Science Evaluation

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Recovery and Restoration of Deep-water Coral Habitats in the Gulf of Mexico

LOCATION

Gulf of Mexico Continental slope in vicinity of the Deepwater Horizon spill

SPONSOR(S)

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

REVIEWED BY:

DATE:

8 January 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

Proposal objectives are well justified. Their survey of the literature is up to date and major relevant citations were included. The writers have done an outstanding job of succinctly presenting their ideas in well-framed arguments with supporting documentation.

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

References, while necessarily incomplete because of space limitations, are pertinent and representative of the major literature in the field. Citations are complete

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

There are significant uncertainties and risks with a project such as this. This is understandable given that it is one of the first attempts to fully describe the situation, condition, and response of deep sea corals to potentially long-term disturbance. Moreover, the project is clearly developmental and changes may have to be made to protocols once the work is initiated.

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

This is a three-year project but the authors acknowledge that the entire project may exceed 10 years. This is a reasonable expectation given the circumstances. Deep water corals have received little attention, little is known about them yet it is important to establish effective and efficient long-term assessment methodologies.

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:

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:

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:

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)?

There is some discussion offered in the proposal but given the lack of foreknowledge regarding deep-water corals, it is expected that little comparison to previous efforts are difficult to conduct.

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

Not exactly but my previous agency was astutely aware of the importance of deep-water corals and the difficulties they present in being able to fully and accurately assess their status and trends.

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)

The authors could be asked to expand on this item. As it stands, however, the proposal is specific and carefully offers and methodical approach to providing much needed information.

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

This areas is offered but in a limited scope

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

The goals of the project are clearly defined and easily understood by a broad audience.

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

The most notable aspect of this proposal is the well crafted objectives that compliment previous work, build on each stated objective, and are offered in a logical progressive sequence.

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

Measures of success for this project are chiefly statistical-based. The methods of analysis are standard but appropriate to the study.

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)

There is a well-defined monitoring program. This feature is one of the highlights of the proposal.

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

The basis of the project stems from consideration of recent and relevant information. The authors are well aware of the current data on each objective.

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)

There are only a limited number of studies that are the time and space scales of this proposed study so little could be gleaned from an examination of their successes or failures. Nevertheless, the project is derived from knowledge gained in those earlier efforts.

Please summarize any additional information needed below:

This proposal offers a well-tuned, directed approach toward establishing a much needed data base of status and trends in deep-water corals and their associated community. The study is long overdue and offers a sophisticated approach toward resolving many of the unknowns regarding this group.