Proposal Reviews

#49: Anadromous Fish Monitoring in Cottonwood Creek Basin

Cottonwood Creek Watershed Group

Research and Restoration Technical Panel Review	
Sacramento Regional Review	
External Scientific Review	#1 #2 #3
Prior Performance/Next Phase Funding	
Environmental Compliance	
Budget	

Research and Restoration Technical Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Research and Restoration Technical Panel Review Form

Proposal Number: 49

Applicant Organization: Cottonwood Creek Watershed Group

Proposal Title: Anadromous Fish Monitoring in Cottonwood Creek Basin

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;
Above Average: Quality proposal, medium or high regional value, and no significant administrative concerns;
Adequate: No serious deficiencies, no significant regional impediments, and no significant administrative concerns;
Not Recommended: Serious deficiencies, significant regional impediments or significant administrative concerns.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	**In spite of high rating for regional need and priority, technical concerns by reviewers are substantial. The proposal lacks sufficient detail on key elements of the study design, and the value of results is low for obtaining general monitoring at this cost. The approach of looking for correlations is weak and too unstructured to advance understanding. The proponents could reasonably use a much smaller one year project to gather survey data and frame a much more defined, larger project with focused hypotheses.**
-Above average	
-Adequate	
XNot recommended	

1. **Goals and Justification.** Does the proposal present a clear statement of goals, objectives and hypotheses? Does the proposal present a clear justification and conceptual model for the project?

   The goals lack justification from any presentation of conditions expressed for the stream but may be appropriate for the survey nature of work proposed. The justification for three years of such data is weak. Use of the watershed assessment to identify issues is missing and thus the project is unspecific on reasons for work. The conceptual model is weak as well because of the lack of specificity and justification from data on stream conditions.

2. **Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).** Is the project likely to succeed based on the approach, feasibility and project team capabilities? Are the proposed performance measures adequate for measuring the project's success?

Technical reviews are critical of the low specificity of proposed methods and lack of connection to the extensive flow and temperature measures tied to conditions in the stream. A broad correlation approach of flow and temperature with fish is weak. There is no discussion of how fish distribution would be changed if problems are identified.

3. **Outcomes and Products.** Will the project advance the state of scientific knowledge in general and/or make an important contribution to the state of knowledge of the Bay-Delta Watershed? For restoration proposals, is the project likely to contribute to ecosystem restoration or species recoveries in a significant way? Will the project produce products useful to decision-makers and scientists?

   Some general data on flow, temperature and fish runs and distribution will be obtained but the project is not structured to take advantage of the substantial funds available and possible data obtained.

4. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The cost is high for very modest gains in knowledge and value declines with additional years of similar work. The resulting information will be too general and inadequate for specific testing to justify the expense.

5. **Regional Review.** How did the regional panel(s) rank the proposal (High, Medium, Low)? Did the regional panel(s) identify significant benefits (regional priorities, linkages with other activities, local involvement) or impediments (local constraints, conflicts with other activities, lack of local involvement) to this proposal? What were they?

   Regional review judged this project HIGH based on a good record of building local involvement and past efforts. The review cautions, however, that coordination with landowners will require ongoing efforts and is not secure. Agency involvement is non specific.

6. **Administrative Review.** Were there significant concerns about the proposal with regard to the prior performance, environmental compliance and budget administrative reviews? What were they?

   The proponents have carried out past work satisfactorily. There may be need to secure permits for gage placement and costs for such permitting and compliance are not shown, otherwise, the budget is in line with categories and requirements.

Miscellaneous comments:

None

Sacramento Regional Review:

Proposal Number: 49

Applicant Organization: Cottonwood Creek Watershed Group

Proposal Title: Anadromous Fish Monitoring in Cottonwood Creek Basin

Overall Ranking: **-**Low **-**Medium **X**High

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

The panel felt this was a high priority as long as strong agency coordination could be ensured.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   The local watershed group is formed and functioning. Full support by landowners is questionable, but the coordination role has a strong leader and will most likely be able to gain support/access. The bigger concern is "is the work best done by a consultant or a fishery agency?" Consultants tend to lean heavily on agencies for technical advice. This project would need agency (DFG, USFWS) oversight.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   Yes, both CALFED and CVPIA restoration priorities will be pursued.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   XYes **-**No

   How?

   There is full support for this project to move forward, although the methods of fish monitoring will need to be reviewed for consistency with the methods utilized by FWS/DFG.

4. Does the project adequately involve local people and institutions?

   XYes **-**No

How?

This project shows that effective public outreach has been attained; information sharing is established and the local schools are involved. (One error, the proposal identifies FWS as the agency to resolve the Take Permit; resolving the Take Permit is properly a NMFS role).

Other Comments:

The sites for the gauges have not yet been identified; CCWG should write up how they propose to identify these sites. The weak point in this proposal is that the agency (DFG/FWS) involvement is not identified. The process that this proposal has gone through is good and this work/these people have been well-coordinated with other projects/agencies.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **49**

Applicant Organization: **Cottonwood Creek Watershed Group**

Proposal Title: **Anadromous Fish Monitoring in Cottonwood Creek Basin**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**Very good--The monitoring proposed seems adequate and is useful for baseline information.**
XGood	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   Rating: Excellent. The goals and objectives are well-stated and pertain to a monitoring effort to obtain baseline information.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

   Rating: Very Good. The applicants provide good justification for the study. However, the goals relate to implementation and not just monitoring.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   Rating: Very Good. Good approach and tasks delineated. However, more detail would have been useful.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   Rating: Excellent. Project is feasible.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   Rating: Good. Performance measures not well articulated. Measures for monitoring would pertain to the methods themselves and the data objectives to ensure the results are free of bias.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   Rating: Very Good. Products adequate. However, it seems a Quality Assurance Plan would be in order.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   Rating: Very Good. Credentials seem to be adequate.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   Rating: no comment

Miscellaneous comments:

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **49**

Applicant Organization: **Cottonwood Creek Watershed Group**

Proposal Title: **Anadromous Fish Monitoring in Cottonwood Creek Basin**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**The project could benefit substantially by conducting a more modest pilot project to gather some data on fish distribution and general data on flow, temperature, and many other habitat factors which may be as or more important in the basin. The current proposal rests on justification of broad goals given by CalFed with little supporting stream data given in the proposal. The scope for improvement of conditions is unknown.**
-Good	
XPoor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   The goals do not seem to come from specific information about the stream and its conditions rather they come from the stated general goals of the CalFed program. The objectives of gathering better information may be appropriate but are not clearly appropriate for the scale of the proposed project.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

There is little given in the proposal which supports what the probable issues are in the Cottonwood basin. The watershed assessment report in progress may contain such elements but lack of even summary information in the proposal weakens justification. The project is a full-scale endeavor without apparent pilot survey work to refine questions, monitoring locations, general fish population distribution and other issues.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   The application of extensive temperature and flow monitoring equipment does not seem to be related to any specific existing information to help understand the value of data obtained. The large number of scattered gage stations and records from the past suggest some issue but the point is left undeveloped. Use of broad "correlation" approaches of fish, flow and temperature is a weak approach that may waste time and resources. Lack of data on fish populations is a first step and many of the elements of survey and observation are appropriate. No data are discussed concerning specific flow or temperature problems or opportunities for altering this situation should problems be discovered. The proponents and collaborators may know this information but without summary information in the proposal there is little to judge the efficacy of this approach.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   The application of sensors and fish sampling techniques are somewhat routine and should be accomplished as stated. Left undescribed is how the network of sampling and monitoring is connected to existing problems. The scale of the project seems too large for unspecified nature of expected issues, and the project could benefit by a scaled down pilot program to identify more sharply objectives and hypotheses.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   The stated test of a hypothesis that it is possible to extend the range of anadromous fish in the basin is without sufficient foundation. The project will measure flow, temperature and collect data on fish but these are weakly connected to solution of an firmly identified problem. Quality control is left to consultation with agencies and collaborators which is a weak method of providing quantitative performance measures.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   The project would provide a database of information on fish distribution, run timing and an index of abundance of different life history stages for this stream basin. Deployment of 10 temperature and flow gages will provide a systematic record for these variables at some locations for rather general purposes of correlation.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   The capacity of the consultants is presumed sufficient for these routine techniques, given their record in aquatic work, and they have individuals who have worked in the basin in the development of a watershed assessment. Previous support has enabled the region to develop and strong collaboration network and good communication.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The costs for this project are large for the benefit of very general data. Some of the data needs could be obtained through a much less costly pilot project which could in turn sharpen hypotheses and justification for such a full-scale project.

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **49**

Applicant Organization: **Cottonwood Creek Watershed Group**

Proposal Title: **Anadromous Fish Monitoring in Cottonwood Creek Basin**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**Conceptual model is overly simplistic, thus the approach will likely not work. Stock assessment approaches are undocumented and/or not quantitative. These deficiencies coupled with the high cost led me to the Poor rating.**
-Good	
XPoor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   The goals and objectives are clearly stated. The hypothesis is that it is possible to extend the range of anadromous fish in the basin through a better understanding of the flow-temperature relationships in major tributaries of the basin. The conceptual model that forms the basis of this hypothesis is very simplistic: flow and temperature limit spawning distribution and juvenile production. The model does not consider other limiting factors (spawner abundance, predators, cover, food availability) and this leads to a major weakness in the overall approach.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project

justified?

The main premise of the proposal is that flow and temperature can be used to predict suitable habitat for spawning and juvenile rearing and that this can be used to guide flow/temperature management decisions. This is justified based on Priority 7 of the CALFED restoration plan.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   I think the likelihood of success for this project is low because the approach is fundamentally flawed. There are many factors that control adult range and juvenile production beyond flow and temperature (cover, substrate, groundwater sources, food supply, D.O., predators, etc.) but these factors are not considered in the proposal. Even if one is willing to concede that flow and temperature are the key physical factors, one cannot ignore the effect of spawner abundance on range. Current spawning range may be constricted (limited) simply because there are so few fish around that there is no need to move into tributaries or less suitable mainstem locations to find spawning locations. If fish are not found in these tributaries, is it because the spawner abundance is low, or because flow/temperature (or other factors) is limiting? The current design cannot separate these components, so any model or understanding based on it will be of flawed and of very limited use.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   The approach is not fully documented. As stated above, the conceptual model is overly simplistic so the approach does not consider a number of important issues. The likelihood of success is low.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   Considering the massive annual fisheries monitoring budget of $311,000 (which I would support if it was well designed), there are very few details on the assessment procedures, and what is provided is disconcerting. The adult enumeration is essentially a presence-absence survey. There is no mention of mark-recapture efforts or dead-pitch for carcass counts. Redd counts are not quantitative but simply document that fish have spawned, not how many have spawned (e.g. false redds, super-imposition, etc.). Are the proponents planning on keeping track of redd locations among surveys so they can sort out whether redds observed on subsequent surveys are new ones or previously counted on past surveys (unlikely from overflights). There is no mention of how the spawner surveys for steelhead will be conducted (overflights, swims, bank surveys?). Since sampling cannot be conducted at high flows/turbidity, it is very possible that they will miss fish entering tributaries for brief periods when flows are up. Migration timing and spawning is often timed with flood events, especially in smaller tributaries. And since the objective of this study is to document range, this is a major problem.

Information on the juvenile surveys is also lacking. How many tributaries and mainstem location will be trapped. Will multiple traps be used at each location? Will mark-recapture studies be conducted? Will individual marks be applied to sort out where the production came from Will a stratified mark-recapture estimate be used? What the proponents are attempting to do is actually quite a complicated stock assessment project. The fact that none of these approaches are even mentioned suggests to me that the proponents are not aware of these techniques and are therefore not qualified to do the assessment. Considering the extensive budget, the qualitative and unspecified survey outlined in the proposal is completely unreasonable.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   A well designed long-term monitoring program could be established for the amount of funds requested. This would be of high value. As proposed, I do not see that happening. I think the likelihood of developing a useful understanding of flow/temperature effects on the adult range and juvenile production based on the proposed study is extremely low.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   Based on the limited conceptual model and lack of detail/proposed methods for the fisheries stock assessment work, I do not feel the project team is qualified for the proposed work.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The cost is much too high and no details are provided to justify the stock assessment budget

Miscellaneous comments:

Prior Performance/Next Phase Funding:

New Proposal Number: 49

New Proposal Title: Anadromous Fish Monitoring in Cottonwood Creek Basin

1. Prior CALFED project numbers, titles, and programs: (*list only projects for which you are the contract manager*)

   98-E05, Cottonwood Creek Watershed Group Formation 2000-E03, Cottonwood Creek Watershed Monitoring and Assessment Ecosystem Restoration

2. Prior CVPIA project numbers, titles, and programs: (*list only projects for which you are the contract manager*)

   N/A

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

   XYes -No -N/A

   If no, please explain any difficulties:

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

   XYes -No -N/A

   If no, please explain any inaccuracies:

5. Is the applicant's progress towards these project(s)' milestones and outcomes to date satisfactory?

   XYes -No -N/A

   If no, please explain deficiencies:

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

   XYes -No -N/A

   If no, please explain deficiencies:

7. Will the project(s) be ready for next phase funding in 2002, based on its current progress and expenditure rates?

   -Yes -No **X**N/A

If no, please explain:

This is not a next phase project.

Other Comments:

Environmental Compliance:

Proposal Number: 49

Applicant Organization: Cottonwood Creek Watershed Group

Proposal Title: Anadromous Fish Monitoring in Cottonwood Creek Basin

1. Are the legal or regulatory issues that affect the proposal identified adequately in the proposal?

   XYes **-**No

   If no, please explain:

   All necessary permits and environmental documentation will be obtained and filed.

   ***If any scientific gauging stations need to be installed, applicant will need a 1600 Agreement.**

2. Does the project's timeline and budget reflect adequate planning to address legal and regulatory issues that affect the proposal?

   XYes **-**No

   If no, please explain:

   Timeline adequate for permitting and environmental compliance. No specific budget listed.

3. Do the legal and regulatory issues that affect the proposal significantly impair the project's feasibility?

   -Yes **X**No

   If yes, please explain:

   Applicant will comply with all necessary permits and environmental documentation but may need a 1600 Agreement for any installation of scientific gauging stations.

Other Comments:

Budget:

Proposal Number: 49

Applicant Organization: Cottonwood Creek Watershed Group

Proposal Title: Anadromous Fish Monitoring in Cottonwood Creek Basin

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

   XYes **-**No

   If no, please explain:

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

   XYes **-**No

   If no, please explain:

3. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs?

   XYes **-**No

   If no, please explain:

4. Are appropriate project management costs clearly identified?

   XYes **-**No

   If no, please explain:

5. Do the total funds requested (Form I, Question 17A) equal the combined total annual costs in the budget summary?

   XYes **-**No

   If no, please explain (for example, are costs to be reimbursed by cost share funds included in the budget summary).

6. Does the budget justification adequately explain major expenses?

   XYes **-**No

   If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes **X**No

If yes, please explain:

Other Comments: