

Selection Panel Review Summary

Proposal No.: 008

Proposal Title: McCormack-Williamson Tract Flood Control and Ecosystem Restoration Project

Principal Investigator: Leo Winternitz, Reclamation District 2110

Amount Requested: \$3,314,300

Recommended Amount: \$3,314,300

Summary: McCormack-Williamson Tract is a 1,654-acre “island” farm located in the north Delta downstream of the confluence of the Cosumnes and Mokelumne Rivers. The Project will implement flood control improvements in a manner that benefits aquatic and terrestrial habitats, species and ecological processes. McCormack-Williamson plays a key role in north Delta hydraulics. The project is intended to improve passage of flood flows through the tract, in a way that minimizes flood impacts to the system up and downstream. Because the tract’s topography varies from roughly plus five feet above sea-level to minus four feet, the tract provides an ideal landscape gradient for a continuum of habitat types that provides for ecosystem benefits. This proposal solicitation package would be used to cover the 7% of the 35% local match for project design and construction and post project assessment not being provided by DWR. These funds are non-federal match for US Army Corps of Engineers funds for a projected combined total of \$21,702,200 to complete this project.

Assessment: The Selection Panel recognized this proposal as a floodplain restoration project – one of a few in the Delta, especially on the eastside – and that reconnecting the floodplain was desirable making this an important restoration site for the region. Funding of this project would leverage other State and federal funds thereby making this a cost effective project. The Selection Panel was interested in continuing support and in avoiding a stranding of past investments in development of the project. However, there were significant concerns about whether what was being proposed was the proper design and about how conceptual models and hypothesis testing were addressed. There also was concern that the proposal did not designate who is doing the proposed work monitoring and post project assessment work. The Selection Panel noted that the proposal fell short by not recognizing its tie to Delta Regional Ecosystem Restoration Implementation Plan (DRERIP). The Selection Panel felt proposed actions should be run through the DRERIP models to identify uncertainties and guide implementation monitoring and research. Additionally, consultation with the Aquatic Science Institute and evaluation of past historical use was recommended. The Selection Panel was clear that monitoring addressing uncertainties associated with the DRERIP conceptual models and adaptive management must be part of this project if any funds are to be made available.

CALFED Ecosystem Restoration Program
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Proposal Number: 008

Proposal Title: McCormack-Williamson Tract Flood Control and Ecosystem Restoration project

Reviewer: #1

Conflict of Interest Statements:

I have no financial interest in this proposal (please mark correct response).

- Correct X
- Incorrect

General Review Questions:

Along with your written observations in response to the questions below, please rate each using the following criteria:

- Excellent: Outstanding in all respects
- Very Good: High quality in nearly all aspects
- Good: Quality work, but with some deficiencies
- Fair: Lacking in one or more critical aspects
- Poor: Serious deficiencies

1. **Problem/Goals.** Is the problem that the project is designed to address adequately described? Are the goals, objectives, and hypotheses clearly stated and internally consistent? Does the proposal describe the ecosystem goals it is designed to address (link to ERP goals)?

Comments:

The proposal does a good job relating its aims to ERP goals and outlines the benefits of floodplain habitat restoration to species of interest. This is largely based on research from the Cosumnes reserve and links directly to the expected outcomes. The proposal is internally consistent, to the point of redundancy. However, little of the narrative ties the general statements directly to MWT – the general support of rearing in floodplains is well described but not related directly to MWT – which runs? What is the flooding duration/frequency expected here relative to other areas? What is the % increase in habitat in this system, expected incremental benefit of the project? To some extent the usual generalities associated with habitat improvement are provided here – to the point of benefits for delta smelt being inferred on page 20 of the proposal. Is this area really likely to benefit DS?

Rating: Good

2. **Approach.** Does the proposal clearly describe its approach (including study design and methods, if appropriate)? Is the approach well designed and appropriate for meeting the

objectives of the project as described in the proposal? Will the proposal contribute to our knowledge base?

Comments:

The approach is well described and is repeated from previous document apparently. The aspects of the project have already been described in CEQA document. It is not clear how the project will contribute to the knowledge base as, despite the articulation of adaptive management approaches, there is no information provided on the a monitoring plan, how it will be conducted, etc. In many instances the proposal repeats general terms, e.g., 'significant' MeHg, without defining them. Again this leads to the impression that the proposal seeks to do good things within the ERP context but needs more detailed local information to move forward. Given, that this project is currently in feasibility study with USACE, these details may be under development. However, apart from the draft PMP for the PIR which is included as an appendix, little information is given about when those details will be available, and how ERP agencies interact with that process.

Rating: Good-Fair

3. **Feasibility.** Is the proposed project's approach fully documented and technically feasible? Can the project be completed within reasonably foreseeable constraints (e.g., acquiring permits, construction, weather, etc...)? Does the proposal thoroughly address requirements such as environmental compliance and permitting? Is the scale of the project consistent with the objectives?

Comments:

The proposal discusses NEPA/CEQA and some aspects of at-risk species and other permitting procedures seem to be considered in the mitigation section. One of the main limitations that I see with the feasibility of this project moving forward is that it is based on the expectation that 65% of the implementation and 50% of the PIR will be provided to USACE by Congress. The FY12 USACE budget includes just over \$1m for Sac/SJ levee feasibility studies and some of this may be for this project. But construction funds are extremely tight. The engineering seems feasible – the funding seems less clear. Given that ERP is only being asked for a fraction of the cost if the other funds come through it could be an excellent way to move this forward. If the Corps PIR study indicates a much higher construction costs than estimated, then the ERP may have invested in a study not a project.

Rating: Fair

4. **Conceptual Model.** Does the proposal provide a conceptual model that describes the interconnections among the key ecosystem components relevant to the action(s) being proposed? Does the conceptual model clearly explain the hypotheses it is testing?

Comments:

For a project which has been in development for so long, the CM laid out in the proposal is less than impressive. The proposal describes cause-effect relationships only in general terms. There has been no attempt to use the DRERIP conceptual models, for instance, or any of the CM thinking that has occurred since the time of the North Delta science panel. One of the key

limitations is the lack of a link between the ER and flood risk reduction components. For instance, if the exotic weeds over run the lower part and the levee is reinstated, what does that do for the flood risk reduction aspects of the project? Linking flood risk reduction with ER is a key component of this project – the proposal needs its own CM to make that linkage more effectively.

Rating: Fair

5. **Performance Evaluation Plan (Monitoring Plan and Performance Measures).** Does the proposal include a plan for project performance evaluation (monitoring to assess results and evaluate assumptions and hypotheses)? Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Will future studies or restoration projects be able to incorporate the information from this project?

Comments:

The performance evaluation plan is described. However no detailed monitoring plan is described. In many places it uses very general terms, e.g., 'significant' MeHg, so quantitative triggers are not yet available. It does identify hedging actions/AM responses. BUT makes no mention of where funds would come from to implement them. How will AM measures be considered in the USACE PIR? It has been very difficult to get USACE funding for AM actions and a strong case will need to be made if such funds are to be obtained from Congress 'in case' they are needed. Will TNC place funds aside the take on the AM responses should they be needed?

Rating: Good

6. **Expected Products/Outcomes.** Are products of value likely from the project? Are products of value also likely from the individual components of the project? Will the results of this study be readily accessible?

Comments:

This will be a high profile project should it get constructed. Whether data will be available is unclear as no monitoring plan is included. TNC however, has a good record of engagement and so no problems are expected as far as availability of reports/knowledge.

Rating: Good

7. **Previous Related Work.** Does the proposed project continue past work or include any work that could be considered a duplication of work previously done or currently being done by others?

Comments:

This proposal carries forward work undertaken by DWR and UC Davis (with CALFED support). It builds on existing planning and investments in land.

Rating: Excellent

8. **Qualifications.** 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? Do they have working knowledge of California streams and rivers?

Comments:

TNC have a strong record. RD 2110 seems directly related to TNC and so no problems are foreseen. The role of USACE in this process is an unknown – not because they do not have a strong record of good work, but the availability of funds and the sometimes cumbersome nature of the federal process (perhaps improved here as PIR can apparently be approved by SP Division) may not be a recipe for ‘efficient and effective’ implementation. One interesting aspect is the combination of flood risk management and ecosystem restoration – it will be necessary that many features of the flood risk elements be engineered to provide ecosystem benefits. Given new attention to levee standards and safety, this project could be breaking new ground, and could lead to many more dual purpose projects.

Rating: Good

9. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed? If the budget is considered to be excessive or inadequate for the work proposed, please highlight areas of the budget that may be of concern.

Comments:

See above discussion regarding the availability of funds from the federal side. If federal funds come through this is an excellent leverage of ERP funds to complement USACE and DWR funding.

Rating: Excellent

Additional comments:

In concept the flood-risk management and ecosystem restoration on MWT a good project and worthy of support. The proposal, however, is not as strong as it could be and seems somewhat dated in terms its use of conceptual models, consideration of uncertainty, etc.

Overall Evaluation Summary Rating

In the space below, please provide an overall rating of the proposal using one of the following categories:

- **Superior:** Outstanding in all respects with superior technical and scientific value and no significant concerns. Expected to add substantial new thinking/concepts to our knowledge/understanding of the topic proposed.
- **Above Average:** A very good proposal with at least high technical and scientific value and no significant concerns. Will add solid basic knowledge/understanding of the topic proposed.
- **Adequate:** A reasonable proposal without serious technical deficiencies and at least adequate value scientifically. Will add some useful knowledge to the topic proposed.

- **Inadequate:** A technically deficient proposal and/or one with low value, serious impediments or concerns. Will not likely change our basic knowledge/understanding of the topic proposed.

Rating: Adequate

Please provide a brief explanation of your summary rating:

The proposal fails to acknowledge some of the realities of moving from where it is now to construction. The ideas are good but not put in a detailed local context and don't appear to have been updated using newer tools and approaches (e.g., DRERIP scientific evaluation process). The juxtaposition of flood risk management and ecosystem restoration is an excellent aspect of this but is poorly explored in an adaptive management context.

CALFED Ecosystem Restoration Program External Scientific Review Form

Proposal Number: 008

Proposal Title: McCormack-Williamson Tract Flood Control and Ecosystem Restoration Project

Reviewer: #2

Conflict of Interest Statements:

I have no financial interest in this proposal (please mark correct response).

X Correct
- Incorrect

General Review Questions:

Along with your written observations in response to the questions below, please rate each using the following criteria:

Excellent: Outstanding in all respects
Very Good: High quality in nearly all aspects
Good: Quality work, but with some deficiencies
Fair: Lacking in one or more critical aspects
Poor: Serious deficiencies

1. **Problem/Goals.** Is the problem that the project is designed to address adequately described? Are the goals, objectives, and hypotheses clearly stated and internally consistent? Does the proposal describe the ecosystem goals it is designed to address (link to ERP goals)?

Comments:

The problems of flooding and ecosystem health, which the project addresses, are laid out clearly enough but not in an overly convincing manner. The case for how the project will address this problem is fairly obvious from a flooding perspective, but not as clear for how the ecological benefits would result. The proposal seems to borrow heavily from other plans and proposals and in so doing talks a lot about what they plan to do, but makes little attempt to convince us that there is a reasonable plan in place to ensure these happen. A surprising proportion of the text describing the problem/goals is copied directly from the ERP RFP. However, the application merely tells us that these goals will be met without actually showing us how. The hypotheses are vague and no effort is made to demonstrate clearly how these will be tested. The extent of the proposals case for hypotheses testing is summed up by a comment in the proposal that says 'Hypothesis testing would primarily be implemented through the Project's adaptive management plan', which the reader only later finds on page 219 buried in Appendix F (not actually part of proposal). Appendix F is a poorly organized table that poses some questions/hypotheses, but makes no attempt to convince us what relevant science these are based on or how these are reasonable hypotheses or testable.

Rating: Fair to Poor

2. **Approach.** Does the proposal clearly describe its approach (including study design and methods, if appropriate)? Is the approach well designed and appropriate for meeting the objectives of the project as described in the proposal? Will the proposal contribute to our knowledge base?

Comments:

Although a 100+ page PMP (project management plan) is included in the proposal (complete with a whole page of acronym definitions to further confuse matters), the proposal is rather vague in what approach it is taking. Reading between the lines, the basic approach appears to be an over-engineered flood control project with poorly articulated flood control benefits and a spattering of lighter green touches here and there to provide much touted ecosystem benefits. This proposal seems to be asking for funding for the 'science' without ever clearly articulating how the restoration will act as an experimental study design and what specifically we will learn from this. If the proposal preparation is any indication of how

Rating: Poor

3. **Feasibility.** Is the proposed project's approach fully documented and technically feasible? Can the project be completed within reasonably foreseeable constraints (e.g., acquiring permits, construction, weather, etc...)? Does the proposal thoroughly address requirements such as environmental compliance and permitting? Is the scale of the project consistent with the objectives?

Comments:

I have no concerns about the engineering feasibility of this flood control project. The engineering is expensive, but straight forward and well documented in the appendices (but poorly summarized and explained in the proposal itself). The ecosystem restoration benefits are too vague for me to understand whether or not they are feasible, and in the absence of a clearer proposal I have serious concerns about whether the stated benefits are actually viable. The

environmental compliance and permitting seems to be addressed, but it is not concisely summarized. There is no science clearly proposed here, so its feasibility apparently is irrelevant. There is little to no discussion of whether or not the scale of the restoration at McCormick Williamson Tract is large enough to make a meaningful difference with the ecosystem restoration objectives of the project.

Rating: Fair

4. **Conceptual Model.** Does the proposal provide a conceptual model that describes the interconnections among the key ecosystem components relevant to the action(s) being proposed? Does the conceptual model clearly explain the hypotheses it is testing?

Comments:

The conceptual models they are drawing off of here is based on the success the TNC has had at the Cosumnes Reserve and a long track record of research by multiple agencies. Those conceptual models are reasonably clearly summarized with minimal references to the rich literature base from which these come. There are very strong opportunities within that conceptual framework for meaningful hypothesis testing, but those opportunities are not clearly identified in this proposal.

Rating: Fair

5. **Performance Evaluation Plan (Monitoring Plan and Performance Measures).** Does the proposal include a plan for project performance evaluation (monitoring to assess results and evaluate assumptions and hypotheses)? Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Will future studies or restoration projects be able to incorporate the information from this project?

Comments:

Just because you have a 100 page (Project Management Plan) PMP sneakily mixed into the proposal as an Appendix, does not mean that you should not have to articulate a concise summary of the performance evaluation plan in the proposal itself. Although the entire proposal package includes elements of how project performance evaluation will be included, it does so in a largely vague and unhelpful way. The performance measures are not clearly explained or justified. If the team who prepared this proposal is going to disseminate the findings of this project and methods of performance evaluation, I have little confidence that it will be coherent enough for future studies to incorporate the information. However, based on past work by the TNC and others associated with this project, it is possible quite useful information could result and be of use to at least the TNC in other projects.

Rating: Poor

6. **Expected Products/Outcomes.** Are products of value likely from the project? Are products of value also likely from the individual components of the project? Will the results of this study be readily accessible?

Comments:

The products of this project are largely flood control and they are obvious and have been previously studied by researchers at UC Davis. It is unclear from the proposal exactly what the expected outcomes of the scientific monitoring portion of this specific project are. There is a poorly organized website where past research from this team has been disseminated, and the researchers they have previously subcontracted are very active in disseminating information to a broad range of audiences. However, this proposal is vague with respect to exactly how they will make the results readily accessible and makes little attempt to convince the reader that whatever they will be doing is effective.

Rating: Fair

7. **Previous Related Work.** Does the proposed project continue past work or include any work that could be considered a duplication of work previously done or currently being done by others?

Comments:

There is a wealth of past research and restoration efforts in the vicinity that this proposal has the opportunity to build off of and dovetail nicely with. Unfortunately, the proposal itself hardly leverages this past work at all and what attempts it does make are confused and vague at best. With a pathetic dozen citations, the application demonstrates very little appreciation, awareness or understanding of previous related work. The conceptual model section does perhaps the best job, but this essentially cuts and pastes a bunch of bullets from previous studies and then just rewords them and says these too will be the benefits of this project. How? Given that the proposal does not distinguish itself from this important past work, it provides the reader with little understanding of how this is not simply a duplication of work already done elsewhere. If CALFED ERP wants to invest in ongoing restoration efforts that it has already judged to be successful, this proposal has potential (but it's not convincing on the basis of this proposal). If instead ERP wants to see what new science and understanding will be developed out of this project, the proposal fails to explain what that would be. It is possible given the associated team it could happen, but the proposal falls short on explaining this.

Rating: Poor

8. **Qualifications.** 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? Do they have working knowledge of California streams and rivers?

Comments:

The USACE, Nature Conservancy and over 90 researchers at 18 institutions who have worked at the Cosumnes Preserve collectively have an impressive track record in both the restoration arena and scientific research. However, on the basis of the proposal, I have no idea who of this monstrous team is really included in this proposal. The proposal refers the reader to a 100+ page PMP (project management plan) probably prepared for the previous proposals, to apparently demonstrate how qualified the team is. There is no attempt made in the proposal to summarize this and the PMP is so convoluted it is difficult to discern who is doing what. Based on the incoherent nature of the rest of the proposal and the absolute lack of appreciation for issues associated with ecosystem restoration and the science associated with it, I have little

confidence in at least the ability of the preparers of this proposal to deliver this project. It is clear from the Management Team section of the proposal that they will just manage (at a hefty overhead rate of \$302,000) the money and subcontract to actual scientists to do the monitoring work 'Subcontractors will be selected and supervised according the requirements of the PMP'. The usual and qualified suspects at UC Davis, USACE, and other institutions are likely to do this work. At this stage there is no clear indication in the proposal that those capable players are in the discussion and driving this project conceptually. However, giving the applicant organizations track record, I would elevate my assessment of qualifications to fair.

Rating: Fair

9. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed? If the budget is considered to be excessive or inadequate for the work proposed, please highlight areas of the budget that may be of concern.

Comments:

The budget is very poorly justified and seems excessive given how vague the proposed 'research' is. The proposal makes very little attempt to articulate the scientific value of \$1,950,000 requested for monitoring. The proposal appendices do an okay job of explaining how the \$920K for Non-Structural Work would be spent, but the benefit of this is not well articulated as that would supposedly come out of the monitoring effort. The RD 2110 of \$252,000 seems excessive at first glance but reasonable when considered its spread out over five or six years. I was shocked by the cavalier budget justification that consisted of three sentences, one of which stated bluntly 'There is no other source of funding readily available to fill this gap.'

Rating: Poor

Additional comments:

None.

Overall Evaluation Summary Rating

In the space below, please provide an overall rating of the proposal using one of the following categories:

- **Superior:** Outstanding in all respects with superior technical and scientific value and no significant concerns. Expected to add substantial new thinking/concepts to our knowledge/understanding of the topic proposed.
- **Above Average:** A very good proposal with at least high technical and scientific value and no significant concerns. Will add solid basic knowledge/understanding of the topic proposed.
- **Adequate:** A reasonable proposal without serious technical deficiencies and at least adequate value scientifically. Will add some useful knowledge to the topic proposed.
- **Inadequate:** A technically deficient proposal and/or one with low value, serious impediments or concerns. Will not likely change our basic knowledge/understanding of the topic proposed.

Rating: Inadequate

This proposal rather transparently seeks to plug a funding shortfall for a \$22 million major flood control project that the applicants assert will also provide ecosystem restoration benefits. As written, this is an application for a flood control project at the McComack Williamson Tract, which the applicants have already secured over \$19 million in Federal and State funding for. Although it is difficult to discern from the information provided and the confusing organization of the budget, it appears the applicants either made no attempt or were unsuccessful to secure State or Federal funding for any of the construction components that would provide ecosystem benefits (e.g. non-structural work including vegetation, planting, irrigation, etc.) and any monitoring that might provide some scientific benefit. CALFED ERP has been targeted by this proposal to provide that funding at \$3.3 million.

Despite over 200 pages of attachments in six appendices, the proposal itself says surprisingly little in 25 pages and appears to be a very poor cut and paste job from many of the appendices. The proposal cites very little scientific literature (only four of the twelve citations really qualify) and makes very little attempt to articulate the scientific value of \$1,950,000 requested for monitoring (the part where the science would supposedly come in). I was shocked by the cavalier budget justification that consisted of three sentences, one of which stated bluntly ‘There is no other source of funding readily available to fill this gap.’ Having reviewed several other CALFED and ERP proposals, I am usually impressed by the competitive and compelling nature of the proposals. This proposal by contrast is barely coherent, poorly organized, inconsistently formatted, has incomplete sections and poorly articulates the need for such an expensive project. The ecosystem restoration component is a thinly-veiled tack on that makes big promises without any clear scientific evidence or hypotheses to back up the claimed benefits.

The whole project hinges on the argument that ‘runoff from the Sacramento, San Joaquin, Mokelumne, and Cosumnes Rivers during large storm events has caused flooding of homes, infrastructure, farms, and other businesses.’ So what? One reads further to find out that the ‘surge’ this project would supposedly help mitigate against (not clearly demonstrated) can displace mobile homes and break boats loose from their moorings. Is this really what we’re spending \$20 million + to protect. The many ecosystem benefits that the proposal claims will be associated with the breaching and project have been well studied in the past and though through by DWR, TNC, CFDFG, USFWS, NMFS and the CALFED ERP Steering Committee. However, this proposal does not really lay out any specifics for the how the predictions from this past work will be studied. Given that nearly 2/3 of the funding this proposal seeks is to do that work, I think it is unacceptable not to provide some specifics as to how the applicant proposes to do this work. Right now, it is clear that they intend to sub-contract that out to capable parties and earn a \$300K management fee for doing so. This is ridiculous. Why not have those capable parties submit their own proposals to ERP or expect applicants to go to the effort of making those partnerships upfront and clearly articulating them in a proposal.

CALFED Ecosystem Restoration Program
External Scientific Review Form

Proposal Number: 008

Proposal Title: McCormack-Williamson Tract Flood Control and Ecosystem Restoration Project

Reviewer: #3

Conflict of Interest Statements:

I have no financial interest in this proposal (please mark correct response).

- **Correct** X
- Incorrect

General Review Questions:

Along with your written observations in response to the questions below, please rate each using the following criteria:

- Excellent: Outstanding in all respects
- Very Good: High quality in nearly all aspects
- Good: Quality work, but with some deficiencies
- Fair: Lacking in one or more critical aspects
- Poor: Serious deficiencies

1. **Problem/Goals.** Is the problem that the project is designed to address adequately described? Are the goals, objectives, and hypotheses clearly stated and internally consistent? Does the proposal describe the ecosystem goals it is designed to address (link to ERP goals)?

Comments:

Yes, the goals are clearly articulated and appropriate. Hypotheses and research questions are described in detail in appendix E. The project is very consistent with ERP goals and the proposal clearly describes the linkages.

Rating: Excellent

2. **Approach.** Does the proposal clearly describe its approach (including study design and methods, if appropriate)? Is the approach well designed and appropriate for meeting the objectives of the project as described in the proposal? Will the proposal contribute to our knowledge base?

Comments:

Yes. The approach and work plan are concise and clear. It is obvious that they have been working on this project for years. It is very appropriate for meeting objectives of the proposal.

Rating: Excellent

3. **Feasibility.** Is the proposed project's approach fully documented and technically feasible? Can the project be completed within reasonably foreseeable constraints (e.g., acquiring permits, construction, weather, etc...)? Does the proposal thoroughly address requirements

such as environmental compliance and permitting? Is the scale of the project consistent with the objectives?

Comments:

Yes. This project is fully documented with extensive appendices and a NEPA/CEQA document.

Rating: Excellent

4. **Conceptual Model.** Does the proposal provide a conceptual model that describes the interconnections among the key ecosystem components relevant to the action(s) being proposed? Does the conceptual model clearly explain the hypotheses it is testing?

Comments:

Yes and no. The proposal does not provide much detail on the Conceptual Models, but it does report that conceptual models were described in the EIR. This reviewer has read the EIR and agrees that the conceptual models are excellent.

Rating: Very Good.

5. **Performance Evaluation Plan (Monitoring Plan and Performance Measures).** Does the proposal include a plan for project performance evaluation (monitoring to assess results and evaluate assumptions and hypotheses)? Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Will future studies or restoration projects be able to incorporate the information from this project?

Comments:

The proposal includes both a compliance monitoring program per CEQA and an adaptive management research plan which identifies performance metrics and research opportunities.

The proposal seeks funding for the compliance monitoring element, but the budget doesn't show a line item for adaptive management monitoring. Despite this shortcoming, TNC has an excellent reputation for bringing research to the Delta.

Rating: Excellent

6. **Expected Products/Outcomes.** Are products of value likely from the project? Are products of value also likely from the individual components of the project? Will the results of this study be readily accessible?

Comments:

The proposed project to finally restore a floodplain and tidal marsh in the Delta would have enormous value both ecologically and to learn more about the function of tidal marsh.

Rating: Excellent

7. **Previous Related Work.** Does the proposed project continue past work or include any work that could be considered a duplication of work previously done or currently being done by others?

Comments:

The proposal builds effectively on a decade of planning and is moving toward implementation without unnecessary redundancies in surveys, studies, or monitoring.

Rating: Excellent

8. **Qualifications.** 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? Do they have working knowledge of California streams and rivers?

Comments:

It is hard to imagine a more qualified applicant. TNC along with USACE and the local reclamation district.

Rating: Excellent

9. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed? If the budget is considered to be excessive or inadequate for the work proposed, please highlight areas of the budget that may be of concern.

Comments:

The budget is very reasonable for a 16,000 acre project, particularly since it involves USACE and includes cross levees and compliance monitoring.

Rating: Excellent

Additional comments:

None.

Overall Evaluation Summary Rating

In the space below, please provide an overall rating of the proposal using one of the following categories:

- **Superior:** Outstanding in all respects with superior technical and scientific value and no significant concerns. Expected to add substantial new thinking/concepts to our knowledge/understanding of the topic proposed.
- **Above Average:** A very good proposal with at least high technical and scientific value and no significant concerns. Will add solid basic knowledge/understanding of the topic proposed.

- **Adequate:** A reasonable proposal without serious technical deficiencies and at least adequate value scientifically. Will add some useful knowledge to the topic proposed.
- **Inadequate:** A technically deficient proposal and/or one with low value, serious impediments or concerns. Will not likely change our basic knowledge/understanding of the topic proposed.

Rating: **Superior**

Please provide a brief explanation of your summary rating:

This project is very well thought-out, has been carefully planned for over a decade, and is ready to build. This is a unique opportunity and should be implemented now so that we can begin to learn more about the benefits and impacts of restoration through adaptive management.