|  |
| --- |
| **\_\_\_\_\_x\_\_\_\_\_ Outcome** Effective date: 2016-2018**Goal**: Restore, enhance and protect a network of land and water habitats to support fish and wildlife, and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.**Outcome**: *By 2025,* improve health and function of 10 percent of stream miles above the 2008 baseline for the Chesapeake Bay watershed.**Long term Target**: **2 year Target**: **Partner contributions to 2 year target**: *TBD* |
| **Management Approach 1:** Identify an appropriate suite of metrics to measure the multiple facets of stream health to complement the baywide Chessie BIBI. |
| **Key Action** *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.* | **Performance Target(s)***Identify incremental steps to achieve Key Action* | **Partners****Responsible***Identify responsible partner for each step.* | **Geographic Location** | **Timeline***Identify completion date (month and year) for each step.* | **Estimated Project Cost** *Best estimate total cost of project (need)* | **Available funding by Partner**  | **Total****Available Funding***Roll up of estimated funding* | **Factors Influencing and/or Gap***ID related factor or gap in Mgmt. Strat* |
| 1. Develop a definition of stream health, measured as the length (miles) of streams improved that shows the linkage between upland drainages and local stream health, and between local stream health and the health of downstream receiving waters
 |  |  |  |  |  |  |  |  |
| 1. Develop metrics/composite indices from routinely collected, non-biological data to measure changes in stream function to assess regional improvement
 |  |  |  |  |  |  |  |  |
| 1. Include common indicators of stream functions as part of monitoring guidance for stream restoration projects to demonstrate functional lift
 |  |  |  |  |  |  |  |  |
|  |
| 1. Align metrics of functional lift with stream restoration protocols crediting projects for the Chesapeake Bay TMDL for nutrient and sediment reduction
 |  |  |  |  |  |  |  |  |
| 1. Collaborate with the Healthy Watersheds GIT to identify marginal streams where restoration activity in-stream and, or in the watershed may improve stream functions and health. Once identified, work with the Partnership and funders to develop incentives to build on existing efforts to target beneficial restoration activity along with guidance for permits to implement the proposed activity
 |  |  |  |  |  |  |  |  |
|  |
| **Management Approach 2:** Provision of adequate funding and technical resources to support functional lift in stream restoration projects, in addition to nutrient and sediment reduction. |
| **Key Action** *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.* | **Performance Target(s)***Identify incremental steps to achieve Key Action* | **Partners****Responsible***Identify responsible partner for each step.* | **Geographic Location** | **Timeline***Identify completion date (month and year) for each step.* | **Estimated Project Cost** *Best estimate total cost of project (need)* | **Available funding by Partner**  | **Total****Available Funding***Roll up of estimated funding* | **Factors Influencing and/or Gap***ID related factor or gap in Mgmt. Strat* |
| 1. Subwatershed monitoring studies that could explore how much upland retrofit implementation is needed to optimize functional uplift when stream restoration and stormwater retrofits are installed as part of an integrated restoration plan
 |  |  |  |  |  |  |  |  |
| 1. Provide training to jurisdictions to implement expert panel report recommendations
 |  |  |  |  |  |  |  |  |
| 1. Work with funding agencies to provide multi-year funding to monitor effects of stream restoration
 |  |  |  |  |  |  |  |  |
| 1. Adopt a pooled monitoring approach for different stream restoration project designs that collectively generates data to demonstrate functional lift on a project-specific basis
 |  |  |  |  |  |  |  |  |
| 1. Establishment of an on-going stream restoration monitoring consortium and data clearinghouse within the CBP Partnership to share project data
 |  |  |  |  |  |  |  |  |
| 1. Recommend incentives for projects that provide both functional uplift and water quality benefits
 |  |  |  |  |  |  |  |  |
| 1. Literature synthesis to fully document response of stream ecological conditions from stream restoration management actions that may be used to support an expert panel similar to those available for expected nutrient and sediment reduction
 |  |  |  |  |  |  |  |  |
|  |
| **Management Approach 3: …**.State and federal agencies shall ensure the the participation of location communities in support of activities that advance project implementation. Ongoing coordination with stream restoration stakeholders needs to be improved to identify and remove barriers providing a clearly defined path to expedite the submittal and review of permit applications, whether the proposed activity is for marginal streams, impaired streams, or for credit in the Bay TMDL. |
| **Key Action** *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.* | **Performance Target(s)***Identify incremental steps to achieve Key Action* | **Partners****Responsible***Identify responsible partner for each step.* | **Geographic Location** | **Timeline***Identify completion date (month and year) for each step.* | **Estimated Project Cost** *Best estimate total cost of project (need)* | **Available funding by Partner**  | **Total****Available Funding***Roll up of estimated funding* | **Factors Influencing and/or Gap***ID related factor or gap in Mgmt. Strat* |
| 1. Resolution of issues to create a more transparent and consistent stream restoration permit approval process in accordance with appropriate regulations and policies.
 | Following the release of the Chesapeake Bay TMDL Regional General Permit, the Stream Health Work Group will determine how it will address any of the issues identified and will include actions in the biennial work plan accordingly |  |  |  |  |  |  |  |
| *[Placeholder pending discussion]* Comprehensive review of stream restoration permit documentation |
| 1. Review and identify opportunities to improve stream health and function, while meeting other regulatory requirements, through the coordination of multiple regulatory programs that have identified principal stressors impairing streams
 |  |  |  |  |  |  |  |  |

|  |
| --- |
|  |
| **Management Approach 4:** Develop and promote holistic stream restoration design guidelines that identifies the level of degradation and improvement of stream functions and key stressors/factors limiting potential uplift. |
| **Key Action** *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.* | **Performance Target(s)***Identify incremental steps to achieve Key Action* | **Partners****Responsible***Identify responsible partner for each step.* | **Geographic Location** | **Timeline***Identify completion date (month and year) for each step.* | **Estimated Project Cost** *Best estimate total cost of project (need)* | **Available funding by Partner**  | **Total****Available Funding***Roll up of estimated funding* | **Factors Influencing and/or Gap***ID related factor or gap in Mgmt. Strat* |
| 1. Development of function-based stream assessment framework
 |  |  |  |  |  |  |  |  |
| 1. Develop case studies to document functional response in stream with various management interventions
 |  |  |  |  |  |  |  |  |
| 1. Add language to MS4 permits to recognize function uplift as part of nutrient and sediment credits towards meeting the Bay TMDL
 |  |  |  |  |  |  |  |  |
|  |
| **Management Approach 5:** Work with Chesapeake Bay Partners to include the Enhancing Partnering, Leadership and Management GIT, to enhance the capacity of local governments, organizations and landowners of beneficial stream restoration and maintenance practices |
| **Key Action** *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.* | **Performance Target(s)***Identify incremental steps to achieve Key Action* | **Partners****Responsible***Identify responsible partner for each step.* | **Geographic Location** | **Timeline***Identify completion date (month and year) for each step.* | **Estimated Project Cost** *Best estimate total cost of project (need)* | **Available funding by Partner**  | **Total****Available Funding***Roll up of estimated funding* | **Factors Influencing and/or Gap***ID related factor or gap in Mgmt. Strat* |
| 1. Engage with local governments to inform landowners as well as the general public of beneficial stream restoration and maintenance practices, as well as individual homeowner practices (e.g. rain barrels, lawn care) and their impact on the community
 |  |  |  |  |  |  |  |  |
| 1. Provide research and, or documentation that identifies the nexus between improving stream functions and health and broader societal issues such as environmental justice in support of the Diversity Outcome
 |  |  |  |  |  |  |  |  |