Proposal Reviews

#17: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

California Department of Fish and Game

Final Selection Panel Review	
Initial Selection Panel Review	
Research and Restoration Technical Panel Review	
Land Acquisition	
Bay Regional Review	
External Scientific Review	#1 #2 #3 #4 #5
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: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

Please provide an overall evaluation rating.

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

Amount: **\$1,046,400**

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

Fund tasks 1-6 only at this time.

Provide a brief explanation of your rating:

In much of the Bay-Delta ecosystem, sediments are contaminated with mercury from historic mining activities or other sources. The Selection Panel is aware that wetlands are 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.

A letter from ABAG's CALFED Task Force and the San Francisco Estuary Project endorse the proposal, reinforcing the panel's conclusion that this is an important effort.

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Initial Selection Panel Review

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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	X
With Conditions	-
Consider as Directed Action	-
Not Recommended	-

Amount: **\$1,046,400.**

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

Fund tasks 1-6 only at this time.

Provide a brief explanation of your rating:

The proposal is important and consistent with CALFED objectives. The local Resource Conservation District is a co-applicant, and acquisition will be from willing sellers. The site is zoned "marsh preservation" and is designated marsh in the local plan. The land is not prime or unique agricultural land and is not currently in agricultural use. However, later tasks within the proposal are not clearly defined and lack sufficient information to expend funds. Proponent should return with greater detail concerning tasks 7, 8a, 8b, 8c, 9 and 10 in the future.

Research and Restoration Technical Panel Review:

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

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;

<u>Above Average:</u> Quality proposal, medium or high regional value, and no significant administrative concerns;

<u>Adequate:</u> 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 goal and objectives of the project are based on the ERP Strategic Goals, and are useful, important and timely. As it stands, the lack of consistency in the
-Above average	project description and development and coordination of the pre-project monitoring has led to this rating. The science component to address uncertainties and monitoring in support of project design and adaptive management is left undeveloped and without a strong lead partner. The panel
XAdequate	recommends funding for only Phase I (Budget tasks 1-6), that would include physical/biological surveys (not monitoring) in support of conceptual restoration
-Not recommended	plans of Phase II and development of a monitoring plan. Alternatively, re-submittal of the project next year is encouraged with specifics regarding land acquisition and the science component.

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 project goal is to acquire diked lands in Suisun and restore tides to reestablish self-sustaining fully functioning tidal marsh. The applicants (federal, state and local resource agencies) have applied for funding to support the first two of four/five phases that include: acquisition of up to 500 acres of diked marshland, assessment of these properties, and creation of restoration plans. The latter phases (not in current funding requested) include environmental compliance activities, implementation of restoration designs, monitoring and studies on uncertainties to assist in the recovery of at risk species within an adaptive management framework. The project directly addresses many of the ERP priority regional goals. Hypotheses focus on the six ERP goals and are consistent with the goals and

objectives. Anecdotal results from several ongoing projects in the region are cited to support the approach and conceptual model. The model is articulated fairly well and states that development of marsh habitat by native species and use by species at risk will occur spontaneously if tides (and accompanying sediments) are restored to the diked areas. The proposal considers negative impacts from invasive species and contaminants, but does not connect these issues to the restoration. For example, it does not address how invasive species will be deterred or how effects from contaminants will be reduced other than through "natural processes".

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?

Purchasing the land or easements to allow restoration of full tides to drive natural processes that will restore habitat and benefit at risk species seems to be practical approach. Use of selection criteria to prioritize acquisition is appropriate. Also, studies to reduce uncertainties in the restoration process is an important component of the plan, and will likely create information to support this and other projects through out the Delta. However, this funding covers Phase I and II, which completes a conceptual plan for the property(s), and stops short of specific plans or developing monitoring protocols or designing such studies. This incorrectly assumes that pre-project monitoring in Year 2 of Phase I is independent of the data collection needed for adaptive management. Members of this five-part consortium are professionals actively involved in other restoration projects in the region. The team appears to be well qualified to succeed in Phase I of the project. However, some reviewers expressed concern that there was not enough information in the proposal to adequately judge whether the land could be purchased. Also, the lack of an academic partner may have led to deficiencies in the description of Phase II (specifically, no monitoring plan, performance measures, etc.). A weak science component will lead to less than rigorous procedures and an inability to synthesize data and effectively translate the information to management. Performance measures for Phase I only include acquisition and tasks associated with this work. This does not fit with the budgeted activities, which included surveys. The applicants state that performance measures will be developed at a later time, but then divide data collection activities into pre-project (restoration implementation) and post-project sections. They then indicate a monitoring plan will be developed and implemented in Phase II (this funding cycle), but no specific methods or performance measures were included. Pre-project monitoring needs to include hydrology and creek measures and especially sedimentation dynamics, but these are not planned until post-project monitoring.

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?

Phase I and II of the project will acquire about 500 acres of diked marsh and a conceptual plan for restoration that will include survey information on physical conditions and biological components of the sites. Further Phases (III to V) would restore up to 500 acres of tidal marsh in an adaptive management framework.

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

The first year of the budget appears appropriate and reasonable; the second year could be reasonable, but is not justified because assessment plan was absent. External reviewers thought the budget for the non-acquisition components was too high.

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 regional panel liked this proposal since it supports the SCIP and the partners are the major permitters/players in Suisun marsh. The summary outlined the ERP Strategic Goals (1, 2, 4, 5, 6) supported by the project and the connections to other regional programs. Lack of constraints and positive local connections were cited by the panel in support of the project.

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?

Two reviews of prior performance had no concerns (one contract had not been completed, the second had a positive review). The environmental compliance review reminds us that restoration design and data collection to support environmental compliance will be carried out in this funding cycle, but completion of these documents is planned under future funding. There were no budget concerns raised by the reviewer.

Miscellaneous comments:

None

Land Acquisition:

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

1. Is the site's ecological importance documented in the proposal?

XYes -No

If yes, please import relevant text and citations here:

Historically, Suisun Marsh and Bay (Suisun) included more than 68,000 acres of tidal wetlands. Over 90% of these wetlands were diked and drained for conversion to agricultural uses, beginning in the mid-1800's. A series of dry years resulted in increased salinity in Suisun, which limited production/success of the farms. Many farms failed, and most were replaced by waterfowl hunting clubs. Water quality degraded further when the Central Valley Project came on line in the 1940s, and then again when the State Water Project and CVP began Delta diversions to San Luis Reservoir in the 1970s.

Today, most of the levees originally constructed for agricultural reclamation form part of the infrastructure for managing water levels in seasonal nontidal (managed) wetlands (Goals Project 1999). Many diked wetlands in Suisun Bay have progressively subsided and suffered from lack of adequate drainage. This, coupled with increased water salinity, has contributed to increased soil salinity which impacts wetland habitat quality and increases maintenance costs.

Currently, Suisun Marsh is the Estuarys largest contiguous protected area. However, after more than 100 years of land reclamation, few areas remain with natural flows and elevations. Many linear miles of tertiary channels have been lost, which are important spawning and rearing areas for native fish and are used for feeding and resting by some waterbirds. Of the natural channels that remain, most have degraded natural habitat values from loss of the tidal prism, dredging, levee confinement, isolation from the marsh plain, high water flow, and poor water quality. Tidal marshes, which were once the most common habitat type in the Bay/Delta system, are now restricted to remnant, disjunct patches. Most of the remaining brackish marshes in Suisun lack certain attributes of fully-functioning saline and brackish emergent wetlands.

Numerous documents and many agencies have recommended tidal restoration in Suisun. The Suisun Marsh Protection Plan (1977) recommends wetland restoration for agricultural lands within the management zones of Suisun: Where feasible, historic marshes should be returned to wetlands status, either as tidal or managed wetlands. If, in the future, some of the managed wetlands are no longer needed for waterfowl hunting, they should be restored as tidal marshes. The Ecosystem Restoration Program Plan (ERPP) of CALFED identifies more specific recovery measures, to restore tidal action to 5,000 to 7,000 acres in the Suisun Bay within seven years of its initiation (ERPP 1999). The Baylands Ecosystem Habitat Goals recommends restoration of tidal marsh in the Suisun subregion, with a specific recommendation of more than doubling the area of tidal marsh to between 30,000 and 35,000 acres (Goals Project 1999). The Suisun subregion includes the Suisun Marsh and the Contra Costa shoreline which extends from west of the Carquinez Strait to east of Pittsburg and includes Browns and Sherman Island.

The overall goal of this project is to increase the area of selfsustaining, fully functioning tidal marsh in Suisun. The specific objectives of this project are to (1) acquire parcel(s) in northern or western Suisun that are contiguous with or in close proximity to existing tidal wetlands, (2) restore these parcel(s) to a self-sustaining tidal marsh that includes the full elevational range from slough channel to low marsh, middle marsh, high marsh, transitional zones, and upland areas, and (3) assist in the recovery of at-risk species. The choice of this area for restoration was based upon the high potential benefit for native and at-risk species, contiguity with non-urban or similarly-managed lands, the low potential for conflict with neighboring land use, the low risk of downstream flooding, and the low risk of negative salinity changes. We will use the ECAT list of selection criteria (see Attachment 2) to identify parcel(s) that are appropriate for tidal marsh restoration. Parcels must have the potential to include all features of a fully functional, self-sustaining tidal marsh including tidal sloughs and low, middle, and high marsh zones.

2. Is the owner's willingness to sell the site documented in the proposal?

XYes -No

If no, please explain:

"Land will be purchased only from willing sellers.... We have identified at least one potentially willing seller; additional willing sellers exist in Suisun.

3. Is evidence of local government support for the purchase included in the proposal?

-Yes XNo

If yes, please explain:

Although the county has not espressed support for the project, the local RCD is a coapplicant in the proposal.

4. Is the use proposed for the site after its purchase clearly consistent with the site's general plan designation and zoning?

XYes -No

If no, please explain:

The site is zoned "marsh preservation" and is designated marsh" in the local government general plan.

5. Is the land mapped as prime farmland, farmland of statewide significance, unique farmland, or farmland of local importance?

-Yes XNo

If yes, please explain the classification:

Is the site under a Williamson Act contract?

XYes -No

Will use of the site change from agriculture after its purchase?

-Yes -No XNot Currently in Agriculture

6. Is this a time-sensitive acquisition opportunity, according to the proposal?

-Yes XNo

If yes, please import relevant text here:

Other Comments:

Bay Regional Review:

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

Overall Ranking: -Low -Medium XHigh

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

The panel favors action-oriented projects that secure and resore critical habitats of Suisun Marsh; this is such a project. Restoration of tidal marsh in Suisun meets the goals of many projects/agencies. CALFED funding will show good faith to the local landowners involved in the complex negotiations for the SCIP.

1. Is the project feasible based on local constraints?

XYes -No

How?

The applicants are from DFG, DWR, BOR, USFWS and SRCD, the major permitters/players in Suisun Marsh and members of SMC, who must have a commitment to involve local landowners per SCIP. Acquisition will be solely from willing sellers. At least one willing seller has been identified. This project was negotiated through SCIP, which involved all local landowners.

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

XYes -No

How?

ERP Strategic Goal 1, at-risk species (and PSP Priority 1 - BR1 - Restore wetlands in Critical Areas of the Bay): restoration of up to 500 acres of tidal marsh will benefit splittail, salt marsh harvest mouse, Ca clapper rail, Suisun thistle, and 15 other species of concern. Goal 2, ecosystem processes: restoration of tidal marsh will restore natural processes, and potentially increase productivity in the estuary. Goal 4, restore functional habitats: the project will restore up to 500 acres of functional habitats. Goal 5, NIS (and PSP Priority 3): restoration will hopefully result in an increase in dominance of native species, and the project will incorporate measures to minimize NIS. Goal 6, sediment/water quality: the applicants state that the restored marsh will provide for settling of sediments.

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?

The proposal details relationship with ERP and Bayland Ecosystem Habitat Goals Project goals to restore tidal action to thousands of acres of marsh; with the Suisun Marsh Protection Plan, and SCIP goals. Other restoration activities in Suisun include 1) SMPA Agencies CALFED funding for acquisition and eventual restoration of marshes in NW Suisun (parcels have not been secured yet), 2) DWR and SRCD plans to convert the managed wetlands on lower Joyce Island to microtidal ponds, 3) a proposed 2,300 acre restoration on the east shore of Montezuma Slough, 3) a 420-acre restoration on Chipps Island (a proposal in this round), and 4) a 150- acre restoration in south Suisun. The applicants plan to acquire land for restoration next to existing tidal marsh or near these other proposed projects. The proposed project appears to be coordinated with the other restoration and research activities in Suisun.

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

XYes -No

How?

Letters have been sent to the Solano Co Planning Commission and BCDC, and the Coastal Conservancy and Solano Co Open Space District have been notified. The bulk of outreach to local landowners will be initiated by SRCD, one of the applicants. The applicants intend to provide briefings, news releases and mailings, and interested parties will be able to comment on the EIS for acquired lands.

Other Comments:

None.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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; <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	Good. The goals of the project are useful, important, and timely. However, this
XGood	 proposal only represents a beginning to the overall project, and there are some significant ambiguities about what is included in this proposal and what is not. Given a ~\$500,000 price tag for the monitoring plan, more detail on the nature of the monitoring, including spatial and temporal intensity, should be provided.
-Poor	

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

The goals and objectives for the overall, five-phase project focus on acquisition and restoration of tidal marsh in order to protect and restore at-risk species. These objectives are important and timely and fit well within the CALFED mandate. However, the stated objectives do not include carrying out scientific studies to address areas of uncertainty, which is a crucial role for a pilot project such as this. It is true that these studies are outlined elsewhere in the proposal, but they should have been included as an objective. More importantly, there is some lack of clarity about what is included in this proposal versus what is part of later phases of this project. In the objectives section, the applicants include "restoration planning and environmental compliance" and "monitoring during all stages" as parts of this proposal, while later it becomes clear that only preliminary conceptual

restoration plans are included, that environmental compliance may or may not happen in this proposal, and that "monitoring during all stages" is largely not included in this proposal.

Scientific hypotheses regarding the effects of tidal restoration are reasonable and clearly stated.

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 model outlined by the applicants is reasonable and provides a sound basis for the proposed restoration work, though they could have provided a more thorough review and citation of the relevant literature. I think the timing is ripe for this type of pilot project, which includes restoration as well as research. Their goal is both to begin the process of tidal marsh restoration and to derive lessons about the effects of dike breaching on ecosystem dynamics and at-risk species. One specific point: given that the invasive pepperweed occupies the same elevational zone as the Suisun thistle, it is not clear how restoration of tidal flow will lead to reduction of pepperweed coverage. If there are reasons to expect this, they should have been given.

3. <u>Approach.</u> 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 overall approach proposed is reasonable: acquire land; conduct pre-restoration surveys (a crucial step, often ignored); plan the restoration; prepare environmental compliance documents; conduct the restoration; conduct post-restoration surveys to test the hypotheses; adaptive management of the area. However, I have several problems with the specifics: • Parcel acquisition should be done with an eye towards the relationship among the different parcels, i.e., towards creating a contiguous area in which restoration is physically possible. Not all parcels need to have all marsh zones, as long as the overall area acquired does. • The role for scientific studies to address areas of uncertainty and test hypotheses is not clear. The applicants call for pre- and post-restoration monitoring, which is very good, but it should be ensured that the monitoring plans will be designed in such a way that they can actually provide useful answers to the questions/hypotheses posed above. • Again, the relationship between the different phases of the project is not completely clear. Pre-restoration surveys are included in phase II, but "detailed pre-project monitoring" is included in phase III, which makes me wonder how much scientific groundwork will actually be laid in the proposed work, which only goes through phase II.

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?

I can't speak to the likelihood of the applicants' actually finding willing sellers for 500 acres in this area, but this is a crucial part of the project and its feasibility should be explored.

I am somewhat concerned about the lack of specifics in the plan. While I appreciate that this is a very large undertaking and the later phases (not funded in this proposal) will be planned out in detail later, I would have been more sure of the project's success if more specifics had been included for the first two phases. For example, identifying the subcontractor who will perform the hydrologic evaluation and develop the conceptual restoration plan would have been useful, as would maps of the area and greater clarity about the type of monitoring included in Phase II.

The scale of the project is somewhat problematic. The overall, five-phase project is clearly consistent with the objectives. But the work as proposed really constitutes only the very beginning of that effort. I think this proposal would have been stronger if it had included some actual restoration work (or at least some detailed restoration design), at least on some portion of the study area.

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?

A target of "up to 500 acres" may not be the most useful performance measure: is the target 500 acres (especially since the budget provides for that amount)? Generally this section is quite good, and helps clarify the studies that will be carried out, though more detail on the spatial and temporal intensity of sampling would have been helpful. It is still not completely clear whether all the "pre-project" monitoring outlined here will be carried out in Phase II (as opposed to Phase III), but I assume that it will.

6. <u>**Products.**</u> 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 products identified from the work funded in this proposal are: land acquisition; reports from the hydrologic and topographic surveying; a conceptual restoration plan; and reports from preliminary presence/absence surveys. All 4 of these will be useful products. However, it is not clear to me why the "pre-project" monitoring plan (which includes more than presence/absence surveys) and reports of results from that monitoring are not included as deliverables, especially since they represent a significant portion of the budget.

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?

I can't speak to the track record of this project team. They do seem to have all the relevant agencies involved, which is good. Ensuring successful interagency coordination will be a significant challenge for this project. In addition, 2 of the 4 products will be prepared by a subcontractor to be named later.

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

The budget seems a bit high to me. The land acquisition is expensive but undoubtedly necessary (though I can't judge if the land prices are reasonable). However, the remaining ~1 million dollars seems excessive for the work involved.

Miscellaneous comments:

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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; <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 it stands, the lack of consistency in the project description and development
XGood	and coordination of the pre-project monitoring has led to this assignment. If reduced to only Phase I and physical/biological surveys (not monitoring) in support of conceptual restoration plans of Phase II, it would be ranked highe
-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 increase the area of self-sustaining fully functioning tidal marsh in Suisun," which is directly addressing high priority regional goals. The applicants (federal, state and local resource agencies) wish to acquire up to 500 acres of diked marshland in the Suisun area, survey these areas and create restoration plans. The implementation would include studies on uncertainties and "assist in the recovery of at risk species." Hypotheses focus on the six ERP goals and are consistent with the goals and objectives.

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?

Anecdotal results from several ongoing projects in the region are cited to support the approach and conceptual model. The model is articulated fairly well and states that development of marsh habitat by native species and use by species at risk will occur spontaneously if tides (and accompanying sediments) are restored to the diked areas. The proposal considers negative impacts from invasive species and contaminants, but does not connect these issues to the restoration. For example, it does not address how invasive species will be detered or how effects from contaminants will be reduced other than through "natural processes".

3. <u>Approach.</u> 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?

Purchasing the land or easements to allow restoration of full tides to drive natural processes that will restore habitat and benefit at risk species seems to be practical approach. Use of selection criteria to prioritize acquisition is appropriate. Also, studies to reduce uncertainties in the restoration process is an important component of the plan, and will likely create information to support this and other projects through out the Delta. However, this funding covers Phase I and II, which completes a conceptual plan for the property(s), and stops short of specific plans or developing monitoring protocols or designing such studies. This conflicts with the budget, which indicates pre-project monitoring in Year 2 of Phase I.

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 partners should be able to move ahead with Phase I of the plan easily (I might imagine bureaucratic roadblocks rather than technical ones).

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 for Phase I only include acquisition and tasks associated with this work. This does not fit with the budget activities, as indicated above. The applicants state that performance measures will be developed at a later time, but then divide data collection activities into pre-project (restoration implementation) and post-project sections. They then indicate a monitoring plan will be developed and implemented in Phase II (this funding cycle), but no specific methods or performance measures were included. Pre-project monitoring needs to include hydrology and creek measures and especially sedimentation dynamics, but these are not planned until post-project monitoring. Some of the important relationships among study components appear to be confused. For example: "Quality assurance will be provided by success criteria and contingency measures ..."

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

Phase I and II of the project will acquire about 500 acres of diked marsh and a conceptual plan for restoration that might include survey information on physical conditions and biological components of the sites. Further Phases (III to V) would restore up to 500 acres of tidal marsh.

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?

Members of this five part consortium are professionals actively involved in other restoration projects in the region. The team appears to be well qualified to succeed in Phase I of the project. However, the lack of an academic partner may have led to deficiencies in Phase II as described in the proposal, and may lead to less than rigorous procedures and an inability to synthesize data and effectively translate the information to management.

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

The first year of the budget appears appropriate and reasonable, the second year is reasonable, but may be inappropriate for the tasks that have been fully formulated to date (i.e., leave out monitoring).

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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):

no connection

Review:

Please provide an overall evaluation summary rating:

Excellent: 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	I think the goals of the project - to acquire, study, restore and monitor 500 acres
XGood	within the Suisun system is extremely important and should be funded. More detail about the nature of the monitoring plan, performance criteria, and a tea that included a estuarine/wetland scientist would be helpful.
-Poor	

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

The broad goals of this project are stated to be the acquisition and sustainable restoration of up to 500 acres of diked wetlands in the Suisun marsh. It appears that most of the lands available for acquisition are currently being managed for waterfowl hunting. It will not be known which of the parcels acquired will be suitable for complete restoration until baseline data has been collected as part of the proposed project. There is some question as to the criteria that will be used to determine which acquired parcels will be fully restored, which will be managed in some way to manage waterfowl, and which will be managed in some way to support populations of the salt marsh harvest mouse. The project has been conceived as an initial pilot project to implement a multi-agency of commitment to tidal restoration of the greater Suisun system. The proposed project is to complete acquisition, baseline data, and conceptual restoration planning. Performance criteria, restoration design, and restoration implementation and monitoring will be funded through subsequent requests. There is a solid commitment to development of a science-based restoration and implementation plan, although the hypotheses of interest are rather broad and general, and could be broken down into a series of more specific and interesting process-oriented questions.

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?

A weakness of the proposal is the lack of a good review of the scientific literature regarding other tidal marsh restoration efforts. References are drawn from regional/local agency reports and documents or from the secondary literature. Provisions are made to engage a consulting scientist to develop the conceptual restoration model, conduct hydrologic evaluation and topo survey. I suggest the formation of an advisory panel that includes several scientists to work with agency personnel and the consulting scientist. A strong case is made for project need and value. This pilot project is the obvious first step in carrying out the larger agency restoration goals. The project will benefit from outside scientific perspective both in acquisition, planning, performance and design elements of the project.

3. <u>Approach.</u> 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 broad approach outlined should allow achievement of objectives in phases 1 and 2 as described. Pre-restoration monitoring will provide the information needed to carry out the latter phases of the project (3-5), i.e. the restoration planning and implementation. No mention is made of the use of natural reference sites to provide the benchmarks for the natural, self-sustaining habitats and functions that are the stated goals for proposed restoration projects. The monitoring plan will be derived from existing plans within the five collaborating agencies. The proposal does not suggest the development of novel methodologies or approaches, but with the amount of funding requested for pre-project baseline monitoring, the data should be of very high quality and utility in the restoration planning phase. The hypotheses to be investigated in the project are stated in a fairly general way, and should become more interesting and specific once the restoration sites are identified. The pre-restoration monitoring data will also be of use to regulatory decision-makers in the permitting process. Post-restoration monitoring and success evaluation (not actually to be carried out within this funding request) would certainly be of great value to decision makers involved in coastal habitat issues.

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 rationale for the approach outlined is reasonably well developed. Questions of technical feasibility are more appropriate for the monitoring plan that will be developed by the project, rather than for the planning process outlined. I do think that the science of tidal marsh restoration could benefit greatly from the planning process if efforts are made to collaborate with non-agency scientists in the development of the monitoring plan and details of monitoring design. The degree of success of the restoration will depend on the plan that is developed, once the restoration sites are identified. The scale of the project (up to 500 acres restored) is in keeping with the stated CALFED goals of restoring tidal hydrology to up to 7000 acres by 2006, and seems reasonable given the capacity of the agency collaborators.

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 for the restoration will be developed as part of the planning process proposed, and thus cannot be assessed at this time. I recommend that restoration performance criteria be developed in Phase II, and modified as needed based upon new information developed through the studies proposed in Phase III. Natural reference marshes, and information about the geomorphology and hydrology of sites to be restored prior to disturbance should be made use of in the development of success criteria.

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?

Based upon the amount of money budgeted, the project should produce a very well thought out and practical-to-implement restoration monitoring plan that could be applied to all subsequent restoration projects within the Suisun system. The data collected through pre-restoration monitoring will produce interpretable data that will inform the restoration plans for the acquired parcels.

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?

The project team is composed of experienced members from what appear to be all the state and federal agencies that have management responsibilities for the Suisun marshes. The strengths of the team are in the realm of planning, endangered species management, and hydrology/engineering. All members of the team have had considerable experience working within the Suisun system. Absent however are team members with an estuarine/wetland science background. As stated in #4 above, I think this project would benefit from the addition of non-agency estuarine scientists in the development of the monitoring and restoration plans.

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

The funds requested for the planning and monitoring aspects of this project seem quite adequate. Since I have no experience with the value of the type of land targeted for acquisition, it is hard for me to determine whether the \$1500 per acre budgeted is a reasonable sum. Might be a bit on the low side?

Miscellaneous comments:

External Scientific: #4

Research and Restoration External Scientific Review Form

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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; <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	I feel like the applicants need to do more "homework" in order to provide more
-Good	detail so that the reviewer can better assess the project's possibility of success. With lack of details, e.g. monitoring, the high budget can't be justified.
XPoor	

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

The purpose of this project is to conduct Phases I and II of a five-phase project which involves restoring tidal flow and marsh habitat to areas that had been diked. The first two phases deal with the acquisition of approximately 500 acres of land in the northern or western part of Suisun Marsh, developing a restoration plan, and conducting pre-project monitoring. Such restoration is hypothesized to benefit at-risk species.

The goals, objectives, and hypotheses are clearly stated.

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?

It is justified to restore more marsh in the Suisun Marsh area and the applicants explain well the need and importance of restoration and the history of marsh loss in the area.

3. <u>Approach.</u> 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?

It would have been nice to know at this stage how much interest there is by landowners for this restoration idea. They stated that they couldn't identify parcels until funds were allocated due to rapid turnover of property. Just how rapid is the turnover there if that is such a big problem. It seems that a simple questionnaire going out to all landowners with property of possible interest would have allowed the applicants to say that a certain number of owners with x acres of land have expressed interest in at least obtaining more information about the project with a possibility of being interested in selling land for such a project. This would have been a big plus to reviewers of this proposal. They do say that so far they have "one potentially willing seller", but they don't say how much land this involves. They say "additional willing sellers exist" but give no evidence to support this statement. Without a little information in this regard it is difficult to say whether the approach so far is well designed for meeting the objectives.

On p. 2 they say they will conduct studies related to the ERP Strategic Goals, but they don't describe any of the studies in enough detail for a reviewer to evaluate them. For example, later they say strategies for eliminating stressors will be included in the management plan - what are some examples? They say they will determine effects of levee breaching on channel dynamics and formation of sloughs, etc. What are some examples of how they would do this? They say they will use existing data from other restoration projects, Carl's Marsh etc. What are some examples of some of this data and how will it be used?

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?

Assuming they can get the land, the restoration is certainly feasible. They don't give much detail about the monitoring that will take place in Phase II except to say that they will develop a plan that will include fish, waterfowl, shorebird, wildlife, plant, and invertebrate surveys, and water quality assessment. Since funding is being requested for this monitoring I'm surprised they did not give some detail of how the monitoring would be set up - e.g. within channels, along channels, on the marsh plain, sampling methods, etc. It would have been nice to have a skeletal plan of some kind at this point. It seems like they would have had to have that in order to estimate that they will need the \$485,376 that they request in their budget to implement it.

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?

They give a list of project tasks for each target. They state that the performance measures for the restoration implementation will be developed in Phase III. As I stated above, there is not any detail to speak of on the monitoring aspects of this project.

6. <u>**Products.**</u> 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?

Land will be purchased - how much exactly is unknown at this time. It is possible that a successful restoration will be conducted but at this time there is not enough information to be sure. The monitoring component is not detailed enough to judge its value.

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?

From the information on qualifications given in the proposal, the applicants appear to be well qualified. Had there been more information in this proposal on landowner interest and details on monitoring I would be more comfortable funding the project.

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

Without more detail on exactly how they would monitor it is difficult to assess whether the cost is appropriate for this portion. It seems very high to me. The funds requested for land acquisition just depend on the availability of the land and at this time that appears to be a big unknown. The cost of the hydrologic and topographic studies all depend on how much land will be involved.

Miscellaneous comments:

I don't feel like this proposal is adequate to justify funding.

External Scientific: #5

Research and Restoration External Scientific Review Form

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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 at all.

Review:

Please provide an overall evaluation summary rating:

Excellent: 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	
XGood	Excellent on its ecological and scientific merits. Were I CalFed, however, I'd like to know a lot more about what I'm getting for \$550,000 of monitoring.
-Poor	

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

Yes on all counts

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?

Again, yes on all counts. This is has the potential to be extremely important work!

3. <u>Approach.</u> 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 proposal essentially asks for \$\$ for land acquisition (about a million for purchase price and related costs) and for designing and implementing a pre-project monitoring plan (ca. \$546,000), with another roughly \$68,000 for design and related engineering work for the actual restoration project itself. None of this work will generate novel information or add significantly to our knowledge base - at least in and of itself. Added info will come from actually attempting restoration of the acquired property back to tidal wetland. Presumably the subject of future proposals.....?

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?

Again, what is "success" here. They can certainly buy the land and design and implement a pre-project monitoring scheme with the funds requested. The ultimate question is whether or not a functioning tidal wetland can be re-established on the site. If the final design can get the hydrology right, the chances of successful restoration are quite high. The applicants indicate that the "appropriate hydrology" goal is realistic; abs.ent data to the contrary I'll take their word for it and assume that ultimately tidal wetland can be re-established in the project area.

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?

If they buy land with appropriate locations and elevations, a large part of the project will be successful. Evidence presented indicates that this is likely. I'm a bit more concerned with over a half a million for designing and implementing a pre-project monitoring design and set of protocols. There is little information provided for monitoring goals/objectives except that a consultant with "extensive experience" will be retained.

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 final goal, restoring ca. 500 acres of tidal wetland, will be extremely valuable if achieved, and in any case the information developed from a well designed post-project monitoring protocols could provide the state of California with extremely valuable information for design and implementation of future marsh restoration porjects.

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?

They can surely buy the land. The qualifications of agency personnell appear to be quite sound. A half a million dollars is going to an unknown consultant, however. This is a bit troubling.

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

Without a good deal more justification, I find it hard to think that design and implementation of PRE-PROJECT (my emphasis) monitioring should cost over \$500,000 (That would be a pretty nice NSF grant!!). I am from a small New England college, and perhaps have a distorted sense of how much things should cost - but I'll happily design and do the monitoring for half the bugdeted amount in this proposal. There may be reasons why this part of the project should cost so much, but they are not articulated in the proposal.

Miscellaneous comments:

I really LIKE this proposal; the long term ecological and scientific benefits could be very great!! My reservations, however, concern the lack of information about the design and implementation of monitoring - particularly in light of the projected half a million dollar plus projected cost!

Prior Performance/Next Phase Funding: #1

New Proposal Number: 17

New Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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

01-N17 Suisun Marsh Property Acquisition and Habitat Restoration

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

N/A

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

-Yes -No XN/A

If no, please explain any difficulties:

Contract is currently being developed as part of a interagency agreement between DWR and RA.

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

-Yes -No XN/A

If no, please explain any inaccuracies:

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

-Yes -No XN/A

If no, please explain deficiencies:

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

-Yes -No XN/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 XN/A

If no, please explain:

Other Comments:

Prior Performance/Next Phase Funding: #2

New Proposal Number: 17

New Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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

98-F08, Hill Slough Habitat Restoration Demonstration Project, Phase I;CALFED ERP

- 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?

XYes -No -N/A

If no, please explain any inaccuracies:

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

XYes -No -N/A

If no, please explain deficiencies:

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

XYes -No -N/A

If no, please explain deficiencies:

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

-Yes -No XN/A

If no, please explain:

Other Comments:

Cooperator submits timely and accurate quarterly reports and is very responsive to Project Officer inquiries.

Environmental Compliance:

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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

XYes -No

If no, please explain:

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:

Need to clarify that funding for environmental documentation in this proposal is only for beginning the environmental compliance process. Future proposals will include the rest of the funding for completing the environmental compliance documents.

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

-Yes XNo

If yes, please explain:

Other Comments:

Budget:

Proposal Number: 17

Applicant Organization: California Department of Fish and Game

Proposal Title: Suisun Marsh Land Acquisition and Tidal Marsh Restoration

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

XYes -No

If no, please explain:

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

XYes -No

If no, please explain:

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

XYes -No

If no, please explain:

4. Are appropriate project management costs clearly identified?

XYes -No

If no, please explain:

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

XYes -No

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

6. Does the budget justification adequately explain major expenses?

XYes -No

If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes XNo

If yes, please explain:

Other Comments:

information well provided in the budget justification.