

Proposal Reviews

#31: Napa-Sonoma Marsh Restoration Project

California State Coastal Conservancy

Final Selection Panel Review

Initial Selection Panel Review

Research and Restoration Technical Panel Review

Bay Regional Review

External Scientific Review	#1
	#2
	#3

Prior Performance/Next Phase Funding	#1
	#2

Environmental Compliance	#1
	#2

Budget

Final Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Final Selection Panel Review

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

Please provide an overall evaluation rating.

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

Amount: **\$4,511,400.00**

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

None

Provide a brief explanation of your rating:

Comments endorsing the project were received from the Department of Fish and Game, US Fish and Wildlife Service's San Pablo Bay National Wildlife Refuge, and the ABAG-CALFED Task Force and San Francisco Estuary Project. These letters, and the Coastal Conservancy's comment letter, emphasize the project's potential regional significance in terms of knowledge and information that could be gained through implementation that might guide future, large scale efforts to restore salt ponds in the North Bay (and perhaps the South Bay). The Selection Panel recognizes these adaptive management opportunities, and so looks forward to receiving a revised proposal to be considered as a directed action that addresses the following: a) a wide range of issues raised by the technical reviewers ranging from lack of conceptual model to specific concerns regarding proposed design/technical approach; and, b) information and guidance that may be derived from this summer's Draft EIS on site restoration, as noted in the Army Corps of Engineers' comments, that may provide insight into restoration feasibility.

In addition, 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.

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Initial Selection Panel Review

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

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: **\$\$4,511,400.00**

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

None

Provide a brief explanation of your rating:

This project is important regionally and would be well justified for two critical reasons: 1) restoration of tidal marsh in the North Bay (9850 acres, 3 of 12 existing salt ponds) would likely provide habitat for a wide range of at-risk species, and 2) the lessons learned from this effort would likely be transferable to the restoration of other salt ponds in the South Bay, which may be acquired from the Cargill Salt Company.

However, the reviews indicated that the proposal was lacking in information critical to properly evaluating the proposed approach. For example, the absence of a conceptual model left reviewers struggling with how tidal action would be restored to the ponds and subsequently managed, and further, the absence of hypotheses regarding expected ecological response left reviewers unable to evaluate how performance and success would ultimately be measured.

The Selection Panel has recommended that the proposal be revised for consideration as a directed action because there is significant merit - from both a scientific and restoration perspective - in understanding how to restore these diked salt ponds, which could lead to the restoration of other salt ponds in the bay.

Research and Restoration Technical Panel Review:

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

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;

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

Adequate: No serious deficiencies, no significant regional impediments, and no significant administrative concerns;

Not Recommended: Serious deficiencies, significant regional impediments or significant administrative concerns.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	The project appears to be well justified, and would provide a large restoration project that would inform tidal restoration of other salt works and potentially all tidal restoration in the area. However, it lacks important information, and would benefit from a clear, illustrated conceptual model of the conditions and processes that structure these pond systems. For example, it is not clear how many of the 9850 acres are currently tidal (not in need of any restoration) and how many acres will be restored to managed ponds and minimally managed tidal systems. Overall however, the panel sees this as an extremely valuable project with very good management, partners and cost share. Therefore the panel recommends the applicant develop a conceptual model and hypotheses for ecological responses in the ponds, and then integrate the monitoring, including reference sites (Pond 2?) and emergent plants. The monitoring plan should be developed to support multivariate analyses, assess success using performance measures and support adaptive management.
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 goal of the project is to introduce water from the Napa River into three ponds of a 12-pond system formerly used for salt production by Cargill Salt Company. Managed tidal flow will be restored to three of the ponds. Activities outside this funding request will include managed flow in several other ponds to prevent hypersalinization from reaching levels toxic to wildlife. These goals are followed by a list of six objectives that include more goals that refer to ponds, but focus mainly on the objectives to support the main goal. While not

comprehensive, they represent the project well. There are no hypotheses presented. The goals appear to be clear and consistent with those of CALFED ERP and CVPIA. Restoration of unimpeded tides to support intertidal marsh in Ponds 3, 4 and 5 was seen by reviewers as a desirable endpoint, though this phase of funding will not actually result in open tidal flux at all three ponds. However, some reviewers questioned whether CALFED resources might be indirectly supporting active water management that was planned for several other ponds. The project is well justified; almost 10,000 acres of diked ponds used for salt harvest have been acquired by the state. The system needs maintenance and new engineering to prevent large areas becoming toxic to wildlife and to begin a measured process of reclamation to passively managed tidal marshes and managed mesohaline ponds. There is no conceptual model. A model needs to be developed to show how current conditions and processes in the series of ponds require a phased approach to sustain and then expand populations of wildlife, especially at risk species, to support the project goal. The model and the results of this project could then be used to aid restoration of the South Baylands salt works.

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 management approach follows a model often used by the applicants where most project activities are contracted out to others, including engineering, monitoring and construction management. The construction approach is based on preliminary engineering work and is presented clearly and effectively. The approach for the water quality & biological assessment is presented as two sentences and a list of 6 sites. It omits consideration of several important issues regarding scope of the baseline sampling effort. Specifically, it lacks: 1) reference sites to support BACI (before/after, control/impact) design; 2) sampling for hydrology and sediment dynamics; 3) plant sampling; 4) lack of regional coordination in sampling protocols; and 5) lack of internal coordination for multivariate analyses. The approach is lacking in that it fails to place a timeline of current management, changed management due to this and future funding cycles, and endpoints for the system into the future for each of the management units (ponds). This is a complex undertaking, and a table conveying such information (even if only estimates) would be valuable. The preliminary engineering work and coordination of water quality resource managers to support the project lends confidence to the feasibility of the restoration construction/hydrological activities. Ownership is clear and mandates an active role in accomplishing the central engineering tasks in the proposal. The constraints are numerous and present significant challenges to the design and management team, but these have all (we hope) been identified and actually make this project more attractive to some of the participants (i.e., the USACE and engineering firm).

Performance measures for administrative and engineering and construction tasks are not presented, rather the approach for assessing ecosystem response is outlined. No details are presented, but the lone paragraph focuses on salinity and selected animal species to be used as indicators. Applicants have led CALFED projects in the past. The team they have assembled or adopted to date is composed of well respected-firms and agencies: Phillip Williams and Associates, USGS, USACE.

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?

Products include plans, permits and reports. The habitat enhancement, infrastructure and management knowledge are important products. The information value from the project monitoring effort will be limited by deficiencies outlined above. There appears to be minor regard for sharing data and results and translating science and management efforts for the public. Transfer of lessons and results would be valuable to inform similar projects in salt works, but results could potentially be valuable for all tidal restoration projects in the area.

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

As indicated above, many details are lacking which makes an informed response to this section difficult. Costs appear to be reasonable. However, it is not clear how many acres will be restored for each level of construction activity supported by the requested CALFED funding (pond management to prevent further salinization, restoration of muted tides, and later restoration of full tides). This is regarded as a serious deficiency. One of the strong assets of the proposal is the current and potential cost share brought to this challenging project.

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 Bay Regional Review panel gave this proposal a HIGH ranking because it is an action-oriented project that promises to restore critical habitats in the Bay, fulfilling many regional goals. The panel indicated it is adjacent to other potential restoration project areas, and could serve as a model for restoration of other salt works. The proponents have worked to include local input and involvement in the project. The regional panel felt the project is expensive, and a careful review to realize saving in engineering plans is warranted.

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?

Prior performance reviews were positive, with no issues. One of the two reviews for environmental compliance identified that a Streambed Alteration Agreement may be needed. The budget review has no problems or issues with the proposed budget.

Miscellaneous comments:

None

Bay Regional Review:

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

Overall Ranking: -Low -Medium **XHigh**

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

The regional panel favors action-oriented projects, like this, that restore critical habitats in the Bay and Suisun Marsh. This project's extensive + expensive heavily-engineered features need close review to seek out potential cost savings.

1. Is the project feasible based on local constraints?

XYes -No

How?

- has wide support from agencies, scientific communities and enviros - a feasibility study was done, EIR/EIS underway - thorough consideration of constraints, but mitigation will be developed in the CEQA/NEPA process, and the constraints were deemed feasible by the regulatory agencies

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

XYes -No

How?

- fulfills many ERP, multi-regional and Bay region goals (BR-1: Restore wetlands in critical areas throughout the Bay)

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?

- adjoins other potential restoration projects (Cullinan Ranch, possibly Skaggs Island) - will serve as model for restoring other salt ponds (South Bay) - implements CCMP - restores one of the last tidal marsh areas on the lower Napa River, but a significant gain could be achieved in adding to other restoration projects in the area

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

XYes -No

How?

- the Napa-Sonoma Marsh Restoration Group provides regular input. Members include agencies, NGOs, and business - project coordinates with many agencies/organizations

Other Comments:

project will provide needed restoration of habitat, but seems expensive. consideration of design/engineering costs should be reviewed

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **31**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Napa-Sonoma Marsh Restoration Project**

Conflict of Interest Statements:

I have no financial interest in this proposal.

☒Correct

☐Incorrect

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

NONE

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	The project appears to be well justified, and would provide a large restoration project that would inform tidal restoration of other salt works and potentially all tidal restoration in the area. However, it is poorly organized, lacks important information, and would benefit from a clear, illustrated conceptual model of the conditions and processes that structure these pond systems. For example, it is not clear how many of the 9850 acres are currently tidal and are not in need of any restoration and how many acres will be restored to managed ponds and how many acres restored to minimally-managed tidal systems.
XGood	
-Poor	

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

Found as the second paragraph under Project Site Goals, the goal of the project is clear and consistent with those of CALFED ERP and CVPIA. The goal and foci listed as a-c speak to the focus of this funding request: restore tidal marsh in Ponds 3, 4 and 5. These goals are followed by a list of six objectives that include more goals that refer to ponds, but focus mainly on the objectives to support the main goal. While not comprehensive, they represent the project fairly well. There are no hypotheses presented.

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 project is well justified; almost 10,000 acres of diked ponds used for salt harvest have been acquired by the state. The system needs maintenance and new engineering to prevent large areas becoming toxic to wildlife and to begin a measured process of reclamation to passively-managed tidal marshes and managed mesohaline ponds. There is no conceptual model. A model needs to be developed to show how current conditions and processes in the series of ponds require a phased approach to sustain and then expand populations of wildlife, especially at risk species, to support the project goal. The model and the results of this project could then be used to aid restoration of the South Baylands salt works.

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 management approach follows a model often used by the applicants where most project activities are contracted out to others, including engineering, monitoring and construction management. The construction approach is based on preliminary engineering work and is presented clearly and effectively. The approach for the water quality & biological assessment is presented as two sentences and a list of 6 sites. It omits consideration of several important issues regarding scope of the baseline sampling effort. Specifically, it lacks: 1) reference sites to support BACI (before/after, control/impact) design; 2) sampling for hydrology and sediment dynamics; 3) plant sampling; 4) lack of regional coordination in sampling protocols; and 5) lack of coordination for multivariate analyses or integration of disciplines.

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 preliminary engineering work and coordination of water quality resource managers to support the project lends confidence to the feasibility of the restoration construction/hydrological activities. Ownership is clear and mandates an active role in accomplishing the central engineering tasks in the proposal. The constraints are numerous and present significant challenges to the design and management team, but these have all (we hope) been identified and actually make this project more attractive to some of the participants (USACE and engineering firm).

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 administrative, engineering and construction tasks are not presented, rather the approach for assessing ecosystem response is outlined. No details are presented, but the lone paragraph focuses on salinity and selected animal species to be used as indicators.

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

Products include plans, permits and reports. The value of monitoring will be limited by deficiencies outlined above. There appears to be minor regard for sharing data and results and translating science and management efforts for the public. Transfer of lessons and results would be valuable to inform similar projects in salt works, but results could potentially be valuable for all tidal restoration projects in the area.

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?

Applicants have led CALFED projects in the past. The team they have assembled or adopted to date is composed of well respected firms and agencies: Phillip Williams and Associates, USGS, USACE.

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

This appears to be an expensive project, but the cost share provides strong funding and agency commitment. As indicated above, many details are lacking which makes an informed response to this section difficult. Costs appear to be reasonable. However, it is not clear how many acres will be restored for each level of construction activity supported by the requested CALFED funding (pond management to prevent further salinization, restoration of muted tides, and later restoration of full tides).

Miscellaneous comments:

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **31**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Napa-Sonoma Marsh Restoration Project**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

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

none

Review:

Please provide an overall evaluation summary rating:

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
X Excellent	I'd say this project is very good (between excellent and good) assuming the hydrology assumptions are correct. More details here would have been helpful, as would some data on what the salinity is now in the water and soil. They seem to be more focused than many of the other projects I have read.
-Good	
-Poor	

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

The main goal of this project is to introduce water from the Napa River into 3 ponds of a 12-pond system formerly used for salt production by the Cargill Salt Company. This will reduce the salinity of these ponds and prevent them from drying out, thus enhancing their wildlife habitat value.

The goals and objectives are clear. I don't see any hypotheses per se. One big question I have is what is the salinity in these ponds now - in the water and in the soil? What is the soil salinity at various depths? They told us the target salinities of the various ponds during the salt production process but not what they are currently. What is the life (besides ducks) in and around the 3 ponds in question at the present time? If there are any plants or fish they must be very salt-tolerant ones. I would guess that there is some Salicornia around the edges.

Only Fig. 5 shows plants but it doesn't say whether this is a pond in question or not.

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?

They say that preliminary modeling indicates that salinity would reach toxic levels if dikes were breached. I wish they had referenced some papers to back this up or given more detail of exactly what salinities would be reached under what conditions etc. But we don't have access to the model. Assuming the model is correct and breached dikes would pose a serious problem to the life in the Napa River, then I'd say the project is justified. They say Ponds 4 and 5 are currently dried out and provide no habitat - I can believe they are not valuable as barren land.

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?

Their approach is to construct 3 inlets (in Ponds 3, 4, and 5), one outlet from Pond 3, one connector between Ponds 4 and 5, and improve a siphon between Ponds 3 and 4. Their approach seems reasonable. I am wondering if the inlet and the outlet from Pond 3 are the same or different structures. They don't give details about how often a pond would be flooded and drained etc. I can only assume they have a hydrologic model of what happens with the salt when released, what levels of salt, etc. although they don't say that specifically. They say they have constructed a water control structure on Pond 8 and consultants who developed a hydrologic model for the Napa Marsh will develop designs for the water control structures on the 3 ponds. It would be nice to know what's happening with Pond 8 regarding salinity of water released and management of hydrology. The goal of eventually achieving a self-sustaining system is good. I would like to know how long they think it would take that to happen. How many years are estimated before levee breaches would replace water control structures?

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

The approach seems technically feasible but I'm not a hydrologist. Success really depends on the hydrology models and thus the ability to reduce salinity and release it in a manner that won't cause any problem. I wish they had cited some work that involved similar situations where they reduced salinity in such ponds by similar methods or commented on the progress so far in Pond 8.

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 monitoring data will be the main indicator here and I think they have detailed their monitoring activities fairly well.

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?

