Proposal Reviews

#115: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Power Hydrodynamics

Initial Selection Panel Review

Research and Restoration Technical Panel Review

Delta Regional Review

San Joaquin Regional Review

#1

External Scientific Review

#2 #3

#4

Environmental Compliance

Budget

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Initial Selection Panel Review

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Please provide an overall evaluation rating.

Explanation of Recommendation Categories: Fund

- As Is (a proposal recommended for funding as proposed)
- In Part (a proposal for which partial funding is recommended for selected project phases or components)
- With Conditions (a proposal for which funds are recommended if the applicant contractually agrees to meet the specified conditions)

Consider as Directed Action in Annual Workplan (a proposal addressing a high priority action that requires some revision followed by additional review prior to being recommended for funding)

Not Recommended (a proposal not currently recommended for funding-after revision may be considered in the future)

Note on "Amount":

For proposals recommended as Fund As Is, Fund In Part or Fund With Conditions, the dollar amount is the amount recommended by the Selection Panel.

For proposals recommended as Consider as Directed Action in Annual Workplan, the dollar amount is the amount requested by the applicant(s).

Fund	
As Is	-
In Part	-
With Conditions	-
Consider as Directed Action	-
Not Recommended	X

Amount: **\$0**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None.

Provide a brief explanation of your rating:

The Selection Panel concurs with the Technical Panel review that the proposal to conduct a review of existing research on landowner BMPs to reduce non-point sources of nutrients and oxygen demanding substances has merit, but lacks specificity and adequate justification. The proposal did not demonstrate sufficient coordination with others working on the issue, such as NRCS and local RCDs.

Research and Restoration Technical Panel Review:

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

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient

and Oxygen Demanding Substances in the San Joaquin Valley

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	The oxygen deficit in the Stockton Deep Water Channel is a serious
-Above	environmental problem for the CALFED Restoration Program and warrants immediate and sustained attention. Thoughtful reviews of data gathered within
average	the Delta or other agricultural/urban drainage basins throughout the world could yield tremendous insight into the problem. Best management practices are
XAdequate	certainly needed throughout the catchment, but this proposal lacks data and
-Not recommended	references, and the author does not provide the necessary information to evaluate the potential for success. The CALFED Restoration Program has a probability of gaining useful information from this proposal in its current for

1. <u>Goals and Justification.</u> 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 central goal of the proposal is to evaluate existing research on Best Management Practices that would decrease nutrient loads and oxygen demanding substance loads to the San Joaquin River. This central goal is of critical importance to the CALFED Restoration Program considering the large oxygen deficit that occurs annually in the Stockton Deep Water Channel.

The general idea behind the study is certainly justified, but the proposal is not placed into the context of previous research or knowledge. Similar problems are found in large rivers and estuaries throughout the world (e.g. lower Mississippi River), but this proposal does not have a SINGLE reference. Further, this proposal lacks a conceptual model, thus its

implementation of this project is not justified.

2. <u>Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).</u> 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?

The proposal's approach is not evaluated in terms of the work of others; hence the likelihood of generating novel information cannot be evaluated.

The approach is completely undocumented.

The author does NOT provide any background information. A curriculum vitae and list of publications and/or previous products are absent.

3. <u>Outcomes and Products.</u> 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?

No clear products are apparent. The author will produce a spreadsheet with some land-use characteristics and management practices. The details are vague, and the product seems to very qualitative, therefore useful products are unlikely.

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

The budget is reasonable for a literature review or inventory proposal.

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?

HIGH and MED ---- in terms of concept

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

None

Miscellaneous comments:

None

Delta Regional Review:

Proposal Number: 115

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Overall Ranking: -Low -Medium XHigh

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

This project seems of immediate value to the south Delta Do problem and the project will facilitate on-the-ground changes that will reduce pollutant loads and improve water quality in the Delta.

the project is stakeholder focussed.

1. Is the project feasible based on local constraints?

XYes -No

How?

Project is primarily a literature review. PI has access to landowners and agencies as evidenced by collaborations and letters of support. No other real local constraints. Database software for indexing, cross-referencing, and making results of evaluation available has already been used successfully.

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

XYes -No

How?

Reducing loads of nutrients that can cause water quality impairment (e.g. low DO) is a priority concern in the PSP (MR-5). BMPS will also be evaluated for their effect on local wildlife (DR-3).

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

XYes -No

How?

Project is derived from the stakeholders meeting of SJ River DO TMDL.

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

XYes -No

How?

PI is local and has letters of support from SJ River DO TMDL steering committee, local municipality, and local water users group.

Other Comments:

This project should be funded in conjunction with the PIs other proposal: Inventorying and Evaluating Best Management Practices for the Reduction of Non-Nutrient Pollutant Loads.

ASCE and Caltrans both have databases on BMPs and effectiveness, neither of which work is mentioned in proposal. So the estimated cost may be excessive.

San Joaquin Regional Review:

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Overall Ranking: -Low XMedium -High

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

This project is of medium evaluation in the eyes of the committee. 1. The process needs to be better defined to show how oxygen to sedimentation can be influenced with best management practices. 2. This project works on a single area of the priorities defined for the San Joaquin region. We feel that this is a worthwhile endeavor and think that research in this area needs additional work.

1. Is the project feasible based on local constraints?

XYes -No

How?

This project works with local participants who have the greatest impact upon the river system, due to the location of their land and sediment flows.

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

XYes -No

How?

Primarily SJ priority number five.

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?

This project needs better coordination with the local Resource Conservation Districts and the National Resource Conservation Service (NRCS) to network their Environmental Quality Incentive Programs (EQUIP) with this type of project.

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

	XYes -No
I	How?
I	By the nature of the project's involvement of local land owners.
Other	Comments:

None

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-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	Project will be better justified once stakeholders are signed on. Perhaps a much smaller grant (ca \$60,000) would enable that.
-Good	
XPoor	

1. <u>Goals.</u> Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The "stakeholders" are not explicitly identified, and their participation in the project is uncertain. Yes.

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?

Again, the "stakeholders" are not explicitly identified, and their participation in the project is uncertain. Critical March 2002 report is, of course, unavailable. Conceptual model and underlying basis are stated. Planning project status is justified.

3. <u>Approach.</u> 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?

Project sounds good in overview, but lacks specifics. Several of the possible solutions mentioned are innovative, and, if implemented, would probably provide novel information, methodology, and approaches. These would be useful to decision makers.

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?

This is a very "iffy" proposal (see above questions), and I would put the likelihood of major success at below 50%. The scale is not consistent with the state of knowledge. That is, stakeholders are not signed on and the important March 2002 report is not available.

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?

Performance measures are very vague. Level of participation by stakeholders, for example, is not include as a measure, and no standards are given for that.

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 proposed process and possible creative solutions could be of value, and serve as models for future address of analogous issues.

7. <u>Capabilities.</u> 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?

Qualifications appear good. Infrastructure appears marginal, given the limited documented buy-in by the various watersheds.

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

Given the uncertainty of stakeholder participation, the budget seems excessive, and the project premature. If participation by stakeholders is low, the costs would be similar, making the study especially expensive.

Miscellaneous comments:

The project is very expensive given the lack of identification of, and uncertain participation by, stakeholders.

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Conflict of Interest Statements:

I have no financial interest in this proposal.

-Correct

XIncorrect

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	This appears to be a worthy project. It would be nice to have a bit more detail on the scope of the literature search and the qualifications of the investigator.
XGood	
-Poor	

1. <u>Goals.</u> Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The goals of the project are timely and clearly stated. The proposal makes a strong case that there is a need for a database on best management practices (BMPs) for the reduction of nutrient and oxygen demanding substances in the San Joaquin Valley. This database must be comprehensive, designed with stakeholder input and accessible to stakeholders.

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 justification for the proposed work is strong. The proposal makes a strong case that if stakeholders need to develop implementation plans for reducing nutrient and oxygen demanding substances they need to have information on available BMPs. Moreover, this information needs to be in a format that contains information that the stakeholders feel is important, and it needs to be in a format that they can readily access.

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 basic approach proposed is sound. The idea of getting input from stakeholders on what information should be included in the database is a good one. The plans for producing an accessible product are sound. The goal of producing a database that contains enough information so that researchers and stakeholders do not have to locate and read the original document is excellent.

The scope of the literature search is a bit unclear however. Just how widely will the investigators search? Will they look at BMPs that have been used in other parts of the country or world with an eye towards practices that might work in the San Joaquin valley? It would also be nice to have a bit more information on just what criteria will be used for evaluation of the different BMPs. Each stakeholder is likely to have a biased set of criteria. The researchers need a plan for balancing these biases.

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 proposed work is highly feasible. It is relatively straightforward to search the literature and there are examples of the types of database that the investigators will create. It would be nice to have a better sense of the scope of the literature search (see above) to determine just how much work will be involved.

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?

The investigator proposes an ultimate performance measure how many of the BMPs prioritized from this project are implemented - that is likely inappropriate. I suggest that the ultimate goal should be less lofty, i.e. to produce a database that stakeholders can use to help make decisions about BMPs as they develop implementation plans. One idea for evaluation would be to get a group of stakeholders who were not involved in the project to review the product and comment on its usefulness.

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 proposal lays out a strong plan for producing that should be highly useful and accessible.

7. <u>Capabilities.</u> 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?

Very little information is presented on the capabilities of the principal investigator. While it is clear that he has experience in agricultural consulting and expertise in irrigation issues, it is unclear if he has experience in water quality BMP evaluation, stakeholder interaction or research synthesis. It would be useful to have more information on his experience and expertise in the proposal.

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

The budget appears to be reasonable for the amount of work involved. The scope of the literature search work is not defined (see above) therefore it is difficult to evaluate just how much time this will take.

Miscellaneous comments:

None

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-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	Seems like an essential management need if BMPs really are relatively undeveloped.
XGood	
-Poor	

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

Goals and objectives tend to be buried in narrative, while the main hypothesis if more explicit. The concept seems to be quite timely, if not long overdue?

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?

A narrative conceptual model indicates that BMPs for control of nutrient and organic matter non-point inputs to the Delta need to be systematically assessed and applied to the San Joaquin valley, if not elsewhere in the CALFED area.

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 is fairly straightforward, and should provide valuable information for management.

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 is simple and technically feasible. Integral involvement of stakeholders should help promote that feasibility.

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?

Performance measures are described and describe progress/timetable expectations, which are reasonable for this 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?

The synthesis, evaluation and recommendations for BMP of non-point nutrient and organic matter control should be of value to the broader CALFED approach to ecosystem restoration.

7. <u>Capabilities.</u> 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?

Investigator team capabilities appear to be based on comparable experience.

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

Cost (\$127,914) is reasonable.

Miscellaneous comments:

External Scientific: #4

Research and Restoration External Scientific Review Form

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-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	The oxygen deficit in the Stockton Deep Water Channel is a serious environmental problem for the CALFED Restoration Program and warrants immediate and sustained attention. Thoughtful reviews of data gathered within the Delta or other agricultural/urban drainage basins throughout the world could yield tremendous insight into the problem. Best management practices are certainly needed throughout the catchment, but this proposal lacks data and references (NOT ON)
-Good	
X Poor	REFERENCE!), and the author does not provide the necessary information to evaluate the potential for success. The CALFED Restoration Program has a low probability of gaining useful information from this proposal in its current form.

1. <u>Goals.</u> Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The central goal of the proposal is to evaluate existing research on Best Management Practices that would decrease nutrient loads and oxygen demanding substance loads to the San Joaquin River. This central goal is of critical importance to the CALFED Restoration Program considering the large oxygen deficit that occurs annually in the Stockton Deep Water Channel.

2. <u>Justification</u>. 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 general idea behind the study is certainly justified, but the proposal is not placed into the context of previous research or knowledge. Similar problems are found in large rivers and estuaries throughout the world (e.g. lower Mississippi River), but this proposal does not have a SINGLE reference. Further, this proposal lacks a conceptual model, thus its implementation of this project is not justified.

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 proposal's approach is not evaluated in terms of the work of others, hence the likelihood of generating novel information cannot be evaluated.

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 is completely undocumented.

5. <u>Project-Specific Performance Measures.</u> 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

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?

No clear products are apparent. The author will produce a spreadsheet with some land-use characteristics and management practices. The details are vague, and the product seems to very qualitative, therefore useful products are unlikely.

7. <u>Capabilities.</u> 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?

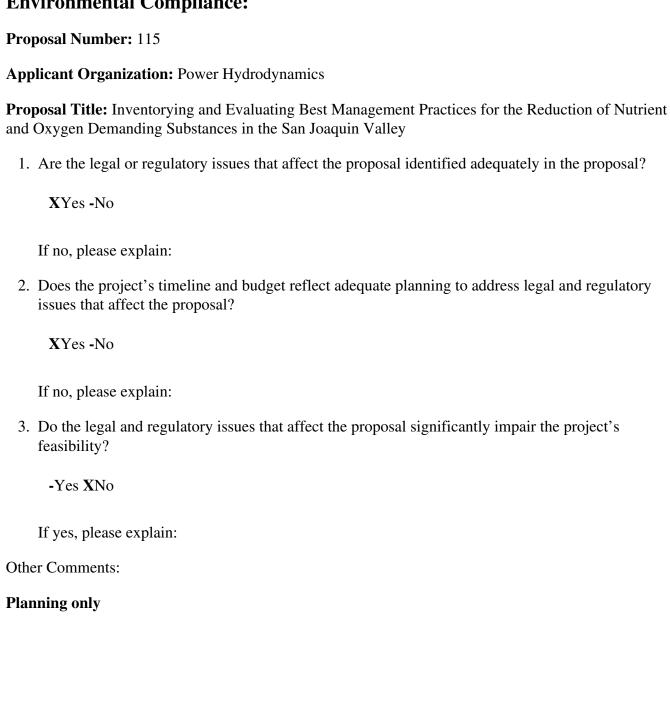
The author does NOT provide any background information. A curriculum vitae and list of publications and/or previous products are absent.

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

The budget is reasonable for a literature review or inventory proposal.

Miscellaneous comments:

Environmental Compliance:



Budget:

Proposal Number: 115

Applicant Organization: Power Hydrodynamics

Proposal Title: Inventorying and Evaluating Best Management Practices for the Reduction of Nutrient and Oxygen Demanding Substances in the San Joaquin Valley

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

XYes -No

If no, please explain:

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

XYes -No

If no, please explain:

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

XYes -No

If no, please explain:

4. Are appropriate project management costs clearly identified?

XYes -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 XNo

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

Small difference of \$.10

6. Does the budget justification adequately explain major expenses?

XYes -No

7. Are there other budget issues that warrant consideration?
-Yes XNo
If yes, please explain:
Other Comments:

If no, please explain: