Proposal Reviews

#86: Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh

L.C. Lee & Associates, Inc.

Research and Restoration Technical Panel Review	
Bay Regional Review	
External Scientific Review	#1 #2
Environmental Compliance	
Budget	

Research and Restoration Technical Panel Review:

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

Proposal Number: 86

Applicant Organization: L.C. Lee & Associates, Inc.

Proposal Title: Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh

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	**Despite the attractive synthetic nature of applying an HGM approach to characterizing Suisun 1st and 2nd order riverine systems, this proposal is too nebulous to evaluate and there are serious concerns about its applicability to either the CALFED restortion or science programs.**
-Above average	
-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?

   Goals and objectives are clearly elucidated but a hypothesis structure is not employed. Reviewers questioned whether the goal and product of a generic HGM designed around Suisun March would be important to CALFED. Nor is the role of 1st and 2nd order streams in the Suisun watershed explained, and how a HGm (gidebook) approach wil facilitate restoration or enhancement of wetland integrity.

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?

Information on the approach is too vague to evaluate. For instance, there is no information about how indicators will be chosen much less how they will be measured. There is also the question about what will constitute field data. Concern was also expressed about the availability of 20-30 intact reference 1st and 2nd order streams, and access (property owner permission, logistically) to the respective sites

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?

   A HGM guidebook is an established, highly desirable product for assessment of wetland functions and is particularly useful for evaluations wetland restoration site. Whether a guidebook, generated for Suisan Bay/Marsh watershed data would be useful for CALFED was considered dubious by reviewers

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

   Given the lack of specificity about field collection of data, it is impossible to evaluate the budget and project efficiency.

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?

   One regional review rank was low; criticisms were the HGM is too coarse and generic to provide useful data for reference sites and, more importatntly, that tidal restoration in Suisun will not likely involve direct creation of 1st and 2nd order channels.

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 concerns were expressed in the Administrative Reviews.

Miscellaneous comments:

Bay Regional Review:

Proposal Number: 86

Applicant Organization: L.C. Lee & Associates, Inc.

Proposal Title: Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh

Overall Ranking: **X**Low **-**Medium **-**High

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

The panel believes that HGM likely is too generic to provide useful data for reference sites and, more importantly, tidal restoration in Suisun will likely not involve direct creation of 1st and 2nd order channels; these form on their own.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   Although landowner permission for field work has not been sought yet, field work would not be destructive and its likely landowners would cooperate (esp. since many would be state and federal). The proposal makes reasonable assumptions about timing. In developing the guidebook, the applicants would make use of existing data, in addition to conducting field investigation.

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

   -Yes **X**No

   How?

   Although the applicants state that the HGM manual would 1) support protection and restoration of marshes by providing methods to assess the functioning of existing and restored marshes, 2) possibly eliminate the need to work in references marshes on a project-by-project basis, and 3) help establish monitoring standards for existing and restored marshes, the panel believes that the HGM approach is too coarse and generic for this purpose. Additionally, tidal marsh restoration in Suisun will not involve direct creation of 1st and 2nd order channels, which will form on their own with restoration to tidal influence.

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?

If HGM were useful (see #2, above), it could be used for restoration projects in Suisun Marsh.

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

XYes **-**No

How?

Outreach would consist of training provided for potential users of the manual.

Other Comments:

None.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **86**

Applicant Organization: **L.C. Lee & Associates, Inc.**

Proposal Title: **Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh**

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	**Without stronger justification I do not see pressing need to fund this project.**
-Good	
XPoor	

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

   The goal of this project is to prepare an HGM guidebook that will provide a framework for the assessment of ecosystem functions of first and second order stream in Suisun Marsh. As such, the goal is stated clearly, but it is questionable how important this goal is to Calfed priorities.

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 proposal states the HGM approach will enhance current methods of ecosystem restoration, but I found the justification weak. Background information is absent: what is the historical and present distribution of first and second order streams, how have they changed, what is the likelihood of finding intact 'reference' streams of this order, how many miles of these streams exist in relation to the larger streams, etc. Without putting these streams, their ecological importance, and their restoration potential into some kind of broader perspective, it is impossible to judge the justification for this project. Alternatively, if the team could give specific examples of how their previous HGM reports have directly helped restoration projects, it would strengthen their justification.

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 a very descriptive one, and the quantification of processes and functions is lacking. Figure 1, outlining the structure of an HGM model, seems to imply that all indicators are independent of one another, which is often not the case. It also implies that all variable are given equal weight, which may not be valid, especially if the indicators are not independent. How are the indicators chosen? A single number index hides much of the complexity and site specific controls for a given stream. Although channel classification has some useful components, its use in Calfed projects is unclear. How the 20-30 reference sites will be chosen is also unclear, and seems to depend on the authors' opinion ("will rely on our collective experience.") More specific criteria are needed. Field data will be collected and analyzed ("Multivariate analysis will be used for statistical analysis.") Again, this task is stated too broadly to be of use to the reviewers.

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 project is feasible, as long as access to the sites is obtained. The proposal states that landowner permission will be obtained at a later date.

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 guidebook would be submitted for peer review, which would help assess its adequacy. The community of potential users should be involved as well, so they have input as to what would be useful.

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 product is a HGM manual. It may be used by the restoration community as a general guideline, but this can only be judged if I knew more about how many 1st and 2nd order streams are actually planning to be restored (see comments under 'justification' above). A description of channel geometry without an understanding of the processes and controls on the formation of the channel will not be very useful.

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?

   The team has produced several similar products and has a great deal of wetland experience. They are qualified to produce this manual.

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

   The price tag of $176,000 for a product of questionable use is too high. If the field data could be used for other purposes as well (baseline monitoring of reference conditions, for example) then perhaps this cost could be justified.

Miscellaneous comments:

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **86**

Applicant Organization: **L.C. Lee & Associates, Inc.**

Proposal Title: **Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh**

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	**Although the Hydrogeomorphic Approach (HGM) MAY be very valuable and applicable to assessment of CALFED restoration, this proposal does not do that potential justice.**
-Good	
XPoor	

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

   The goals and objectives are explicitly stated by a hypothesis structure is not employed. It may be argued that development of a guidebook is inappropriate for hypotheses but the fact that there is no existing HGM for the Suisun Marsh ecosystem suggests that the applicability of such an approach to assessing ecosystem function and integrity requires such a hypothetical context?

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?

Although the rationale behind HGM is well elucidated, the applicability of HGM to the CALFED program is poorly justified. There is no conceptual model to the testing of HGM, although the HGM model template is explained.

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?

   Given the structure of the Suisun Bay ecosystem, it is dubious that a 1st and 2nd order riverine HGM is applicable; there are tidal fringing HGM models that are likely MUCH more appropriate to that ecosystem and these should be at least considered, incorporated or compared to the riverine model.

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?

   Certainly, the proposed approach is feasibly, if inappropriate.

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?

   Token performance measures are provided, but nothing that would actually provide an indication of the validity of the developed HGM and guidebook.

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 products are straightforward, although their value may be in doubt.

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?

   The applicant is highly qualified to develop HGM guidebooks.

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

   The estimated cost ($$235,515) seems a bit unreasonable considering how much of the tasks are relatively ?off the shelf.?

Miscellaneous comments:

Environmental Compliance:

Proposal Number: 86

Applicant Organization: L.C. Lee & Associates, Inc.

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

   XYes **-**No

   If no, please explain:

   If native plants will be collected, need a Scientific Collecting Permit. No other permits or CEQA/NEPA compliance necessary.

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

   XYes **-**No

   If no, please explain:

   N/A

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

   -Yes **X**No

   If yes, please explain:

Other Comments:

Budget:

Proposal Number: 86

Applicant Organization: L.C. Lee & Associates, Inc.

Proposal Title: Development of a Hydrogeomorphic (HGM) Functional Assessment Guidebook for First and Second Order Riverine Wetland Ecosystems in Suisun Marsh

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?

   XYes -No

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

6. Does the budget justification adequately explain major expenses?

   XYes -No

   If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes **X**No

If yes, please explain:

Other Comments: