SCIENCE EVALUATION

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE: Tampa Bay Watershed Restoration

LOCATION: Southwest Florida

SPONSOR(S): State of Florida

TYPE OF FUNDING REQUESTED (Planning, Technical Assistance, Implementation): All of these

REVIEWED BY:

DATE: January 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 Need more information

Comments:
Almost all of the references cited are from the grey literature, raising a question about unbiased evaluations of the actions and methods proposed. What do peer-reviewed, published studies have to say about (e.g.) the ecological benefits and risks of breakwater construction?

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: Not applicable

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

YES

Comments: As far as it goes. Again, we are missing the white literature support.

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

NEED MORE INFORMATION

Comments: As above. Agency and project reports may or may not give a fair and unbiased account of the science.

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

Comments: The proposal gives reasonable attention to risk and uncertainty.

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

Comments:

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?

NEED MORE INFORMATION

Information Needed: My main concerns were expressed above, but in addition, there is no scientific support offered for some of the assertions about the benefits of the proposed projects. For example, how were the estimates of nitrogen and sediment removal derived?

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)?

NEED MORE INFORMATION

Information Needed: As above. References to the peer-reviewed literature with respect to the risks and benefits of the proposed actions would help a great deal.

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?

NEED MORE INFORMATION

Information Needed: See answers 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)?

There is little discussion of alternatives in the proposal narrative.

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)

Yes, the proposal does a reasonable job of discussing risks and mitigation

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, with the caveat that we're not sure if the best available science has been evaluated, given the lack of references to the peer-reviewed literature.

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

Yes

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

Yes

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

Yes

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

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

Narrowly, yes, but the proposal does not adequately place the projects in the context of the comprehensive Tampa Bay restoration, or recently developed information about ecosystem services in the watershed.

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)

To some extent, but my comments about reference to the white literature apply here.

Please summarize any additional information needed below:

Overall, this is a worthy project. The concerns expressed in this review can be summarized as (1) how do the proposed actions contribute to the big picture of Tampa Bay and watershed restoration; and (2) what does the peer-reviewed literature say about efficacy, uncertainty, risks and benefits of the proposed actions?