Proposal Reviews

#29: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

California State Coastal Conservancy

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

Final Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Final Selection Panel Review

Proposal Number: 29

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

Please provide an overall evaluation rating.

Fund	
As Is	**-**
In Part	**-**
With Conditions	**-**
Consider as Directed Action	**X**
Not Recommended	**-**

Amount: **$2,998,049.00**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None

Provide a brief explanation of your rating:

Endorsements for this project were coupled with support for the nearby Dutch Slough project in many comment letters from Contra Costa County residents. The local sanitary district also wrote to endorse the project and grant permission for project activities on its lands. These letters underscore the project's potential benefits, if other questions raised during the proposal's review can be satisfactorily addressed.

The Selection Panel looks forward, therefore, to receiving a revised proposal - to be considered as a directed action - that addresses the following issues (which include issues raised in comment letters and/or issues raised by the Panel):

1) There are technical concerns about the proposed approach (use of tidal gates) to restoring tidal regime and optimizing shallow water habitat and rearing conditions for Delta smelt, splittail, and chinook salmon, which require explicit clarification and should be addressed in the revised proposal;

2) The presence of the Mt. Diablo Mercury Mine and related discharge will likely confound proposed habitat restoration efforts. This was not dealt with in the proposal and should be addressed, as recommended in the comment letter from the Clean Estuary Partnership.

3) The Selection Panel is aware that wetlands are also sites of active methylmercury production. In response to this contaminant issue, CALFED is organizing a workshop to develop an integrated science strategy to address questions pertaining to potential linkages between wetland-restoration activities, the production of methylmercury, and contamination of aquatic biota, fish, and wildlife, which can influence human exposure to methylmercury. The workshop will provide a setting to coordinate CALFED-supported mercury monitoring and research with marsh restoration projects that the selection panel recommends, as recommended in the comment letter from the Clean Estuary Partnership.

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Initial Selection Panel Review

Proposal Number: 29

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

Please provide an overall evaluation rating.

Explanation of Recommendation Categories: Fund

- **As Is** (a proposal recommended for funding as proposed)
- **In Part** (a proposal for which partial funding is recommended for selected project phases or components)
- **With Conditions** (a proposal for which funds are recommended if the applicant contractually agrees to meet the specified conditions)

Consider as Directed Action in Annual Workplan (a proposal addressing a high priority action that requires some revision followed by additional review prior to being recommended for funding)
Not Recommended (a proposal not currently recommended for funding-after revision may be considered in the future)

Note on "Amount":

For proposals recommended as Fund As Is, Fund In Part or Fund With Conditions, the dollar amount is the amount recommended by the Selection Panel.

For proposals recommended as Consider as Directed Action in Annual Workplan, the dollar amount is the amount requested by the applicant(s).

Fund	
As Is	**-**
In Part	**-**
With Conditions	**-**
Consider as Directed Action	**X**
Not Recommended	**-**

Amount: **$$2,998,049.00**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None

Provide a brief explanation of your rating:

This project aims to provide water quality improvements, restore 5,000 feet of riparian habitat, and encourage stewardship and education opportunities. However, the aspect of the proposal which deals with tidal marsh restoration was problematic. The Selection Panel is requesting that the applicant revise the latter aspect of the proposal and resubmit the entire proposal for consideration as a directed action. The Selection Panel's main concerns were centered on, a) why locked tidal gates would be used to "restore tidal marsh," as this seemed an incongruous approach, and b) what benefits the creation of shallow water pools would present (Figure 16). These aspects of the proposal should be more explicitly justified in a revised proposal. In addition, the particular physical/hydrologic attributes of tidal marsh restoration component that are expected to benefit at-risk species should be identified and integrated with the conceptual model.

Research and Restoration Technical Panel Review:

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

Proposal Number: 29

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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	**The panel liked the concept and ideas put forth by the applicant, but was concerned that the length exceeded the guidelines of the PSP. This innovative proposal plans to restore 5,000 linear feet (10 acres) of riparian habitat leading to a 29 acre system that will be restored to oligohaline tidal marsh with seasonal flooding. The partners involved control the land and are responsible for much or all of the water flow as well. There was concern over the setting of the project site within the larger landscape that may be degraded and decrease the value of the restoration. Habitat, water quality, species of concern and stewardship are all important, integrated aspects of the project. Conceptual models are well developed and the proposed construction work/restoration design is detailed nicely. This is important for a pilot project that seeks to increase understanding of hydrology, contaminant, habitats and fish species use. Sampling is not explicitly documented, but a plan to include peer-review through CALFED acknowledges and provides remedy for this deficiency up front.**
XAbove average	
-Adequate	
-Not 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 applicants will perform a pilot restoration that links local water sources (quality and quantity) with recreation of a seasonally flooded tidal fresh water marsh to support important fish species. It is a well-written proposal that clearly states goals through hypotheses and addresses several critical issues for CALFED that are timely and important. The conceptual models presented for the three goals are clearly explained in detail with figures and supporting references. These models are integrated well into the proposed pilot

study, which will provide critical information to support further work on larger systems in the Delta.

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?

   The different components of the construction portions and aspects of ecosystem response are carefully integrated in this proposal. The monitoring and especially construction designs are well reasoned, with great site plans. The careful documentation of the construction plans indicates that this approach is well justified and feasible. The pilot should provide several types of important information for further work in adjacent systems. One reviewer felt the success of the project was questionable because upstream and downstream portions of the stream were not addressed (watershed context missing). The coalition of NGOs, water resource managers and university scientists have accomplished much to get the project to this stage. The applicants have considered potential pitfalls of the project and have designed components to counter them. The panel has confidence they will continue to work together to create a successful project. Performance measures are based on habitat results and physical and biological responses to the restoration. Expected performance measures for each goal are described (e.g., tissue concentration of mercury and selenium in fish), but specific criteria are not stated. The approach, methods, scope and intensity of monitoring are described (including QA/QC), but the experimental design and other specifics are not included at this point. A sampling plan to include peer-review through CALFED is an important activity of the project to address this point.

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?

   It appears that this project will generate interesting and useful information in several disciplines of hydrology, water quality, wetland development, fish occurrence and use, and human interaction with the restoration project such as stewardship. The results are likely to provide critical information on the techniques and feasibility of restoration of freshwater tidal habitats. They will benefit similar restoration projects within the CALFED area and beyond. Outreach and education will also be important products.

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

   The budget is high, but the potential benefits are great and the matching funds are substantial. As a pilot project, it could serve as a model for larger projects that would require less intensive assessments because of the information developed here.

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?

   The Delta Regional Review panel rated this proposal HIGH because it was action-oriented and had excellent learning potential as a pilot project. The panel indicated that the potential for local constraints was low, considering the local collaboration. They outlined five priorities addressed by the proposal, connections to nearby projects, and the focus on local groups and institutions. The panel felt the work would occur in a key area of the estuary and appreciated its

multidisciplinary nature (habitat, flood control and water quality).

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?

   A previous CALFED grant was obtained by the California State Coastal Conservancy, but it was unrelated to this and was not discussed in the proposal. Reviewer indicated the reliable, professional work conducted by this group. The environmental compliance review indicated two permits that were not addressed in the proposal, but may be needed for the restoration work planned. Further, the budget did not detail funds for the permit process. And the timetable for the permit approval process was not sufficient for the reviewer to assess feasibility of obtaining permits in a timely manner. The budget reviewer was not able to locate project management costs or details of the major expenses in the budget. The reviewer found project management costs easily.

Miscellaneous comments:

The applicants exceeded the page limit, which called into question the validity of their submittal.

One external reviewer did not feel the monitoring was of sufficient length (2 years) to test the hypotheses. If the proposal is funded, the panel expects a further proposal to continue monitoring.

Delta Regional Review:

Proposal Number: 29

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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

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

Panel felt this project was urgent and had excellent learning potential as a pilot project. Several panelists expressed a concern about methyl mercury. Panel rated this proposal high because it was action-oriented and restored critical parts of the Delta's habitat corridors. The project is also expected to provide scientific information that will be helpful in making decisions in the Delta.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   I could not identify any local constraints that would impede the projects ability to move forward in a timely and successful manner.

    Project proponents have completed extensive collaboration efforts to ensure that any local constraints are minimized.

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

   XYes **-**No

   How?

   Proposal claims it meets five of the eight priorities for the Delta Region and many of the related Strategic Goals:

    DR-1- Restore habitat corridors in the North Delta, East Delta and San Joaquin River (29 acres of freshwater tidal marsh and seasonal floodplain and 1 acre of dune habitat).

    DR-2- Restore and rehabilitate floodplain habitat in eastside tributaries and the lower Sacramento and San Joaquin rivers.

    DR-4- Restore habitat that would specifically benefit one or more at-risk species; improve knowledge of optimal strategies for these species.

    DR-5- Implement actions to prevent, control and reduce impacts of non-native invasive species in the Delta.

 DR-6- Restore shallow water habitats in the delta for the benefit of at-risk species while minimizing potential adverse effects of contaminants.

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?

   Proposal claims relationship to a previous Marsh Creek grant from CALFED for NHI as well as previous work undertaken by the Coastal Conservancy along Big Break. The proposal is also related to the adjacent proposed Dutch Slough project.

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

   XYes **-**No

   How?

   CSU Hayward researchers and associated ecologists are involved. Local agencies have already been closely coordinated with throughout project development. Applicant points out that hypotheses 5 and 6 are directly related to the role of public involvement and education.

   The plan for local involvement, therefore, appears adequate.

Other Comments:

 This project could be significant since it contributes to meeting CALFED tidal wetlands goals in a key area of the estuary. The results could guide more successful restoration projects in the future.

 The project represents an excellent example of the kind of integrated ecosystem restoration project that will not only contribute to meeting the Strategic Goals of CALFED but other needs as well such as flood control and improving water quality.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **29**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Big Break and Marsh Creek Water Quality and Habitat Restoration Program**

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	**A Very Good is given to this proposal because the restoration aspects of this project are very good. My concern over the balance of this restored 30 acres to the remainder of the unrestored watershed was a factor in refraining from an Excellent rating.**
XGood	
-Poor	

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

   Rating: Excellent. 5 central goals or objectives and an associated 7 hypotheses are identified.

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: Excellent. 3 conceptual models are described to convey the rationale and justification for this project. These models address the public outreach, water quality, and hydrologic/geomorphic/biologic aspects of this stream restoration.

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. The approach is well described and organized to ensure success in restoring this section of Marsh Creek. However, I am uncertain of the ultimate success without addressing either the upstream or downstream portions of this stream. I also question whether the targeted riparian zone restoration will accomplish what is intended without attention to the remainder of the floodplain and catchment.

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: Very Good. The applicants their a priori efforts to set in place the implementation of the proposed project. Again, the feasibility of addressing their intended objectives will depend on how this island of restoration functions in the context of the whole watershed.

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: Very Good. Performance measures are identified for each goal. However, the measures lack quantification.

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: Excellent. Diverse products and good public outreach plan.

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: Excellent. Well qualified investigators and team.

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

   Rating: Good. Nearly 3 mil requested for restoring 30 acres. The applicants appear to justify their budget needs. However, the cost/benefit will depend on the ecological value of the restored area to the total watershed.

Miscellaneous comments:

This project appears to be well planned and described. The proposal is 41 pages, which is twice the length of other proposals. This reviewer is not sure what penalties are imposed for exceeding the page limit. Obviously, the applicants were able to adequately describe the project with the additional pages.

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **29**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Big Break and Marsh Creek Water Quality and Habitat Restoration Program**

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 proposal plans to restore 5,000 linear feet (10 acres) of riparian habitat leading to a 29 acre system they wish to restore to oligohaline tidal marsh with seasonal flooding. The partners involved control the land and are responsible for much or all of the water flow as well. Habitat, water quality, species of concern and stewardship are all important, integrated aspects of the project. Conceptual models are well developed and the proposed construction work/restoration design is detailed nicely. This is important for a pilot project that seeks to increase understanding of hydrology, contaminant, habitats and fish species use. Sampling is not explicitly documented, but a plan to include peer-review through CALFED acknowledges and provides remedy for this deficiency up front.**
-Good	
-Poor	

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

   The applicants will perform a pilot restoration that links local water sources (quality and quantity) with re-creation of a seasonally flooded, tidal fresh water marsh to support important fish species. It is a well-written proposal that clearly states goals through hypotheses and addresses several critical issues for CALFED that are timely and important.

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 conceptual models presented for the three goals are clearly explained in detail with figures and supporting references. These models are integrated well into the proposed pilot study, which will provide critical information to support further work on larger systems in the Delta.

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 different components of the construction portions and aspects of ecosystem response are carefully integrated in this proposal. The monitoring and especially construction designs are well reasoned, with great figures of the site.

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 careful documentation of the construction plans indicate that this approach is well justified and feasible. The pilot should provide several types of important information for further work in adjacent and nearby systems.

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 measures are based on habitat restored and physical and biological responses to the restoration rather than specific regulatory tasks (e.g., permit approval) or generation of reports. Expected performance measures for each goal are described (e.g., tissue concentration of mercury and selenium in fish), but specific criteria are not stated. The approach, methods, scope and intensity of monitoring are described (including QA/QC), but the experimental design and other specifics are not included at this point. A sampling plan to include peer-review through CALFED is an important activity of the project to address this point.

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 appears that this project will generate interesting and useful information in several disciplines of hydrology, water quality, wetland development, fish occurrence and use, and human interaction with the restoration project such as stewardship.

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 coalition of NGOs, water resource managers and university scientists have accomplished much to get the project to this stage. I have confidence they will continue to work together to create a successful project.

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

   The budget is high, but the potential benefits are great. As a pilot, it could serve as a model for larger projects that would require less intensive assessments because of the information developed here.

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **29**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Big Break and Marsh Creek Water Quality and Habitat Restoration Program**

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	**As described in this review, this project will have many valuable outcomes. I believe it should be undertaken, with attention to ensuring both a sufficient monitoring duration and performance criteria to evaluate success.**
XGood	
-Poor	

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

   The goals of this project are ambitious, generally well defined, and clearly stated. The proposed restoration is landscape in scale, encompassing multiple, interdependent habitat types within the Delta region (tidal freshwater marsh, marsh creek channel and associated flood plain wetlands, and dune). As proposed, communities, students, and citizens groups will be integrally involved in planning various phases of the project, implementing restoration actions, and monitoring responses, all of which will continue to build the local support critical to project success and long term stewardship. Research and monitoring goals are included to identify causes for habitat degradation, determine the efficacy of the proposed pilot marsh restoration project, and guide future restoration efforts. Collectively, these goals provide an adaptive management context that can improve the potential for immediate and future restoration success. This is an important and timely project that could

return this system to a more natural state before rapidly encroaching urban development precludes any such possibility. The most important stated outcome of this project will be improved water quality for the Delta and Bay system (p. 34, System-wide benefits), and many of the project goals are directed specifically toward this result (Goal 2, Marsh Creek channel restoration; Goal 4, identify type, source, and toxicity of pollutants and other water quality parameters entering Big Break via Marsh Creek before and after channel restoration; Goal 5, involve schools and community groups in water quality monitoring). These goals are well integrated and internally consistent, and they are generally cast as testable hypotheses (although I would restate Hypothesis 4, given as Rapid urbanization, and agricultural runoff combined with the current channelized condition of Marsh Creek have degraded water quality in Marsh Creek and Big Break, in terms of more specific, testable questions regarding potential sources [former mercury mining facility, petroleum processing plants?] and types [mercury and selenium?] of pollutants). Secondary outcomes are related to restoration of 29 acres on the lower Marsh Creek delta, including information on techniques for restoring different delta ecosystem types (Goal 1) and habitat preferences of native fish species (Goal 3). This restoration effort is predicated largely on the potential value of tidal marsh and floodplain to native fish species targeted by CALFED. Evidence that tidal marsh and floodplain does indeed provide important habitat for native fish stems from the ecological literature and from limited previous surveys in the region; this evidence is used to justify the expense of this pilot restoration project (half the requested budget), results of which will help guide much larger future efforts. Hypothesis 3 (in part, that intertidal marshes in Big Break provide important habitat for native fish species) appears inconsistent with this justification for tidal marsh restoration in the Marsh Creek delta. I.e., Big Break marsh is considered a reference site for the lower Marsh Creek restoration site (Approach, p. 24), implying similar habitat types if there is indeed enough uncertainty regarding marsh habitat value to test whether Big Break marsh is important to native fish (Hypothesis 3, p. 19: If Big Break is not important for native species, we will want to learn why and shape future CALFED restoration efforts accordingly) then there is not sufficient justification for spending $1.5 million on tidal marsh restoration for the primary benefit of native fish. I believe that the pilot restoration project is in fact justified appropriately, and that the proposed Big Break monitoring is equally important from a reference site perspective Hypothesis 3 should be revised to support, rather than contradict, this restoration effort.

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 proposed project is well justified based on scientific understanding of the factors regulating native species diversity and abundance and water quality of Marsh Creek/Big Break ecosystems. The integration of restoration, monitoring, and education/outreach within a framework of local community involvement at all levels is particularly noteworthy. This strong commitment to local participation will yield multiple benefits, including stewardship of existing natural and restored areas and support for future restoration projects.

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 proposed approach will produce much valuable information on technical aspects of constructing and revegetating tidal marsh, floodplain, and dune environments, the role of floodplain wetlands in ameliorating water quality, the ecology of native and non-native species using Delta habitats, and the feasibility/cost effectiveness of integrating and coordinating

extensive volunteer conservation and restoration efforts. I question, however, whether the proposed monitoring is sufficient to measure the efficacy of the restoration projects. Very importantly, monitoring of restorations on the lower Marsh Creek delta and the Marsh Creek channel each follow a BACI design (albeit not stated as such), with monitoring beginning before restoration actions are implemented and occurring on reference as well as restored sites (water quality monitoring along Marsh Creek is proposed for upstream and downstream of restoration sites it will be important that upstream sites are upstream also of the presumed sources of pollutants). Given a 3-year project period, there will be at most 2 years of post-restoration monitoring. Although some ecosystem components would be expected to respond rapidly to restoration efforts (use of newly created habitat by some fish species, initial colonization by vegetation and macroinvertebrates), others may take considerably longer (establishment of vegetation community that is structurally and functionally similar to natural systems, development of abundant and diverse invertebrate fauna). To truly evaluate project performance it will be important to continue post-restoration monitoring longer than 2 years, but I could find no mention in the proposal of how this might be accomplished beyond the CALFED-funded period. Although the proposal indicates that details of the monitoring plan are to be determined at a later date, it does identify many of the components that will be monitored (e.g. fish, invertebrates, water quality). Despite the emphasis on use of student volunteers to propagate native stock for planting and the potential for non-native plant species to invade restoration sites, there is little attention given to post-restoration vegetation monitoring. This should clearly form part of the final monitoring program.

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 applicants have done a tremendous amount of legwork securing land, permits, support, and baseline data for this project. In addition, potential pitfalls have been considered (e.g. colonization of newly created sites by undesirable invasive species) and, where possible, solutions identified (in this case, grading to avoid preferred elevation of pepper-grass, intensive weeding as needed). Restoration of the Marsh Creek channel is technically feasible. Uncertainty regarding the technical feasibility of restoring tidal marsh in an area of potentially high sediment deposition is acknowledged in the proposal given this uncertainly, it is apt that the tidal marsh restoration is a pilot-scale project. The dependence on students and other volunteers introduces distinct challenges of training, guidance and oversight, and coordination, but partnerships with organizations experienced in use of volunteers (e.g. Creek Keepers) will help ensure success in this important area of the project. The project is likely to succeed in restoring some, if not most, structural and functional aspects of the habitats identified. As stated above, however, it will be important to measure responses to restoration for longer than 2 years to determine overall project success.

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?

   Other than the areal extent of restored habitat, the performance measures include essentially all of the monitoring data described in the Approach section of the proposal. Although some of these are quite specific (e.g. tissue concentration of mercury and selenium in fish below EPA levels), at this point most are very broadly defined (e.g., species presence, distribution, and abundance; water quality improvements) with no indication of performance target levels. It would be useful to identify some specific structural and functional ecosystem attributes as performance measures. Comparisons of performance measures between restored and reference

sites is implied (e.g., bullets under Goal 3 performance measures), but this should be stated explicitly. This comparison can yield quantitative targets for future restoration projects.

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 will yield very important information on the feasibility of and techniques for restoring tidal freshwater marsh and dune habitat in the Delta system, the capability of restored channel wetlands to ameliorate water quality, and some biological indicators of water quality. This information will be extremely valuable to future restoration efforts. Information on habitat preferences of native fish will also be useful to conservation and restoration efforts. The integration of students and community groups in project implementation will provide a useful model for future programs.

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 project team is eminently qualified to conduct this work. The collective expertise brought together in this collaboration represents the various aspects of stream and coastal aquatic ecosystem restoration, ecology, monitoring, and management necessary to address the breadth of this project. The extensive local partnerships already developed attest to the teams ability to build local support crucial to project success.

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

   The cost of Task 4 (Tidal marsh and floodplain restoration) consumes half of the project budget. Given the high cost of grading to appropriate elevations the proposed budget seems reasonable, but it is difficult to evaluate without knowledge of other bids on this work. The proposed budgets for Tasks 1-3 and 5-7 seem very reasonable; if anything, given the amount of coordination this project will require among investigators and volunteers, and among different project components and habitat types, the amount for Project Management (Task 1 at 1/3 of a year commitment each year) may be too low. The amount of matching funds contributed by collaborators and partners is noteworthy.

Miscellaneous comments:

Prior Performance/Next Phase Funding: #1

New Proposal Number: 29

New Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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*)

   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?

   XYes -No -N/A

   If no, please explain:

Other Comments:

Prior Performance/Next Phase Funding: #2

New Proposal Number: 29

New Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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

   99-F09 Introduced Spartina Eradication Project

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

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?

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

   If no, please explain any inaccuracies:

   NA status of 99-F09 is not discussed in the proposal.

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:

NA this is not a next phase proposal

Other Comments:

Coastal Conservancy has been professional and responsible during the implementation of 99-F09. In my experience, they have been carrying out tasks and duties in a timely and reliable manner.

Environmental Compliance:

Proposal Number: 29

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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

   -Yes **X**No

   If no, please explain:

   Project proponents may need a 2081, Reclamation Board Approval, and possibly a grading permit for some parts of the project. Applicant should check with the appropriate agencies.

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

   -Yes **X**No

   If no, please explain:

   Budget detail does not indicate funds for environmental compliance documentation and permtting. Need to clarify amounts and source of funds (if seperate from this proposal).

   Also, timetable could be very tight if the maximum review period is taken for all sections of the process. Project proponents state that they have already started parts of the process, so that may give them adequate time. Proponents state that environmental review may begin prior to CALFED funding. Proposal needs to clarify whether/how that will happen.

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

   -Yes **X**No

   If yes, please explain:

   If proponents obtain necessary permits, and timetable is adjusted or clarified, project is feasible.

Other Comments:

Budget:

Proposal Number: 29

Applicant Organization: California State Coastal Conservancy

Proposal Title: Big Break and Marsh Creek Water Quality and Habitat Restoration Program

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

   XYes **-**No

   If no, please explain:

   In Budget Summary and in an "Appendix C"

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:

   3% charged by Conservancy (last page of Budget Justification) and differeing rates identified in Budget detail for Federal and Sate rates.

4. Are appropriate project management costs clearly identified?

   -Yes **X**No

   If no, please explain:

   In Budget Justification, there is a reference made to Project Management in the Direct Labor Hours but there doesn't seem to be any detail.

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?

   -Yes **X**No

   If no, please explain:

   The Detail in Appendix C might, but I'm not sure.

7. Are there other budget issues that warrant consideration?

   XYes **-**No

   If yes, please explain:

   There are 3 Indirect Cost rates (Conservancy - 3%, State - 24% and Federeal - 47%) mentioned.

Other Comments: