

Proposal Reviews

#150: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

Solano County Farmlands and Open Space Foundation

Final Selection Panel Review

Initial Selection Panel Review

Research and Restoration Technical Panel Review

Land Acquisition

Bay Regional Review

Delta Regional Review

External Scientific Review

#1

#2

#3

Prior Performance/Next Phase Funding

Environmental Compliance

Budget

Final Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Final Selection Panel Review

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

Please provide an overall evaluation rating.

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

Amount: **\$246,370**

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

None.

Provide a brief explanation of your rating:

The local reclamation district and the two adjoining landowners commented on this application, expressing concern about how the project would affect local agriculture and alter flood protection in the area. The Delta Protection Commission (DPC) and the Department of Conservation also expressed concerns about potential impacts to farmland, with DPC recommending issues and procedures that it felt should be addressed in the applicant's restoration planning. In response, the Selection Panel now recommends funding of only the vernal pool restoration and public outreach and education components of the proposal. The Selection Panel further recommends that the CALFED agencies consider funding the planning components and acquisition (\$1,556,853) as a directed action, but only after the applicant coordinates with the Delta Protection Commission, Reclamation District, and other local governmental entities.

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Initial Selection Panel Review

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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: **\$1,803,223**

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

Do not fund endowment.

Provide a brief explanation of your rating:

The Selection Panel recommends funding most of this research, land acquisition, monitoring and outreach proposal. The project will protect and enhance habitat for as many as 29 target species and provides a native habitat bridge between the delta and Suisun Marsh and is part of the Jepson Prairie-Prospect Island Corridor. The land to be acquired (775 acres) is designated prime and unique agricultural land. It is currently available for sale. It will remain in agricultural use for the time being. The research into levee setback and removal may result in up to 900 acres, including 40 acres on the acquired parcel as well as the adjacent publically-owned parcel, being taken out of agricultural production. The restoration proposed is being undertaken primarily because of resources present at and near this site, including an isolated population of Delta smelt. For this reason, the project can't be undertaken on existing public lands elsewhere.

Research and Restoration Technical Panel Review:

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

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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 |
|--|--|
| X Superior | This is a very well designed and comprehensive proposal that uses monitoring, field experiments, land acquisition, and outreach in developing management guidelines for the conservation and restoration of a delta ecosystem. Although a more detailed discussion of the conceptual rationale for the proposed work would have been helpful, the components of the project are exceptionally well integrated and it is highly probable that useful ecosystem-level management strategies will come from this work. The applicants clearly relate this study to previous CALFED funded projects and have shown excellent progress on this previous project. |
| -Above 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 multi-faceted goals of this proposal are very clearly stated and well integrated. The combination of research, land acquisition, monitoring and outreach are solidly linked together and it is clear how each component contributes to the overall conservation and restoration goals of the project. It would have been helpful if the applicants had developed in more detail the conceptual basis for the research and restoration activities planned. In addition a better description of the rationale for the acquisition would also have been helpful.

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 careful planning is obvious in this proposal and it will very likely pay off. The groundwork for the land acquisition has identified a very valuable parcel that is also available at a reasonable cost. The monitoring and experimental projects are well-planned and are pre-adapted for providing solid management guidelines. The outreach component is not just an add-on but, rather, is well linked to the rest of the project activities. The applicant and the proposed consultants are all very capable and should be able to complete the project objectives.

3. **Outcomes and Products.** Will the project advance the state of scientific knowledge in general and/or make an important contribution to the state of knowledge of the Bay-Delta Watershed? For restoration proposals, is the project likely to contribute to ecosystem restoration or species recoveries in a significant way? Will the project produce products useful to decision-makers and scientists?

The proposed land acquisition will contribute to providing an important contiguous corridor of habitat that is currently threatened by urban and agricultural development. The research and monitoring are well designed and should provide valuable and directly applicable information for the conservation and restoration of this Delta ecosystem. The applicants have experience in converting field data into executable management plans.

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

The budget is quite reasonable and adequate given the scope of the 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 panel ranked the proposal High. The panel commended the broad effort of the project to protect, enhance and restore a wide array of native habitats forming a continuum from delta wetlands to adjacent upland transition and vernal pools. Although much of the project is in the Delta region, the Bay panel noted that it builds an upland bridge between the delta and Suisun marsh and has significant potential for protecting and enhancing rare, high quality threatened habitat. The panel also recognized that the project builds on ongoing efforts that involves ongoing outreach with local landowners and provides opportunities for landowner input.

The Delta Regional panel also ranked the proposal High. The panel felt that there was a high potential for quick, on-the-ground success and that the current owners of the parcel seemed willing to sell. It was also noted that this applicant has developed solid linkages with the community and relevant agencies.

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?

For environmental compliance it was noted that prescribed burning will require appropriate permits and the proposal does not indicate whether or not project proponents have obtained burn permits. If not, applicant must contact CDF and local agencies to confirm what they will need. Although herbicide application may not need any permits, the applicant should check with local agencies and Department of Pesticide Regulation to confirm requirements for specific activities. There were no concerns with regard to prior performance or budget.

Miscellaneous comments:

None

Land Acquisition:

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

Yes -No

If yes, please import relevant text and citations here:

The Cache Slough complex, while only a small part of the vast Bay-Delta ecosystem, in eastern Solano County was once a large and vitally linked ecosystem composed of dead end sloughs and adjacent riparian, marsh, vernal pool and perennial grassland habitats. The complex provides essential habitat for resident and migratory fish, waterfowl, songbirds, mammals, amphibians, reptiles, invertebrates and plants. Its southern arm follows Lindsey Slough west from the Sacramento River where it splits into two smaller dead end sloughs, Barker Slough and Calhoun Cut. This portion of the Lindsey Slough watershed is known as the Jepson Prairie-Prospect Island Corridor (Corridor). Roughly bounded by Travis Air Force Base in the west, Hay Road in the north, Creed Road in the south and Prospect Island in the east, the Corridor is comprised of 10.3 miles of slough habitat, 614 acres of tule marsh and riparian habitat, 38 acres of mid-channel islands and one of the largest and most intact vernal pool/perennial grassland complexes in the state of California....

The Greater Jepson Prairie Ecosystem, in which the Corridor sits, has been spared to some extent by its relatively infertile soils.

Most of the open water segments of the Corridor are confined between large earthen levees largely devoid of woody riparian vegetation. Often these barriers are reinforced with riprap along minor and major meander bends.

The Jepson Prairie-Prospect Island Corridor presents a rare opportunity to restore an entire slough system from the upper reaches of its watershed to its confluence with the Sacramento River. A vast and nearly connected area of over 5000 acres is already protected by the Foundation, the California Department of Fish & Game, The Nature Conservancy and mitigation holdings. The protected acreages include vernal pools, perennial grasslands, marsh, riparian and slough habitats. Each of these habitats is rich in species, 29 of which are targeted for recovery by CALFED and other agencies.

The vital link between slough and the upland has been compromised and, in many cases, severed. Large earthen levees have long isolated the slough from its floodplain causing the tule marshes to shrink and almost completely wiping out riparian vegetation. In the grasslands, laser leveling, trenching, over-and undergrazing have contributed to a loss of species. This is compounded by the massive influx of non-native invasive species. Annual grasses, such as Italian ryegrass, not only displace natives through their presence but also through the buildup of thatch (Barry 1998). Accumulated thatch absorbs significant water causing vernal pools to fill more slowly and reduces the pools hydroperiod. This, in turn, permits the advance of the ryegrass further into the once prohibitively wet pool and

displaces native species (Keeley and Zedler 1998). In many cases, natural drainage from upland to the slough has been channelized delivering high velocity, sediment laden waters across bare banks and into the sloughs. The reduced ability of the slough system to retain water due to loss of floodplain and meandering capability causes higher peak flows which may cause fish and invertebrates to be flushed from the system. Water quality is reduced during these periods.

Restorative actions in the uplands such as controlled burning and seasonal grazing will reinstate the ecological processes with which all obligate vernal pool species have evolved. Stopping the spread of weeds in the upper watershed is crucial to slowing infestations in the lower watershed (Pringle 2001). This restoration of process is the first step toward stabilization and recovery of at risk species. Removal and/or setbacks of levees along the sloughs will reunite the slough with its floodplain leading to an increase in marsh, riparian and shaded riverine aquatic habitat and the numerous species associated with it. Development of riparian habitat benefits both terrestrial and aquatic species by substantially increasing habitat complexity (Nakano and Murakami 2001; Krajick 2001).

The Calhoun Cut borders Jepson Prairie Preserve is free of levees, the riparian forest is relatively intact and fingers of tule marsh penetrate the uplands. Families of otters swim through the shallows, beaver take willows as they can, pond turtles bask and herons prowl the banks. Aquatic surveys in this shallow backwater habitat turned up an exceedingly high diversity of invertebrates and rearing fingerlings of chinook salmon and steelhead trout. This, ultimately, is the vision and the justification for the Jepson Prairie-Prospect Island Corridor.

The Pembco property is located at the confluence of Barker Slough, Calhoun Cut, Hastings Cut and Lindsey Slough. The property has been identified as a priority for protection and restoration in the Site Conservation Plan for the Jepson Prairie-Prospect Island Corridor (Meisler, in preparation. Approximately 0.57 miles of the property front Barker Slough and Lindsey Slough and another 1.52 miles front Hastings Cut. An approximately 2 acre and densely vegetated mid-channel island is part of the property. Although the entire Barker/Lindsey Slough frontage is leveed, opportunities for restoration abound.

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

Yes -No

If no, please explain:

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

-Yes No

If yes, please explain:

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

Yes -No

If no, please explain:

Because the applicant states that no physical change in land use is proposed, and that managed grazing of the site will continue, no information about local government plans or zoning for the property are included in the application. However, these uses may, apparently, change on at least some of the site in future project phases that follow the site purchase + restoration planning proposed here. The applicant states, for example, that these future phases may include restoration of over 900 acres of riparian, marsh, and shaded riverine aquatic habitat.

The applicant asserts that the project is consistent with the county general plan.

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

XYes -No

If yes, please explain the classification:

"The 775 acre property is mapped as both Prime and Statewide Importance Farmland."

Is the site under a Williamson Act contract?

-Yes XNo

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

-Yes XNo -Not Currently in Agriculture

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

XYes -No

If yes, please import relevant text here:

The property is currently for sale.

Other Comments:

No information about Williamson Act status is included, but I checked "no" re Williamson Act contract status just to get the lights to go green.

The foundation's long term capacity to manage its expanding land holdings may warrant attention if this grant is approved. The foundation's request includes \$786,700 to augment the endowment which funds the foundation's management of Wilcox Ranch. The size of this endowment + its relation to management of the Wilcox Ranch isn't justified. The foundation maintains an endowment of just \$140,000, for example, to manage its current Jepson Prairie holdings, which are only slightly smaller than the Wilcox Ranch property, according to the application.

The application notes that "as bearers of the Foundations fiduciary responsibility, the Board of Directors will not accept the Wilcox Ranch without a clear source of funding to provide the high standard of stewardship for which it is known." This may be prudent nonprofit financial

governance. But it also raises questions whether even further augmentation of the foundation's endowment will be needed to sustain long term management of the Pembco property. It may be prudent to ask the foundation, perhaps in concert with its independent sector partners(TNC, Packard Foundation, TPL) to assess the feasibility of private fundraising to create an endowment sufficient to maintain its entire Jepson Prairie-Wilcox Ranch-Pembco holdings. A report demonstrating the feasibility of raising sufficient funds for the endowment might be a potential precondition for releasing acquisition funds for the Pembco property, especially if, as seems possible, CALDFED funds are not granted for the Wilcox endowment. This would allow the various parties interested in this area's preservation to develop a more carefully delineated public-private partnership, with agreed-upon funding and management responsibilities, and roles appropriate to their various capabilities. The foundation recent successful campaign to raise \$70,000 for its Jepson Prairie management endowment suggests that it may have significant capacity to raise private funds.

Bay Regional Review:

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

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

committee rating was based upon the broad effort to protect, enhance and restore a wide array of native habitats forming continuum from delta wetlands to adjacent upland transition and vernal pools. While much of the project is in the Delta Region it builds an upland bridge between the delta and Suisun marsh. Builds on ongoing efforts. Significant potential for protecting and enhancing rare high quality threatened habitat.

1. Is the project feasible based on local constraints?

XYes -No

How?

all actions in the proposal are implementable and continue ongoing activities. Project proponent has a demonstrated track record of managing sensitive habitat and working with landowners and the public.

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

XYes -No

How?

BR 2 restore uplands in key areas of Suisun Marsh.

MR 1 & 2, Reduce negative effects of established nonnative species in bay-delta estuary and its watersheds; Develop programs for Wildlife Friendly Agriculture.

Project will sustain and enhance habitat for up to 29 CalFed target species.

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?

Phase II of a previously funded project, involves broad group of local, state and federal partners.

Builds on recently released Conservation Strategy for the Vernal Pools of the Greater Jepson Prairie Ecosystem.

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

Yes -No

How?

Project proposed by a local organization which works with local government and landowners to protect farmland and natural habitat.

Project involves ongoing outreach with local landowners and provides opportunities for landowner input.

Other Comments:

none

Delta Regional Review:

Proposal Number: 150

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

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

High potential for quick on-the-ground success & high quality habitat part of existing corridor.

1. Is the project feasible based on local constraints?

Yes -No

How?

Willing sellers; demonstrated ability to perform in Phase I; letter of recommendation from TNC on Wilcox; question as to whether CALFED can fund the endowment portion of proposal; property will remain in agriculture.

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

Yes -No

How?

Addresses Priority 1 Habitat corridor restoration (Cache Slough complex); Priority 2 Rehab flood plain habitat (evaluation of setback levees); Priority 4 habitat for at risk species; and Priority 5 controlled burn/grazing to control invasive species; attractive in that it contributes to creating a contiguous corridor.

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

Yes -No

How?

Builds on existing restoration to create contiguous area; SCFOSF seems well-connected to other restoration efforts; builds on "Conservation Strategy for Vernal Pools of the Greater Jepson Prairie Ecosystem" and other efforts such as Solano County Water Agency BMPs on Barker Slough

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

Yes -No

How?

Community Alliance w/ Family Farmers; SCWA; TNC; Ulati RCD letter of support.

Other Comments:

Good opportunity to protect and restore riparian, marsh, SR habitat, and other habitat types in contiguous corridor

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **150**

Applicant Organization: **Solano County Farmlands and Open Space Foundation**

Proposal Title: **Restoring Ecosystem Integrity in the Northwest Delta: PHASE II**

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 |
| <input checked="" type="checkbox"/> Excellent | Very strong vision, good team, excellent infrastructure, and outside support is well documented. |
| <input type="checkbox"/> -Good | |
| <input type="checkbox"/> -Poor | |

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

Yes. Yes.

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?

Yes. Yes. Hybrid research/implementation - - mainly implementation: justified.

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?

Yes. Yes. Yes. Yes.

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

Yes. Prob. > 95%. Yes.

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?

Yes. Yes. Yes.

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?

Yes: Management specifics from monitoring and research. Yes.

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?

Good. Yes. Yes.

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

Yes.

Miscellaneous comments:

None.

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **150**

Applicant Organization: **Solano County Farmlands and Open Space Foundation**

Proposal Title: **Restoring Ecosystem Integrity in the Northwest Delta: PHASE II**

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 proposed project will make an excellent contribution to conservation and restoration in this region. There are some key details missing in the proposal, as stated above, which means that I was unable to rate the proposal excellent, "outstanding in all respects." |
| XGood | |
| -Poor | |

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

The goals, objectives and hypotheses are clearly stated. The project is timely and important because it focuses on conservation and restoration of vernal pools, perennial grasslands, and riparian woodlands in the Delta/Bay region. In particular, this project will make a major contribution to protection of vernal pool habitats, which have declined by more than 95% in the Central Valley and which contain a large number of threatened and endangered species. The goals of the proposal are to combine land acquisition, management, research, and outreach to achieve protection and restoration of these critically imperiled habitats. The project is laudable in that it emphasizes restoration while maintaining agricultural activity in this region.

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 study is definitely well justified. At present, there is only anecdotal information regarding the impacts of grazing and burning on the invasion of vernal pools by exotic plant species and on the persistence of native species. Additionally, there is little information regarding the effectiveness of levee removals or setbacks as tools for restoring native riparian ecosystems. The research component of this project will address key hypotheses regarding grazing and burning as effective management tools for vernal pool complexes. The conceptual basis for this part of the study derives from Charles Elton's classic work on factors affecting biological invasions. Research also includes hydrological analyses of the impacts of levee removals or setbacks, which will contribute to our understanding of the effectiveness of this approach to restoration of riparian and marsh ecosystems. The conceptual basis for the larger conservation and restoration project is not clearly stated in this proposal, but relies heavily on basic conservation concepts regarding habitat area and connectivity, derived from the concepts of island biogeography (MacArthur and Wilson 1969) and the rescue effect (Brown and Kodric-Brown 1977). As stated above, the selection of research and implementation aspects of the project is key to its success. The land acquisition components of the project will allow for control of land management practices, and the research component will generate information to guide the management activities. The outreach component will hopefully facilitate the adoption of land management practices, elsewhere in the region, that are consistent with conservation goals.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

The approach is well designed and appropriate for meeting the objectives of the project. The proposal combines land acquisition, management, research, and outreach, all of which are important to the success of the project. The results of the field research projects on prescribed grazing and burning and on the implications of levee removals and setbacks will add important knowledge for future restoration projects in the region. The information gained from the research will likely be useful to land managers and decision makers, including those in agencies such as the US Fish and Wildlife Service, California Fish and Game, and The Nature Conservancy.

