

# Proposal Reviews

## **#145: COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT**

Santa Clara Valley Water District

**Research and Restoration Technical Panel Review**

**Bay Regional Review**

**External Scientific Review**

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**Prior Performance/Next Phase Funding**

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# Research and Restoration Technical Panel Review:

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

**Proposal Number:** 145

**Applicant Organization:** Santa Clara Valley Water District

**Proposal Title:** COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT

**Review:**

**Please provide an overall evaluation summary rating:**

**Superior:** outstanding in all respects;

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

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

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

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	
-Above average	<b>Although the concept behind this proposal offers considerable promise, and it has the potential to make a significant contribution, inadequate information on study design (based on hypothesized changes), proposed methods and metrics, and analytical techniques was provided in the proposal. Reviews provide suggestions for needed revisions.</b>
-Adequate	
XNot recommended	

1. **Goals and Justification.** Does the proposal present a clear statement of goals, objectives and hypotheses? Does the proposal present a clear justification and conceptual model for the project?

**The proposed research has the potential to make a significant contribution and would take advantage of an ongoing restoration. Unfortunately, it does not provide hypotheses on likely changes in channel structure, what methods will be used to sample those changes, methods that will be used to analyze the biota, and how the results could be generalized to be more broadly applicable. The value of establishing baseline conditions was recognised, but it was not clear why this particular restoration project was chosen for study: it is not particularly innovative, and no information was provided to judge its representativeness.**

2. **Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).** Is the project likely to succeed based on the approach, feasibility and project team capabilities? Are

the proposed performance measures adequate for measuring the project's success?

**Inadequate detail was provided on the methods proposed to be used, so reviewers were unable to evaluate whether the project was feasible and whether the objectives would be met. Because there are no reference sites identified, the investigators will be unable to separate effects of restoration from effects of natural variability (e.g. flood vs. drought years). It was not clear that the team had adequate biological expertise to accomplish the task. Inadequate information was provided on specific roles for individual investigators. Performance measures were not articulated.**

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

**The project has the potential to advance our understanding of the efficacy of restoration practices, but it is not possible to determine if that potential will be realized because inadequate information was provided on how the data would be collected and analyzed.**

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

**The project is relatively costly for a monitoring effort, and it is not clear that all of the data being collected are necessary.**

5. **Regional Review.** How did the regional panel(s) rank the proposal (High, Medium, Low)? Did the regional panel(s) identify significant benefits (regional priorities, linkages with other activities, local involvement) or impediments (local constraints, conflicts with other activities, lack of local involvement) to this proposal? What were they?

**Regional panel ranked it low because it does not deal with habitat restoration of at-risk species, which is the regions priority area. In addition, there is little involvement of local organizations of which there are many (e.g. Santa Clara Valley Watershed Management Initiative).**

6. **Administrative Review.** Were there significant concerns about the proposal with regard to the prior performance, environmental compliance and budget administrative reviews? What were they?

**No problems with prior performance. The proposal needs to indicate that they will get the collecting permit on the Environmental Compliance checklist. Need to clarify that CALFEDs contribution would be \$456,017. There is a difference of \$24,490 between total funds requested and combined annual costs.**

**Miscellaneous comments:**

## Bay Regional Review:

**Proposal Number:** 145

**Applicant Organization:** Santa Clara Valley Water District

**Proposal Title:** COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT

Overall Ranking: Low -Medium -High

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

**the regional panel favors research that delivers scientific information which improves understanding about habitat restoration for at-risk species. This project doesn't emphasize these topics.**

1. Is the project feasible based on local constraints?

Yes -No

How?

**- restoration project upon which this proposal is based is being overseen by SCVWD also, allowing access and other support for this project**

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

-Yes XNo

How?

**- the project upon which the proposed study is based is primarily a flood control project and does not address habitat restoration for at-risk species - project is out of ERP ecozones**

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

-Yes XNo

How?

**yes and no - this project is linked to the Lower Silver Creek Flood Control and Restoration Project, but doesn't mention regional planning efforts, such as the Santa Clara Valley Watershed Management Initiative**

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

-Yes No

How?

**- the proposal doesn't include other local organizations, of which there are many in Santa Clara County**

Other Comments:

**none**

# External Scientific: #1

## Research and Restoration External Scientific Review Form

Proposal Number: 145

Applicant Organization: Santa Clara Valley Water District

Proposal Title: **COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT**

### Conflict of Interest Statements:

I have no financial interest in this proposal.

Correct

Incorrect

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

none

### Review:

Please provide an overall evaluation summary rating:

**Excellent:** outstanding in all respects;

**Good:** quality but some deficiencies;

**Poor:** serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	Although this proposal articulates a significant need, and has a promising opportunity to take advantage of an substantial ongoing restoration project, it is seriously deficient in articulating exactly what will be done and how the anticipated results of that effort can be used to guide future work in the region. A constructively revised proposal would spend far less time articulating the problems of urban streams, the basic principles of fluvial geomorphology, and the value of monitoring; and far more time describing the nature of anticipated changes in the channel, the selection of methods and metrics to capture those changes, the analytical techniques to be applied to the data, and the way in which such results might be generalized for broader applicability.
-Good	
XPoor	

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

**The goals of this project are clear in concept--monitor an ongoing stream-restoration project to evaluate whether changes are ecologically beneficial, and to generalize those results so they may be applied to other projects. The concept is both timely and important, in that**

much "stream-restoration" work is being done with very little informed guidance from the success or failure of previous projects, of which at least some would probably be relevant. More specific goals with regard to channel formation and sediment transport in the reconstructed channel are also promising, although they eventually suffer for lack of supporting detail and specificity (see below).

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

**As a monitoring project, this proposal has two tasks: justify the value of the stream-restoration project to be monitored, and also justify the monitoring effort itself.**

The choice of project appears to be more opportunistic than selected on its specific characteristics. The project being selected for monitoring may in fact be "representative," but there is little information in the proposal to determine that. Indeed, it is characterized in the executive summary as "unique," which would generally NOT make it the premiere candidate for such a study. On the other hand, it is also termed "innovative," which would be a desirable characteristic. Neither attribute, however, is clearly justified in the proposal as a whole. Description of the channel-reconstruction project itself is sparse; the apparent "innovation" is that of a compound channel (low-flow channel inset with a broader floodplain), which is emphatically NOT innovative. A good idea? Absolutely; but it's been around for quite a while.

The monitoring aspect of the proposal also does have justification--such knowledge, if appropriately analyzed and generalized to other prospective settings, could be quite useful. The challenge for this proposal, which is not met, is to demonstrate how this outcome could be achieved (and whether it is in fact likely to be so).

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

The approach articulated in this proposal is quite articulate in its enumeration of field tasks and almost silent on their intended analyses. This is the fundamental, and fatal, flaw of this proposal in its present form. A tremendous quantity of data will be compiled from existing sources and collected from field sites; given the nature of those data, they will undoubtedly exhibit both trends and variability that we all come to expect from field surveys. The experimental design of pre- and post-project measurements is quite appropriate and takes advantage of the restoration-project timetable associated with the monitoring. Yet the comparison and synthesis of these data sets, which will determine whether and how the results of this proposal might truly be generalized to other projects, is almost entirely lacking. There is simply nothing here to critique.

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

The monitoring work can surely be accomplished, subject to the construction of the subject stream channels. Although the proposal asserts with confidence that the streams will be constructed within the time frame specified, in fact there is no way that a reviewer (or, typically, even a project manager) can have confidence that all of the pieces necessary for project construction will meet the schedule. That said, the probability appears to be as good as for any

**other such project of large scope. Far more uncertain is the feasibility of conducting useful analyses of the data so collected or being able to produce a set of findings that can guide future work. The absence of analytical details (see above) makes this a very real concern.**

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

**No. The proposal is virtually silent on this subject.**

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

**Were the products to achieve their intended goals, their value would be substantial. THIS is the guiding force behind this project, and it is a good one. However, a substantial amount of additional work is necessary before an external reviewer could have any confidence that these goals might be achieved. Note that "web-based GIS" and "adaptive management," in and of themselves, do not communicate anything of the likely or potential project outcomes.**

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

**A recognized national leader in stream monitoring, Matt Kondolf, is a member of the team, but he is included in a very minor role (272 hours over 3 years, or somewhat less than 2 weeks per year) (and is annointed with the wrong first name in the body of the proposal). The two primary project members (Klemencic and Ortiz) show no evidence in support of the specific needs of this project. The large number of other team members (Carroll plus 7 consultants and some fractional help from graduate students) suggest a significant overhead of project management would be necessary to accomplish the work. Specific roles (data collection, field work, analysis, writing, project management, etc.) are not specified. For a half-million dollar project, this is a significant oversight.**

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

**The cost of monitoring a large project over several years can be quite expensive. More critical, however, is whether the work is all required (and is sufficient) to meet the project goals. In this case, the absence of detail on what exactly will be analyzed and how those results will be used to guide future projects makes it impossible to evaluate whether the full restoration project, or only a select part of it, would require the intended (but largely unspecified) level of effort. By many stream-monitoring standards, \$480,000 would be an uncharacteristically large sum for all but the most ambitious and well-directed efforts.**

**Miscellaneous comments:**

**none**



## External Scientific: #2

### Research and Restoration External Scientific Review Form

Proposal Number: 145

Applicant Organization: Santa Clara Valley Water District

Proposal Title: **COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT**

#### Conflict of Interest Statements:

I have no financial interest in this proposal.

Correct

Incorrect

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

none

#### Review:

Please provide an overall evaluation summary rating:

**Excellent: outstanding in all respects;**

**Good: quality but some deficiencies;**

**Poor: serious deficiencies.**

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	<b>The idea behind the proposal is excellent, and the research has the potential to make a major contribution to the field of stream restoration. BUT the devil is in the details, and this proposal contains very little information about the research methods. For example, with respect to biological sampling, there is no mention of number of sites to be sampled, types of habitats, procedures to be used for sample processing, level of taxonomic identification, metrics that will be used to assess present condition as well as follow changes, and no recognition of intra-annual variability in baseline biological conditions. There is also no reference stream identified. Without an adequate reference, it is not possible to know if the biological changes observed are a result of the project or of natural variability.</b>
XGood	
-Poor	

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

**This project will evaluate the effectiveness of an innovative stream restoration project using both biological and geomorphic metrics. These are both timely and important goals.**

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

**The contribution of this project to existing knowledge is in the assessment of both biological and geomorphic metrics. If one or the other is not included, or if both are not done well, then the project loses much of its value.**

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

**This is where the project falls short of an excellent rating. Inadequate information has been provided to adequately assess the approach. Sampling methods and data analysis are extremely vague. These concerns are elaborated upon in the summary comments below.**

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

**It is almost impossible to assess the feasibility of the project since so little information is given on how the project will be accomplished.**

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

**It is unclear how biological improvement will be quantified.**

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

**The potential for this project is great. I just have no idea if that potential will be realized because the proposal does not have adequate description of the research methods.**

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

**Geomorphological expertise is clearly there. It is less apparent that the biological expertise is on the team, particularly the taxonomic expertise that is needed for the macroinvertebrate work.**

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

**It seems like a lot of very expensive individuals will be working on this project and it is not at all clear who will be responsible for what part of the project. If they are able to accomplish what has been proposed, the cost will be well worth it. It has the potential to make a very significant contribution.**

**Miscellaneous comments:**

# External Scientific: #3

## Research and Restoration External Scientific Review Form

Proposal Number: **145**

Applicant Organization: **Santa Clara Valley Water District**

Proposal Title: **COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT**

### Conflict of Interest Statements:

I have no financial interest in this proposal.

Correct

Incorrect

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

None

### Review:

Please provide an overall evaluation summary rating:

**Excellent: outstanding in all respects;**

**Good: quality but some deficiencies;**

**Poor: serious deficiencies.**

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	<b>Objectives 1&amp; 2 are well developed and should be of great value to future restoration efforts by CalFed. However, the third objective is not well developed and consequently the title of the proposal is misleading.</b>
<input checked="" type="checkbox"/> Good	
-Poor	

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

**The goal is to develop guidelines for process-based stream restoration within urban flood control systems. The objectives of establishing baseline physical and biological conditions and for monitoring the project evolution following physical channel alteration are clear and consistent with the goal. However, the third objective of implementing adaptive management measures base on findings of objectives 1 & 2 are not clearly developed.**

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project

justified?

**The establishment of baseline conditions followed by monitoring to quantify the evolution of the stream corridor is certainly justified and needed. Even though general hypotheses are presented relating to sustainable channel designs based on fluvial processes along with evolution of improved physical habitat and increased fish, wildlife, and vegetation no specific details are presented on the expected future channel condition, just that it will evolve. As such this is not a rigorous research project involving hypothesis testing but rather as timely monitoring study that would describe the response of the stream channel and associated biota following construction of the new channel. Perhaps after several years (more than the proposed three year study) then a statement could be made as to whether the alluvial channel was being maintained by natural processes.**

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

**The approach for objectives 1 & 2 are clearly presented. Objective 3 re: adaptive management is not developed in a way to judge how it will be achieved. However the proposed project should provide valuable baseline information on how the channel construction does or does not lead to enhanced stream corridor biota.**

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

**The approach for establishing baseline conditions is fully documented, feasible, and likely to be successful. Objective is not clear and not likely to be pursued by the end of the three year project as it will take that long for the construction phases to be completed.**

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

**Adequate performance measures are proposed for objectives 1 & 2. This is a monitoring study that establishes baseline conditions for later use in evaluating the success of an independently funded channel restoration project.**

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

**Even though this does not directly involve hypothesis testing it does provide an important initial step toward better scientific understanding and should provide the base for future adaptive management by the SCVWD should they choose to so respond.**

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

[Not completed]

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

**Costs associated with objectives 1 & 2 are adequate.**

**Miscellaneous comments:**

**I would recommend that the project be funded for three years to develop the baseline and establish the monitoring program. At that time a new proposal should be considered.**

## **Prior Performance/Next Phase Funding:**

**New Proposal Number:** 145

**New Proposal Title:** COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT

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

**Proposal #WUE01-0046 Title: Landscape & Ag Area Measmt. & Water Budgets Submitted to and awarded by CALFED Water Use Efficiency through DWR Office of Water Use Efficiency**

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

**None**

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

Yes -No -N/A

If no, please explain any difficulties:

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

Yes -No N/A

If no, please explain any inaccuracies:

**N/A: too early in project to provide assessment**

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

Yes -No N/A

If no, please explain deficiencies:

**N/A: too early in project to provide assessment**

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

Yes -No N/A

If no, please explain deficiencies:

**N/A: too early in project to provide assessment**

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

-Yes -No N/A

If no, please explain:

**N/A: This ERP proposal is very different and quite unrelated to the WUE project.**

Other Comments:



## **Environmental Compliance:**

**Proposal Number:** 145

**Applicant Organization:** Santa Clara Valley Water District

**Proposal Title:** COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT

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

Yes -No

If no, please explain:

**On page 8 of the proposal, applicant states that they will obtain a Scientific Collecting Permit but they need to indicate this on the Environmental Compliance Checklist.**

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

Yes -No

If no, please explain:

**No budget or timeline specified.**

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

-Yes No

If yes, please explain:

Other Comments:

## **Budget:**

**Proposal Number:** 145

**Applicant Organization:** Santa Clara Valley Water District

**Proposal Title:** COMPREHENSIVE MONITORING AND ADAPTIVE MANAGEMENT PROGRAM FOR LOWER SILVER CREEK PROCESS-BASED STREAM RESTORATION AND FLOOD CONTROL PROJECT

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

Yes -No

If no, please explain:

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

Yes -No

If no, please explain:

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

Yes -No

If no, please explain:

4. Are appropriate project management costs clearly identified?

Yes -No

If no, please explain:

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

-Yes No

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

**difference of 24,490. CALFED's share is \$456,017.**

6. Does the budget justification adequately explain major expenses?

Yes -No

If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes  No

If yes, please explain:

Other Comments: