Proposal Reviews

#165: The Development of Information Necessary for Establishment of Protection and Restoration Plans for Three Economically Important Aquatic Species of San Francisco Bay Pacific Herring (Clupea pallasi), Native Oyster (Ostrea lurida), and Dungeness Crab (Cancer magister)

The Institute for Fisheries Resources

Research and Restoration Technical Panel Review

Bay Regional Review

#1

External Scientific Review #2

#3

Environmental Compliance

Budget

Research and Restoration Technical Panel Review:

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

Proposal Number: 165

Applicant Organization: The Institute for Fisheries Resources

Proposal Title: The Development of Information Necessary for Establishment of Protection and Restoration Plans for Three Economically Important Aquatic Species of San Francisco Bay Pacific Herring (Clupea pallasi), Native Oyster (Ostrea lurida), and Dungeness Crab (Cancer magister)

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	This project was ranked as a low priority for regional research needs and poor by the outside reviewers. One administrative issue was raised and the lack of a quality proposal placed it firmly in the not recommended category.
-Above average	
-Adequate	
XNot recommended	

1. <u>Goals and Justification.</u> 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 are clearly stated in the first paragraph of the text. Hypotheses are not mentioned. They seek to gather all the information necessary to create a comprehensive restoration plan for three Bay species in a two-year project. No clear conceptual model of the problem was offered and the justification was very weak.

2. <u>Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).</u> 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?

This project was judged as poor by two outside reviewers and poorly supported by a single regional reviewer. The consensus of all the reviewers was that the project team has some capable personnel but a poor effort was made to justify their proposal or describe their methods. One external reviewer described this proposal as the worst they ever reviewed. Only one regional review ranked this project as a low priority. Likelihood of success seems poor given the lack of a conceptual model or sound research plan to attack the problem.

3. <u>Outcomes and Products.</u> 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?

Given the poor execution of this proposal useful products seem unlikely. The collaborators should carefully consider the comments by the reviewers before offering another proposal.

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

The project is very expensive and poorly justified. An effective bang for the buck seems unlikely.

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?

One regional reviewer rated this project as a low priority project for ERP (1L). The regional reviewer questioned whether the claims of the proposal for more research in the proposed areas was justified and whether the specific species identified were a priority. They noted that the outreach component with strong stakeholder involvement was the strength of this proposal.

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

Only one significant administrative issue was raised. They seem to be unclear about whether they have the appropriate permits for this work.

Miscellaneous comments:

It was noted by the panel that some of the proposed research would duplicated ongoing monitoring by the IEP program.

Bay Regional Review:

Proposal Number: 165

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Overall Ranking: XLow -Medium -High

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

The panel supports research that delivers scientific information which improves understanding about key ecosystem processes in the Bay + Suisun Marsh or about species and habitats which are insufficiently understood. But this project focuses on species that aren't listed as threatend or endangered, and which aren't central to CALFED's water management focus.

1. Is the project feasible based on local constraints?

XYes -No

How?

Assumes that insufficient data exist to develop recommended actions/plans.

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

-Yes XNo

How?

Species are important in Bay, but aren't listed as threatend or endangered, and aren't central to CALFED's water management focus, so don't fit within PSP priority.

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

-Yes XNo

How?

Linkages to upstream mgmt and estuary mgmt not clear/strong.

No linkages to bay-wide WO monitoring programs.

No BCDC connectivity with oyster restoration - habitat availablity analyses? They might have all the data you need.

4. Does the project adequately involve local people and institutions?	
XYes -No	
How?	
Strong outreach component - strength of this proposal.	

Other Comments:

Proposal has lit cited section but no lit is actually cited in the proposal.

Fieldwork is insufficient in length to deterine trends/characteristics necessary to acheive stated goals.

Why no lnkages to exisitng WQ monitoring programs in the estuary?

Herring sal/temp tolerances not already known??

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: 165

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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	Serious deficiencies in description and design. Sections missing: Project management and literature survey. Dollar figures do not jive and are sometimes not justified.
-Good	
XPoor	

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

Goals and objectives are adequately stated, nothing is concisely stated. There are no mention of hypotheses to be tested. For example, limiting factors for herring spawning and salmon smolt transition are mentioned, but no hypotheses or tests are suggested to examine assumptions or assertions. The limitation of suitable spawning substrate for herring could be examined by setting up artificial eelgrass beds and examining them for herring egg masses. Are juvenile Dungeness crabs more abundant in SFBay habitat types than in other nearby coastal habitat types or are juveniles likely to increase significantly in abundance in restored habitat types to justify saving/restoring the bay as a nursery? The point is that there is room

for hypothesis testing in a descriptive study that apparently entails a great deal of field work. The need to include consideration of SFBay and key members of its fauna in ecosystem restoration plans is a timely and important issue.

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 review of existing knowledge does not exhibit familiarity with published and agency literature on the three target species in SFBay. No citations are given for existing literature. The entire justification is vague and the proposed field work is even more vague.

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?

Several sections were left blank (i.e., Project Management and Literature Search). The research designs for field and laboratory work are not described in sufficient detail to allow evaluation. Will field sampling be random, stratified random, etc.? What gear(s) will be used to collect biological samples? Where and how often will samples be collected? How will new data be analyzed statistically? This whole section is very unconvincing.

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?

Documentation is poor or non-existent. Attainment of the stated goals is feasible, but the proposal does not demonstrate mastery of techniques, familiarity with published literature, or sufficient experience with many of the tasks.

Success is unlikely and spending nearly a million dollars would be unwise.

5. <u>Project-Specific Performance Measures.</u> 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 proposers would have us rely on "...whether or not the information was produced." How would we know if it was good information? Research and analytical designs are not spelled out in any detail, so the reader cannot evaluate the likely quality of data. In its current form, nothing is explicit or detailed enough to seriously consider funding this proposal. That is unfortunate because this or similar work on key species in the bay is needed to understand and predict the consequences of upstream management decisions.

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 value of many products is difficult to assess because the lab and field methods and the analytical procedure have not been adequately described. Fancy KRIS displays of data collected in a biased or non-representative manner would only be misleading and probably counter productive. The PIs have not presented evidence that they are capable of developing a monitoring plan (Item (2)(b)).

7. <u>Capabilities.</u> 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?

Qualifications and track records are difficult to assess without evidence of expertise and accomplishments in the form of CVs or resumes. None of the literature cited includes relevant peer-reviewed work by the primary investigators listed on this proposal.

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

Budget numbers do not seem to make much sense. Several items listed as equipment do not seem to meet the criteria: > 1 yr of life and unit cost > \$5K. Program Manager will work 10 hr/wk and charge \$20/hr, but the \$9600 listed for 1 year is not close to the amount listed for Task 1 in the Budget Summary. Travel expenses and labor costs are not justified in detail giving the number of field trips and crew sizes. 3,500 hours are listed for direct labor hours, but the table on the previous page shows 9592 hrs for year 1.

Miscellaneous comments:

I have never read a worse proposal.

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: 165

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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	poor-The proposed subject may have merit but the proposal itself doesnt provide anything to base a reasonable evaluation upon.
-Good	
XPoor	

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

The goals are clearly stated in the first paragraph of the text. They seek to gather all the information necessary to create a comprehensive restoration plan for three Bay species in a two-year 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?

I could not recognize a clear conceptual model of what the problem is or how they will go about solving it for the three target species. The proposal doesnt do a good job of outlining what is known about these species in general or specifically for San Francisco Bay. Lots of claims of importance and descriptions of change but the claims are not backed up with citations or data in the proposal. The principal justification (impetus?) for this proposal seems to be that these species and the Bay have been ignored by CALFED.

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?

This group of researchers describes what they want to do in some detail, but dont have any methods in the proposal. They have a laundry list of activities such as survey, measure water quality, analyze data, genetic stock IDs, predation studies, food studies on juvenile crabs, and more, but no where do they say how they will do these things. According to the proposal preliminary pilot studies have been done and are underway on some of their proposed work. Show me the data or some data and give me some idea of how you intend to execute such a large project.

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?

If the research effort is as poorly organized as the proposal there is little chance that this project would provide a great deal of progress in a two year time frame. The approach was very poorly documented.

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 measure are lacking for this proposal. They suggest that performance measures for this particular project is whether or not the data is generated or not. If not then you outline why not. The inability of this team to provide any reasonable performance measure for their work shows they dont really know where they are headed with the proposed project.

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?

It is impossible to fully evaluate products for this proposal since the presentation of methods in the proposal is so weak.

7. <u>Capabilities.</u> 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?

This group includes some capable people that should have been able to put together a better proposal.

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

The are asking for a lot of money and for the most part it is poorly justified, again because of the weak nature of the proposal.

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: 165

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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	Though I believe the aim of the project to be important and something that should be supported, I have serious concerns that the approach proposed can achieve the ambition of providing the necessary information to establish protection and management plans for three species.
-Good	
X Poor	

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

The goal of the project is to provide the information necessary for creating plans for the protection and restoration of three species, Pacific herring (Clupea pallasi), native oyster (Ostrea lurida), and Dungeness crab (Cancer magister). However the applicants make clear that it is not an objective to actually develop the plans.

The topic addressed is an important one. There are no specific hypotheses to be tested, the approach is more descriptive in nature.

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 applicants justify this project partly on the basis that San Francisco Bay has been largely ignored in CalFed's ecosystem restoration program to date and that the species they have identified have largely been overlooked by restoration efforts. [True?] They also refer to plans that would alter freshwater input into the Bay and the fact that the likely effects of such changes on fauna in the Bay are unclear.

Apparently oyster populations in the bay are the only of the three species that are presently considered at risk. The other two species are not presently considered at risk but there is concern that changes in the freshwater inflow to the Bay could put them at risk, and both herring and Dungeness crab are economically important.

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 consists of four main elements: 1) identification of current, historic and potential habitits within San Francisco Bay for the three species; 2) identification and analysis of current fishery regulatory measurements impacting the Bay habitats of the species; 3) compilation of data relevant to the species in a user-friendly information system; 4) on the basis of 1-3, recommendations submitted to CalFed for the creation of protection and restoration plans for the species and their habitats in San Francisco Bay, including monitoring.

It is planned that the first year of this two-year project be spent primarily on field research and literature search whereas the second will be spent on data analysis.

It is not entirely clear what kind of information will be sought in the literature survey. The field component of the project lists many different types of measurement that will be made but there is little in the way of number and distribution of sampling and it is unclear how all of this information will be synthesized into a set of recommendations.

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?

There is not nearly enough detail provided to judge the extent to which the project is feasible. Tasks 3-5 are very briefly described and there is no information on sampling design and very little on the methods to be used. I have little doubt that the proposed measurements can be made as they generally consist of standard techniques. However, I have some concerns as to the potential success of the project in terms of being able to deliver a coherent set of recommendations for the management of these three species.

5. <u>Project-Specific Performance Measures.</u> 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?

As stated by the applicants, the primary performance measure will be whether or not the information needed to create future protection/restoration plans for the three identified species is produced. There is no indication of how the performance could be quantified. There do not appear to be any ongoing checks during the course of the project to ensure that they remain on track.

- 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?
 - In principle they could be but it is very difficult to envision how all of the information collected will be consolidated into coherent and achievable recommendations for management.
- 7. <u>Capabilities.</u> 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?
 - As far as I can tell from the short descriptions provided, the team has the necessary qualifications and experience to implement the proposed project. As far as infrastructure, it is unclear who is providing the necessary ship time and other sampling equipment but given the combination of institutions involved in the project the assumption is that all of the necessary equipment is available.
- 8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

Project is for 2 years at a total budget of ca. \$919,000. My impression is that the project is overly ambitious in expecting that essentially one year of field sampling can provide the quantity and quality of information necessary to achieve the objectives.

Miscellaneous comments:

None

Environmental Compliance:

Proposal Number: 165

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

-Yes XNo

If no, please explain:

The proposal is unclear. The applicant states they have obtained permits from CDFG but only checked off the Scientific Collecting Permit on the Compliance Checklist. The applicant needs to consult with CDFG about incidental take of listed species for their field work and also consult with USFWS and NMFS for take of federal listed anadromous fish species.

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

-Yes XNo

If no, please explain:

Again, it is unclear whether the applicant actually has obtained the proper permits.

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

-Yes XNo

If yes, please explain:

This project is feasible if they obtain the proper permits and complete the necessary documents.

Other Comments:

Budget:

Proposal Number: 165

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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?

-Yes XNo

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

Seems to be a problem with the program calculating the budget summary.

6. Does the budget justification adequately explain major expenses?

XYes -No

7. Are there other budget issues that warrant consideration?
-Yes XNo
If yes, please explain:
Other Comments:

If no, please explain: