adult returns in response to juvenile productivity, and salmon use of 'resized' channels. These are all important issues that need to be evaluated adaptively. This monitoring can provide critical information that can increase the efficacy of future gravel augmentation.

The project appears to continue monitoring work previously funded by CVPIA, CALFED, as well as initiating new monitoring activities. To the extent that the proposed monitoring activities are consistent with the CALFED Environmental Water Program (EWP 2004), the proposed project should add value to the overall CALFED program objectives. [Note: I am not familiar with EWP 2004 and therefore cannot evaluate the proposer's claims in this regard.]

## Technical Feasibility

The project is appropriately designed to provide the technical information needed to answer the questions posed.

## Performance Measures

I think generally, yes. I do have some questions about some specific tasks. I do not intend these comments to be viewed as “fatal flaws” in the proposed work; however, I raise them for the proposers’ benefit (and perhaps they have already considered them but chose not to include those details in the proposal).

In Task 5, juvenile habitat use in the floodway restoration project is proposed, but it is not clear whether habitat structure per se will be monitored, in addition to the abundance of juvenile fish. Will this be covered by another (companion) project? What if that project is not funded?

Task 6 proposes a study to “directly compare STE [survival to emergence] in augmentation gravels and in native gravel and identify the linkages between key in situ physical, hydraulic and chemical parameters and STE.” I see value in this approach, yet it is not clear that the data collected from this component of the work will actually resolve the questions posed at the top of p. 23 (section 4.6.1). It seems that many of the variables measured as potential determinants of STE could just simply be measured from natural gravel bars. Why not employ a design that manipulates some key attributes of the artificial redds, such as gravel size and gravel ‘cleanliness’ which would influence processes such as scour depth, intergravel DO, sediment intrusion, etc.? The latter design would presumably shed more light on ‘causation’.

Task 7 is also an important one, in that linking salmonid production to benthic invertebrates (BMI) has largely been ignored in the CALFED–funded projects with which I am familiar. However, it is not clear from the task description if the benthic samples are quantitative (e.g., fixed–area sampling) or ‘qualitative’ (e.g., timed kick sampling). They should be the former. Also, some consideration should be given to the BMI performance measures that are not “standard.” In particular, the “edibility” of benthic taxa can be critical in the transfer of energy up the food chain to salmonids. Metrics such as EPT can be uninformative because specific EPT taxa may be available for consumption whereas others are armored (or cryptic) and are not, as has been shown by Mary Power’s work (e.g., Wootton et al. 1996. Effects of disturbance on river food webs. *Science* 273:1558–1561). Also see Rader (1997, A functional classification of the drift: traits that influence invertebrate availability to salmonids. *Can. J. Fish. Aquat. Sci.* 54:1211–1234). Finally, the alternative design suggested for Task 6 might shed more light on the key uncertainties than what is proposed here.

## Products

Yes. Both in terms of the ecological science and in terms of the CCDAM model.

## **Capabilities**

Yes. However, I am unclear about who will be in charge of the 2-D modeling in Task 9, as no one appears to be listed specifically in the “Qualifications” section.

## **Budget**

This is a large budget, however, the project requires a lot of field labor. It does not seem out of line to me.

## **Additional Comments**

# External Technical Review

## Goals And Justification

This proposal is very clear about the restoration actions that are needed for the Clear Creek environment/habitat, and is part of a larger effort in this region. I think the hypotheses are clear, and in some cases involve the collection of some fundamental natural history information – both at the community level (macroinvert survey) and genetic (what is the separation of different runs).

## Approach

Yes, well–designed with a knowledgeable team assigned to the tasks involved. In particular the addition of sediment monitoring and genetic analysis to previous monitoring tasks – it appears that this will provide the most important new information for understanding what is necessary for restoration of these salmonid populations. I think in particular the analysis of the physical and biological characteristics of the gravel augmentation will be of great interest for a variety of reasons. Understanding how macroinvertebrate infauna persist and colonize gravel habitats will improve our knowledge of the natural history of this community, which is an element of whole–system restoration as well as preservation of sustainable salmonid populations. I am also very interested in the work being done to assess the habitat characteristics that sustain anadromous versus native rainbow populations; most of the work on this problem that I am aware of deals with the issue of marine productivity, and clearly monitoring at the upstream end is necessary as well. The genetic analysis should be straightforward and appropriate, although very little detail is given on troubleshooting and quality control of markers. Dr. Banks is a respected salmonid geneticist, however, and so I am not concerned about the quality of the end data set.

## Technical Feasibility

Yes, this should all be feasible considering the various crews and scientists assigned to different tasks.

## Performance Measures

The biotic and physical characteristics of restoration habitats is thorough and should mesh well with othe restoration work and freshwater ecosystem research. I believe that their plan is explicit and detailed enough that clear assessment of the recovery actions will lead to an improved ecosystem and further refined recovery plan.

## **Products**

The strength of this proposal is that, while being focused on a single small habitat, it brings together research teams in genetics, hydrology, taxonomy, ecology, geology, etc. I think there are clear advances that will be made regarding freshwater ecology, salmonid natural history and evolution, run analysis and identification, and abiotic influences on salmonid egg survival. The proposal outlines clear methods for ensuring the consistent management and dissemination of data so that this work can reach out to other projects, management groups, and scientists.

## **Capabilities**

Yes, although I would like some more information about how Task 7 will be accomplished and what the qualifications of the team doing invert taxonomy are – presumably the NAMC biologists are well qualified and the CSBP protocols are adequate, I would have appreciated more information about who is leading this team though. Michael Banks is certainly qualified to lead the genetic analysis, and has developed software available to other researchers that is used to identify salmonid runs/populations. Scientists associated with other field and modeling tasks appear to be fully qualified for this project.

## **Budget**

While many of the actions are beyond my scope, I know that the steps being taken for invertebrate monitoring and genetic analysis are funded appropriately, and the rest of the budget appears to be commensurate with this level of temporal and geographic sampling for a variety of tasks. It is a shame that so much money has to be spent to repair the damage humans have done in such a short time, and perhaps more notice should be given to the public/press that this is a cost of development and economic growth that is often ignored in typical economic indicators.

## **Additional Comments**

Just a few notes/comments:

The spawning gravel augmentation is the most interesting part of proposal. Not clear where gravel is coming from, and what environmental impact is of/for that source – quarry, other streambed? If other streambed, is that what we are monitoring re inverts? If quarry, are we monitoring the colonists over time? Should there be a better spatial/temporal analysis of each new riffle? Study is very interesting in comparing quality of sediment AS WELL AS quality of community.

Good that road building is not encouraged by proposal to access erosion sites.

Jargony and informally-written. Worst example is defining “R” species on page 17 after using it a few times previously.

The other very interesting thing is whether the conditions downstream of Whiskeytown dam produce/support anadromous steelhead or just rainbows. One has ESA protection, the other does not. Proposed monitoring describes life history patterns of population and environmental factors that lead to anadromy. To what extent can genetic markers distinguish these life histories?

Page 5 why only looking at Chinook to develop baseline for run designation? Why not apply same markers to the steelhead/rainbow problem? Most salmonid microsatellites are likely to work to some extent in any of the species.

Given the issues with timing of spawning etc. in comparing spring and fall run Chinook, it is worth exploiting the QTL-linked microsatellites for time of spawning, etc. that are available. While not necessarily descriptive of the underlying AGV for this trait, such comparison would be interesting – do these markers fit with other so-called neutral microsats being employed? Or do they have a different signal that fits with taxonomy, timing, phenotype, etc.? Clearly there will be some interesting interactions between how the picket weir is used and the information you will gain from genetic analysis.

Genetic analysis: 12 loci suggested, their statistical power is likely to be very good – methods are straightforward. Would be worthwhile to include genetic analysis of other Chinook (and steelhead if included) runs, spatially and temporally, to truly establish baseline of this population – distinct from other runs? Is our ‘baseline’ a captured run from another part of the range? Etc.

# Budget Review

1. Does the proposal include a detailed budget for each year of the requested support?

*Yes.*

If no, please explain:

Comments: 1. Need more detailed info – need careful evaluation of rates & budget info 2. Total \$ for sub is \$809,681 or 24% of total budget

Provide clear & itemized Budget Detail and should be itemized in the format provided by the PSP to enable reviewers to better evaluate and ensure that the budget is appropriate for the proposed work.

2. Does the proposal include a detailed budget for each task identified?

*Yes.*

If no, please explain:

Comments: 1. Very difficult to determine budgets rolled up (see add'l comments below)

2. Subs yearly allocation does not provide detailed info to determine actual hourly rate

HOWEVER: Task & Deliverables: Grantee must provide detailed info for all work including subcontractor work for each specific task, services, & work to be performed with appropriate & corresponding deliverables or end product for each task(s) and/or sub-task(s). Costs associated with each task & deliverable should be evaluated based on what is considered to be reasonable costs for performing similar services.

The Subcontracted work should be identified with a rate and hours and attributed to each task and deliverable for each year. A performance evaluation is also recommended for subcontractors that receive more than 50% of the grant funds. If the subcontractor has not been identified, a position description complete with education level, experience, and abilities be submitted and the rate and hour associated with that position will be attributed to a task, and deliverable. The grantee must also comply with the State competitive bidding process as stated in the PSP.

3. Are project management expenses appropriately budgeted?

*No.*

If no, please explain:

Comments: 1. Amt appropriated for proj mgmt for proposed project does not seem adequate for the proposed work

4. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs? Are indirect rates, if used, appropriately applied?

**Yes.**

If no, please explain:

Comments: 1. OH is 17% 2. Pass through mark up for subs at 6% 3. Total Sub \$ is 24% of project 4. Need detailed info on what is included in indirect rates and/or overhead costs to ensure no duplicative charges

If proposal is funded, a detailed list of items included in the indirect cost rate should be provided by the grantee. Grantee must provide itemized and detailed information included and charged as part of Indirect Rates (IDC) charges.

Note: No overhead or indirect rate charges on the equipment purchases should be allowed as part of the budget that shall be funded as a result of this PSP.

The Grantee should charge a reduced indirect cost rate to the state for services that will be subcontracted by the grantee. (Researching SCM Section 3.06 B).

5. Does the budget justification adequately explain major expenses? Are the labor rates and other charges proposed reasonable in relation to current state rates?

**No.**

If no, please explain:

Comments: 1. Very difficult to determine – figures rolled up 2 Sub figures rolled up

Budget Detail/Administrative Overhead Fees – Budget detail combines the labor rates with the direct overhead rate. The labor rate, benefits and indirect rate should be itemized in the format provided by the PSP to enable reviewers to better evaluate and ensure that proposed labor rates are comparable to state rates.

Major Expenses – If the grant is awarded a detailed list of equipment purchases should be provided by the grantee so reviewers can better evaluate whether it is more cost effective for the state to purchase large dollar equipment items through the state procurement process. If the equipment list is available within the State inventory or stock, then purchase of some or all of the listed items may be provided, loaned, or leased by the state to the grantee. In the event, that the equipment is purchased by the grantee, the grantee shall maintain an inventory of major equipment for auditing purposes and potential use for future projects. Grantee shall follow State Contracting Manual [SCM] Section 7.61 thru 7.62 rules pertinent to equipment purchase, lease, etc.

Grantee shall identify labor rates and indirect costs rates paid to each identified subcontractor to ensure that labor rates are comparable to State rates.

The Subcontracted work should be identified with a rate and hours and attributed to each task and deliverable for each year.

6. Are other agencies contributing or likely to contribute a share of the projects costs?  
**Yes.**

If yes, when sufficient information is available, please sum the amount of matching funds likely to be provided:

Comments: 1. No info provide to evaluate

Cost Sharing – Grantee shall provide information regarding its financial capability and stability as well as it's level of commitment for any proposed cost share funds. A detailed budget of the project's proposed cost share funds should be provided prior to grant funds being awarded. A financial evaluation is recommended for grant agreements that state/claim over 30 % or \$250,000 (which ever is less) of matching funds. The evaluation will avoid likelihood of the grantee requesting an amendment to increase project funding due to lack of or miscalculation of matching funds to complete the project.

7. Does the applicant take exception to the standard grant agreement's terms and conditions? If yes, are the approaches the applicant proposes to address these issues a reasonable starting point for negotiating a grant agreement?  
**Yes.**

If no, please explain:

Comments: 1. Will need careful review prior to award – multiple issues

Contract Language Exceptions – Proposals submitted by grantees which identify exceptions to State of California’s standard contract language provisions as provided in the 2004 PSP; and/or submit alternative contract language in lieu of the State’s standard contract language should be carefully reviewed prior to awarding grant funds. Review will initially be conducted by the funding agency’s contract office and referred to the legal department as needed.

8. Are there other budget issues that warrant consideration?

**Yes.**

If yes, please explain:

Comments: 1. Significant \$ allocation shown for equipment purchase – need to review carefully

Major Expenses – If the grant is awarded a detailed list of equipment purchases should be provided by the grantee so reviewers can better evaluate whether it is more cost effective for the state to purchase large dollar equipment items through the state procurement process. If the equipment list is available within the State inventory or stock, then purchase of some or all of the listed items may be provided, loaned, or leased by the state to the grantee. In the event, that the equipment is purchased by the grantee, the grantee shall maintain an inventory of major equipment for auditing purposes and potential use for future projects. Grantee shall follow State Contracting Manual [SCM] Section 7.61 thru 7.62 rules pertinent to equipment purchase, lease, etc.

Other comments:

SUPPLEMENTAL COMMENTS: 1. Some subs are from out of state (Oregon, Alaska)–ensure State guidelines for reimbursement, applicable law will be State of CA &this is clear to proposer &this is a non–negotiable ctr item. 2. Does not identify specific deliverables too broad "reports" 3. Labor detail by category very difficult to determine "rolled up" 4. Proposal will need re–work to convert to SOW/Agreement 5. No specific/clear deliverable identified fo each task

Task and Deliverables – Grantee must provide detailed information for all work including subcontractor work for each specific task, services, and work to be performed with the appropriate and corresponding deliverable or end product for each task(s) and/or sub–task(s). Costs associated with each task and deliverable should be evaluated based on what is

considered to be reasonable costs for performing similar services.

Subcontracting – Proposals for work to be performed by subcontractors or other entities in excess of the 25% of the total project dollars the grantee is required to provide a justification for subcontracting services. If subcontractors are pre-selected and identified in the proposals as part of the project team, the grantee should provide a justification on how each subcontractor was selected. Grantee shall identify labor rates and indirect costs rates paid to each identified subcontractor to ensure that labor rates are comparable to CA State rates.

NOTE: subs are out of state.

The Subcontracted work should be identified with a rate and hours and attributed to each task and deliverable for each year. A performance evaluation is also recommended for subcontractors that receive more than 50% of the grant funds. If the subcontractor has not been identified, a position description complete with education level, experience, and abilities be submitted and the rate and hour associated with that position will be attributed to a task, and deliverable. The grantee must also comply with the State competitive bidding process as stated in the PSP.

END OF REVIEW

# Environmental Compliance Review

1. Is compliance with California Environmental Quality Act (CEQA) required for this project?

YES– NO~~X~~

2. Is compliance with National Environmental Policy Act (NEPA) required for this project?

YES– NO~~X~~

3. Does this project qualify for an Exemption or Exclusion under CEQA and NEPA, respectively?

YES– NO– N/~~A~~~~X~~

Comments:

4. Did the applicant correctly identify if CEQA/NEPA compliance was required?

YES~~X~~ NO–

Comments:

5. Did the applicant correctly identify the correct CEQA/NEPA document required for the project?

YES– NO– N/~~A~~~~X~~

Comments:

6. Has the CEQA/NEPA document been completed?

YES– NO– N/~~A~~~~X~~

7. If the document has not been completed, did the applicant allot enough time to complete the document before the project start date?

YES– NO– N/~~A~~~~X~~

8. If the document has not been completed, did the applicant allot enough funds to complete it?

YES– NO– N/~~A~~~~X~~

Comments:

9. Did the applicant adequately identify other legal or regulatory compliance issues (Incidental Take permits, Scientific Collecting permits, etc.) that may affect the project?

YES~~X~~ NO– N/~~A~~–

Comments:

The necessary permit for ESA Section 10 compliance is a take permit under Section 10(a)(1)(A).

Identify those additional permits that may be needed by this project:

10. Does the proposal include written permission from the owners of any private property on which project activities are proposed or, if specific locations for project activities are not yet determined, is it likely that permission for access can be obtained?

~~YES~~ NO– Project is on public land/water or question is otherwise N/A–

Comments:

11. Do any of these issues affect the project's feasibility due to significant deficiencies in planning and/or budgeting for legal and regulatory compliance or access to property?

YES– ~~NO~~

Comments:

## Prior-Phase Funding Review

<b>Project Title</b>	Clear Creek Juvenile Salmonid Monitoring Project
<b>CALFED Contract Management Agency</b>	National Fish and Wildlife Foundation
<b>Amount Funded</b>	\$1,355,142
<b>Date Awarded</b>	2001/01/01
<b>Lead Institution</b>	US Fish and Wildlife Service
<b>Project Number</b>	ERP 01-N47
<b>Project Title</b>	Battle Creek Anadromous Salmonid Monitoring Projects
<b>CALFED Contract Management Agency</b>	NFWF
<b>Amount Funded</b>	\$2,333,684.82
<b>Date Awarded</b>	2001/01/01
<b>Project Number</b>	ERP 01-N45

3. Have negotiations about contracts or contract amendments with this organization proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

*Yes.*

4. Are the status, progress, and accomplishments of the organization's current CALFED or CVPIA project(s) accurately stated in the proposal?

*Yes.*

5. Has this organization made adequate progress towards these project(s)' milestones and outcomes, without unreasonable divergences from project schedules or poor-quality deliverables?

*No.*

Loss of key staff has contributed to some delays in annual reporting.

6. Is the applicant's reporting, record keeping, and financial management of these projects satisfactory?

**No.**

Invoices are good. Delays in fiscal quarterly report due to the regional staff not having access to full financial data.

7. If this application is for a next phase of a project whose contract your agency currently manages, will the project(s) be ready for next-phase funding to monitor and evaluate project outcomes in fiscal year 2005/6, based on its current progress and expenditure rates?

**Yes.**

Other comments:

Although the current closure date for this project is 6/30/07, the rotary screw trap operations will only be active through 6/30/06. The final year is dedicated to report writing. Also, please note that task 3 of the new proposal is the only portion that refers to this NFWF administered project.

## Prior-Phase Funding Review

<b>Project Title</b>	Clear Creek Juvenile Salmonid Monitoring Project
<b>CALFED Contract Management Agency</b>	National Fish and Wildlife Foundation
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<b>Date Awarded</b>	2001/01/01
<b>Lead Institution</b>	US Fish and Wildlife Service
<b>Project Number</b>	ERP 01-N47
<b>Project Title</b>	Battle Creek Anadromous Salmonid Monitoring Projects
<b>CALFED Contract Management Agency</b>	NFWF
<b>Amount Funded</b>	\$2,333,684.82
<b>Date Awarded</b>	2001/01/01
<b>Project Number</b>	ERP 01-N45
<b>Project Title</b>	Monitoring Adult and Juvenile Spring and Winter Chinook Salmon and Steelhead in Battle Creek, California
<b>CALFED Contract Management Agency</b>	DWR
<b>Amount Funded</b>	\$150,000
<b>Date Awarded</b>	1998/01/01
<b>Project Number</b>	ERP 98-C14

3. Have negotiations about contracts or contract amendments with this organization proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

*Yes.*

4. Are the status, progress, and accomplishments of the organization's current CALFED or CVPIA project(s) accurately stated in the proposal?

*Yes.*

5. Has this organization made adequate progress towards these project(s)' milestones and outcomes, without unreasonable divergences from project schedules or poor-quality deliverables?

**Yes.**

There has been delays with getting tasks accomplished in the past under USFWS contracts and the need to extend timelines and also ask for bridge funding.

6. Is the applicant's reporting, record keeping, and financial management of these projects satisfactory?

**No.**

There has been an issue with overbilling a couple USFWS contracts.

7. If this application is for a next phase of a project whose contract your agency currently manages, will the project(s) be ready for next-phase funding to monitor and evaluate project outcomes in fiscal year 2005/6, based on its current progress and expenditure rates?

**Yes.**

This proposal combines a number of things. Part is maintaining monitoring in support of a project that still needs a final phase of restoration completed. The restoration didn't get funded for a couple years and is currently a directed action with a proposal to be submitted in the next month.

Other comments:

