

Quarterly Progress Meeting: Stream Health

Step 1: Summarize your outcome.

Outcome:

Continually improve stream health and function throughout the watershed. Improve health and function of 10 percent of stream miles above the 2008 baseline for the Chesapeake Bay watershed.

Lead and Supporting Goal Implementation Teams (GITs):

The Vital Habitats Goal Implementation Team (GIT2) leads the effort to achieve this outcome. It works in partnership with the Sustainable Fisheries, Water Quality, and Healthy Watersheds Goal Implementation Teams (GIT1, GIT3, and GIT4).

Participating Partners:

Participating partners include:

- State of Delaware
- Maryland Department of the Environment (*State of Maryland*)
- Johns Hopkins University (*State of Maryland*)
- Maryland Water Quality Monitoring Council (*State of Maryland*)
- Maryland State Water Quality Advisory Committee (*State of Maryland*)
- University of Maryland Center for Environmental Science (*State of Maryland*)
- State of New York
- Franklin & Marshall College (*Commonwealth of Pennsylvania*)
- Virginia Polytechnic Institute and State University (*Commonwealth of Virginia*)
- State of West Virginia
- District of Columbia
- Natural Resources Conservation Service (*U.S. Department of Agriculture*)
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- American Rivers
- Center for Watershed Protection
- Chesapeake Bay Trust
- Ecosystem Restoration and Planning, LLC
- Interstate Commission on the Potomac River Basin
- Maryland Stream Restoration Association
- National Fish and Wildlife Foundation
- Severn Riverkeeper
- Stroud Research Center

Progress:

Over the last decade, thousands of stream samples have been collected to help us determine the physical, chemical and biological health of our waterways. This information is also used to generate a Chesapeake Bay-wide indicator of stream health: the Chesapeake Bay-wide Index of Biotic Integrity, or Chessie BIBI. In 2010, the Chessie BIBI ranked 43 percent of streams in fair, good or excellent condition and 57 percent in poor or very poor condition. Experts are working to refine the Chessie BIBI and update the index with more recent data. Experts are also working to establish a baseline from which to measure progress toward the stream miles portion of this outcome. Both of these updates are expected in fall 2017.

Step 2: Explain the logic behind your work toward an Outcome.

The attached logic table (available as an Excel spreadsheet) explains the reasoning behind our work toward an Outcome. The table indicates the status of our management actions and denotes which actions have or will play the biggest role in making progress.

Step 3: Craft a compelling narrative.

What are our assumptions?

- (1) Are you on track to achieve your Outcome by the identified date?
 - a. What is your target? What does this target represent? (e.g., the achievement we believed could be made within a particular timeframe; the achievement we believed would be necessary for an Outcome's intent to be satisfied; etc.)?
 - i. Our target is to improve stream health and function of 10% of stream miles above the 2008 baseline. This represents improved stream habitat throughout the watershed.
 - b. What is your anticipated deadline? What is your anticipated trajectory?
 - i. Our deadline is 2025. We cannot measure our current progress or trajectory at this time. We are completing a refinement of the measurement tool, the Chessie BIBI, and are beginning work to establish the 2008 baseline.
 - c. What actual progress has been made thus far?
 - i. Cannot measure progress.
 - d. What could explain any existing gap(s) between your actual progress and anticipated trajectory?
 - i. Gaps include funding, both for project implementation and measuring the goal.

Are we doing what we said we would do?

- (2) Which of your management actions have been the most critical to your progress thus far? Why? Indicate which influencing factors these actions were meant to manage.
 - a. Key Actions under Management Approach 1: "Identify an appropriate suite of metrics to measure the multiple facets of stream health to complement the baywide Chessie BIBI" are critical to measuring our goal. The BIBI has been refined through work of a partner organization, ICPRB. This is addressing a data gap to develop a method to track the improvement/degradation of the marginal streams.

- b. Other actions, such as Key Action 5 (pooled monitoring) are critical to increasing stream restoration implementation in the watershed. This action is addressing the gap of sufficiency of data to demonstrate effectiveness of stream restoration practices
- (3) Which of your management actions will be the most critical to your progress in the future? Why? What barriers must be removed—and how, and by whom—to allow these actions to be taken? Indicate which influencing factors these actions will be meant to manage.
- a. Key Actions under Management Approach 1: See above. The establishment of the 2008 baseline is a future action we hope to find funding to address.

Are our actions having the expected effect?

- (4) What scientific, fiscal or policy-related developments or lessons learned have changed your logic or assumptions (e.g., your recommended measure of progress; the factors you believe influence your ability to succeed; or the management actions you recommend taking) about your Outcome?
- a. There has been work done by MDE to streamline the permitting process for stream restoration projects in Maryland. MDE has worked with the SHWG to develop these guidelines and has shared with the workgroup in hopes that other states can utilize the existing guidelines to help streamline restoration permitting in their states.
- (5) What would you recommend changing about your management approach? What new content will you include in your updated work plan?
- a. N/A
- (6) What opportunities exist to collaborate across GITs? Can we target conservation or restoration work to yield co-benefits that would address multiple factors or support multiple actions across outcomes?
- a. The SHWG has identified opportunities to collaborate with the Brook Trout, Fish Passage, Healthy Waters, and Fish Habitat outcomes. Collaboration has taken form in a STAC workshop co-sponsored by the Stream Health and Fish Habitat Workgroups.

How should we adapt?

- (7) What is needed from the Management Board to continue or accelerate your progress? Multiple asks of the Management Board should be prioritized where possible.
- a. Active leadership and involvement in accomplishing biennial workplan tasks.
 - b. Funding to establish the 2008 baseline and document progress towards our Outcome