



The Habitat Goal Implementation Team convened this workshop such that stream restoration projects within the Bay watersheds can create the functional lift needed to restore Bay health and not solely focus on nutrient and sediment reductions.



## Designing Sustainable Stream Restoration Projects within the Chesapeake Bay Watershed



STAC Workshop Report  
May 6-7, 2014  
Annapolis, Maryland



STAC Publication 15-003



- The workshop proposed a function-based stream restoration project process to generate discussion that formed the basis for the key workshop findings and recommendations.



# Recommendations from workshop

- A group, such as the CBP's *Stream Health Workgroup*, should adopt the proposed *Function-based Stream Restoration Project Process* outlined in this report as a starting point to develop a unified process and work with the Partnership to *facilitate development of the proposed guidance*.
- Participants agreed that *a science-based, methodological process is needed to clearly define project goals and objectives that lead to the identification of measurement parameters to evaluate the restoration of stream functions*.
- Participants identified areas for which monitoring efforts may enhance stream restoration science and implementation. For example, there is a need to *develop a baseline list of critical stream functions and assessment parameters to monitor the effectiveness of stream restoration* to support the programmatic goal of the Chesapeake Bay TMDL, which is the driver for many stream restoration projects in the watershed.



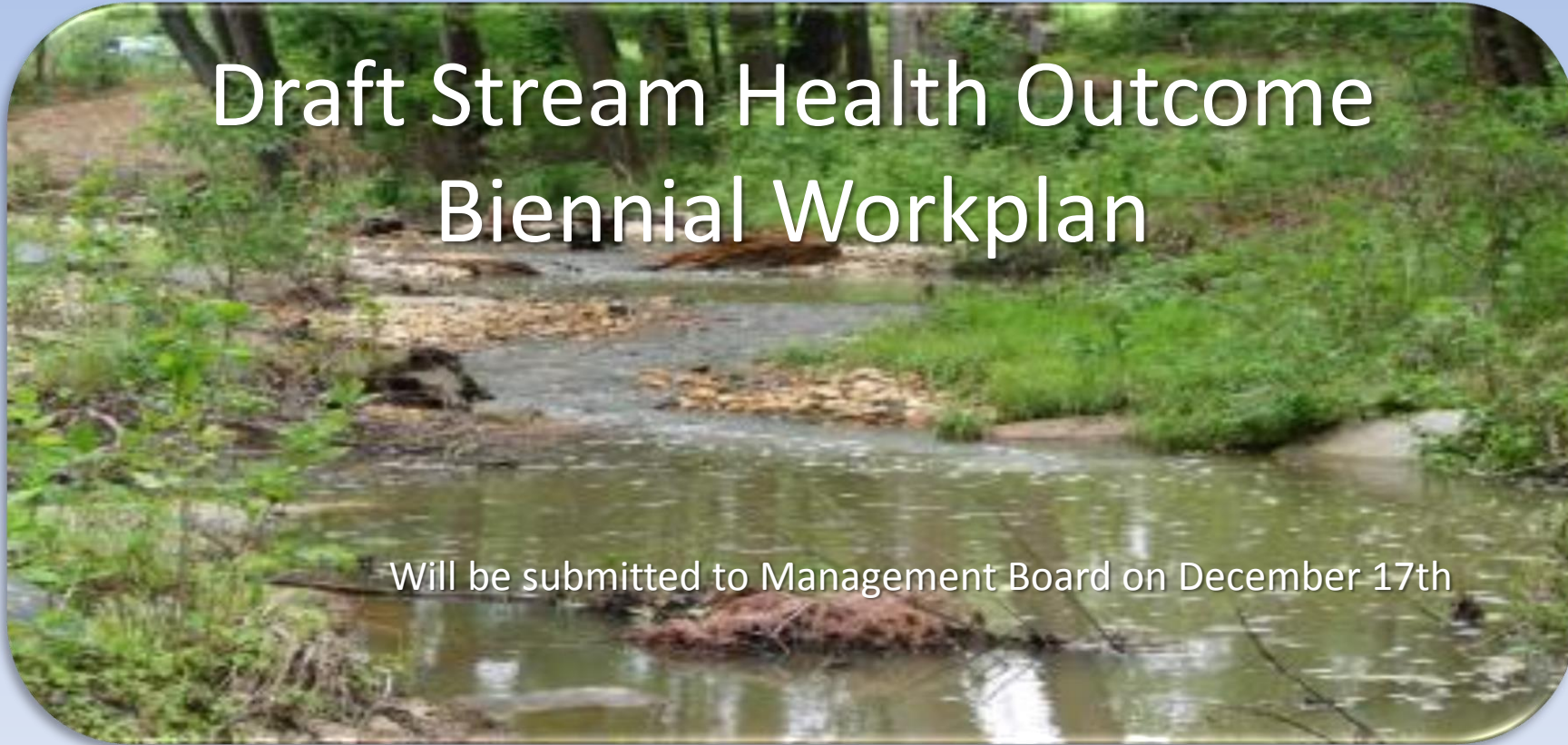
# Recommendations from workshop

- Participants recommended *developing a monitoring consortium* or framework that would *pool monitoring resources and address key research issues* such as critical stream functions, intermediate functional standards, continuum of risk, and at-risk or non-functioning performance standards, among others.
- *Monitoring data generated from stream restoration projects should provide the potential to demonstrate restored stream functions.* Participants agreed that the existing monitoring needs required by permits were not necessarily sufficiently robust to assess the full breadth of stream functions. It was also acknowledged that permit monitoring requirements are prescribed based on the presence/absence of aquatic resource tradeoffs and may not require monitoring data beyond stream stability. *Pooled monitoring to address specific research questions* should be pursued.
- It is recommended that *the Urban Stormwater Workgroup and Stream Health Workgroup coordinate efforts to develop guidance (e.g., via an expert panel) to align how the restoration/enhancement of stream functions translates to nitrogen, phosphorus, and sediment 'credit'.*



# Stream Health Outcome

*SWHG Co-Chairs: Rich Starr, FWS and Neely Law, CPB Coordinator*





# Strategic Approach

- Adopts a holistic approach to improve stream health and functions .
- Copy can be found here:  
[http://www.chesapeakebay.net/documents/22039/2c\\_stream\\_health\\_6-24-15\\_ff\\_formatted.pdf](http://www.chesapeakebay.net/documents/22039/2c_stream_health_6-24-15_ff_formatted.pdf)

5 Key Strategies  
14 Key Actions



# Stream Health Outcome Management Strategy

- **Management Approach 1 - MEASUREMENT**
  - Identify appropriate suite of metrics for stream health to complement Chessie BIBI
- **Management Approach 2 - RESEARCH**
  - Provide funding and technical resources to support function lift for projects
- **Management Approach 3 - PERMITTING**
  - Federal and State coordination with local communities in support of project implementation



# Stream Health Outcome Management Strategy

- **Management Approach 4 – SCIENTIFIC-BASED PROJECT PROCESS**
  - Recommendations to identify level of stream function degradation and improvement and key stressor limiting potential lift & training
- **Management Approach 5 – CAPACITY-BUILDING**
  - Actions to provide information for elected officials to improve understanding, protection and restoration of streams



# Management Approach 1

Key Action	Performance Targets
<p>4. Align metrics of functional lift with stream restoration protocols crediting projects for the Chesapeake Bay TMDL for nutrient and sediment reduction by incorporating recommendations from BMP Verification Committee for stream restoration into state Verification Plans</p>	<ul style="list-style-type: none"><li>• Bay Agreement and supporting major documents set objectives for projects: reduce excess N, P, and sediment loads to Bay and improve Chesapeake Bay BIBI. These objectives should be explicitly mentioned and should form basis for benefits metrics selected.</li></ul>



# Management Approach 2

Key Action	Performance Targets
<p>5. Implement pooled monitoring approach throughout Chesapeake Bay watershed</p> <p>6. Identify use and best application of current and research-based monitoring efforts to advance implementation of stream restoration practices and projects</p>	<ul style="list-style-type: none"><li>• Scott Lowe (as MSRA rep) volunteered to lead coordination efforts for potential expansion of pooled monitoring approach to other jurisdictions</li><li>• Added other interested jurisdictions</li><li>• SHWG meeting comments to further discuss to distinguish with Action 5</li></ul>



# Management Approach 4

Key Action	Performance Targets
10. Establish minimum stability monitoring requirements for restoration projects	<ul style="list-style-type: none"><li>Interested parties identified with South River Fed lead coordination role</li></ul>



# Management Approach 4

Key Action	Performance Targets
<p>11. Establish joint SHWG and USWG work group as per STAC recommendation to develop guidance (e.g., via an expert panel) optimize stream restoration projects to reduce excess nitrogen, phosphorus, and sediment loads delivered downstream, as well as benefit instream aquatic life to improve Chesapeake Bay BIBI. Also use work group to address other technical issues identified in STAC Workshop on Sustainable Stream Restoration.</p>	<ul style="list-style-type: none"> <li>• Identify work group facilitator and reps from SHWG and USWG.</li> <li>• Establish charge for work group</li> <li>• Establish list of expected outcomes and deliverables</li> <li>• Develop timeline</li> <li>• Get approval from SHWG and USWG</li> </ul>

