Science Evaluation

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

The Mississippi Gulf Coast Forest Restoration and Conservation Initiative

LOCATION

Mississippi

SPONSOR(S)

USDA

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

Project, Planning, Technical Assistance, Implementation

REVIEWED BY:

DATE:

01/01/15

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

There is adequate justification for why the work needs to be completed based on the loss of habitat, numbers of endemic species, and the number of species that are endangered. Many of the methods, particularly for the ecosystem restoration at individual areas (refuge, forest) are not well-referenced, but are fairly straight-forward and or referenced in earlier sections on this multifaceted proposal.

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

Most of the methods are specific to the Gulf Coast Region. However, the Outreach and Education section details using methodology from a Wisconsin study to enhance public participation rates. The go on to detail how this relates to work in the Piney Woods Region of Mississippi.

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

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

Comments

I did not check all of them but the authors use a variety of peer-reviewed and gray literature from a number of different sources on a variety of topics. It appears that they are accurately cited.

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

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

Comments

Yes, I did not see anything that seemed like selective cherry-picking of details.

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

They do have a 5-year monitoring plan in place to help identify the uncertainties and risks, although they do not specifically mention this as the goal. It is designed to measure success. There are certainly risks in any endeavor, but for the most part I don't see any major issues with uncertainties or risks.

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

Yes, they have the 5-year evaluation plan in place, but there did not seem to be much thought in relation to sea level rise and climate change. The uncertainty analyses could definitely be improved.

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:

There are a number of peer reviewed papers cited. Since the methods employed are vague (because the objectives are broad) there are not a lot of specifics relating particular techniques to specific changes in the environment. However, all of the proposed ideas are widely accepted (which may or may not be accurate as we all know).

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:

No, there is no quantitative estimates of how the projects will increase biodiversity or reduce erosion, etc. However, I would argue, based on having to estimate these myself, these a priori estimates are a real shot in the dark and their resemblance to reality is limited. Thus, I do not see this as a major downfall for this project, but some evidence for improvement would have

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:

There are a wide variety of activities proposed under this proposal which leads to some vagueness in the proposal. A table of the various activities with associated risks and uncertainties would be very useful.

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, there is minimal cost-benefit analysis, but the methods are mostly referenced with a few exceptions. Some details could be added on why the particular methods are chosen and even more details on what is being proposed versus a blanket statement such as "erosion control methods". However, I do understand at this scale the specifics are not known until work plans are developed so I do not view this as a negative.

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

Yes, we have done similar types of work, but not on the massive scale proposed within this project. That is why I am not worried so much about the lack of specifics. The specifics would again not necessarily reflect reality.

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)

There is tracking and they appear to do a good job with data information and sharing, but there is little to no mention of adaptive management or on-going monitoring. I think a portion of the budget should specifically be allocated for this task.

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

Yes to some degree.

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

There is a goal " The primary goal ...is habitat restoration and conservation with a secondary goal of restoring water quality. This goal is obviously quite vague.

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

There are objectives, but they are fairly vague goals. I think they certainly could be more clearly defined than they are now. The objectives should at a minimum indicate number of acres planted, number of acres wetlands restored, number of landowners involved, etc. But it could also go to the outcome goals of tons of sediment reduced, amount of water quality improved, etc.

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

Somewhat. They list their 6 metrics, but not sure if there are targeted goals.

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)

Maybe, they mention 5-year monitoring plans but the details are vague. I suspect they are planning to do this but I think it is easy to have them verify that this is actually part of the plan.

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

Not to my knowledge but not sure what these requirements entail.

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)

Not specifically for each item. The social science engagement did the best job of this of any of the sections.

Please summarize any additional information needed below:

I think this could potentially be a very useful and beneficial project because it proposes a broad partnership and engages those who are actively involved with habitat restoration projects already.