

Defining Healthy Watersheds

First Work Group Meeting

November 22, 2011

Draft Proposal to GIT 4

Objective: to develop a means of mutual and public accountability for the identification and protection of healthy watersheds, to develop a recommendation to the Maintain Healthy Watersheds GIT for communication in advance of the next GIT 4 meeting.

Background: GIT 4 needs to define what we mean by watershed health for our purposes of healthy watershed identification and protection.

In addition to being able to identify healthy watersheds, GIT 4 needs to find or develop tools (metrics) for tracking whether watershed health is, in fact, protected, and whether watershed health is being maintained. The partner states have a range of definitions for healthy watersheds, as well as varied approaches to identifying them. For purposes of tracking and identifying healthy watersheds, some states use only the bare minimum (BIBI or antidegradation water quality standards) while others utilize a full suite of metrics (biological, chemical, habitat, impervious surface, etc.). Currently, the basin-wide BIBI that is used in the Bay Barometer is the only CBP tool that is used to address this issue.

Work Group Recommendations to GIT4

Healthy Watershed Definition:

The Work Group decided not to pursue a single CBP definition of healthy watersheds, but rather to recognize the working definitions that are used by each of the partner states.

Healthy Watershed Identification:

To identify healthy watersheds, the Work Group proposes to create a map of the universe of known healthy streams and delineated drainage areas to those streams by using the best available data from each state.

For states that have little or no healthy waters/ watershed data, this will be supplemented by data layers from CBP (impervious surface, land use, etc.) it may be possible to identify healthy watersheds using CBP data layers, but that would first need to be coordinated with the individual state representatives.

Tracking Watershed Health:

Tracking changes in % forest cover and % impervious surface can likely be accomplished using existing CBPO resources (e.g., USGS, EPA, and staffers digitizing changes in

Comment [KF1]: I'm a little concerned with not having a working definition. Mainly because we have a chance to provide context here- in many cases states are limited in their definition of "healthy" based on state water quality standards and other standards that do not provide the full picture of health. I think we have a real opportunity to synthesize and augment current definitions.

Comment [KF2]: Having tried to do this for "impaired" waters, this is very hard to do for the entire bay watershed, because results are not comparable across state lines. Push back will happen from others in the GIT if we try to merge state data. I think it's important to be able to characterize current conditions, but we should talk about limitations.

Comment [p3]: This will require a consensual approach among all the jurisdictions. It will also require dealing with watersheds that have healthy characteristics but contain impaired streams- are they "healthy".

forest cover and impervious surface observable in Google Earth). The CBPO can also monitor vulnerability due to land use change and natural gas exploration and use that to encourage citizen monitoring of benthic conditions in highly vulnerable streams.

Discussion Question: What type of support is GIT4 capable of providing to expand citizen monitoring efforts?

Metrics for Assessing Protection:

GIT 4 has discussed developing metrics with which to evaluate whether healthy watersheds are adequately protected. This suggests establishing criteria with which to judge whether healthy watershed health is assured into the future (e.g. Strength of zoning, % protected forest, etc.).

To initiate the discussion, the Work Group proposes to overlay CBP and TNC maps of protected lands with maps identifying threats to currently healthy watersheds (vulnerability to development, Marcellus Shale, etc.).

Next Steps:

- Present this proposal to GIT 4 on January 11th
- Get healthy watershed and stream data from states (maps, GIS layers)
- Combine healthy watershed, protected area, and threatened area maps for analysis

Possible next steps beyond definition and identification:

- Based on an analysis of protection status, the Work Group proposes that GIT 4 choose certain threatened and unprotected areas to see if there are other means of protection in place (active land trusts, effective zoning) and offer available GIT 4 support if needed.
- The Work Group recommends that the Maintain Healthy Watersheds Communication Workgroup create a protection template (a menu of protection tools) for localities to use as well as provide localities with reasons to protect and care about their healthy watersheds (such as cost avoidance). The goal is to use this identification and protection analysis to bring attention and resources to the protection of targeted, healthy watersheds.
- Define what counts as protection and determine how much protection is necessary to ensure the maintenance of a healthy watershed in the future
- Work with the Communication Work Group to create a protection template (a menu of protection tools) for localities to use
- Communicate this information in a useful manner
- Use our analysis to inform targeting of conservation resources

Comment [p4]: What is an unprotected watershed? One that is X% protected or not protected at all? Perhaps we need to consider a metric of "reasonable assurance" that lands will not be changed in adverse ways (e.g., current protection efforts, strength of zoning, low threat, etc.)?

Comment [p5]: What type of support? How will the effectiveness of our support be evaluated?

Comment [p6]: I get the attention part but what "resources" are we talking about? This is a recurring pitfall of the CPBO in that we talk a lot about targeting but is almost always left vague how such targeting will be used and who will use it.

Comment [KF7]: Could this be factored into the TMDL? If so, it would be good to communicate with potential users first to see what their needs are to develop a tool that is useful to them.

Comment [KF8]: This seems fuzzy, it would be good to get a sense of how states categorize protection efforts

Comment [KF9]: See two notes above.