They list various reports, etc. that will be products. Of course the main product would be a lower salinity, functional, and self-sustaining habitat. The monitoring component will evaluate its functionality.

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?

It looks like a well-qualified team.

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

The big cost is \$3.1 million for the water control structures. Not being an engineer I can't say whether this is reasonable or not.

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **31**

Applicant Organization: **California State Coastal Conservancy**

Proposal Title: **Napa-Sonoma Marsh Restoration Project**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

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

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	The limited restoration actions proposed here are justified and important in the context of both CalFed goals and goals for regional restoration plans, and I therefore give the proposal an overall rating of "Good". If the proposed re-plumbing, desalinization and eventual full tidal restoration of the former salt ponds were expanded to include the entire salt pond complex, I would give the proposal a rating of "Excellent".
XGood	The packaging of the proposed restoration work with the adjacent managed flow wetlands lowers the overall value of the effort. The proposal proponents do not demonstrate convincingly that there is an adequate justification for maintaining relatively expensive flow controls over a significant portion of the site. In order to justify this relatively complicated overall "restoration" plan, the project proponents need to demonstrate that: 1) such muted/tidal open-water habitats had been present in this portion of the estuary historically in the relative proportion currently envisioned by this proposal, 2) that true restoration of these habitat types further upstream in the floodplain (where they might be more likely to occur naturally) is not possible now or likely ever due to conflicting land uses, 3) that elevations on these sites prevent practical restoration to native tidal wetland habitat types and functions, 4) that these muted/tidal open-water habitat types will uniquely support endangered or threatened species and are therefore necessary to restore or maintain at the expense of fully functioning tidal estuarine habitat, or 5) that there is some other legal or fiscal mandate to maintain these managed habitat types versus restoring them to full estuarine function.
-Poor	

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

The overarching goal of this project is to "Restore a mosaic of diverse habitats that will benefit a broad range of fish, wildlife, and plant species, including endangered and threatened species, fish and other aquatic species, and migratory shorebirds and waterfowl."

In fact, the goals for this proposal are numerous and complicated, including meeting the goals of various regional restoration plans, achieving multiple species habitat criteria, coordinating restoration work with adjoining or nearby sites, and minimizing harm to the surrounding environment from the desalinization of former salt ponds.

While the goals are fairly clearly stated, I am not sure whether they are consistent internally or externally. There is careful use of language throughout which appears to confuse the nature of the overall "restoration" design, which may flow from the original regional goals developed for the North Bay. For example, regarding the local planning imperatives, the proposal quotes the Baylands Ecosystem Habitat Goals Report (p. 97):

"In total, the Goals for the North Bay subregion call for increasing the area of tidal marsh from the existing 16,000 acres to approximately 38,000 acres, and creating about 17,000 acres of diked wetlands managed to optimize their seasonal wetland function."

One could argue that creating thousands of acres of diked wetlands "managed to optimize their seasonal wetland function" is not restoration at all, but rather creation of artificial habitats within a highly disturbed environment to manage for one group of species at the expense of restoring native ecosystem habitats and functions.

The Project Site Goals on page 5 of the proposal state: "Manage water depths of ponds to maximize wildlife habitat diversity, with shallow-water areas for migratory and resident shorebirds and dabbling ducks and deep-water areas for diving benthivores." Were these habitat types present in this area of the Baylands before extensive diking, and if so, were they present to the extent that they will be represented in the proposed project? Estuarine wetlands can only be restored in areas of tidal and saltwater influence. Sacrificing opportunities for estuary restoration in favor of managed freshwater ponds should not be supported by CalFed funds if this amounts to "enhancement" or essentially out-of-kind mitigation as opposed to true native wetland restoration. It strikes me that there is confusion here of specific wildlife management goals with overall ecosystem restoration goals that benefit many species and provide natural flooding and water quality benefits.

Given the other restoration activities in the area, and the need to restore lost estuarine wetlands, the true restorative components of this project 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?

Since this is a full scale implementation project, there is no statement or description of a conceptual model.

The project proponents state in the proposal that, "Construction of this project would create the largest restored wetland on the West Coast of the United States. It would also achieve many of the goals and objectives outlined in the Baylands Ecosystem Habitat Goals Report and the U.S. Environmental Protection agency's San Francisco Estuary Project Comprehensive Conservation and Management Plan and serve as a model for the restoration of thousands of acres of the South Bay salt ponds, currently owned by Cargill, Inc." Well, the validity of that statement depends on whether: 1) the proposed work taken in total represents actual restoration or 2) some mix of restoration and artificial habitat enhancement. It appears to be the former, although the Justification section mixes the management of existing facilities (ponds 2, 7, 7A, 1, and 1A) with restoration of new salt marsh (in ponds 3, 4, and 5). In any case, I question whether this overall "restoration plan" is a useful "model for the restoration of thousands of acres of the South Bay salt ponds..." given the large scale application of long term flow control proposed for this site.

The proposal further states that "The public acquisition of the former salt pond system in the Napa Marsh provides an opportunity to restore tidal salt marsh and related habitats on an unprecedented scale within the San Francisco Bay system." This is true to a large extent, and 3,045 to 4,254 acres of former salt ponds are slated for conversion to tidal marshes. However, apparently over 2,300 acres of former salt ponds are slated for some form of managed tidal flow. This design element will have the effect of increasing maintenance costs exponentially over time and is not justified in the proposal except to note that the "Napa Marsh occupies a key position on the Pacific Flyway, a major migratory route used annually by waterfowl and other birds."

The question that I do not see addressed is this: are "muted" or "damped" tidal habitats limited in the North Bay, and is dedicating over a third of the restoration foot print to these complicated and expensive "restoration" solutions justified by some measure of biological or

ecosystem health? The implementation of complicated flow management in the system of former salt ponds appears necessary to restore more natural salinity regimes. However, I am not sure that continued management of tidal flow in either the proposed or existing "restored" areas is justified after the acute salinity problems have been rectified.

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 restoration plan for the overall marsh complex is potentially flawed (see above), but the limited construction activities proposed are well designed and appropriate for meeting the objectives of the project. The results could add to our base of knowledge if the construction and adaptive management of the proposed tidal restoration portions of this project lead to an effective model for salt pond restoration in other parts of the Bay system. The information generated from this restoration activity should be useful to decision makers in terms of whether such ambitious projects can be successful in restoring tidal ecosystem function in former salt ponds.

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 appears to be feasible from an engineering and environmental standpoint. I see no "fatal flaws", as the project proponents put it, that will prevent full implementation of the construction portion of this project. The overall project appears to be midway through its implementation. I believe the likelihood of success is high, given adequate funding and time. The scale of the construction project is consistent with the objectives.

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 project includes appropriate performance measures to measure success relative to the project's goals and objectives. Performance of the project will be measured through the data collection and analysis program briefly described above in Tasks 3 and 7. There is ample detail as to how the performance measures will be quantified, and the monitoring plan is explicit enough to determine if performance measures will be adequately assessed, with comprehensive water quality and biological data being collected both before and after project implementation. The project proponents will present data in a monitoring report that will provide a quantitative measure of project performance.

The project proponents state that the project will be considered successful if salinity levels in the ponds drop, and the abundance of key indicator species (such as certain macroinvertebrate, fish, and bird species) increases. This may not occur over the time frame funded by this proposal however, and I suggest that the project proponents come up with some alternative interim measures of success in order to gauge progress on the project, perhaps identifying if target flow to and from, and circulation in the former ponds are being achieved even if the biological and water quality parameters have yet to respond to the proposed restoration actions.

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 baseline data report, Preliminary design report, Plans and specifications (bid documents), Permit applications and supporting technical documentation, and Monitoring reports will all be necessary to achieve the goals of the project. Furthermore, the actual restoration actions (new plumbing of the salt ponds to restore more natural salinity regimes) will be a tangible product of this proposal.

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?

I am not familiar enough with the work of all the project participants to comment on their respective track records. The project team appears to be qualified to efficiently and effectively implement the proposed project. Since the contractor that will actually carry out the restoration actions has not been selected, I cannot say whether all the available infrastructure and other aspects of support necessary to accomplish the project are in place.

Nadine Hitchcock, Program Manager for the San Francisco Bay Conservancy Program, who will oversee the Conservancy's role in this project, including project management, interagency coordination, environmental compliance, facilitation of public and non-profit organization forums, and consultant and contractor selection and oversight, has many years of experience overseeing large and complex conservation efforts and appears qualified to serve as project manager.

California Department of Fish and Game staff are familiar with the site and will offer assistance in overseeing the project.

Ducks Unlimited and Philip Williams and Associates, Inc., have extensive eminently qualified to carry out the design work associated with the proposed restoration. Williams have the experience and the integrity to identify efforts that have failed in the past. D.U. has the occasional institutional fondness for engineered freshwater solutions in favor of restoring natural tidal processes in estuarine sites. I take the proposal team's statements at face value that the levees will eventually be broken at ponds 3, 4 and 5 at the Napa-Sonoma Marsh once salinity structure is restored.

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

The budget is reasonable and adequate for the work proposed.

Miscellaneous comments:

I support the proposed restoration actions in ponds 3, 4 and 5.

I am less enamored of the proposed management options presented for ponds 1, 1A, 2, 7, 7A and 8. If these ponds will mimic habitat types that were lost in this portion of the estuary (true restoration), but cannot be recovered without flow management due to altered hydrology of the neighboring river or marshlands, then perhaps these complicated managed wetlands are justified. If this is an attempt to artificially create habitat that was never present in these relative amounts, or in this portion of the Baylands system, in order to support one species or species group at the expense of other native species, then this represents a misappropriation of effort. In

fact, I would like to see a feasibility study that examines the costs and benefits of restoring the entire marsh complex to full tidal function.

Prior Performance/Next Phase Funding: #1

New Proposal Number: 31

New Proposal Title: Napa-Sonoma Marsh Restoration Project

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

ERP 98-C03 Hamilton Wetland Restoration 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 contract amendments with this applicant proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

XYes -No -N/A

If no, please explain any difficulties:

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

XYes -No -N/A

If no, please explain any inaccuracies:

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

XYes -No -N/A

If no, please explain deficiencies:

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

XYes -No -N/A

If no, please explain deficiencies:

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

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

If no, please explain:

Other Comments:

Prior Performance/Next Phase Funding: #2

New Proposal Number: 31

New Proposal Title: Napa-Sonoma Marsh Restoration Project

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 contract amendments with this applicant proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

☒Yes -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 ☒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?

☒Yes -No -N/A

If no, please explain deficiencies:

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

☒Yes -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 ☒N/A

If no, please explain:

NA this is not a next phase proposal for 99-F09.

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: #1

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

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

-Yes **X**No

If no, please explain:

Most of the appropriate issues are identified but, they need to consult with CDFG to determine if a Streambed Alteration Agreement is required.

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

XYes -No

If no, please explain:

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

-Yes **X**No

If yes, please explain:

Other Comments:

Environmental Compliance: #2

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

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

☒Yes ☐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 ☐No

If no, please explain:

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

☐Yes ☒No

If yes, please explain:

Other Comments:

Budget:

Proposal Number: 31

Applicant Organization: California State Coastal Conservancy

Proposal Title: Napa-Sonoma Marsh Restoration Project

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

XYes -No

If no, please explain:

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

XYes -No

If no, please explain:

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

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 ☒No

If yes, please explain:

Other Comments:

information well defined in the budget summary and page 18 in the proposal.