

Selection Panel (Primary) Review

– **Fund** (a proposal recommended for funding at the amount sought or funding in part of selected project tasks or subtasks)

X Reconsider if Revised (a proposal that is a high priority but that requires some revision followed by additional review prior to being recommended for funding)

– **Not Recommended**

Amount Sought: \$3,222,967

Fund This Amount: \$0

Conditions recommended (Conditions that applicants would need to meet to obtain funds may be recommended for proposals suggested for either full or partial funding. For proposals recommended for partial funding, conditions that identify the funded tasks or subtasks must be recommended.)

Please provide a brief explanation of your rating, including an explanation of the reasons for any conditions that the panel recommends. Revisions required of proposals recommended for reconsideration should be outlined, together with a justification for the suggested revisions:

This proposal addresses monitoring of the effects of a variety of restoration actions in a high priority area where there has been a significant ERP and CVPIA investment. Before funds are awarded, however it needs to be better coordinated with other monitoring proposals for this Sacramento River area. A revised proposal, for a combined amount of approximately \$2,000,000, should be developed cooperatively by the Nature Conservancy, River Partners, and CSU Chico, combining key tasks and personnel from each proposal, to address the goal of assessing riparian restoration, channel and river dynamics, and habitat development for species of concern through: (1) aerial photography, mapping, digitizing, and classifying land cover and ownership, channels, and floodplains, (2) quantifying channel migration, including meander history erosion, and floodplain deposition including LIDAR and IKONOS subtasks (as appropriate and feasible within the funding limits), (3) monitoring of vegetation (including structure, composition, and cottonwood recruitment), birds, valley elderberry long-horn beetle and fish use of floodplain, and (4) producing reports about monitoring results (using the Scorecard approach proposed by TNC), and project management. Tasks addressing Argentine ants, large woody debris and social impact assessment should not be included in the revised proposal. The Sacramento River Conservation Area Forum should be considered for the public outreach component of a revised proposal.

For this proposal specifically, the Selection Panel concurs with the Sacramento Regional Panel rating of high priority and further recognizes the Sacramento River corridor covered by the proposal is an area of significant CALFED ERP investment. Although the Technical Panel concluded this proposal was above average, the evaluation also noted a lack of cohesion among tasks, and that individual external reviews were mixed. The Selection Panel reaction to the proposal was similarly mixed.

A comprehensive integrated monitoring strategy would be extremely valuable, but the proposal falls short of the goal. Instead, the tasks are presented in varying degrees of specificity and coordination. Direction is provided in the first paragraph above as to which elements should be retained and which should not, into a collaborative new proposal with the three teams. The Selection Panel would like to encourage that the CSU–DWR team be considered as the lead for the land cover/land use mapping and classification tasks in a new proposal, and further that the CNPS – Manual of California Vegetation be used in this element. However, the three teams should, in preparing the larger combined proposal, consult with the Riparian Habitat Joint Venture and Dr. Todd Keeler–Wolf of the Department of Fish and Game in designing the most appropriate vegetation classification system to use for the mapping task.

Technical Panel (Primary) Review

above average

Explanation Of Summary Rating

Reviewers were enthusiastic about the scope of the project, its conceptual model, and the inclusion of a scientific survey of how the restoration projects affects the public perception and stakeholder opinions. We were concerned by a lack of detail in some sections, by the unevenness of baseline data for restorations, and by uncertainty about what the monitoring program would include. However, given the good conceptual model and the great need to unify the many studies in this important region, we ranked the proposal as above average.

External and technical reviewers suggest that the tasks of evaluating current knowledge and developing a monitoring plan be completed within the first year and reviewed for feasibility before subsequent funding is released. While this is ambitious, prompt action is essential to develop cohesiveness among subtasks, e.g., use of consistent methods and data storage techniques.

Review Form

Goals And Justification

The three main goals of the project are: 1. to determine whether critical habitats, processes and species of concern have been benefited by restoration efforts in the Sacramento River between Red Bluff and Colusa, 2. to develop a monitoring plan for the area, and 3. to test whether the restoration efforts have generated support for these activities among local and regional constituents. The project is well-justified in that this large and environmentally key area lacks cohesive monitoring. The conceptual models for adaptive management and riparian processes and influences were quite broad, but very clear. The technical committee liked this aspect of the proposal.

The project promises to monitor a wide range of important response variables. However, there is little cohesion among its many individual tasks. Some of the tasks involve gathering the information that was requested for this proposal (e.g. reviewing existing restoration projects and identifying information gaps). Although reviewing progress and identifying gaps may be a big job for the large area covered by this proposal, a better initial attempt could have been made.

Approach

External and technical panel reviews were mixed as to the likely effectiveness of the approach. Some reviewers lauded the plan to hold group meetings to synthesize, augment, and test monitoring schemes. They found good correspondence between the conceptual model and ecosystem or population responses to be monitored. Others were concerned that some individual monitoring tasks were vague and that baseline information was missing for many of the restoration projects. In cases where baseline data are missing, what strategies will be used to assess restoration effectiveness?

The 'plan for the plan' could be improved by providing a strategy for coordination of monitoring among groups. Getting everyone together and centralizing the information gathered is a great first step. The project has a very large scope in terms of project area, number of projects, and variety of taxa and processes to be monitored. Given this complexity, it would be heartening to see some careful planning on how best to generate a 'big picture' of restoration effectiveness for the region. Will individual projects and investigators continue to do their own thing in areas chosen independently, or can the information gathered be made more useful if teams work on the same sites when measuring different parts of the riparian communities and ecosystem?

Feasibility And Likelihood Of Success

External and technical panel reviews of feasibility were mixed. Some reviewers were quite positive based on the validity of the general methods named for each task and the collaborators' training and experience. Other reviewers were frustrated that the body of the proposal lacked sampling designs, site locations, statistical approaches and criteria for restoration or monitoring success.

Reviewers were also concerned that project area coverage was unclear for some subtasks. For example, the project area spans 58 linear miles but there are only 9 sites proposed for arthropod management. Some collaborators proposed to expand their sampling to take spatial heterogeneity into account, but more details should have been provided. For example in subtask 2.2b, riparian forest management, 'additional restoration sites' will be monitored to 'cover a greater range of' conditions. How many sites? Where? What conditions would be targeted? These facts are also left out for native and exotic plant species cover. Methods for subtask 2.3, 2.4 methods do not give sampling efforts, number of samples and locations. Subtask 2.4 only tells us that multiple years of useful data will be gathered, and that methods are to be developed and standardized. Subtask 3.1A lacks methods entirely. While we appreciated the difficulty of describing such a large project, certain key details should always be included in the body of the grant: site locations, replication, controls, numbers and dimensions of sampling units, and statistical approach.

The extent and usefulness of baseline data were unclear for many project tasks. For example, baseline data are largely unavailable for monitoring large woody debris (LWD). This study will use historic photographs and land use as a baseline, but the connection between land use and LWD input into the river is difficult to know. A field component is mentioned but its nature is unclear.

Two external technical reviewers were concerned that parts of the project appear to hinge on proposed, rather than funded work (e.g. some of the DWR work). The remote sensing task seems to overlap with proposal 51 in this grant pool.

Performance Measures

Developing performance measures seemed to be a goal of this project, rather than something reviewers can use to evaluate it. Much of this proposal emphasizes the development of an umbrella monitoring program, along with the continuation and expansion of some pre-existing efforts. Only a few tasks included specific performance measures, and we suggest that the monitoring plan stress quantitative performance measures.

Products

One of the most important products of this project would be an overall monitoring plan for the region that includes riparian forest vegetation structure, cover of native and exotic plants, terrestrial arthropods, cottonwood recruitment, large woody debris, river meander, channel morphology and floodplain deposition, salmonid growth, other native fishes and aquatic macroinvertebrates. Other good outcomes will be better coordination among groups doing restoration, and greater awareness of the project by stakeholders and the general public. Individual investigators and managers will continue to publish results in primary literature and management outlets; reviewers were complimentary about the publication records of many of the participants. Data will be centralized and made available to the public via a website, although reviewers requested information as to how accessible the information would be to the public. Appropriate land managers, stakeholders, and local governments will have access to results. One product will be a valuable social science study which will also contribute to outreach.

Capabilities

All of the collaborators seem highly qualified, with relevant experience in restoration, research and monitoring in the study area. The composition of the team is appropriate to the tasks. In addition many of the collaborators already have a strong working relationship.

Budget

Most reviewers thought the budget seemed reasonable for the tasks proposed, although the lack of detail for most of the tasks made this difficult to confirm. One reviewer thought that public outreach was under-funded. Indirect costs seemed uneven and sometimes disproportionate (e.g. 85% for cottonwood recruitment).

This project could have large future costs, because the comprehensive monitoring program will need to continue for many years in many sites (especially for floodplain processes). However, the investigators will develop strategies for cost-effective monitoring during this project.

Regional Review

This project ranked 'high' in the regional review. It addresses many regional goals (big R and small r species, high priority ecosystem). Its goal is to coordinate regional projects, and it fills several large gaps in planning, data management, and determining social and environmental performance indicators.

Local coordination is evident with TNC and River Partners, but the project needs confirmation of private landowner access and collecting permits. Local outreach to regional institutions and stakeholders is comprehensive. The regional reviewer suggested that all stakeholders be included in the survey, especially those living near restoration sites, because opinions can be quite divergent in this region.

The project addresses many critical information gaps and provides important new data and data synthesis. It will be more useful for the main river than smaller fluvial systems in the area.

The panel had some concerns about the cost and likelihood of success for LWD monitoring. They questioned whether radiotagging LWD was necessary. They mentioned the difficulty of generalizing results from just one site. They also thought that the mapping and remote sensing might overlap with proposal #51 (TNC).

Administrative Review

Indirect costs were inconsistent among sections. Labor rates and job classifications were hard to evaluate. Cost sharing was unclear.

Environmental compliance was difficult to evaluate – not enough detail was presented to determine what documents would be needed for fish. Also, the project area and activities

should be evaluated to determine whether incidental take permits or SCP's are needed.

Prior funding results were generally fine, although projects 97 NO2, 97 NO3, 97 NO4 and 99 NO4 should be listed as completed. Clendenning was not purchased under 97 NO2. Fiscal quarterly reports have occasionally been late but invoicing is good.

Additional Comments

We recommend that CALFED have the monitoring plan reviewed before releasing funding for later phases of this project.

Technical Review Panel's Overall Evaluation Rating:
above average

Sacramento Regional Review

High

Review:

1. Applicability to ERP goals and regional priorities.

This project will monitor and evaluate success of several previous ERP and AFRP-funded floodplain restoration actions in the Sacramento River Ecological Management Zone, a high priority ERP ecosystem. The project will assess restoration projects' progress towards meeting MSCS goals for Big R species, Valley Elderberry Longhorn Beetle, Chinook salmon, and several species of native fishes, as well as small r species Yellow-billed Cuckoo and Bank Swallow.

2. Links with other restoration actions.

This project presents a highly-coordinated effort (CDFG, USF, SRWR, SFEI-RMP, IEP, CVPIA-CAMP, SRWP, SWAMP) to use results of monitoring to develop a SREMZ Monitoring Plan, including key environmental and social indicators for measuring several related restoration projects, as well as overall program success. Data will be made available to partners and researchers through the Sacramento River Conservation Area Forum, the CSU Chico Geographic Info Center and website, the Sacramento R. Watershed Program, the Sacramento River Portal, publications, and presentations, including a conference. This project will fill a gap in providing data and development of a monitoring plan, with environmental and social indicators that would serve as success criteria for ongoing and proposed restoration projects. These criteria are currently not available, and are designed to provide an integrated, standardized framework for assessing future actions.

3. Local Circumstances.

This proposal is being coordinated with two other PSP applications (TNC, River Partners) that would contribute data from proposed in-depth research efforts to the monitoring framework. Applicants still need to supply letters from private landowners granting access to their properties even though proposal claims most work will be done on federal, state, public, or TNC lands. Collecting permits still need to be obtained from USFWS, but authors anticipate no problems obtaining these permits.

4. Local involvement.

SRCAF will handle public outreach. Almost all listed key regional institutions are involved, including tribes. Public involvement and outreach seems to be sufficient. The subtask will collect a combination of survey and personal interview data from stakeholders to provide social indicators of how well ERP, AFRP and other restoration programs are accepted. We suggest that social surveys should include all interested and affected stakeholders, including those living adjacent to restoration sites, since there are widely varying opinions on the pros and cons of restoration in the region.

5. *Local Value.*

This proposal fills several research gaps, creates a GIS for data visualization and analysis, synthesizes data at a variety of spatial, temporal, and taxonomic scales, gauges restoration success of ongoing projects, and provides an adaptive management framework that should be extendable to projects on large rivers. Applicability to tributaries and smaller fluvial systems in the region may be lower, especially with respect to channel and hydrological processes. This project could provide beneficial information to the NODOS (North Delta Offstream Storage) project planning process.

6. *Other comments:*

Overall Ranking:

High

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

The panel believes this is a quality proposal which meets most of the criteria. However, the panel has concerns over Subtask 3.2: i.e. the need to radio-tag LWD, the lack of replication in basing results of LWD from tributaries on only one site, and the cost of the subtask. The panel also questions whether elements of subtask 3.4 have already been performed by other previously funded actions (e.g. Cepello) since the subtask narrative does not address the subtask in sufficient detail to gauge the project element.

The panel is concerned that the mapping and remote sensing element of this proposal may overlap with TNC proposal #51. We suggest that CSUC coordinate with TNC in partitioning these elements.

External Technical Review

Goals And Justification

The conceptual outcomes for restoration in this portion of the Sacramento River are clearly stated in the proposal and are reflected in the Ecosystem Restoration and Conceptual Model. The conceptual model indicates how the proposed riparian and channel process monitoring indicators and subsequent plan are related to the implementation of a suite of restoration projects. Further in the task outline the proposal discusses the goal of evaluating different levels of restoration (active or passive) in relation to the various proposed monitoring indicators. A possible weakness in the information provided is a less clear relationship of how the monitoring indicator information directly translates into measuring the recovery of populations of certain endangered or at-risk species.

Developing a plan and choosing a suite of biological and social indicators to monitor restoration is a main goal (20% of Budget) of this proposal. However to complete the effectiveness monitoring goal of the project they have already chosen the data collection methods and therefore indicators they think are appropriate for the hypotheses proposed. More explanation about the development of the plan versus the existing protocol would have been helpful in evaluating the overall utility and cost-effectiveness of what is proposed.

Two general hypotheses are stated clearly and exhibited in the Restoration Effectiveness Conceptual Model. The specificity of the hypotheses is adequate for the conceptual model, but it would be helpful if the hypotheses were more developed or broken down in the task description for the proposed indicators to provide some understanding of what a measurable positive change in ecological rate processes and attributes looks like. At a minimum some examples of what positive ecological changes are to be expected from restoration and what actions or attitudes reflect increased local and regional support for restoration could have been provided.

The primary strengths of the approach are: 1) Strong scientific justification for and diversity of the chosen indicators and data variables; 2) Well integrated and cooperative team involved in the local area with a central coordinating public outreach body; and 3) the inclusion and evaluation of social indicators in relation to restoration outcomes. The primary gaps in the approach are: 1) the lack of establishment of a consistent baseline for comparison and 2) a lack of synthesis of indicator information into clear values decision makers can use; 3) lack of information provided on how the plan is expected to be implemented and the level of use and investment needed in the future to determine riparian restoration effectiveness

Approach

The tasks proposed for developing the monitoring plan and collecting riparian and channel dynamics indicator data are all based on sound scientific grounding and build on previous work in the California Bay–delta area and other geographically relevant areas. The suite of indicators appears to hit the major factors and values identified in the restoration conceptual model. The inclusion of terrestrial insects along with aquatic prey species of indicator fish species provides stronger biotic indicators than past monitoring protocols.

The proponents state that they are building on some existing data sets for riparian and channel information and coordinating with other parties working in the project area.

Several tasks are trying to effectively use remote sensing tools to minimize costly field work and create a repeatable electronic database.

The information generated from this project will definitely contribute to the ecological and riparian/stream interactions knowledge base for this portion of the Sacramento River and pull together a status summary of the complex of restoration and acquisition projects implemented to date. The proponent indicates that the formulation of the monitoring plan and development of the indicator palette will contribute to the overall development of the Strategic Plan for the Sacramento River Ecological Management Zone.

The potential weakness of this approach is a lack of clarity in stating the condition and extent of baseline information and reference sites to be used to establish effectiveness of restoration actions. One task is to evaluate the status and monitoring progress of 23 projects previously funded in the study area. This is an important step in finding out what baseline information may be available for use and comparison to establish effectiveness of riparian and flow restoration. However, the table of project provided only clearly shows monitoring underway for 5 of the 23 projects. Other projects may have monitoring underway, but it is unknown or not stated in the table. This raises a question of how likely this project will result in a determination of restoration project effectiveness. Although many of the tasks are set up to collect the data over several years to make a comparative analysis of current conditions, there is no discussion of what is the baseline for comparison. This is primarily relevant to the indicators of longer term processes such as riparian vegetation composition & fragmentation & LWD input. It is also relevant to projects where restoration may have already been completed without pre–restoration condition information being collected. The project site table indicates 5 active restoration sites and only 2 indicate monitoring as a part of the project.

Technical Feasibility

Most of the outlined tasks are familiar to the proponents and are based on previously tested methods. Significant documentation of the background of the data collection efforts and utility as indicators for riparian and channel processes was provided in the proposal. In addition, the proponents identified ongoing and cooperative efforts that will aid in the completion of the project.

The only major question regarding feasibility of project completion is the connection to other projects proposed for funding through the ERP process. The proponent mentioned several connections, but did not discuss how this project would be affected if those other projects were not funded.

Several of the proposed indicators are appropriate for the time frame of this project such as the arthropod monitoring, historic channel analysis, and the GIS analysis of riparian conditions due to existing or ongoing data sets with pre-monitoring information. Other indicators such as LWD flux and riparian composition reflect more long term processes or lack baseline data sets adequate to provide a true reflection of restoration effectiveness over the 3 year life of the project. The proponent recognizes that some of the data collection efforts will be only providing a baseline, but doesn't really discuss how this affects the outcome of the evaluation of restoration effectiveness.

In several tasks the number of sampling sites, stratification levels or pieces of large woody debris that will be tracked is presented, but the justification for this sampling strategy is not clearly presented. The project area is 58 miles long but only 9 sites for arthropod sampling, 3 sites for channel metrics and 25 pieces of LWD for tracking are proposed. It is therefore hard to determine if the sampling strategy fits the scale of the project in some tasks. However for future monitoring efforts the proponent does indicate that this type of sampling strategy information will be further developed in the proposed monitoring plan.

Performance Measures

As stated above, the data collection tasks should provide information useful in monitoring riparian and channel processes, if an adequate baseline or reference is established within the project and monitoring plan. However, there was a lack of discussion about how the results from these different tasks will be synthesized or integrated into easily used tools and information for decision making, project planning and future monitoring. It appears that part of this will occur in the develop a palette of indicators task, but very little specific methods were provided on how this is to be achieved. In addition, all of the statistical methods were discussed for the indicator evaluation task but very little of the interpretive tools, potential outcomes or interactions between the indicators were presented.

As this project proposes the development of a monitoring plan it is difficult to see if the proposed plan will be explicit and detailed enough to assess the performance of the past and future restoration actions. The concurrent evaluation tasks appear to cover all of the major factors and values laid out in the conceptual model, but specific information about how the data reflects restoration success was not always provided for each task. At a minimum, the riparian forest attributes and processes task 2.2 is comprehensive, has existing baseline data to start from and clearly identifies the connection of the indicator data to restoration actions and species of concern. In relation to performance measures, the proponent listed expected products, outreach activities such as publications and a conference and the development of a comprehensive database. A few specific performance measures related to the effectiveness of restoration actions to be evaluated or the utility and use of the monitoring indicators or plan were identified or discussed in the proposal. One of these is the spatial analysis of change in riparian vegetation, land use and ownership throughout the project area in the last decade.

Products

Again, the suite of data collection tasks should provide information useful in monitoring riparian and channel processes, if an adequate baseline or reference is established within the project and monitoring plan. However, there was a lack of discussion about how the results from these different tasks will be synthesized or integrated into easily used tools and information for decision making, project planning and future monitoring. It appears that part of this will occur in the Develop a Palette of Indicators Task 5, but very little specific methods were provided on how this is to be achieved. In addition, all of the statistical methods were discussed for the indicator evaluation task but very little of the interpretive tools, potential outcomes or connections of the indicators back to the apparent species of concern was presented.

The strong scientific basis for the outlined data collection and evaluation tasks and experience of the personnel should produce high quality scientific results that can stand up to outside peer review. The same is true for the development of the palette of environmental and social indicators. The primary question is how user friendly will the information be for managers, decision makers and the public. If the primary users are the people already involved in this project, utility and ease of use will be high as their familiarity is high.

Data storage, management and dissemination are clearly outlined. The proponents show several efforts to make the data available through commonly used outlets and an Information Dissemination Plan developed and coordinated by the SRCAF.

Capabilities

All of the parties involved in this proposal appear to have a strong working relationship and a central party, the Sacramento River Conservation Area Forum, which is coordinating planning and decision making for this area of the ecosystem. All personnel are clearly involved in ongoing restoration, research and monitoring activities in the Sacramento River Corridor. Expertise in the tasks proposed is clear and the composition of the team is appropriate for producing the products.

Budget

The Budget seems reasonable for the ambitious and complex nature and abundance of tasks and personnel planned for the project, but is a large amount relative to the products provided and the need for future monitoring that will be required for this project to be truly useful.

Part of the proposed monitoring plan is to provide cost–benefit information related to sampling strategies for future sites. This is a valuable tool for the future, but it would have been helpful to have some idea of the future cost of monitoring needs to maintain and finalize the evaluation of restoration effectiveness for this area of the Sacramento River. It would also be useful to know what level of application of these indicators is needed for the future especially in relation to the initial 2.75 million outlay for data collection and analysis.

Recognizing the importance of developing a monitoring plan that all parties can support and buy into, the high initial cost outlay may make it difficult for future and existing project proponents to follow through with the monitoring plan. In addition, if current and future projects are to make this level of investment in monitoring, the cost of monitoring implementation could outweigh the cost of project implementation. It would have helped if the proponents had discussed the extent to which these indicators would need to be applied to the system versus individual projects in the future. Although understand that this information might be part of project outcome, some thought as to the efficacy of using the monitoring plan could have been given and portrayed in the proposal.

The budget justification provided was not all that useful in gauging the adequacy – no real discussion of what’s needed for each task was included only a repackaging of totals in budget.

The cost share is minimal for such a large cooperative project (approx 7%) and the project is somewhat dependant on the successful funding of other ERP proposals

There seem to be some inconsistencies in the indirect costs in light of the justification provided. For example– task Cottonwood recruitment indirect costs approach 85% in all 3

years of the project. The proponent states that indirect is generally 20% with an adjustment made for indirect on subcontractors placed in the first year administration. This is the case for several other tasks as well – channel processes and channel morphology metrics. This may be appropriate related to sub-contractor involvement in the tasks or reflect cost share contributions, but the information provided on budget explanation is not adequate to explain these discrepancies.

Additional Comments

The primary weakness of this proposal is a lack of synthesis of the monitoring indicators into clear measures of restoration effectiveness. One of the main stated goals is to produce a standardized monitoring plan that can be used to guide decision making and be applied to future projects, but there minimal presentation of how the information is presented to decision makers, what constitutes effective restoration or a positive/negative trend and how this plan will be applied in future. Furthermore the proposal has limited discussion of the future needs for monitoring related to this project area especially as it relates to the existing projects funded and the expected monetary outlay needed to adequately answer the monitoring hypotheses.

External Technical Review

Goals And Justification

Yes, the proposal presents the goal of determining whether or not critical habitats and populations of species of concern, as well as ecological processes, are being "rehabilitated" protected and restored within the Sacramento River Ecological Management Zone. Essentially, the proposal recognizes that CALFED has no comprehensive monitoring program which would allow for an assessment of these parameters within this zone, and as a result, has no mechanism for determining whether or not past ERP investment in riparian restoration projects within this reach of the river has/is contributing to ecosystem restoration. (It also recognizes the lack of a performance metrics – a critical issue.)

The conceptual models are clear and represent the thinking on factors contributing to/influencing riparian forest growth, regeneration and habitat value. It makes distinctions between influences, major values, contributing factors, and indicators. The two hypotheses are also clearly articulated: 1) ERP & AFRP-funded restoration actions in this zone have resulted in measurable, positive changes in ecological processes & attributes; 2) ERP and AFRP-funded actions have increased support for ecosystem restoration in local and regional communities. These hypotheses are certainly justified given the lack of a coordinated, comprehensive approach to monitoring and evaluating data associated with CALFED (and AFRP) funded riparian restoration projects. Without clear understanding of what the return on investment has been, there is (if it has not already occurred) one might think that there would be a faltering of public support for these efforts. It will be very interesting to learn what they find in this regard.

Approach

Yes – The proposal describes a well-designed approach to developing an overall monitoring plan for this particular zone of the river. In the first year of the project, the team would collect and identify all existing monitoring methods/findings in the study area. (The proposal includes a list of all ERP and AFRP-funded acquisition and restoration projects, of which there are quite a few.) In the second year, the team would design a feedback loop that allows for the development of a monitoring plan. New data would also be collected in year two. Monitoring protocols, parameters, and metrics are described in detail in the proposal. With the marrying of existing and fresh data the project would then result in a proposed monitoring plan for the zone that includes a panel of environmental indicators. If successful, this would be of huge consequence for CALFED, AFRP, other agencies, local entities, stakeholders, future restoration project proponents by providing a detailed monitoring program that provides a coordinated means of evaluating data from the region and ultimately evaluating

success of the projects in moving towards (meeting?) ERP and AFRP performance measures and ecological restoration goals for the region. What makes this proposal unique, is the inclusion of economic attributes (cost-effectiveness) and social indicators (perception of success). Through the engagement of the local communities and stakeholder groups via interviews and public outreach, CALFED, et al., might be presented with information critical to future planning and implementation efforts focused on the riparian zone in this area.

Technical Feasibility

Yes, the proposal is well documented with multiple citations supporting each task and subtask, and methodology proposed. The proposal indicates a solid understanding of the resource area, habitat values, fragmentation issues, competing demands, existing data sets, etc., for the complete array of species and ecological issues. The proposal as described in detail seems to address relevant technical challenges and appears feasible. The scope – Sacramento River Ecological Management Zone – is captured in all task/subtask descriptions.

Performance Measures

If the team has access to, and can manipulate, all existing data related to previously funded projects in this zone, and is successful in collecting all data associated with the indicators they will identify, then they will likely be successful in devising a proposed monitoring plan that will lead to evaluation of past and future restoration actions. To inform this effort, the proposal is to collect existing monitoring protocols (e.g., CMARP) appropriate for evaluating ecosystem condition and response to restoration.

The proposal explicitly identifies specific performance measures for Subtask 3.3 only (i.e., Meander History, Bank Erosion, and Floodplain Deposition). There is discussion of indicators and metrics throughout each task/subtask but the language of the proposal does not allow for readily identifiable performance measures. However, it does appear that the monitoring and evaluation proposal will be adequate to assess/evaluate performance of past restoration actions.

Products

The proposal describes many products all of which appear to be needed in order to understand how riparian systems (along this reach of the Sac Ri) are responding to years of investment in restoration projects. The development of ecosystem indicators and a monitoring plan that can be broadly applied to the zone, monitoring protocol recommendations, data that will be derived from the monitoring itself, evaluation of the effectiveness of past projects, and programmatic evaluation of social indicators are all included

as outcomes/products. Key to this proposal is that the outcomes/products intend to serve the Sacramento River Conservation Area Forum to bolster the participants understanding of the river processes, which should lead to improved future decision-making re: project implementation. The Forum intends to share all data (reports, etc.) with agencies, local gov't, stakeholders.

The proposal states that all data and information will be housed at the Forum's office or at CSU Chico GIS Center and made available to the public via web portal. I cannot assess from the proposal whether or not the public will be able to manipulate the data and maps. One can only assume, since academics are the proposal's primary proponents, that the products will stand up to peer review.

Capabilities

The interdisciplinary team seems well qualified and well suited to tackle this project. Key members are senior staff in their agencies and organizations with –collectively – decades of experience in conducting research, modeling, designing and implementing restoration plans and programs, etc. Key disciplines include ecosystem and community ecology; administrative oversight; (env. documentation, watershed management, local government involvement, feasibility studies, etc.), GIS, remote sensing and digital mapping related to riparian vegetation on the Sacramento River; development of riparian habitat restoration plans; political science and communications; and related fields. I have no personal knowledge of their individual or collective performance record.

Budget

The budget appears reasonable and adequate for the work involved in testing the stated hypotheses, though it might be a bit light on the public outreach task. (The proponent has also secured cost-share funds.)

Additional Comments

External Technical Review

Goals And Justification

The two main goals of the proposed project are to 1) evaluate the effectiveness of existing restoration projects within the Sacramento River Ecological Management Zone and 2) design a monitoring program for current and future restoration projects within the Zone. The conceptual model and importance of this project is clear, but a strong, cohesive description of the project that ties all subtasks together is weak. Individual subtask goals were presented clearly but the connectivity and consistency between subtasks could have been supported with descriptions of how all subtask data would be compiled and analyzed as a whole, or at least supported by other project tasks.

Project hypotheses were not clear as this project is designed to evaluate the effectiveness of existing restoration projects. The project addresses knowledge gaps in the area and will provide critical information for creating and aligning monitoring strategies for the Sacramento River Zone area (Red Bluff to Colusa, CA).

Approach

Several project subtasks are designed to initiate monitoring or build upon existing restoration projects, including vegetation plots, cottonwood recruitment and native species cover. Additional projects involving terrestrial invertebrate collections, channel morphology, erosion rates, and aquatic biota will provide supplemental information that will evaluate the status of the riparian corridor and compare snapshot views of restoration effectiveness between sites.

It is not clearly stated how a new monitoring project will be designed based on the overall evaluation of existing restoration projects. It appears as if existing restoration projects were not always designed to be monitored, and therefore their evaluation will only determine the 'success' of the restoration project, not necessarily evaluating the effectiveness of monitoring projects in the area or the effectiveness of metrics that could be used as monitoring tools.

More detail is needed in describing how the effectiveness of monitoring strategies (Task 6). How will the be accomplished and assimilated from tasks 2–5? The importance of this section should have been addressed earlier in the proposal and supported or related to task 2–5 objectives. Task 5 (Developing a monitoring and indicator framework) is referred to within this task, but stronger connectivity with additional tasks should also be made.

The collaboration approach between interested stakeholders (e.g. The Nature Conservancy

and the Sacramento River Conservation Area Forum) is a good one. Greater connectivity between social stakeholders and subtask objectives should be addressed in the main body of the proposal. This is an important part of the study but is not given as much attention to detail as the monitoring–restoration site evaluation Tasks.

Technical Feasibility

The scale of the project is consistent with the project objectives. The detailed and diverse set of multi–scale projects proposed is necessary to effectively evaluate the condition of riparian habitats. More detailed methodologies of how subtask metrics can be compiled to support the overall objective (monitoring effectiveness) would have strengthened the proposal. Some subtask descriptions, such as cottonwood recruitment (subtask 2.4) included more detail in methodologies than others (in the main proposal body), such as aquatic biota (subtask 3.5). This inadvertently biased subtask priority. A clear identification of high priority subtasks that directly address the objective (monitoring effectiveness) would focus the proposal approach.

The evaluation of existing data should be given considerable attention to effectively design a monitoring strategy for the proposed area. The timeline for completion of this activity within one year, followed by the design of a monitoring plan in the 2nd year is probably unrealistic. These activities (collection/evaluation of existing data/sites and monitoring strategy development) will realistically occur concurrently. The collection and evaluation of all data collected within the time period appears ambitious, but necessary for effective evaluation of the area.

Performance Measures

Yes. Data collected in subtasks 2–4 will evaluate in–place restoration projects. The proposed subtask projects will collect the data necessary to evaluate the performance of previous restoration actions. However, the proposal does not provide detail or the framework for how the collected data will be assimilated into a cohesive evaluation. What kind of restoration timeline is appropriate for this area? How will the different objectives of subtask agencies/shareholders be maintained during the development of an overall monitoring strategy for the area?

Products

The developed monitoring strategy will be useful to local resource managers and serve as an example of collaborative restoration work for regional resource managers. Data handling and storage was not specifically addressed within the body of the proposal, but long term storage and collaboration is planned via existing website data depots.

Capabilities

Yes, the diversity of the project team will address the discipline needs of the project. Previous collaboration between agencies and team members is evidence that the group can be successful in attaining the project goals.

Budget

The budget is reasonable for the work proposed.

Additional Comments

Budget Review

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

Yes.

If no, please explain:

none

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

Yes.

If no, please explain:

none

3. Are project management expenses appropriately budgeted?

Yes.

If no, please explain:

none

4. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs? Are indirect rates, if used, appropriately applied?

No.

If no, please explain:

The indirect cost rate stated in the proposal (20%), does not appear to match the budget detail. Description of expenses covered was under approximately 33%. Overhead was not indicated.

5. Does the budget justification adequately explain major expenses? Are the labor rates and other charges proposed reasonable in relation to current state rates?

No.

If no, please explain:

Labor rates are difficult to evaluate. Classifications were not identified.

6. Are other agencies contributing or likely to contribute a share of the projects costs?
Yes.

If yes, when sufficient information is available, please sum the amount of matching funds likely to be provided:

\$229,579 + DFG, DWR Note other agencies contributing. Grantee should provide additional information regarding cost share for projects.

7. Does the applicant take exception to the standard grant agreement's terms and conditions? If yes, are the approaches the applicant proposes to address these issues a reasonable starting point for negotiating a grant agreement?
Yes.

If no, please explain:

none

8. Are there other budget issues that warrant consideration?
No.

If yes, please explain:

none

Other comments:

none

Environmental Compliance Review

1. Is compliance with California Environmental Quality Act (CEQA) required for this project?

YES– NOX

2. Is compliance with National Environmental Policy Act (NEPA) required for this project?

YES– NOX

3. Does this project qualify for an Exemption or Exclusion under CEQA and NEPA, respectively?

YESX NO– N/A–

Comments:

Although I checked "No" for questions #1 and #2, I checked "yes" for this question because there is not enough detail to determine exactly what document, if any will be required. The applicant states that they will be collecting non–salmonid species but does not describe the locations or methodology. There are sensitive species and listed species in this project area. Incidental take permits may be required which may trigger CEQA/NEPA. The applicant must consult with CDFG if there are any state–listed species and NOAA fisheries and USFWS for splittail and steelhead concerns.

4. Did the applicant correctly identify if CEQA/NEPA compliance was required?

YES– NOX

Comments:

See comment #3.

5. Did the applicant correctly identify the correct CEQA/NEPA document required for the project?

YES– NOX N/A–

Comments:

See comment #3.

6. Has the CEQA/NEPA document been completed?

YES– NOX N/A–

7. If the document has not been completed, did the applicant allot enough time to complete the document before the project start date?

YESX NO– N/A–

8. If the document has not been completed, did the applicant allot enough funds to complete it?

YESX NO– N/A–

Comments:

No funds were allocated for this task. I do not anticipate a large, complex, costly document.

9. Did the applicant adequately identify other legal or regulatory compliance issues (Incidental Take permits, Scientific Collecting permits, etc.) that may affect the project?

YES– NOX N/A–

Comments:

They state a SCP is required which is correct but they have not obtained it yet.

Identify those additional permits that may be needed by this project:

Take permits may be required for fisheries monitoring.

10. Does the proposal include written permission from the owners of any private property on which project activities are proposed or, if specific locations for project activities are not yet determined, is it likely that permission for access can be obtained?

YESX NO– Project is on public land/water or question is otherwise N/A–

Comments:

11. Do any of these issues affect the project's feasibility due to significant deficiencies in planning and/or budgeting for legal and regulatory compliance or access to property?

YES– NOX

Comments:

Prior-Phase Funding Review

Project Title	Arundo Donax: Restoration and Eradication
CALFED Contract Management Agency	NFWF
Amount Funded	\$427,000
Date Awarded	2001/01/01
Project Number	01-N03

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

Yes.

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

No.

97-N02 is now complete and all properties have been purchased, however, the Clendenning property was not purchased under this project. 97-N03, 97-N04 and 99-N04 are all complete.

5. Has this organization made adequate progress towards these project(s)' milestones and outcomes, without unreasonable divergences from project schedules or poor-quality deliverables?

N/A

TNC was the lead organization on the aforementioned projects. CSU Chico is currently making good progress on another CALFED project, 01-N04.

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

No.

Invoices are good. The fiscal quarterly report is usually received on time, but has been late on a couple of occasions.

7. If this application is for a next phase of a project whose contract your agency currently manages, will the project(s) be ready for next-phase funding to monitor and evaluate project outcomes in fiscal year 2005/6, based on its current progress and expenditure rates?

Yes.

Other comments:

The restoration projects previously managed by NFWF are considered ready for next phase monitoring and evaluation.

Prior-Phase Funding Review

Project Title	Acquire Simmons Ranch on Big Chico Creek.
CALFED Contract Management Agency	WCB
Amount Funded	\$3,200,000
Date Awarded	2002/01/01
Project Number	02-000
Project Title	Acquire and restore the McAmis property on upper Butte Creek
CALFED Contract Management Agency	USF
Amount Funded	\$868570
Date Awarded	1999/01/01
Project Number	99-000
Project Title	Continue development of Butte Creek Watershed Conservancy watershed management strategy.
CALFED Contract Management Agency	USF
Amount Funded	\$166,200
Date Awarded	2001/01/01
Project Number	01-000
Project Title	Keeney Property on lower Butte Creek; riparian easement acquisition and restoration project.
CALFED Contract Management Agency	USF
Amount Funded	\$187,000
Date Awarded	2003/01/01
Project Number	03-000
Project Title	Extend Butte Creek geomorphic study to Butte Slough.
CALFED Contract Management Agency	USF
Amount Funded	\$89,000
Date Awarded	1999/01/01
Project Number	99-000

Project Title	Promote re-vegetation of recently rip-rapped areas in the vicinity of Okie Dam on Butte Creek.
CALFED Contract Management Agency	USF
Amount Funded	\$58,000
Date Awarded	2002/01/01
Project Number	02-000
Project Title	Provide funding for watershed group leaders to attend the
CALFED Contract Management Agency	USF
Amount Funded	\$25,000
Date Awarded	1999/01/01
Project Number	99-000
Project Title	Misc. Small Streams- Evaluate intermittent east and west-side tributaries to the upper mainstem Sacramento River as rearing habitat for juvenile Chinook salmon.
CALFED Contract Management Agency	USF
Amount Funded	\$65,000
Date Awarded	2001/01/01
Project Number	01-000
Project Title	Upper Mainstem Sacramento River- Study effects of public ownership of meander-belt properties on property tax income.
CALFED Contract Management Agency	USF
Amount Funded	\$48,000
Date Awarded	2001/01/01
Project Number	01-000
Project Title	Upper Sacramento River- Study effects of public ownership of meander belt properties on property tax income in Glenn County.
CALFED Contract Management Agency	USF
Amount Funded	\$39,000
Date Awarded	1999/01/01
Project Number	99-000

Project Title	Butte Creek Acquisition and Riparian Restoration
CALFED Contract Management Agency	USF
Amount Funded	\$181,000
Date Awarded	1997/01/01
Project Number	97–N06
Project Title	Butte Creek Acquisition and Riparian Restoration
CALFED Contract Management Agency	USF
Amount Funded	\$125,000
Date Awarded	1998/01/01
Project Number	98–S03
Project Title	Butte Creek Riparian Restoration Demonstration
CALFED Contract Management Agency	USF
Amount Funded	\$76,348
Date Awarded	1998/01/01
Project Number	98–C1046

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

Yes.

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

Yes.

5. Has this organization made adequate progress towards these project(s)' milestones and outcomes, without unreasonable divergences from project schedules or poor-quality deliverables?

Yes.

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

Yes.

7. If this application is for a next phase of a project whose contract your agency currently manages, will the project(s) be ready for next-phase funding to monitor and evaluate project outcomes in fiscal year 2005/6, based on its current progress and expenditure rates?

Other comments:

