Science Evaluation

Bucket 2 – Council Selected Restoration Component

PROPOSAL TITLE

Bahia Grande Coastal Corridor Project

LOCATION

Cameron and WIllacy Counties, Texas

SPONSOR(S)

National Wildlife Refuge Association, The Conservation Fund, The Nature Conservancy

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

Implementation

REVIEWED BY:

DATE:

Dec. 22, 2014

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

The justification for increasing conservation land in South Texas has been well documented in public documents by agencies and conservation organizations. Methods for restoration of acquired lands are not well described. The proposal mentions restoration of hydrology, but no budget is proposed for land work, only vegetation control and re-vegetation.

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

Proposal pertains to Gulf Coast

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

- ◉ YES
- ○ NO
- ○ NEED MORE INFORMATION

Comments

The literature on ecology and nature tourism is cited accurately, but there is no information provided on competing uses or beneficial alternatives in terms of the social and economic well being of the local population.

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

- ○ YES
- ◉ NO
- ○ NEED MORE INFORMATION

Comments

There are reports available on alternative uses of this land. In particular, the Cameron County Regional Mobility Authority, Texas Department of Transportation and Federal Highway Administration have supported studies of a second causeway to South Padre Island with connecting roads going through some of the targeted parcels. Although this highway project is apparently on hold, it should be discussed and its potential affect on endangered species, particularly ocelot, should be considered.

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 is no discussion of the uncertainty of corridors for biodiversity restoration. Available studies show that ocelots make extensive use of corridors, but the same corridors may increase predation on threatened colonial nesting waterbirds. The sponsors seem to assume that reducing habitat patchiness is beneficial for all species. There is no discussion of the rosks posed by proposed transportation projects in this area.

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

The proposal does discuss the likelihood of an impact from sea level rise and discounts it. The statement that sea level rise would increase wetlands acreage seems to equate saltwater and freshwater wetlands as having the same local value, which is hard to accept in an arid landscape.

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:

The proposal is based on a widely accepted view that reducing fragmentation through corridors is beneficial for biodiversity. Also, there is an underlying assumption that restoring the acquired land to some past condition will be beneficial to species adapting to climate change. These assumptions should be justified for the species listed as beneficiaries of this plan with

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 is no way to document all of the uncertainties for a large conservation project. The proposal could have done a better job of describing the uncertainties of trying to manage ecology in a way that benefits multiple threatened species.

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)?

The principal request is for land acquisition. This is the only course to achieve growth of the NWR acreage in the region.

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

We have been involved in land acquisition on a much smaller scale. Also we have been involved in land restoration for conservation purposes on a much smaller scale.

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 major risk to this land acquisition proposal is that human activity adjacent to the acquired land will result in significant degradation of the habitat for conservation purposes. I do not believe that there is a reasonable way to mitigate that risk.

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

The proposal described only positive consequences with implementation.

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

The land acquisition goal is clearly defined. The habitat restoration goals are not well defined and the budget for them seems incomplete.

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

Acquiring land to increase connectivity of certain habitats is clearly defined. The objectives for restoration of that land in terms of which species will be targeted for benefits is not clearly defined.

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

Yes, the proposal lists specific biological outcomes for colonial nesting waterbirds, aplomado falcon, ocelot, and fish. The proposal indicates that other indicator species will be chosen and management will be adaptive, i.e. objectives will change.

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)

Monitoring will be defined in Inventory and Monitoring plans that have not been developed yet.

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

Yes for conservation information. The potential impact of regional transportation planning is not discussed.

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)

Yes, the current status of conservation land in South Texas is discussed and considered a success.

Please summarize any additional information needed below: