SCIENCE EVALUATION

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Tampa Bay Watershed Restoration

LOCATION

Southwest Florida (Tampa Bay)

SPONSOR(S)

State of Florida

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

Planning, Technical Assistance, and Implementation

REVIEWED BY:

DATE: 01/08/15

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

Project 2. River Tower Shoreline Restoration and Stormwater Treatment: What specific bank stabilization methods? Evidence of their effectiveness. Any existing experiments or feasibility studies on stormwater pond to reduce pollutants entering the Hillsborough River and the treatment efficiency e.g., on N and P treatments?
Project 3. Palm River Restoration Project Phase II: need to present the results of the assessment of Phase I to support the effectiveness of stormwater ponds in water quality treatment (~517 pounds of N per year).

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

information supporting the proposal directly pertains to the Gulf Coast region

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

- ○ YES
- ○ NO
- ◉ NEED MORE INFORMATION

Comments

Need adding literatures on "Implementation methods" for Projects 1, 2, and 3 to support the applicability of these methods; on "Risk and uncertainties" and "Measures of success" for all five projects, e.g., sources of the extensive hydrological modeling work.

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

For Projects 2, 3, 4, and 5, specific risks and uncertainties such as the effects of climate change, altered water flow and sediment supply, sea level rise, and salt water intrusion on shoreline restoration and efficiency of stormwater treatment need to be addressed.

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

Since the anticipated project lifespan is larger than 25 years, uncertainty and risks of these proposed projects associated with climate change-induced extreme events (increased frequency and intensity of hurricanes/storms, drought, sea level rise, and salt water intrusion) should be considered in project implementation. As the sponsor pointed out for Project 1, there exist extensive hydrodynamic, water quality, and ecosystem modeling that can help to address risks and uncertainties for these projects.

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:

See comments above on "Risks and uncertainties".

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)?

Projects 2 and 3: need to provide reviews on other methods on shoreline restoration and stormwater treatment, and data or info to support selected methods.

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)

Need risk mitigation plan for Projects 2, 3, and 4.

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

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. But, a long-term monitoring and adaptive management plan is suggested for each of the five proposed projects since the life span of these projects is larger than 25 years.

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

YES

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)

Need more info on this aspect for Projects 2 and 3.

Please summarize any additional information needed below:

Five ecosystem-based restoration projects are proposed and expected to produce long-term ecological, environmental and economic benefits to the studied Tampa Bay watersheds.
For Project 1: specific measures of success should be provided for habitat restoration, e.g., areas, elevation, vertical accretion, soil salinity, nutrient levels, etc.
For Project 2: how will the quality of habitat be determined in "Measures of success", by habitat suitability models?