SCIENCE EVALUATION

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Alabama Living Shorelines Restoration and Monitoring Project

LOCATION

Mobile and Baldwin Counties, Alabama

SPONSOR(S)

State of Alabama

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

Planning, Technical Assistance and Implemention

REVIEWED BY:

DATE:

December 2014 and 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

Limited supporting documentation for "living shoreline" structures implementation success included, other than repeated statements of other such projects constructed.
Lack of water resource information for watershed basins immediate to proposed submerged structure placement for submerged aquatic vegetation or oyster related issues re historic losses or expected future W.Q. success in conjunction with the submerged structures placement.

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

in addition to mentioning this proposal's intent to make living shoreline monitoring a more standard format, little information is presented as to the relative success of past living shoreline construction by place or method

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

○ YES ○ NO ○ NEED MORE INFORMATION

Comments

limited in scope. old COE and State of Alabama coastal permits attached for past TNC projects.

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

Water resource issues in these basins not summarized per W.Q. or quantity per historic or predicted future values. Movement of structures by the frequent tropical storms for this coastal Alabama region not covered, nor the cost of structure replacement or removal post storm damages, boating liability in shallow waters, sea level rise, etc.

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

no, success of these implemention strategies appears to be taken for granted based on statements that others have " implemented similar projects" (living shoreline) sans evidence of that success and how it was measured.

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:

evidence of "similar, implemented projects" for living shorelines in these coastal watersheds.

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 above comments.
and more information about monitoring standardization for such projects to determine success or failure of construction implementation

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)?

not in my opinion

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)

not that I found

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

Not in my opinion. Example: post tropical storm event damages or movement of submerged structures...who pays for liability and removal costs?

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

yes, control of coastal erosion.

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

Yes, stability of shallow water shorelines and benthic communities landward of the proposed living shoreline structures.

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

Only appears to suggest this for their plan to take over and standardize monitoring of earlier group of living shoreline projects all currently being monitored in a variety of methods.

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, proposes this with local marine science center and agency staff.

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

It proposes foundational monitoring work for some basins and living shoreline structures, but proposes ongoing and concurrent implementation of submerged structures placement before foundational studies are complete.

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, not in my opinion.

Please summarize any additional information needed below:

The proposal is an interesting mix of foundational monitoring work on exisiting "livng shoreline" projects to standardize measures of success for such projects, and more construction of similar submerged structures. No mention of how these existing projects are performing per new project goals and objectives, or associated project research details are included. And the proposal refers in several places that this funding request follows : "implemented simiar projects", sans details.
I understand from discussions and questioning of other living shoreline connected agency folks that such projects have been a real mix of successful ones and failures. Cannot determine from existing information of this proposal if this follows local living shoreline project examples or a new implementation method, excluding new efforts to standardize monitoring.