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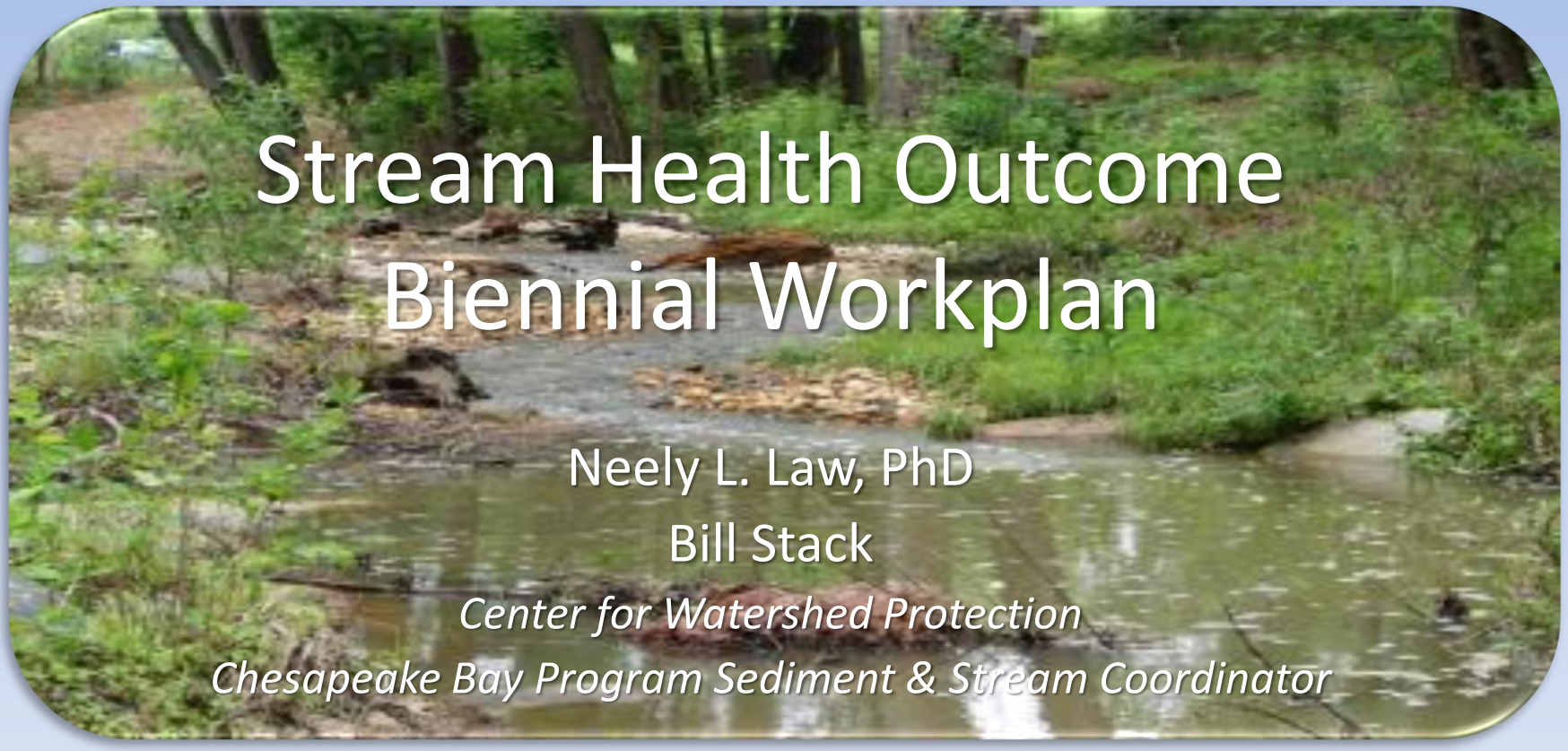

Stream Health Outcome Biennial Workplan

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Center for Watershed Protection

Chesapeake Bay Program Sediment & Stream Coordinator

CENTER FOR WATERSHED PROTECTION

Habitat Goal Implementation Team
Fall Meeting
October 14, 2015

Stream Health Outcome

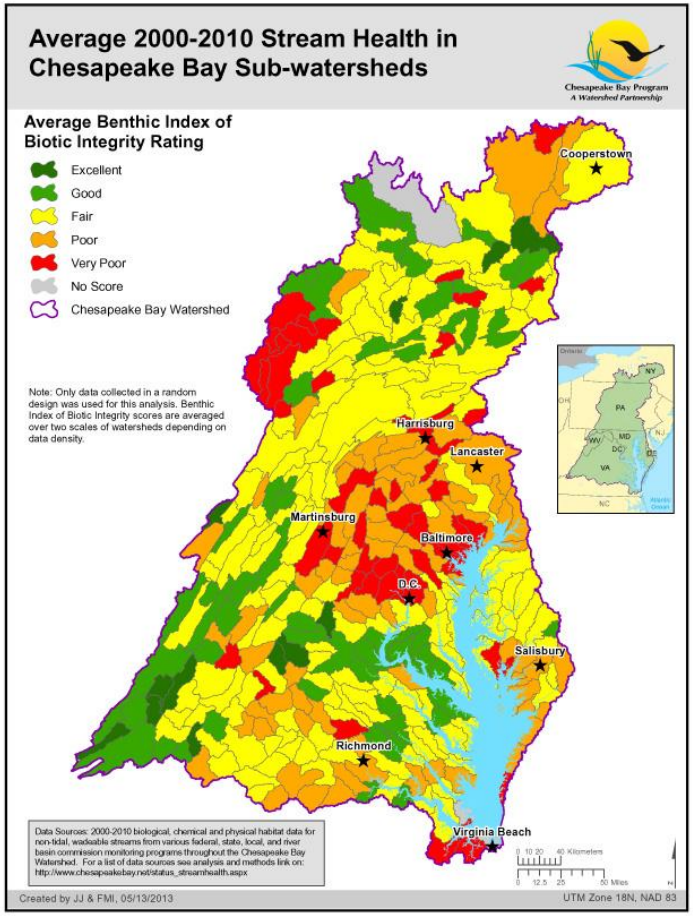
SWHG Co-Chairs: Rich Starr, FWS and Neely Law, CPB Coordina

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.

Chesapeake Basin-wide Index of Biotic Integrity for streams

- "Chessie BIBI" stream health indicator
- Biological endpoint
- Function-based approach to define stream health
  - Many ways to define....



2000 - 2010

http://www.chesapeakebay.net/indicators/indicator/health_of_freshwater_streams_in_the_chesapeake_bay_watershed

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Stream Health

- Local TMDLS for numerous chemical and physical, biological impairments

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Stream Health

- Watershed Implementation Plans (WIPs)

	2009 Progress	2011 Progress	2013 Progress	2025 WIP Commitment
Urban Stream Restoration	165,375	208,509	385,190 (17%)	2,332,664
Non-Urban Stream Restoration	191,638	501,120	1,041,234 (92%)	1,128,757
Total			1,426,424 41%	3,461,421

~ 700 miles

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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

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

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The Habitat GIT convened this workshop in 2014 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

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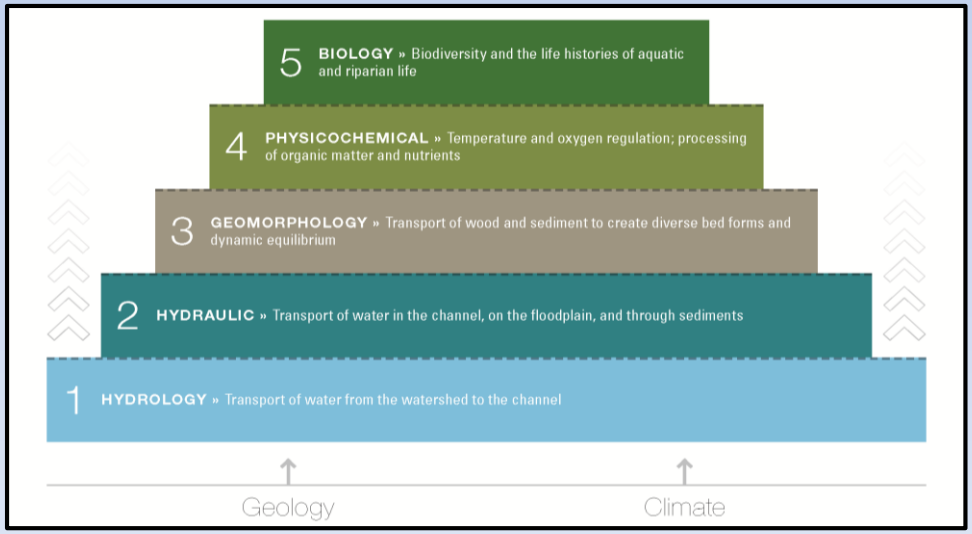
Function-Based Approach

- Generate discussion that formed the basis for the key workshop findings and recommendations.
- Streams Function Pyramid Framework used as an example function-based approach

  - Importance to highlight relationships amongst stream functions



Workshop Recommendation

- It is recommended that the USWG and Stream Health Work Group coordinate efforts to develop guidance (e.g. via expert panel) to align how the restoration/enhancement of stream functions translates to nitrogen, phosphorus and sediment ‘credit’.

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- This guidance would discuss how stream restoration BMP protocols fit within a functional framework for stream restoration project design, as well as verification guidance such that post construction assessments can verify that the project is meeting minimum performance standards to warrant use of either the general interim pollutant reduction rates or the reduction rates related to one of four specific protocols approved by the expert panel.

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Management Approach 4

Key Action	Performance Targets
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.	1. Identify work group facilitator and reps from SHWG and USWG. 2. Establish charge for work group 3. Establish list of expected outcomes and deliverables 4. Develop timeline 5. Get approval from SHWG and USWG