Proposal Reviews

#60: Mokelumne River Spawning Habitat Improvement Project

East Bay Municipal Utility District

Research and Restoration Technical Panel Review	
Delta Regional Review	
External Scientific Review	#1 #2 #3 #4
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: 60

Applicant Organization: East Bay Municipal Utility District

Proposal Title: Mokelumne River Spawning Habitat Improvement Project

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	**Two external reviewers ranked this proposal as Excellent given the low cost under the assumption that biological monitoring of chinook and steelhead populations was being conducted as part of other monitoring programs on the Mokelumne River. The other two reviewers gave the project a Poor ranking because they did not make this assumption. The panel concurred that this project cannot be funded by CALFED as the proponents did not provide any justification that past gravel additions had provided biological benefits. The proposed work has no biological monitoring component and therefore will not provide any assessment of whether the gravel additions are benefiting fall-run chinook and steelhead populations.**
-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?

   All reviewers agreed that the goals and objectives of the project were clearly stated. No hypotheses were stated or are being tested by the proposed work. This project is simply a continuation of gravel replenishment activities that have been conducted in this Mokelumne River for a number of years.

   The project was justified based on general CDFG and FERC recommendations for the Mokelumne River fall-run Chinook and steelhead populations. However, no data justifying the need for gravel replenishment in this system was provided in the proposal. The panel considered this a MAJOR WEAKNESS considering that gravel has been added to the Mokelumne since 1993.

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?

   All reviewers agreed that the feasibility of adding the specified amount of gravel to the Mokelumne River is high. The major weakness of the approach identified by all reviewers was the lack of any evaluation of the biological benefits of the gravel additions. This was considered to be a fatal flaw. Two reviewers identified the need to collect and analyze outmigrant and escapement data for Chinook and steelhead to quantify the benefits from this long-term gravel replenishment project.

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?

   The panel was very clear that this project will provide NO contribution to the state of scientific knowledge regarding the benefits of gravel additions. In the absence of biological data, the panel had no means of determining whether the proposed gravel additions will contribute to the restoration of chinook and steelhead populations in the Mokelumne River.

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

   The project has very low cost and there is cost sharing. As there has been no attempt to quantify the biological benefits from past additions (none was presented in the proposal or cited), the panel was unable to estimate potential benefits of the proposed work.

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?

   Ranking was high and the regional panel supported recovery efforts for fall-run Chinook and steelhead.

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?

   None

Miscellaneous comments:

None

Delta Regional Review:

Proposal Number: 60

Proposal Title: Mokelumne River Spawning Habitat Improvement Project

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

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

Highly recommended for funding at this time.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   Project has a high probability of success. Applicant has successfully completed spawning gravel enhancement projects in this system, all CEQA/NEPA requirements have been met, and the applicant is providing $32,000 in matching funds.

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

   XYes **-**No

   How?

   Project supports recovery efforts for fall-run Chinook salmon and steelhead trout (DR-4).

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?

   Project helps implement the CVPIA Anadromous Fish Restoration Program and the Lower Mokelumne River Comprehensive Management Plan under FERC Agreement 2914.

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

   XYes **-**No

   How?

   By complying with the public involvement provisions of CEQA/NEPA and participation in the Mokelumne-Cosumnes Watershed Alliance.

Other Comments:

X

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **60**

Applicant Organization: **East Bay Municipal Utility District**

Proposal Title: **Mokelumne River Spawning Habitat Improvement Project**

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:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**The lack of analysis (or presentation) from previous gravel additions to the river weakens the case for more of the same.**
-Good	
XPoor	

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

   The goal of providing more and better spawning gravel is clear. The importance and timing of adding more gravel would be better known if the results from previous gravel additions were known.

2. **<u>Justification.</u>** 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?

Previous research and stream evaluation of the Mokelumne have documented the lack of optimal spawning gravel in the river. However, 10 years of previous additions should provide futher evidence to justify whether this approach is useful.

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 mechanics of adding gravel of desired sizes is valid and appropriate for the goal of adding more and better gravel. The lack of presentation of previous efforts hampers a full evaluation of the continuation 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 proponent has already demonstrated the feasibility of gravel addition. Success in terms of gravel retention times or fish response was not discussed.

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?

   Performance is limited to measuring gravel properties such as oxygen, permeability and flow. No mention was made of measuring the value of single large boulders, expected life-time of a gravel bar, or species responses.

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?

   Agencies have strongly recommmended an annual gravel enhancement and this project is designed to produce exactly what has been recommended. Interpretation of the outcomes, other than the performance of the gravel beds, was not developed and without which, the project is weakened substantially.

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 proponent has 10 years of experience in accomplishing this kind of project and should not trouble adding another 3 years. The proposal is weak on identifying whether there is support for the kind of biological evaluation needed to justify this approach.

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

   The cost is relatively low but the value in benefitting salmon is poorly documented.

Miscellaneous comments:

The proposal would have been substantially improved if it had included a summary analysis for the 10 years of experience with this kind of project. The proponent has been responsive to the recommendations of several agencies and analyses that point to gravel addition as a much needed enhancement in the river. Has there not been enough added yet to gain some insight into this recommendation?

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **60**

Applicant Organization: **East Bay Municipal Utility District**

Proposal Title: **Mokelumne River Spawning Habitat Improvement Project**

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:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
XExcellent	**The reasons for this rating are:** **1) The proposed project is presented in a clear and straightforward way demonstrating the applicants familiarity with the work and the clarity of the issue being addressed. 2) There is an apparent common agreement of the need for this restoration among a diversity of regulatory and resource management agencies (EMBUD, CFG, USFWS, FERC, CVPIA) 3) There is a large body of experience demonstrating its practical feasibility of gravel augmentation in the Mokelumne River. 4) The proposed project is part of a long term project that based on recommendations of CFG, USFWS and FERC which is half way to meeting its target. 5) The project fosters continuance of stakeholder cooperation on a target watershed management issue. 6) It is very cost effective because of the in kind contribution of EMBUD. The only reservation to providing this rating is the lack of sufficient follow-up physical and biological monitoring. This monitoring need not be intensive (i.e. making it a research project) but rather at a level suitable to ensure that the applicant, the regulatory /management agencies, and the funding body can be sure that continue gravel augmentation to the goal of the program (~22,700 cubic yards) is worthwhile.**
-Good	
-Poor	

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

   This is clearly stated and concise in the proposal. The project is timely as the goal of the proposed program to continue a long term restoration program funded by CALFED/CVPIA . Similarly the importance of the program is clearly described in the proposal and well supported by a range of management and regulatory bodies.

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 program is justifiable because it closely conforms to California Fish and Game (CFG)/ United States Fish and Wildlife (USFWS) recommendations for the long term conservation of fall run chinook salmon stocks. Gravel augmentation was recommended by to counteract historical gravel mining activities and the current lack of natural gravel recruitment to the river in the Mokelmne River below Camanche Dam. The proposal also conforms to the 1) Federal Energy Regulatory Commission finding that spawning habitat is a key factor regulating abundance of chinook salmon in the river and 2) the CVPIA priority for continuation of habitat restoration projects for river channel floodplains in collaboration with local groups.

   The conceptual model for this long term program is implicitly presented in the proposal. The project is a continuation of a long term program that has been has apparently been effective and maintaining fall run chinook populations. The proposal identifies that there is a long term strategy to augment gravel by a fixed quantity (~1,200 2,500 cubic yards/yr) to reach a goal recommended by CFG (~22,700 cubic yards). The current program is rationally positioned within the long term plan.

   Selection of this project as a full scale implementation project is justified given the long history of gravel augmentation in the Mokelumne River. The proposal however, does not provide justification/information why follow up effectiveness monitoring has not been completed or is not necessary.

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 approach for the proposed work appears practical and feasible, presumably the long history of gravel augmentation in the system by the applicant has supported the development of this approach. Because of this long history of the program and the apparent management decision to achieve the gravel augmentation goal of ~22,700 cubic yards it is unlikely that the project will add to the base of knowledge (i.e. general results applicable to other rivers), result in the development of novel methodologies or approaches, or result in useful information for decision makers

   A fundamental weakness in the proposed approach is the lack of sufficient follow up monitoring of the physical quality of habitat, utilization by the target species for spawning, and survival of ova deposited in the improved habitat areas. Although likely tenuous, an analysis of the population level response of Mokelumne River fall run chinook to this

initiative would also be helpful to ensure that the investment in gravel augmentation is a wise one, and contributing to conservation of the stock. From the information provided it does not appear that that these studies were completed in the past nor contemplated in the future, despite their obvious importance.

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 to the habitat restoration project is fully documented and, based on the 10 years of experience in the gravel augmentation in the Mokelumne, technical feasible. The scale of the project is consistent with objectives for gravel augmentation set out by CDFG, USFWS and FERC (in terms of recommendations for annual gravel augmentation).

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 performance measures are inadequate to define the physical and biological performance of the habitats restored through gravel augmentation.

   Topographic surveys- Pre and post gravel placement topographic surveys will provide the required information to quantify the spatial extent and topography of the restored channel section relative to baseline.

   Intragravel Habitat Quality - Limited sampling of permeability and water quality has been proposed before and immediately after gravel placement. The proposed methods for this sampling are technically sound, however, the number of samples and the timing of the post placement survey suggests that this sampling will be inadequate to reliably document intragravel habitat quality and possible degradation of those conditions through time. It is expected immediately after the gravel placement intra-gravel habitat conditions will be very good, however, after fall spates or spring freshet flows it anticipated that quality will be reduced by the intrusion of fine sediments. The number of sample sites at each restoration location should be increased to meet fundamental statistical requirements for hypotheses testing (i.e. n=~10-20, as feasible) top account for spatial variation within the channel bed that we know exists. As well, a commitment to monitoring changes on an annual basis should be made. It is important to sample these improved habitat through time to document habitat quality changes so that some inference about the long term effectiveness of the restoration initiative.

   Utilization and Biological Performance The proposal provides some information that suggests that despite the placement of over 10,000 cubic meters of gravel into the river there has been little response of the population. This of course may be due to external factors, however, it would be useful to managers to know whether the improved locations were differentially used over unimproved sites and whether the improved sites contributed to high egg to fry survival rates. The point is some information on the utilization and biological performance needs to be fed back to the habitat management strategy to properly justify its continued implementation. These activities may take place outside the auspices of the CALFED program. If so this should be documented in the proposal. If not, this is a perceived weakness of the current proposal.

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 primary value of this program is the incremental improvement in the quantity/quality of fall run chinook salmon spawning habitat. As indicated above, better physical and biological monitoring could increase the value of the product and provide the justification for the continued funding of the initiative.

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 proposed work is an program that has been completed by the applicant for 11 years, thus it is apparent that there is a good track record in completing the proposed work and that the necessary infrastructure is currently in place.

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

   This project has a relatively high benefit relative to the cost estimate provided in the proposal. This is due to 1) extensive experience of the applicant conducting the specific task and 2) in kind funding supplied by the applicants organization (EBMUD).

Miscellaneous comments:

This proposal was very clear, concise, and straightforward. This give me confidence that the project would be implemented in a efficient and effective manner.

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **60**

Applicant Organization: **East Bay Municipal Utility District**

Proposal Title: **Mokelumne River Spawning Habitat Improvement Project**

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:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
XExcellent	**The requested funds are limited and are completely focused on performing the restoration activity that has been conducted since 1990.**
-Good	
-Poor	

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

   The goal and objective of this project is simple and clearly stated, to add additional spawning gravels to enhance spawning success and fry production for chinook salmon and steelhead. The proponents are not attempting to evaluate any hypotheses.

2. **<u>Justification.</u>** 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 proponents clearly argue that spawning gravel availability is possibly limiting the population. They review other gravel additions to the river beginning in 1990. This project continues this restoration strategy that is consistent with USFWS recommendations for the Mokelumne River.

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 utility of adding spawning gravels for improving freshwater production of chinook and steelhead in this river is uncertain. The only means of determining its benefits is to add gravel and monitor adult returns and smolt production before and after the additions. This proposal does not mention any assessment aside from measuring topography and gravel permeability/D.O./temperature. The gravel additions proposed will be useful to decision-makers if the population assessment is conducted. The physical measurements proposed will be of little use, but they apparently are being conducted at no cost (there is no line item for them in the budget) so there is no harm in collecting this information.

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?

   Yes, the feasibility of adding gravels to this river appears high and is well documented by the proponent.

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?

   I am assuming that the population-level effects of adding gravel to this river are being assessed as part of another program, although this is not mentioned in the proposal (however they do mention that escapement is estimated). The physical measurements that are proposed will not be informative as to whether the gravel additions increased freshwater production per spawner.

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?

   This project focuses on adding gravel, not assessing the benefits. The main product is adding a fixed volume of gravel to the Mokelumne River.

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 proponent has successfully added gravel to the Mokelumne River in previous years. They provide sufficient information regarding the details of gravel additions suggesting that they are qualified to perform this work.

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

   Assuming that adding gravel to the Mokelumne River will increase freshwater production, the cost/benefit of this project appears very high.

Miscellaneous comments:

External Scientific: #4

Research and Restoration External Scientific Review Form

Proposal Number: **60**

Applicant Organization: **East Bay Municipal Utility District**

Proposal Title: **Mokelumne River Spawning Habitat Improvement Project**

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:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**The proposal presents a standard approach that appears to have successfully resulted in increased gravel in-stream, but an experimental evaluation of this approach on the basis of biological results is lacking.**
-Good	
XPoor	

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

   The goal is to annually place 1200 cubic yards in the Mokelumne River to produce spawning habitat for chinook and steelhead. No hypotheses are stated but it is implied that increased spawning habitat will improve recruitment. A dam upstream of the site disallows natural gravel recruitment, and a physical survey indicated a lack of gravels in an area that was historically important for spawning. Assuming salmon and steelhead escapement is not limited by other factors, this habitat improvement could prove important. However, reported harvest rates of 75% to 85% may be a constraint. Pilot studies and past work from 1990 to 2001 in gravel placement were reported as successful. Other methods of riffle reconstruction reported in the literature should be explored.

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 work is justified, as noted above. The underlying basis for the implementation of this work is explained in terms of physical habitat conditions and biological evidence that escapement targets have not been met in most recent years, based on estimates of natural production that were not defined. A watershed plan was referenced, along with other pertinent literature. Existing knowledge of other possible approaches to riffle reconstruction and geomorphic processes was lacking.

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 approach was explained and based on previous experience in the watershed over the past ten years. No new information is likely. Monitoring of results is on the basis of physical measurements only. Some attempt to evaluate a biological response to the habitat improvement work is required, to at least assess use, if not some measure of increased production, in a control:treatment 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 project is feasible and past experience at the same location suggests success in completion of the task of gravel placement. Success in improving chinook and steelhead recruitment may be limited by outside factors. The system lacks spawning gravel, which this project will attempt to addres in a continuing program.

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?

   Measurement of physical results alone appears inadequate to assess benefits from this work. The proponents should consider the involvment of a biologist in the project, or attempt to partner with simiar projects in the area, towards an experimental design that will use fish at appropriate life stages as the response variable.

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?

   Products from this project are unlikely to have broad scientific value but given that it is an implementation of standard habitat improvement methods for this area, interpretative outcomes may be less important than experimental approaches. Nonetheless, useful information could arise if this project was partnered with others of a similar nature, towards an experimental design as suggested above.

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?

   Similar projects have been successfuly completed over the past ten years.

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

   Costs appear well justified, but benefits remain elusive until a demonstration of improved salmonid recruitment is evident.

Miscellaneous comments:

This project presents as a continuation of standard practise in this area. Perhaps it is time to question the benefits of the approach and call for biological evidence for its effectiveness. It is more likely that the fish popualtions are limted by the high harvest rates reported. Any serious attempt to rebuild salmon and steelhead numbers, and to appreciate the benefits of this and other habitat restoration projects should include a holistic approach that includes harvest reduction where appropriate. A review of the values tabled as trout and salmon escapement targets and estimates of natural production may be helpful. Perhaps the habitat capacity for natural salmonid production has been overestimated, recently changed (reduced), or highly variable.

Prior Performance/Next Phase Funding:

New Proposal Number: 60

New Proposal Title: Mokelumne River Spawning Habitat Improvement Project

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

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

   11332-99-J014 Enhancement and Evaluation in the Mokelumne River. Program: AFRP.

   11332-0-G023 Mokelumne River Streambank Improvement Project. Program: AFRP.

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?

   XYes -No -N/A

If no, please explain:

Other Comments:

I do not anticipate any problems in accomplishing the stated tasks in the present project. Two of the three previously funded AFRP projects are closely related to this proposal.

Environmental Compliance:

Proposal Number: 60

Applicant Organization: East Bay Municipal Utility District

Proposal Title: Mokelumne River Spawning Habitat Improvement Project

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

   XYes **-**No

   If no, please explain:

   Need State Lands Commission Land Use Lease.

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

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:

   Budget and timeline for permits not specifically listed but a majority of the required permits have been obtained.

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

   -Yes **X**No

   If yes, please explain:

Other Comments:

Budget:

Proposal Number: 60

Applicant Organization: East Bay Municipal Utility District

Proposal Title: Mokelumne River Spawning Habitat Improvement Project

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?

   -Yes **X**No

   If no, please explain:

   there are no direct or indirect costs. this proposal is for supplies & expendables. Year 1 and 2 have consultant fees.

4. Are appropriate project management costs clearly identified?

   -Yes **X**No

   If no, please explain:

   This proposal states funding only for supplies and consultant fees

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: