Science Evaluation

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Gulf of Mexico Estuary Program.

LOCATION

Gulf Coast estuaries with priority consideration given to the following watersheds/estuaries: Lower Laguna Madre (TX); San Antonio/Matagorda Bays (TX); Sabine/Neches (TX); Calcasieu/Mermentau Basin (LA);

SPONSOR(S)

Environmental Protection Agency

TYPE OF FUNDING REQUESTED (Planning, Technical Assistance, Implementation)

Planning, technical assistance and implementation program

REVIEWED BY:

DATE:

January 9th, 2015

Best Available Science:

These 6 factors/elements help frame the reviewers answers to A, B and C found in next section:

1. Have the proposal objectives, including methods used, been justified using peer reviewed and/or publicly available information?

- ○ YES
- ○ NO
- ◉ NEED MORE INFORMATION

Comments

Because the proposal describes a program, no specific projects are identified. The proposal identifies 12 priority estuaries from which projects may be selected. Very little scientific content is discernible in the proposal. Specifically, no proposed scientific methods (including field studies, laboratory investigations, or computer modeling) are provided to enable an appropriate scientific review or justification of such methods against publicly available information.

2. If information supporting the proposal does not directly pertain to the Gulf Coast region, are applicant's methods reasonably supported and adaptable to that geographic area?

- ○ YES
- ○ NO
- ○ NEED MORE INFORMATION

Comments

N/A. Information supporting the proposal pertains directly to the Gulf Coast region.

3. Are the literature sources used to support the proposal accurately and completely cited?

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Comments

Of the 40 plus references listed at the end of the proposal, only five are cited within the body of the proposal. This makes vetting information in the proposal against the sources difficult, if not impossible. In some cases, the date cited does not appear listed in the references. Overall, a very poor job of referencing and citation.

4. Are the literature sources represented in a fair and unbiased manner?

- ○ YES
- ○ NO
- ○ NEED MORE INFORMATION

Comments

N/A. See response to Question 3 above.

5. Does the proposal evaluate uncertainties and risks in the scientific basis for the proposal, including any identified by the public and Council members?

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Comments

The proposal does not discuss scientific uncertainties and risks, just programmatic and funding risks. None of the risks and uncertainties are linked to environmental or climatic factors.

6. Does the proposal evaluate uncertainties and risks in achieving its objectives over time? (e.g., is there an uncertainty or risk that in 5-10 years the project/program will be obsolete or not function as planned given projections of sea level rise?)

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Comments

See response to Question 5.

Based on the answers to the previous 6 questions, and giving deference to the sponsor to provide within reason the use of best available science the following three questions can be answered:

A. Has the applicant made a reasonable determination that the proposal is based on science that uses peer-reviewed and publicly available data?

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Information Needed:

Although the proposed program is modeled (programmatically) after the seven existing National Estuary Programs (NEPs) in the Gulf of Mexico, there is no explicit demonstration of the scientific basis that connects the proposed program priority estuaries with the existing NEPs. The adjacency of the proposed priority estuaries to the existing NEPs is insufficient to indicate how the current science basis of the existing NEPs would be adapted for the proposed programs.

B. Has the applicant made a reasonable determination that the proposal is based on science that maximizes the quality, objectivity, and integrity of information (including, as applicable, statistical information)?

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Information Needed:

See response to Question A above.

C. Has the applicant made a reasonable determination that the proposal is based on science that clearly documents and communicates risks and uncertainties in the scientific basis for such projects?

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Information Needed:

See response to Question A.

Science Context Evaluation

A. Have other methods been discussed and reasons provided to why the method is being selected (e.g., scientifically sound; cost-effectiveness)?

No. Scientific methods (e.g., field studies, laboratory investigations, or computer modeling) are not presented in the proposal.

B. Has your agency/vendor/project manager conducted a project/program like the one proposed?

No.

C. Is there a risk mitigation plan in place for project objectives? (captures risk measures as defined under best available science by the Comprehensive Plan and Act)

No. The proposal projects a low risk of failure based on the success of the existing NEPs their track record of effectively partnering with Federal resource agencies like the USACE, NOAA, NRCS, USFWS, and USGS.

D. Does the project/program consider consequences with implementation? (captures risk measures as defined under best available science by the Comprehensive Plan and Act)

No.

E. Does the project/program have clearly defined goals?

Yes. These are consistent with the Comprehensive Plan goals.

F. Does the project/program have clearly defined objectives?

Yes. These are consistent with the Comprehensive Plan objectives.

G. Does the project/program have measures of success? (captures statistical information requirement as defined by the Comprehensive Plan and Act)

A narrative summary of measures of success is provided in the proposal. However, no statistical information is presented.

H. Is a monitoring program in place to determine project goals, success and help adaptive management (if applicable)? (captures statistical information requirement as defined by the Comprehensive Plan and Act)

A narrative summary of project monitoring and adaptive management is provided in the proposal. However, no statistical information is presented.

I. Does the project/program consider recent and/or relevant information? (captures statistical information requirement as defined by the Comprehensive Plan and Act)

No.

J. Has the project/program evaluated past successes and failures of similar efforts? (captures the communication of risks and uncertainties in the scientific basis for such projects as defined by the Comprehensive Plan and Act)

The proposal mentions, in general terms, the success of the existing NEPs and LPBRP, but provides no explicit details on risk communication and scientific uncertainties encountered in these programs.

Please summarize any additional information needed below:

This proposal lacks sufficient scientific content to conduct a reasonable science review, especially regarding potential field studies, laboratory investigations and computer modeling that may be carried out in the proposed priority estuaries. Modeling the proposed program after the existing seven NEPs in the Gulf of Mexico is indeed commendable. However, the credibility of the proposal is undermined by the lack of explicit scientific connection -- just one example might be sufficient -- between the 12 priority estuaries and the NEPs/LPBRP.