SCIENCE EVALUATION

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Golden Triangle Marsh Creation

LOCATION

Orleans and St. Bernard Parishes, LA

SPONSOR(S)

Louisiana

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

Planning

REVIEWED BY:

DATE:

1/12/2015

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

The objective is to create a buffer zone for New Orleans against flooding and storm impacts. Although the project plans are based on a publicly available public decision making process (CPRA Master Plan and Planning Tool), specific details of this project are not given. This masterplan is very generic and does not specifically address the Golden Triangle Marsh Creation project. This generic story could have been added to ANY marsh creation project in the area. I request more project specific and concise information, such as: Why this location? What are the forecasted sea level rise rates? What are the projected subsidence rates? Why does it need to be raised to 2 feet, and above what level? A bufferzone suffers damage from storms etc. That is why it is a buffer zone. How is this marsh maintained over time?

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

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

- (●) YES
- ( ) NO
- ( ) NEED MORE INFORMATION

Comments

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

- (●) YES
- ( ) NO
- ( ) NEED MORE INFORMATION

Comments

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

CPRA has done an uncertainty assessment, but one specific to the project is not discussed in the proposal (page 12). CPRA provides a generic uncertainty assessment. It would be beneficial to this proposal to include some maps that show SLR and subsidence rates. Then they can use this to justify the 2 feet of elevation increase and estimate a project lifespan. A lifespan is mentioned on page 1, but it is not really discussed anywhere else in the proposal.

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

Specific information is not provided in this proposal.

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:

SLR and subsidence rates that confirm the 20 year project lifespan.

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:

They do with their CPRA Master Plan and Planning Tool, but it is not specific enough for this project.

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 the above.

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)?

Again, in a generic statement on page 7: "As part of this strategy, the tools considered the constraints, such as the limited money, water, and sediment that we have to work with. The tools also considered possible future conditions that will affect the way our projects operate, along with other important factors such as construction time and how combinations of

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, there is no mentioning of a risk mitigation plan. There is mentioning of a monitoring program, called SWAMP, but specific details on how the monitoring before, during, and after project completion is conducted are not provided.

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

There is no mentioning of adverse impacts of dumping 2 feet of sediment on an existing marsh. However, I can imagine that this will adversely impact the flora and fauna in the initial stages of the project.

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

Yes. Buffer zone, wild life habitat, and outreach.

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

Is this not the same a E?

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

Yes, wild life habitat, and outreach.

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)

Yes. But specific details pertaining to the project are not given.

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

This is in the CPRA Master Plan and Planning Tool, but no project specific information is provided.

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)

No. It is not documented here what the effects are of artificially raising the height of a marsh in other locations.

Please summarize any additional information needed below:

The above answers to the questions do not address all my concerns with this proposal. Here, I try to be more complete. I think it is a good idea to restore marshes and create buffer zones to shield New Orleans from storms and high water. However, the proposal fails to support its reasons with project specific quantitative arguments. Instead, it is rather generic. What it not addresses are the immediate environmental impacts of dumping sediment on an existing marsh. Also it is not discussed if the existing water channels (e.g. bayou Bienvenue) running through the marsh are maintained or filled in. Filling them in has important adverse environmental impacts I imagine. These aspects need to be discussed! What are the impacts of dredging a