

Selection Panel Review Summary

Proposal No.: 020

Proposal Title: Lower Putah Creek Restoration from Toe Drain to Monticello Dam: Project Description Development, CEQA Compliance, Permits, Selected Final Design

Principal Investigator: Robin Kulakow/Ann Brice (Yolo Basin Foundation)

Amount Requested: \$2,160,375

Recommended Amount: \$0

Summary: This grant proposal is to fund the preparation of a project description, CEQA documents, and permits to describe where the Yolo Basin Wildlife Area Lower Putah Creek Realignment and Tidal Marsh Restoration Project would be eligible for funding by the Wildlife Conservation Board (WCB) and the North American Wetlands Conservation Act. The project also seeks to receive funds to attain the same permit status and level of CEQA analysis for the Lower Putah Creek Enhancement from Yolo Bypass to Monticello Dam and to develop final design plans and specifications. This is a request for funds to complete environmental compliance that would lead to eligibility for funding from the Wildlife Conservation Board and the North American Wetlands Conservation Act (US Fish and Wildlife Service) and not a science based project.

Assessment: The Selection Panel recognized that this project would enable implementation of an important project. The proposal had a good description of the development of conceptual models that would be used to document linkages from actions to expected outcomes and to inform a science-based monitoring and assessment program. However, the uneven analysis between the Yolo Basin and the Putah Creek portions stood out. The Selection Panel found that the project component within Yolo Bypass Wildlife Area (YBWA) was better supported and the scope well-designed to achieve the design and permits, and once completed should be a valuable contribution of floodplain habitat and enhanced fish passage into Putah Creek. However, the creek enhancements in Putah Creek upstream of the Bypass were insufficiently described and overlooked in discussion of tangible outcomes. The Panel wondered why the two components had been coupled together.

The Selection Panel also had concerns that there were no hypotheses about ecological benefits nor were any biological outcomes stated. Biological goals and objectives and scientifically-based conceptual models must be developed prior to project design, not afterward. No justification for tidal marsh in the YBWA portion was provided in terms of identifying the extent of tidal influence combined with appropriate elevations. What then, was the basis for the proposed YBWA project map? It was troubling that the proposal lacked scientific citations and glossed over the mercury issue in the watershed. The proposal lacked sufficient detail of the role of the various subcontractors as well as justification for subcontractor budgets. Both require additional explanation.

CALFED Ecosystem Restoration Program

External Scientific Review Form

Proposal Number: 020

Proposal Title: Lower Putah Creek Restoration Project: Description, CEQA, Permits, Selected Final Design

Reviewer: #1

Conflict of Interest Statements:

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

- Correct

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 goals and objectives are clearly stated, with respect to the well defined problem. Bifurcation of the watershed has reduced fish passage and diminished fisheries habitat; the project proposes to remove fish barriers and improve habitat.

The deliverable of the funded project is the complete package of planning and design documents needed to support construction of a project estimated to cost \$12.8 million. The proposal is a restoration project; as such, it does not state explicitly what can be assumed to be the underlying hypothesis that enhancing fish passage and habitat yields demonstrable net natural resource benefits.

The proposal clearly links the approach to the ecosystem goals of establishing and maintaining suitable hydrologic and hydrodynamic regimes, re-establishing channel-floodplain connectivity, and restoring coarse sediment supplies to downstream habitat areas.

Rating: **Very Good.** (Note: For me, excellent would have included some explicit statement of management hypotheses. I realize that isn't easy – that's why it would garner an excellent

rating if someone could figure out an artful way to say “if 23 miles of fish passage are increased then resources value will increase” without committing to performance guarantees on nature.)

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 proposal describes how planning, CEQA, permitting, and design documents will be developed. The proposers, from the approach they describe, clearly understand the steps they need to go through to effect the CEQA planning process. The Task 5 (Final Design Plans and Specifications) description is thin, compared to other sections. There are no subtasks to define the work breakdown structure, and no deliverables under task 5. For a half a million dollars worth of final design, it would be good to at least understand what the design milestones are – when will there be reviews, i.e., at the sixty percent, ninety percent design stage? How will the designers incorporate assurances made in the CEQA documents? A little more detail about the back and forth between agencies and interests that weigh in at CEQA should be considered at design – they later may want to be consulted to get a project that fulfills expectations set during the CEQA analysis.

Rating: **Good.** (Note: Addressing missing detail in Task 5 as described above would boost it to very good or 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:

The project deliverables should be attainable within the requested resources, if the resources are managed efficiently. The proposal reasonably addresses environmental compliance and permitting. There is not any discussion of contingency plans, or how sensitive the schedule is to slippage. This is not a flaw, in terms of the proposal quality. But it would be good for the proposer to know, and talk about, any potential consequences of schedule slippage if, for example, state cash flow problems or unexpected complexities in negotiating permits or easements cause delays in completion of the project planning documents.

Rating: **Very Good.** (Note: I agree that the proposers can accomplish the planning and design goals they’ve set forth, as long as assumptions about the critical path element (the flood permit) are valid. As said above, a little more on the design steps would rate 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:

The proposal clearly defines how conceptual models will be prepared to support the CEQA analysis.

Rating: **Excellent.**

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 measureable results are clearly defined in sections 6.7 and 6.8. I did not see any statements about monitoring, habitat assessment, or post-construction activities to verify and document the value added. I realize that much of that work to define post-project evaluation would come in the CEQA process, through development of a mitigation monitoring and reporting plan. None of the CEQA work addressed that aspect in Task 2. Likewise, while it is apparent to me that the project would yield learning benefits to inform future restoration projects, the proposers could have done a better job selling that point – I really didn't see it discussed.

Rating: **Good.** (Note: A very good to excellent rating would be attained by just a little more thought put into monitoring and assessment, and how lessons learned will inform future projects.)

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 flow, delineation, habitat assessment, and geomorphology studies will, depending on the quality of the work, yield valuable products. The project proponents have the expertise and the local understanding to develop high quality work. So yes, based on the proposal and the proponents, the expected products of the planning and design process will be valuable and readily accessible.

The accessibility of the actual built project is not clear, from a public access point of view. That is, I don't have a clear picture of how easily I could go and enjoy nature in the project area after the project is complete. That may not even be a project driver – it may be mostly about habitat rather than public enjoyment of restored habitat areas. But, to be fair and objective in this review, restoring habitat with no enhanced public access would mean that project benefits go to the natural resource, and the people in the immediate vicinity who can access and appreciate the enhanced resources. For the paying public to access the intangible benefits of knowing that valuable species are being provided with habitat to flourish, and the tangible benefits of healthy fish populations and an enhanced Delta ecosystem, the project proponents will need to tell a good story, in a venue that extends outside the audience of CALFED ERP experts and practitioners.

Rating: **Very good.** (Note: My comments above reflect my opinion, as a reviewer, that we all need to try harder to look outside our comfortable circle of experts and tell Joe Public in Southern California a compelling story about why the public investment in habitat restoration pays dividends over time. I believe that to be true, in general and of this project. An excellent rating would require some discussion of that need to show benefits to a wider audience.)

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 proposed project builds on stakeholder-driven watershed planning carried out by an established group with a track record of productive work. The references cited demonstrate that it is a logical next step; I see no evidence that this project is duplicative.

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: I am familiar with the work of Stillwater Sciences and Wetland and Water Resources. Their role in this project gives me great confidence that they can succeed in delivering high quality plans and designs. They have the staff capabilities, the local presence, the analysis tools, and the working knowledge of California streams and rivers needed to deliver.

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:

I am generally uncomfortable with the costs associated with environmental planning in California. That is not the proposer's fault. The budget proposed is about right for the scope of services. Contingency looks thin – there is no room for delays or to respond to agency comments that are broad and significant, or to make mistakes, change direction or discover something unexpected during design.

Rating: **Very good.** (Note: An excellent rating would require more contingency, better definition of the design budget, and more resources towards design, less towards planning.)

Additional comments:

The biggest challenge I see for this project is the constraint expected from the Central Valley Regional Water Quality Control Board's methylmercury TMDL. They are going to look at that wetland restoration project in the Yolo Bypass and say "you can't increase methylmercury

loadings.” They will look at the seasonal wetland and express concern over wetting / drying cycles. The proposal does not really show any tasks that would do any analysis of impacts, mitigation, or monitoring related to mercury bioaccumulation or methylmercury discharges to the Delta. The team has the expertise, through Stillwater Sciences, but the approach described does not seem to indicate that the issue will be contended with one way or the other – the planning seems to be all about flood and habitat. That’s appropriate – this is a flood and habitat project, not a mercury project. But mercury in wetland restoration projects is an acknowledged challenge in the region – is it wise to remain silent on that in the proposal? It should not chew up a huge amount of resources, but it seems appropriate to at least say “we will take a look at that, develop adaptive management and monitoring guidance based on previous work in restoration projects, and here are the resources committed in the budget and the task description to cover that work.”

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: **Above average.**

Please provide a brief explanation of your summary rating:

I would like to see the project get built – the restorations make sense and will add value. The team has the expertise and credibility to produce high quality plans and designs. My main critiques in this review have been about things that could be better articulated in the proposal, but that I have all confidence the proposers can deliver on. So the comments should be offered as suggested improvements to the scope once the project is awarded, not show-stoppers.

I would never want to see mercury get in the way of a good restoration project. The proposers have enough savvy and skills to craft a plan that can show net environmental benefit. I am a little puzzled about the silent treatment mercury gets – I don’t know if that is a tactic or an oversight.

Proposal Number: 020

Proposal Title: Lower Putah Creek Restoration Project: Description, CEQA, Permits, Selected Final Design

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 Proposal is for full-scale implementation of restoration on Lower Putah Creek, with a focus on the Yolo Bypass Wildlife Area. The proposal scope is for the design, CEQA documentation, and permitting phase. The applicants indicate that construction funding is anticipated from WCB and NAWCA, and that this proposal is a necessary step to match or enable federal funding for project implementation. The Proposal meets the following priority of this PSP: restoration projects that restore or enhance aquatic habitat in the Sacramento-San Joaquin Delta.

The Project Description presents two distinct project components: (1) the Yolo Bypass Wildlife Area (YBWA) Lower Putah Creek Realignment and Tidal Marsh Restoration Project (hereafter referred to as the “YBWA Project”) and (2) Lower Putah Creek enhancement from Yolo Bypass to Monticello Dam (“Creek Enhancement”). Unfortunately, some parts of the proposal are poorly organized and suffer from inconsistencies in definition and enumeration of “elements,” subtasks, objectives and scope, which made review difficult. The problem within the Yolo Bypass Wildlife Area is adequately described, with good details and justification for those components. The creek enhancements upstream of Yolo Bypass, however, were not as thoroughly developed or integrated into the proposal.

The YBWA Project goals and objectives make a strong link to the ERP primary objective (habitat restoration in the Delta). Links to several other secondary objectives are also made, perhaps more optimistically than likely given the proposed activities (it is unclear how the project will restore tidal action this far up the Bypass, or enhance gravel transport).

Inconsistencies in stated objectives led to confusion. The stated objectives in the Summary and Project Objectives are “to restore 300-700 acres of *tidal wetlands*, create a 5-mile fish bypass channel, improve access to 25 miles of stream to anadromous fish, and improve and restore at least 5,000 square feet of salmonid spawning habitat”. The Detailed Project Description states the proposed actions are to “(1) remove a variety of fish barriers on 25 miles of Lower Putah Creek, (2) restore and enhance anadromous fish spawning and emigration access, (3) reroute Lower Putah Creek east of Davis, CA through five miles of new stream channel and seasonal wetland complex,” but tidal wetlands are not mentioned. Later, the Expected Quantitative Results state the project will create 300-700 acres of *managed seasonal wetlands*, which is consistent with Figure 2 (if one ignores the existing tidal wetland project at the south end). These inconsistencies and scattering of project details across different proposal sections unnecessarily complicated the review and detract from the merits of the YBWA project.

Regarding fish passage, the proposal provides a very good description of the problem at the Los Rios Dam in YBWA, and the proposed solution (new channel to bypass that reach with temporary dam). But it is unclear from the Project Description what other passage barriers would be part of the project. Only later is it finally stated (Section 6.7 Quantitative results, p. 16) that passage improvements would occur at two locations, Los Rios Dam and Road 106A.

No hypotheses are provided for the proposed project, although many useful ones could have been formulated regarding the anticipated function of the floodplain and channel restoration in YBWA.

Rating: **Good** for Yolo Bypass Wildlife Area project, **Fair** for Lower Putah Creek enhancements upstream of Yolo Bypass

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 for the new channel construction within the Yolo Bypass is well-designed and appropriate to meet those objectives. Including development of conceptual models as specific task is a good approach for focusing the design, identifying key uncertainties and constraints, and setting the stage for adaptive management and monitoring. The degree of stakeholder involvement in all stages seems unusually high, but may be merited given the many management issues in the Bypass. The conceptual models and the design and ultimate implementation of this restoration project would provide a valuable contribution to understanding of riparian/floodplain systems as they intergrade with tidal systems and managed floodways. This is especially timely as more ecosystem restoration and fisheries projects are envisioned for the Yolo Bypass (e.g. BDCP).

The approach for fish ladder(s) is not as clearly presented. “The existing Los Rios Dam would be improved through implementation of a fish ladders [sic] to allow spawning access upstream of the dam” - but isn’t this problem addressed by construction of the 5-mile bypass channel, making a ladder unnecessary at the dam? Figure 2 adds to the confusion, showing a new fish ladder where the new channel would connect to the bifurcated Putah Creek. The proposal should specify if the ladder is for grade change between the old and new channels, or at the dam (which is the initial impression from the belated statement on p. 16).

The approach for Lower Putah Creek between Monticello Dam and the Yolo Bypass is not well defined. Virtually all of the scope description is about the first project within the YBWA. “The Plan would also describe measures to improve channel/floodplain habitat within the Creek of the Yolo Bypass” [sic, p. 6] - is this supposed to be Creek upstream of the Bypass? The proposal includes a general list of potential creek enhancement measures and refers to the Lower Putah Creek Watershed Management Action Plan, but provides few details to evaluate exactly what would be done upstream of the Yolo Bypass.

Rating: **Very Good** for YBWA project, **Fair** for Lower Putah above Yolo Bypass

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 approach for the YBWA Project is well-defined and technically feasible for channel and floodplain restoration, provided that the site elevations are appropriate and the new channel and grading plan is scaled to the local hydrograph from creek and Bypass. It’s unclear whether this region of the Bypass would experience tidal flows (the tidal marsh restoration site in figure 2 is located approximately 7-8 miles north of the nearest tidal wetlands on Liberty Island), but it may in the future under climate change. The proposal explicitly addresses environmental compliance and permitting in great detail. The proposal also addresses potential social/institutional feasibility by explicitly including stakeholder coordination, although stakeholder involvement in some project tasks (conceptual model development) may be excessive. The amount of time to complete design, documents and permitting is reasonable. It is hoped that construction funding would be in place before the end of the permitting work, to ensure timely implementation of the restoration. The scale of this project is consistent with the objectives.

The approach for the Creek Enhancement is not sufficiently developed for review, and therefore technical feasibility is unknown.

Rating: **Excellent** for YBWA project, **Poor** for creek enhancements above Yolo Bypass.

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 background section outlines major alterations (dams, dikes, channelization) and impacts on Putah Creek, but a conceptual model is not explicitly stated as such. The implied model is that the (1) three major barriers have blocked access and reduce habitat for anadromous fish, and (2) channelization and sedimentation changes resulting from altered flow regimes have degraded habitat for anadromous fish and promoted non-native fish.

As part of the proposed scope, the applicants will develop conceptual models that would guide and inform Project design and monitoring. No hypotheses are provided for this implementation-scale 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:

The proposal itself does not explicitly include a monitoring plan or performance measures to evaluate project performance. The proposal fails to provide hypotheses (based on a conceptual model) that would form the basis of a well-designed monitoring and adaptive management plan. Task 1.2 includes development of conceptual models "geared directly at... supporting a science-based monitoring and assessment program," but it is unclear whether this scope would actually develop a project-specific monitoring plan. Maybe the applicants are intending to use completion of a plan as a performance measure, although this would not be an adequate measure of ecological function and project success. Documenting simply the type and acreage of habitat constructed would be better, although that would depend on another grant for construction and would still fall short of demonstrating ecological performance (e.g. indicators such as increased fish passage and spawning in Putah Creek, fish use of restored floodplain, timing and extent of seasonal inundation).

Rating: **Fair**

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 YBWA project tasks will provide the restoration design, secure necessary permits and environmental documents, and enable funding for implementation. Once constructed, the project would provide valuable addition of floodplain, riparian and seasonal wetlands within the Bypass and passage for the modest run of fall-run Chinook salmon that use Putah Creek (about 70 adults in 2003). However, no expected outcomes of proposed creek enhancements between the Bypass and Monticello Dam were provided. The stakeholder process and outreach for the YBWA project will address sharing information during the scoping and EIR process.

Rating: **Very good** for YBWA, **Poor** for creek enhancements

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 proposed project builds on existing information and previous planning for Lower Putah Creek and the Yolo Bypass, which provides good continuity of restoration vision. However, more clarification is warranted on what project elements are already being implemented and which ones are unique to this proposal, to avoid duplication of work. The objectives state the project will restore “300-700 acres of tidal marsh” and one could have the impression from Figure 2 that designing the tidal marsh area in YBWA is part of the proposed project, in addition to the new channel and the new floodplain riparian and seasonal wetlands. A quick glance at recent aerial photos, however, indicates that initial channel construction and grading on the tidal marsh area was done in 2011 (Google Earth photos for April and September). The applicants should clarify the expected amount and type of *new* habitat is to be restored under this proposal.

Rating: **Good**

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 project team includes key institutions with a long history of planning, management and stakeholder involvement the Yolo Bypass (Yolo Basin Foundation, CDFG YBWMA) and Putah Creek (LPCCC, Putah Creek Council). The consultant team has the necessary technical and engineering expertise in the Delta, Suisun Marsh, and California rivers to carry out the project, including individuals well-versed in development of complex conceptual models.

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 includes design preparation, CEQA documents, and permits. The Proposal does not fund actual construction of the restoration project nor the NEPA compliance, but it sets the stage for the next phase of funding from federal sources. Given that the tidal marsh restoration (760 acres) appears to be already underway, the budget for Elements 1 and 2 should presumably be for the 5 mile channel, floodplain/seasonal wetlands, and two fish passage structures. The budget appears reasonable, but details on matching funds should be included in the table.

For work upstream of the YBWA, there is insufficient detail of scope or discussion of quantitative results to support the proposed budget for Elements 3 and 4.

Rating: **Very Good** for YBWA project, **Fair** for creek enhancement

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: **Above Average** for YBWA project, **Inadequate** for Creek Enhancements above Bypass

Please provide a brief explanation of your summary rating:

The project component within Yolo Bypass Wildlife Area was well-supported and the scope well-designed to achieve the design and permits, and once completed should be a valuable contribution of floodplain habitat and enhanced fish passage into Putah Creek. However, the creek enhancements in Putah Creek upstream of the Bypass were insufficiently described and overlooked in discussion of tangible outcomes. This part of the proposal should be removed and refocused before further consideration. Many sections of the proposal were poorly organized with several contradictions that made it difficult to review and evaluate.

CALFED Ecosystem Restoration Program
External Scientific Review Form

Proposal Number: 020

Proposal Title: Lower Putah Creek Restoration Project: Description, CEQA, Permits, Selected Final Design

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:

The project is designed to address fish passage along Putah Creek by developing a plan to restore fish passage barriers, restore a more natural channel along the lower creek, and restore tidal marsh. The proposal does not mention any hypotheses.

The proposal is clear that fish passage is a problem, but it does not provide any citations to demonstrate that populations are limited by barriers.

The proposal is really for two separate but related projects to plan: 1) removal of barriers and enhancement of Putah Creek from Yolo Bypass to Monticello Dam, and 2) restoration of Putah Creek channel and tidal wetland in the Yolo Bypass.

These two elements seems clear, but other text makes it sound like the project is a big grab bag of actions lumped into a larger plan.

“The Plan would also describe measures to improve channel/floodplain habitat within the Creek of the Yolo Bypass. These measures include, but are not limited to: installation of fish ladders at selected in-stream structures, improvement or replacement of undersized creek crossings, floodplain restoration, vegetation management activities (control/removal of exotic/non-native/invasive vegetation, enhancement of native riparian/wetland communities), excavation of a deeper, narrower creek channel in certain locations, trash abatement, spawning gravel enhancement, and bank stabilization. These measures are discussed at length in the Lower Putah Creek Watershed Management Action Plan (EDAW 2005).”

This seems rather broad. Does the project involve more than two fish ladders? Why and how are they stabilizing banks? Why do they have to excavate a deeper channel? Are they enhancing spawning gravel in the bypass or in the upper creek? Is spawning gravel limiting or is

the population limited by passage. A holistic management plan is a good idea, but why do they need a holistic management plan if these actions are all described in the Watershed Management Action Plan (EDAW 2005)?

Throughout the approach section, it is hard to track which of the two project elements they are discussing because planning for both elements is apparently included in each task.

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 proposal is well written and professionally formatted. It describes several general planning tasks, but some of the tasks are overly vague for a proposal seeking funds to complete CEQA. A closer examination suggests that this may all be boiler plate with just enough detail to look convincing – until you see the price tag. The two separate elements of the project, discussed above in the goals section, seem to be intertwined in the work plan so it is quite difficult to determine whether the task is for planning the rerouting of lower Putah Creek or the enhancement of upper elements of the Creek.

The first task calls for developing goals and objectives. Shouldn't they know these before the state gives them \$2 million to implement a CEQA document? The second task call for conceptual models to describe opportunities and constraints. Don't they know what the opportunities and constraints are? Shouldn't they do this analysis before asking for funds to complete a CEQA document? How are they going to use conceptual models to evaluate opportunities and constraints? The deliverable to task 1.2 is "conceptual models" but they don't provide any clarity on which conceptual models or how conceptual models will inform opportunities and constraints. Why can't they just do an opportunity and constraints analysis?

The project appears feasible, but why are they asking for funds to do pre-feasibility level work. If they haven't demonstrated the feasibility of the project, they should complete that phase before getting funding for a full CEQA document.

Task 2 calls for studies necessary to support CEQA, but each task references the ample work already done. For example, the topographic and bathymetric data will supplement the 2005, and 2007 lidar data. Is more data really necessary at this point in the planning phase? How is it that the wildlife area needs a wetland delineation or a habitat assessment. Weren't any of these things considered in the ten previous planning studies identified in the report?

As you may have guessed, this reviewer thinks this proposal is a consultant bonanza. Maybe this reviewer is wrong, but somebody needs to make sure the taxpayers are getting value.

Rating: 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 project seems feasible with one notable exception: The project calls for 300-700 acres of tidal freshwater wetlands, but the proposed tidal area appears to be on land too high for tidal marsh according to the elevation maps in the ERP Stage 2 Conservation Strategy. Either the ERP Stage 2 Conservation data is outdated, which I highly doubt, or the land is too high for tidal marsh. How could these qualified consultants make such a large mistake. The proposal should include an elevation map to demonstrate that the land is the correct elevation for tidal marsh.

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 model section is mostly just a description of the environmental setting. The section does not discuss any hypotheses or hypotheses testing and the document provides no specifics about hypotheses to be tested. The project describes fish passage problems on Putah Creek, but does not provide evidence that these problems limit fish populations in Putah Creek.

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:

No. The project is purely for planning.

Rating: NA

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 actual restoration projects seem very promising, but the application is only for planning and permits. This reviewer is concerned that it will just result in more plans. Implementation of the upper Putah Creek portion of the project will have mostly local benefits since Putah Creek

salmon are not a Central Valley priority. The Yolo bypass portion of the project could be regionally significant across the Delta.

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:

It is unclear whether the planning work really makes effective use of previous projects or duplicates previous work for the benefits of consultants.

The document states that: "A considerable amount of existing information is available describing the proposed Project and existing/proposed conditions in the project area. All of this material will feed into the project and inform planning and design activities, including the collection of new field data needed to develop a CEQA-ready project description, CEQA analysis, permit compliance documents, and final design. Much of this existing information is compiled in the documents described in Section 6.2 as well as others that YBF will make available to the Project team."

No fewer than ten reports, most of which were funded by ERP predecessors, have been completed in the project area. Do they really need \$900,000 for CEQA and permits plus another \$245,000 for flood permits for the Wildlife Area? If permits cost this much and Yolo bypass is going to be part of the larger plan to restore the Delta, maybe it makes sense to permit all projects in Yolo together to save on permitting costs.

They show that lots of work has already been done, yet the work plan tasks are back to basics such as developing goals, conceptual models, site surveys. Is this really necessary, and if so, why hasn't it been done already? Will this project be just yet another plan?

Rating: Fair

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:

Very strong team, but do the principals really have the time?

Rating: Very 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:

The budget seems excessive and padded by consulting firms. The document states that: “A considerable amount of existing information is available describing the proposed Project and existing/proposed conditions in the project area. All of this material will feed into the project and inform planning and design activities, including the collection of new field data needed to develop a CEQA-ready project description, CEQA analysis, permit compliance documents, and final design. Much of this existing information is compiled in the documents described in Section 6.2 as well as others that YBF will make available to the Project team.”

No fewer than ten reports, most of which were funded by ERP predecessors, have been completed in the project area. Do they really need \$900,000 for CEQA and permits plus another \$245,000 for flood permits for the Wildlife Area?

In comparison, the McCormack -Williamson proposal, a very complicated project with similar flood management issues spent \$1.35 million total on design, survey, CEQA/NEPA compliance, and permitting.

Rating: Fair

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: **Adequate**

Please provide a brief explanation of your summary rating:

It is unclear whether this project is focused on a couple of key elements or is a grab bag of actions all along Putah Creek. The two main elements seem sound, but they should better develop these projects and more clearly describe them before getting such a large chunk of money to prepare CEQA documents. They should know the project goals before getting funding to do a CEQA document. They should be able to describe the conceptual model for how this will benefit fish, which is pretty darn easy to do, or they are not ready to get such a large chunk of money for planning. Either the projects are ready to go and they don't need to spend a ton of

money on new surveys and planning, or they are not ready to go and they don't need \$900,000 to do a CEQA document and permits.

I am disappointed to give this project such a poor review. The work in the Yolo bypass seems very promising and could have regional benefits. The Putah Creek work upstream of the bypass seems worthwhile and could be very important for salmon in Putah Creek even if Putah Creek salmon are not regionally important. I think it would make sense for the project proponent to better develop individual components of this project before asking for such a broad planning grant, particularly after so many past planning grants.