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 highly feasible given the position of the Solano County Farmlands & Open Space Foundation, and their relationships with local landowners and conservation organizations such as The Nature Conservancy (TNC). TNC is eager to deliver management responsibilities to the Foundation for a part of the Wilcox Ranch. The Pembco property is available from a willing seller and the Foundation is poised to purchase this property. The Foundation has a strong presence in this region and is the obvious choice for long-term stewardship and management. This proposal is Phase II of a three-phase project, and Phase I has already been completed. This indicates that the Foundation is capable of success in this type of project and so it seems very likely that they will succeed in the next phases. The research projects included in the proposal have been described in some detail, but there are some important omissions. It would be useful to know, for example, what is the current regime of grazing and burning at the Wilcox Ranch. The proposal lists three treatments for the grazing and burning

experiment, and includes "unburned/grazed" as the control treatment. Why isn't the control an "unburned/ungrazed" treatment? Additionally, given the emphasis on maintaining agricultural activity, the proposal should address one potential outcome from the experiment: what if the experimental treatment that is most conducive to reducing exotics and promoting natives is not economically viable? The Foundation has selected outside consultants for the research projects, and it is likely that some of these details are missing from the proposal because the Foundation will rely heavily on the researchers to provide explicit details. For example, for the vernal pool research project, the proposal listed Carol Witham, who has a very favorable reputation regarding the study of vernal pool plant communities. Thus, I am confident that the experiments will be designed well if expert consultants are used.

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?

Generally the performance measures are appropriate to measure success relative to the project's goals and objectives. For Objective 1.2, however, the performance measures are not stated in sufficient detail to measure success. This part of the proposal states, "Sustained or increased populations for native plant and animal species or guilds. Annual monitoring reports will be submitted to CALFED." More details should be included here, such as the time over which monitoring will occur, specific percentage values of population increase, and in which instances individual species will be used or guilds will be used. For vernal pool plant and animal species, population abundances can fluctuate wildly from year to year based on the timing and amount of precipitation. It is crucial that measurements are taken over a sufficiently long time to distinguish natural variation in population abundance from variation due to management practices. The US Fish and Wildlife Service has published performance measures for created vernal pools that could be used as a guideline. These include, for example, 1) "Absolute cover and relative cover by vernal pool endemics (VPEs) in each construction pool shall be no less than the minimum recorded in the reference pools," 2) "Each constructed pool must support no fewer than the lowest number of VPEs recorded in reference pools," 3) "VPEs shared by both the impact and reference pools shall be as vigorous and reproductively active in the constructed pools as the reference pools," and 4) "By the last year of monitoring, any VPEs that are dominant (relative cover of at least 20%) in at least 30% of the reference pools shall be present as a dominant species in all of the constructed pools."

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 most obvious "product" of this project will be establishment and management of a large protected zone in the Jepson Prairie-Prospect Island area. This will greatly enhance the probability of continued survival for a large number (at least 29) special status species in this region. This project will make a major contribution to protection of vernal pools, perennial grasslands, and riparian woodlands in this area. From the research and monitoring components of the project, the products will be reports showing the effectiveness of grazing and burning regimes on native and exotic plant performance. This will be useful for other researchers and land managers who must cope with exotic species invasions of vernal pools. Regarding the research on levee removals and setbacks, reports will be useful for understanding the feasibility of such broad-scale measures for restoration of riparian and marsh ecosystems.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

The author of the proposal is the Executive Director of the Foundation, and she has several years of experience in project management and implementation. With her small but accomplished staff, she and the Foundation have a strong track record in successfully implementing land conservation and restoration projects. This proposal is for Phase II of a three-phase project, and the Foundation has demonstrated success for the first phase of the project, including removal of invasive eucalyptus trees, weed monitoring and control programs, and riparian restoration. Their consultants have relevant expertise in vernal pool plant ecology and hydrology, and the Foundation has a strong working relationship with TNC, the UC Natural Reserve System, and the Ulatis Resource Conservation District. The Foundation has also developed good working relationships with local landowners, which is critical to the success of the project.

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

The budget appears to be reasonable and adequate for the work proposed. It includes funds for land acquisition and for the establishment of an endowment. These monies are crucial to the success of the project. Funds for staff and consultant time are reasonable and suggest that the team will work efficiently to accomplish the research, monitoring, and implementation objectives.

Miscellaneous comments:

The fact that this is a continuing project is a strength. The Foundation is poised to make a significant contribution to land conservation and restoration in this part of the Delta/Bay region. There is a strong emphasis on the outreach component of the project, which is crucial. Staff expertise is strong and there is good use of consultant expertise. There are three very supportive letters from partners outside the project, which bodes well for its success. The combination of land acquisition, management, research, and outreach is a strength of the proposal.

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **150**

Applicant Organization: **Solano County Farmlands and Open Space Foundation**

Proposal Title: **Restoring Ecosystem Integrity in the Northwest Delta: PHASE II**

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):

Dr. Muick, Ken Poerner, Julian Meisler, and I are all members of the UCD Jepson Prairie Management Committee.

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 |
|---|---|
| <input checked="" type="checkbox"/> Excellent | This project is a very carefully designed, multifaceted approach to restoring ecosystem properties in highly threatened habitats that are of extreme conservation and ecological value. The applicant has successfully combined a very diverse set of goals into a conceptually and logistically integrated whole. |
| <input type="checkbox"/> -Good | |
| <input type="checkbox"/> -Poor | |

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

1 - Excellent This project focuses on an extremely important and threatened ecosystem that harbors a large number of at risk species. The goals represent an innovative, multi-pronged approach that uses field experiments, monitoring and outreach in a very integrative fashion.

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?

1 - Excellent The proposal carefully explains the value of each components of the project to the overall goals of ecosystem restoration. The different components are well linked conceptually and logistically. The proposed project is conceptually sound and well organized and builds on results from previous projects and research available. This project will provide excellent information of basic scientific interest as well as providing solid management guidelines.

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?

2 - Very Good Although the various goals of the project are quite different in their approach and methods, they are logically linked together. The acquisition strategy seems well planned and all the necessary groundwork appears to have been completed. The hydrological monitoring and the burning/grazing experiments will provide very important information for future restoration on the site. A slight modification of the burning/grazing experiment might include a no grazing/no burning as a "no management" control. The outreach component directly links to the ongoing monitoring work and will be critical for the continued success of these types of projects.

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?

2 - Very Good Although one can never guarantee that a land acquisition will go without a hitch, this project has gone to great lengths to set up conditions to increase the chance for success. The applicants have a good track record in successfully completing the types of monitoring and experiments planned. More importantly, they have demonstrated the capacity to convert results from such studies into integrative land management plans.

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?

2 - Very Good The performance measures, although diverse, are clear. Acquisition of the Pembco parcel is one obvious measure of performance. In addition, the proposed monitoring and experimentation will be integrated into management plans for both the Wilcox ranch and the Pembco parcel.

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?

2 -Very Good In addition to the acquisition of the Pembco parcel, the management plans obtained from monitoring and experiments will be important product. In addition, the development of a solid outreach program will provide public relations dividends "down the road".

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?

1 - Excellent Both the applicants and the proposed consultants have an excellent record in providing valuable and cost-effective information for land management and conservation. The applicant in particular has demonstrated an excellent capacity for developing collaborative efforts in research and fund raising.

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

2 - Very Good

The budget seems very reasonable given the potential value of the project.

Miscellaneous comments:

Prior Performance/Next Phase Funding:

New Proposal Number: 150

New Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

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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 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?

XYes -No -N/A

If no, please explain:

Other Comments:

Environmental Compliance:

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

-Yes No

If no, please explain:

Prescribed burning will require appropriate permits. The proposal does not indicate whether or not project proponents have obtained burn permits. If not, applicant must contact CDF and local agencies to confirm what they will need.

Herbicide application may not need any permits, but applicant should check with local agencies and Department of Pesticide Regulation to confirm requirements for specific activities.

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:

No time or money budgeted for obtaining permits.

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

-Yes No

If yes, please explain:

As long as necessary permits are obtained, this project is feasible.

Other Comments:

Budget:

Proposal Number: 150

Applicant Organization: Solano County Farmlands and Open Space Foundation

Proposal Title: Restoring Ecosystem Integrity in the Northwest Delta: PHASE II

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

Yes -No

If no, please explain:

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

Yes -No

If no, please explain:

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

Yes -No

If no, please explain:

4. Are appropriate project management costs clearly identified?

Yes -No

If no, please explain:

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

Yes -No

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

6. Does the budget justification adequately explain major expenses?

Yes -No

If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes No

If yes, please explain:

Other Comments: