**DECISION FRAMEWORK OUTLINE**

**FOR GIT 4**

**HEALTHY WATERSHED TRACKING PROJECT**

The purpose of this document is to provide a project management tool – a “decision framework” - with which the CBP Maintain Healthy Watersheds Goal Implementation Team (GIT4) can manage a single project to establish and maintain a CBP collective capability to track and communicate up-to-date key information on healthy watersheds. This project has been identified as a key action in the GIT’s general strategy, as presented in the GIT’s decision framework for its overarching goal to identify and protect healthy watersheds across a range of landscape contexts.

This document and the project it describes is a work in progress. As pointed out in comments from GIT4 members during its drafting, there are a number of terms used here that will need to be defined for the particular usage to which they will be put in this project. This includes terms such as “periodic”, “threats”, “securement”, “vulnerability” and others. The working definitions of such terms will be developed through collaboration among CBP partners who undertake the project. Also, the data sources that can be used to conduct any assessments identified here will be identified through similar collaboration conducted under the auspices of GIT4.

**1. PROJECT GOAL:**

*(Guidance: explicit, unambiguous, measurable, realistic, attainable)*

Monitor the condition, vulnerability, and protection status of healthy watersheds by: Using currently available data, in 2012 create and maintain a periodic reporting capability to:

1.1 Identify and track the ecological health of watersheds, (proposal is to use State designations; we need to resolve this against existing CBP IBI metric)

1.2 Characterize and track threats to the long-term ecological health of watersheds. This could be done by assessing exposure to the threat of land conversion could be assessed using the Chesapeake Bay Land Change Model. (we believe Peter Claggett is able to provide this info across the Chesapeake Basin; will States have finer info they want to use?) and

1.3 Characterize and track the level of protection or “securement” from threats. This could involve four different factors: percent of valued habitats protected through acquisition or easement, relative strength of local land use policies, ordinances, and regulations, relative strength of state anti-degradation policies and enforcement, and the relative level of citizen stewardship (e.g., active local land trusts and watershed organizations).

**2. KEY FACTORS INFLUENCING PROJECT GOAL ATTAINMENT:**

*(Guidance: consider what has to be managed to attain the goal. The answers to that question comprise a simple model of “the system” within which we intend to execute our project (a.k.a. our “intervention.” Also, it is key at this step to avoid letting the perfect be the enemy of progress.)*

2.1 **Partner Commitment:** Must have commitment of CBP partners to participate in the project according to a defined schedule; management level commitment is also required.

2.2 **Staff Time:** Must have commitment of CBPO staff time for coordination and analysis (GIS Team)

2.3 **Data Availability:** Sufficient availability of key data, including State and local government data. Will a compilation of the States’ existing definition and identification systems suffice for CBP GIT 4 purposes? Can States provide data layers? Is data available to track and report on the health status of identified watersheds? What information is available for characterizing threats to healthy watersheds?

2.4 **Data Quality issues:** Spatial scale, accuracy, frequency of data collection,

2.5 **Agreement on Working Definitions**: “healthy watersheds”, “vulnerability”, “protection status”

2.6 **Execution:** staff resources (person-hours), amount of extra funding needed, funding sources.

**3. CURRENT EFFORTS AND GAPS:**

*(Guidance: this review should follow the outline of the key factors listed above. Based on this information, we want an honest assessment of our capacity to manage the key factors.)*

3.1 **Partner Commitment:**

- GIT4 is the CBP unit where partner commitment will be sought.

- On 2/16/2012, CBP partners in GIT4 agreed to proceed with the project, with the understanding that the scope of the project will be adapted as the group further explores the practicability of project elements such as data acquisition and analysis, and availability of staff time.

- The CBP Management Board supports the GIT4 mission, including an initiative to consider options to track healthy watershed protection (Management Board briefing 4/12/2011)

Messaging to cultivate support for the project:

 - linkage to water regulatory programs:

potential to demonstrate with healthy watershed tracking data that water quality protection will not be achieved without concerted effort at healthy watershed protection [PADEP COMMENT: Also known as state anti-degradation program.]

potential to inform offset strategies

potential to influence funding agencies to support healthy watershed protection

potential to garner downstream support for upstream healthy watershed protection

3.2 **Staff Time:**

- GIT4 coordinator Mike Fritz and GIT4 staffer Anna Stuart Burnett are available

- CBPO GIS staff availability is subject to negotiation with GIT Team leader John Wolf.

- Analysts on the CBP Scientific and Technical Analysis and Reporting (STAR) group may be available to assist. To be determined.

3.3 **Data Availability:**

Burnett has collected information on State approaches to healthy watershed definitions.

Healthy watershed identification data may be particularly challenging because:

* Some States identify healthy waters (per CWA requirements) but not the watersheds associated with those waters
* We have no clear criteria for identifying healthy watersheds

VA has the Coastal GEMS portal: <http://www.deq.virginia.gov/coastal/coastalgems.html>

Peter Claggett (USGS) completed a basin-wide threat assessment in 2006. USGS has also developed a Chesapeake Bay Land Change Model that can serve to assess threats from future development.

A revised threat assessment that accounts for local land use policies likely will require significant effort to compile data, especially where local government capacity is minimal. [PADEP COMMENT: Resources are not available to provide Pennsylvania local land use policies for the 1200 municipalities in the Chesapeake watershed. Given that there are statutory provisions in the Marcellus Shale Impact Fee legislation that supersede local zoning ordinances, the necessary investment would not appear to be justified.] TNC briefed GIT4 on 1/11/2012 on a highly relevant TNC analysis of existing data.

CBP annually collects and maps data identifying public and protected lands throughout the watershed.

USGS conducts LU/LC change analysis for the CBP on a 5-year cycle (next update will characterize land cover in year 2010/11 and will be completed by Winter 2012).

There is the capacity to conduct higher resolution LU/LC change analysis on a more frequent basis in areas where healthy watersheds are subject to particularly high threat (possible pilot project?)

3.4 **Data Quality:**

Ideally, all GIS datasets should have FGDC compliant metadata and methods should be published and peer-reviewed.

3.5 **Agreement on Working Definitions**:

The GIT already has agreed to proceed based on existing, albeit different, definitions and criteria used by CBP partner jurisdictions to identify healthy waters and healthy watersheds.

GIT discussions will be necessary to establish criteria for assessing threats and protection status.

3.6 **Execution**

May be beneficial to have a traditional project proposal and scope of work as a supplement to this document.

GIT4 has already executed a preliminary step: the assembling of current State definitions of healthy waters and watersheds.

CBP partners may not have the staff or funding resources to execute the project. It may be necessary to seek EPA and other funding to support project execution.

**4. PROJECT MANAGEMENT STRATEGY**

*(Guidance: again, this should follow the outline of two sections above, identifying strategies to close manageable gaps in current efforts that address key factors. Strategies should articulate explicit, measurable actions (interventions), and identify clear, observable outcomes.)*

4.1 **Partner Commitment:**

Obtain the commitment of key CBP partners to participate in the project

 - identify project leader

Consider using targeted communications to cultivate interest in and cooperation with the project.

 - e.g., articulate and communicate benefits of improving protection of healthy watersheds

 - coordinate with GIT4 communication strategy

 - make the case within CBP partnership

 -make the case to targeted external audiences – localities and landowners

4.2 **Staff Time:**

Confirm CBP STAR analysis assistance following further project scoping (CBPO GIS Team).

Some of the acquisition of local land use policy data may be feasible through the use of student interns.

4.3 **Data Availability:**

Need to identify what data would be desirable to collect.

Need agreement on how do go about acquiring and updating the data.

Consider possibility of hiring contractors for data acquisition.

GIT4 and STAR staff coordinate with State participants to assess data availability

4.4 **Data Quality:**

Establish data quality rules.

Establish data interpretation rules (e.g., what type of local zoning qualifies as protection?).

4. 5 **Agreement on Working Definitions**:

4.6 **Execution**

[Would be beneficial to address the sequencing and timing of execution elements; establish a project timeline]

- Conduct initial project scoping based on this document

 - identify key data

 - assess current availability of data

 - identify analysis priorities

 - estimate analytical workload

 - develop a project work plan, with staffing needs estimates and schedule of deliverables

- Assemble data

- Conduct data analysis, prepare draft report findings

-Consider the option to conduct pilot scale analysis where the data is available

- Discuss draft findings at GIT4, CBP STAR, and CBP Management Board

- Respond to reviewers’ comments and produce final project report

4.6 GIT 4 Communications Workgroup coordinates with CBP Communications Office to publish findings

**5. PROJECT MONITORING PROGRAM**

5.1 Quarterly project progress reports at GIT 4 meetings

 - are CBP partners participating?

 - data availability issues?

 - analytical staff availability issues?

**6. ASSESS PROJECT PERFORMANCE**

6.1 Quarterly project assessment discussion at GIT4 meetings

 - is the project on schedule?

 - are the project outputs suitable for publication?

**7. MANAGE PROJECT ADAPTIVELY**

 7.1 Discuss project management annually at a January GIT4 meeting

 - How could the project run more efficiently?

 - Did we make any erroneous assumptions in our project plan?