

Petaluma River Watershed Agricultural Activities For Improving Water Quality

Jason A Sweeney

Initial Selection Panel Review

0077

Petaluma River Watershed Agricultural Activities For Improving Water Quality

Southern Sonoma County Resource Conservation District

Applicant amount requested: \$1,910,954

Fund This Amount: \$0

On the surface this seemed to be a good project that bridges the economic contribution of dairies with resolving water quality and open space issues. There is local farmer support for the project. However, the selection panel recommendation was not to fund the proposal due to several inadequacies.

The most significant problem is that there is insufficient budget detail to make an informed decision. Although the proposal includes a narrative discussion of tasks, it provides no breakdown of costs. Therefore there is no quantitative basis for judging the proposal. The proposal also lacks a comprehensive monitoring plan.

Do Not Fund

Technical Panel Review

Proposal Name: Petaluma River Watershed Agricultural Activities For Improving Water Quality

Applicant Organization: Southern Sonoma County Resource Conservation District

Amount Requested: \$1,910,954

Panel Rating:

Fair - Lacking in one or more critical aspects

Panel Summary

The panel felt that this proposal had one or more sound or worthy concepts. Based on its technical merits, however, this proposal is lacking in one or more critical aspects and should not be funded in its current form. The applicants had a qualified team, and the concepts in the proposal had good potential to constructively engage farmers and were thus viewed positively by the panel. The proposal lacks necessary technical and budget detail and thus appears costly for the benefits proposed. The conceptual model is incomplete. For example, it would be helpful to know in Task 4 how many water, soil, plant, feed and manure samples would be analyzed and for which nutrients. What is the cost for this? How many fields are there in the 13 farms? If Task 4 was explained in more detail, it could be a stand-alone project at a small part of the overall project cost. It would still involve the landowners and all the outreach, which looks to be very good.

Another significant problem was the photo documentation in Tasks 2 and 3, which the panel deemed inadequate. "Before and after" monitoring of streams with quantifiable measurements would improve the project substantially. Finally, a panelist stated that requested funding may be better spent on determining why farmers fail to implement practices that are already well established to address the same goals.

External Technical Review #1

Proposal Number: 0077

Proposal Name: Petaluma River Watershed Agricultural Activities For Improving Water Quality

Applicant Organization: Southern Sonoma County Resource Conservation District

Amount Requested: \$1,910,954

Goals

Rating	good
Comments	I found the goals to be intuitive, but somewhat lacking in specifics. What baseline measurements will be used? How will they be measured? Will streambank stabilization be measured/monitored? If so, how?

Justification And Conceptual Model

Rating	very good
Comments	Conceptually the project makes sense and should be a worthwhile and valuable project.

Approach

Rating	very good
Comments	I really like the "kitchen table" meeting idea. My experiences have shown that meeting the landowners/operators on their own "turf" is very valuable and makes a big difference in acceptance and implementation. I would also suggest that an option of capturing potential landowner innovation be included in the project if possible. Many times landowners have ideas that come from their personal experience

External Technical Review #1

	that we don't think about. Clearly stating the goal/purpose of the project and allowing landowners the flexibility of using their management skills (outcome based)to get there can be very rewarding and expand options for others.
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Feasibility

Rating	very good
Comments	The project appears to be technically feasible, and should be successful.

Performance Evaluation

Rating	good
Comments	This is the area of this proposal that concerns me the most per my comments above in "GOALS". I'm concerned about how the outcomes will be measured, what they will measured against, and who will be doing the measuring? What role will improved crop rotations play? Will manure be tested before application and then applied according to a soil test? How will fish population baseline data be secured? When areas are excluded from cattle access, how will the vegetation be managed, long term, within the exclusionary fenced area (burning, rotational grazing, etc.)? What, if any, role will rotational/intensive managed grazing play in maintaining vegetative vigor over time? How will TMDL issues be addressed (is this an impaired water)? Will economic/environmental/social analysis be included in the outcomes?

Proposed Outcomes

Rating	very good
Comments	I think the proposed outcomes are reasonable and make sense. The use of "kitchen table" meetings should be expanded as the outcomes become clear and ready to be applied to other farmers. The reports/outcomes should

External Technical Review #1

	be made available in a variety of formats to assist other potential managers/users.
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Capabilities

Rating	very good
Comments	It appears the project team has good experience in similar projects and seem qualified to accomplish the tasks described.

Cost-Benefits

Rating	excellent
Comments	The budget appears reasonable and adequate.

Overall Evaluation Summary Rating

Rating	very good
Comments	I like the project described. I feel that it makes sense and has merit. I remain concerned about the measuring of outcomes. With a little more clarification about how success or failure will be documented I think this could be rated as "excellent". Long term management of the vegetative resources should also be clarified.

External Technical Review #2

Proposal Number: 0077

Proposal Name: Petaluma River Watershed Agricultural Activities For Improving Water Quality

Applicant Organization: Southern Sonoma County Resource Conservation District

Amount Requested: \$1,910,954

Goals

Rating	fair
Comments	The project goals that were identified simply reiterated 3 associated ERP goals. An attempt was made to logically link the proposed tasks to ecosystem goals, but I wasn't convinced that there was much of a relationship, although some tasks were stronger than others in this regard.

Justification And Conceptual Model

Rating	fair
Comments	<p>Only part of the proposed tasks would have any bearing on the hypothesis. The proposal seems cobbled together from different disparate projects and proposed projects that happened to already exist. Some of the work doesn't relate to other parts, and the overall approach wasn't cohesive. The hypothesis that was proposed seemed like an afterthought, not something that guided the work plan.</p> <p>It was unclear to me what demonstration projects would be conducted vis a vis the manure management and nutrient budgeting studies (Task 4), and how these would lead to information for workshops and tours, although these were most closely related to the hypothesis. Other project tasks, Tasks 2 and 3,</p>

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External Technical Review #2

	specifically, were better described , but did not seem to relate to the hypothesis. In all, it didn't seem that any of the work brought together ecosystem and agricultural components.
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Approach

Rating	fair
Comments	It didn't seem like the proposed work would bring about much information about the ecosystem or agricultural system or their relationship to one another, or be very helpful to farmers or agencies in the area. Task 4 might be an exception in that it would derive data on effective manure management, and this would be helpful to farmers and agencies.

Feasibility

Rating	very good
Comments	All proposed tasks seem feasible, and the timeline is reasonable for the tasks identified.

Performance Evaluation

Rating	fair
Comments	The performance evaluation did not include a real monitoring plan. What was proposed was qualitative, but not quantitative. For example, the monitoring plan for Tasks 2 and 3 should have contained a quantitative evaluation of how the fencing and steambanks held up by the end of the project and if they were working as intended (efficacy). Task 5 should also have had a quantitative evaluation of its efficacy. Task 4 might do a better job of demonstrating efficacy of manure management.

Proposed Outcomes

Rating	good
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External Technical Review #2

Comments	Although some of the project tasks might accomplish habitat improvement, such as stabilizing stream banks and managing manure, I didn't see how they would help integrate agricultural activities with ecosystem restoration.
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Capabilities

Rating	very good
Comments	The project team seems well qualified and members have experience working on similar projects. They have the support of local landowners on whose property facilities will be constructed and environmental monitoring will occur. I could not evaluate capacity.

Cost-Benefits

Rating	poor
Comments	Detailed Budget Breakdown pages were absent, making it impossible to evaluate the proposed budget. From what I could tell from the Budget Summary sheet, which was present, the costs overall were very high.

Overall Evaluation Summary Rating

Rating	fair
Comments	While much of the proposed work had inherent value and would help improve water quality, the proposers missed the target when it came to understanding that the project components needed to support ERP ecosystem and agricultural goals.

External Technical Review #3

Proposal Number: 0077

Proposal Name: Petaluma River Watershed Agricultural Activities For Improving Water Quality

Applicant Organization: Southern Sonoma County Resource Conservation District

Amount Requested: \$1,910,954

Goals

Rating	good
Comments	<p>The primary goal of the proposed project is to reduce sediment and nutrient input from dairy ranches into the Petaluma River. Bank stabilization is proposed as a mean to reduce sediment load, and fencing and vegetative buffers are proposed as a mitigation strategy to reduce nutrient runoff from dairy ranches. Although the proposal seems to have most of the correct concepts and terms, quantitative information must be included to justify that the Petaluma River is indeed impaired from excessive sediment and nutrient loadings and that the proposed project will indeed yield in quantitatively measurable reductions in sediment and nutrient loads into the river. The missing quantitative information includes: TMDL limits for sediment and nutrients for the selected water bodies, quantitative load allocations, and quantitative documentation of water quality improvements after BMP implementation. The strengths of this proposal include working directly with land owners, implementation of low-cost BMPs, and comprehensive outreach and education activities.</p>

Justification And Conceptual Model

Rating	good
Comments	The proposal presents a clear conceptual model that explains the interconnections between the key ecosystem and agricultural components. It would be helpful to include information such as the relative contribution of drainage from the Petaluma River to the San Pablo Bay, and how the proposed activities would quantitatively improve the water quality of the San Pablo Bay.

Approach

Rating	good
Comments	The proposal clearly outlines its approach for outreach activities, on-farm research and to some extent, implementation of BMPs. More concrete information needs to be included on BMP selection and implementation. For instance, in addition to vegetative buffers and fencing, what exactly will be done to stabilize the banks? The proposal uses vague terms such as "appropriate bank stabilization techniques" (in Task 2) and "specific bank stabilization techniques" (in Task 3). What is the nature and scope of these construction projects? As proposed, Task 2 and Task 3 will contribute little, if any, to the base of knowledge of integrating agricultural activities with ecosystem restoration, as no water quality monitoring is planned to document the pre and post effect. Information from Task 4 will likely yield useful information for farmers and other end-users.

External Technical Review #3

Feasibility

Rating	very good
Comments	The proposed activities are highly feasible. The participants have identified the exact locations where BMPs are to be implemented, and Task 4 is a continuation of on-going activities. The proposal also adequately addresses requirements such as environmental compliance and permitting issues. The participants have had smaller projects of the similar nature and therefore are well qualified to carry out the proposed activities.

Performance Evaluation

Rating	fair
Comments	The proposal includes a performance evaluation plan, but the comparison criteria are often qualitative instead of quantitative. Given that sediment and nutrients are the primary target pollutants, I wonder why the participants do not want to take water samples before and after BMP implementation to demonstrate the effectiveness? Analysis for sediment loads and nutrient concentrations is inexpensive and relatively easy. Photographic monitoring is inconclusive, as pictures could be very misleading. The proposal states that a QAPP is already in place for Task 4. Why can not the same QAPP be used, with or without modification, for Task 2 and Task 3? When a BMP involves construction or modification of a flow path, an effort should be made to document changes in flow rate.

Proposed Outcomes

Rating	very good
Comments	The outcomes will include research results from Task 4, and materials developed through outreach and education activities. As no quantitative measurement

External Technical Review #3

	is made in Task 2 or Task 3, it is unlikely that novel information related to BMPs will be produced from this project. The proposal adequately describes procedures to be used for data storage and information dissemination.
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Capabilities

Rating	good
Comments	The project team is well qualified and has the right expertise for carrying the outlined activities, especially activities related to project management and outreach. It is not clear if the team has previously completed projects involving BMP implementation. It would be helpful if the proposal includes information on the team's experience in using the suggested BMPs such as vegetative buffers or grassed water ways, fencing (the relative distance to the river bank), and construction techniques to stabilize banks.

Cost-Benefits

Rating	poor
Comments	It seems that the majority of the budget (\$1.5 million) will be used for BMP implementation to stabilize river banks. The proposal fails to justify why such a large amount of support is needed. Vegetative buffers and fencing are low-cost practices. What is the nature and scope of the construction projects? Who will perform these activities? Will the activities involve sediment excavation and concrete work? As essentially no monitoring is considered, it is hard to justify the large budget.

Overall Evaluation Summary Rating

Rating	fair
Comments	

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Fair to Good. This proposal, as it stands, does not justify funding. Critical and quantitative information is missing. It may be considered again for funding after the authors revise the proposal and adjust the budget.

Bay Regional Panel Review

Proposal Number: 0077

Proposal Name: Petaluma River Watershed Agricultural Activities For Improving Water Quality

Applicant Organization: Southern Sonoma County Resource Conservation District

1. Applicability to ERP goals and regional priorities.

This proposal meets four of the six ERP strategic goals. The Petaluma River watershed is a 303(d)listed water body for sediments and nutrients. This proposal will improve water quality by implementing several projects to control or eliminate non-stormwater runoff from dairy operations or livestock access to creeks. The proposal will also restore riparian habitats and stream corridors for steelhead and red-legged frog. By restoring habitats, the proposal also rehabilitates ecological processes and includes removal of fish barrier along a tributary believed to historically support steelhead. Improvements in the Petaluma River watershed and reductions in pollutant loads should also help to improve anadromous fisheries downstream in San Pablo Bay.

The proposal works toward meeting at least two milestones for salmonids listed in the MSCS. It also meets the priority of implementing agricultural activities that benefit MSCS-covered species by enhancing habitats and restoring ecosystem functions along tributaries, and reducing pollutant stressors in the water body primarily through eliminating non-stormwater runoff from dairy operations and livestock areas, as well implementing manure management BMPs. The monitoring component of this proposal will add to existing information regarding the level of improvements made (reductions in pollutant loads) using the various livestock BMPs. The proposal doesn't clearly indicate baseline information in terms of the percentage of the watershed that will be addressed by this proposal. However, the partners (e.g., UC Cooperative Extension) named in the proposal should be able to provide that information to

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demonstrate whether the overall project provides significant contribution towards this priority.

notes:

The proposal will continue work by the UC Extension on manure management, water quality, and composting. It will provide a range management plan, improvement of degraded banks, removal of fish barriers, reduction of sediment loads, and installation of creek buffers. It will therefore enhance the quality of fish habitat in San Pablo Bay and increase the quality of habitat in creeks that may have historically supported steelhead.

2. Links with other restoration actions.

The projects identified in this proposal were identified as part of an adopted/approved watershed enhancement plan for the Petaluma River watershed. A number of land owners that have already committed to participating in this proposal operate on contiguous parcels, which should maximize the ecological and water quality benefits along some of the tributaries. The monitoring component adds to existing evaluations of BMP success and can clearly be used for future restoration activities in the North Bay.

notes:

The proposal is part of an adopted watershed plan. The applicant does not clearly indicate the percentage of the watershed that will be affected by its implementation, which makes evaluation of the cost/benefit difficult. The proposal meets two monitoring criteria for salmonids.

3. Local circumstances.

Bay Regional Panel Review

The BMPs and activities discussed in the proposal are feasible and appropriate for small dairies in this region. The control of non-stormwater runoff from dairy operations has been described in State's guidelines for dairy facilities for a number of years, and is now required as part of the RWQCB dairy permits/waivers. The applicant (Southern Sonoma County RCD) has already established relationships and has commitments for participation from land owners and dairy producers.

notes:

The proposal goes beyond the established boundaries for confined animal guidelines, which is very good. Landowners have agreed the project in advance, which would speed its successful implementation.

4. Local involvement.

The applicant and partners have long-established relationships with land owners and dairy producers, as well as regulatory and resources agencies. The proposal identifies a number of established organizations through which information on the projects can be easily transferred.

notes:

5. Local value.

The results of the implementation of specific projects should be of high value to ecosystems restoration in the Petaluma River watershed. The outcomes of BMPs will be documented and monitored, and should provide incentives for other land owners in the watershed to implement similar measures. The technical and permitting assistance from the applicant and partners seem to provide a well-rounded model for future activities.

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notes:

6. Applicant history.

I have no direct knowledge of this applicant's previous projects.

notes:

Members of the panel stated that the applicant has a good track record and good industry rapport.

7. Summary of Overall Panel Discussion and Review

The proposal's strengths are that it integrates in-stream restoration work with land use management and that it is an enhancement of past work in the area by the UCE. It is also very positive that contiguous properties are involved. However, it was difficult to discern the value of the project for the dollars spent and the cost is high. The panel would like to see more quantifiable results and a stronger monitoring protocol including methods beyond photo-monitoring.

8. Panel Quality Ranking

Very Good

notes:

9. Regional Priority Ranking

Very High

notes:

Environmental Compliance Review

Proposal Number: 0077

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Applicant Organization: Southern Sonoma County Resource Conservation District

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

Yes.

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

Yes.

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

Yes.

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

Yes.

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

Yes.

Comments:

Applicant anticipates using a Negative Declaration or a Mitigated Negative Declaration.

6. Has the CEQA/NEPA document been completed?

No.

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

Yes.

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

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Environmental Compliance Review

Yes.

Comments:

If the bank stabilization task (Task 3) requires a 404 permit, the 8 months allotted may not be enough time to get that federal permit. Applicant should determine ASAP whether Task 3 requires a 404, however the project is still feasible.

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

Yes.

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

No.

Comments:

Written permission was not included with the proposal, but Applicant states that permission has been obtained from all 16 private landowners whose land will be accessed.

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

No.

Budget Review

Proposal Number: 0077

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Applicant Organization: Southern Sonoma County Resource Conservation District

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

No .

2. Does the Budget Form include a detailed budget for each task identified on the Task and Deliverables Form and in the proposal text?

No .

If no, please explain:

No detailed budget sheets were provided.

3. Are the costs associated with each task and deliverable reasonable costs for performing the services?

No .

If no, please explain:

No detailed budget sheets were provided.

4. Is each person (employee, consultant, subcontractor, etc.) identified on the Personnel Form also included on the Budget Form?

No .

If no, please explain:

No detailed budget sheets were provided.

5. Are there estimated hours and an associated hourly rate of compensation for each person identified on the Personnel, Tasks and Deliverables, and Budget forms?

No .

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Budget Review

If no, please explain:

No hours or hourly rates were provided.

6. Does the budget include the benefit rate for all personnel identified on the Personnel and Budget forms?

No.

If no, please explain:

Not enough detailed info. was provided to evaluate.

7. Are the proposed labor rates comparable to state rates?

No.

If no, please explain:

Not enough detailed info. was provided to evaluate.

8. Is more than 25% of the work proposed to be performed by subcontractors?

Yes.

If yes, what is the exact percentage to be performed by subcontractors?

Not enough detail of the UCCE subcontractor was provided.

9. Are project management expenses appropriately budgeted?

No.

If no, please explain:

Not enough detailed info. was provided to evaluate.

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

No.

If no, please explain:

Not enough detailed info. was provided to evaluate.

Budget Review

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

No.

If no, please explain:

Not enough detailed info. was provided to evaluate. There is a mention in the text of a purchase of a no-till drill but nothing in the one budget summary identified the purchase.

12. For equipment \geq \$5,000, was a separate worksheet filled out?

Please note: No overhead or indirect rate charges are allowed on the equipment purchases

No.

13. Is the purpose for all travel clearly represented in either the proposal itself, or in the Tasks and Deliverable Form?

Please note: Recurring travel costs for a specific task or subtask may be combined into one entry on the Budget Form, but the number of trips and cost for each trip must be clearly represented.

No.

14. Are travel and per diem at rates specified by the California Department of Personnel Administration for similar employees?

No.

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

Yes.

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

**Total \$1,992,000.00 \$536,000 USDA Farm Bill cost share
\$2,189,000 USDA Farm Bill and \$577,000 Sonoma Co Water Agency
matching funds \$112,000 various organizations matching funds
and in-kind service. \$50,000 UCCE cost share \$26,000
Clover-Stornetta Farms cost share**

16. If the applicant identified cost share or matching funds, are they also described in the text

Budget Review

of the proposal?

Yes.

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

No.

If no, please explain:

No exception to the std T's &C's.

18. Are there other budget issues or "red flags" that warrant consideration?

Yes.

If yes, please explain:

Need detailed budget sheets and explanation of overhead rate , indirect rate, task work plan (division of labor), travel, equipment purchase, etc. by task.

19. Provide revised amount requested based upon your review:

\$