STREAM RESTORATION: CHESAPEAKE BAY TMDL & SECTION 404 COMPENSATORY MITIGATION

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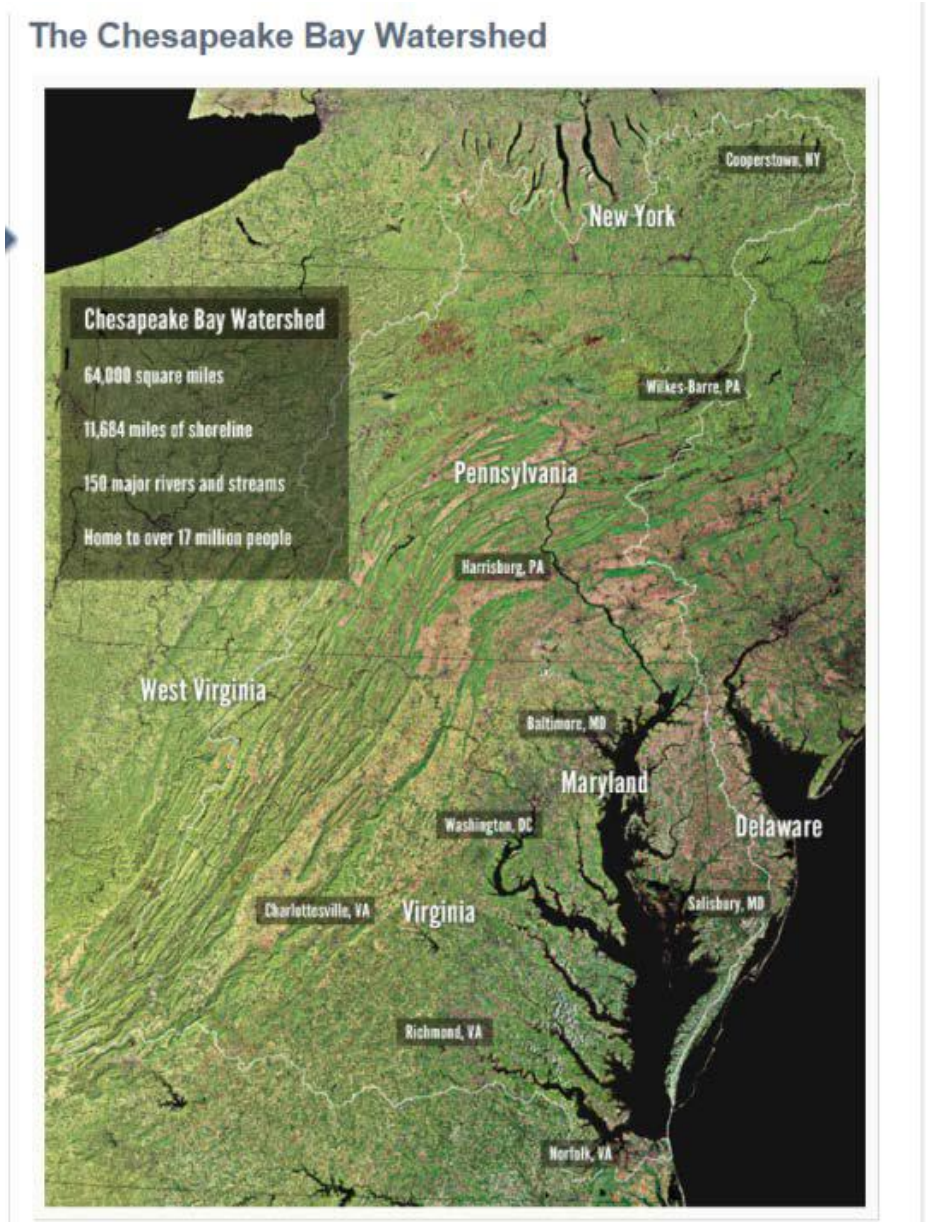
WHAT IS THE CHESAPEAKE BAY TMDL?

On December 29, 2010, the U.S. EPA established the Chesapeake Bay Total Maximum Daily Load (TMDL): A comprehensive "pollution diet".

The Bay TMDL was a driver for initiation of sweeping actions to restore clean water in the Chesapeake Bay and region's streams, creeks, and rivers.

A TMDL is the calculation of the maximum amount of pollution a body of water can receive and still meet state water quality standards.

Bay watershed limits equaled a 25% reduction in N, 24% reduction in P, and 20% reduction in sediment.



WHY WAS THE BAY TMDL REGIONAL GENERAL PERMIT (RGP) DEVELOPED?

Watershed implementation plans (WIP) identified significant number of TMDL stream restoration projects that would require USACE permits

- Certain Bay TMDL stream restoration activities having minimal impacts were not eligible for Department of the Army authorization using existing permit tools (e.g., Nationwide Permits, General Permits)

- Permitting tool for TMDL stream restoration activities to support the streamlining goals of the Chesapeake Bay EO

- Project improvements for both water quality and ecological functional lift

STREAM RESTORATION CHALLENGES

Ponding
Conversion of aquatic resource types

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Iron Oxidizing Bacteria Blooms
Fish Barriers

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Loss of canopy cover
Invasive species

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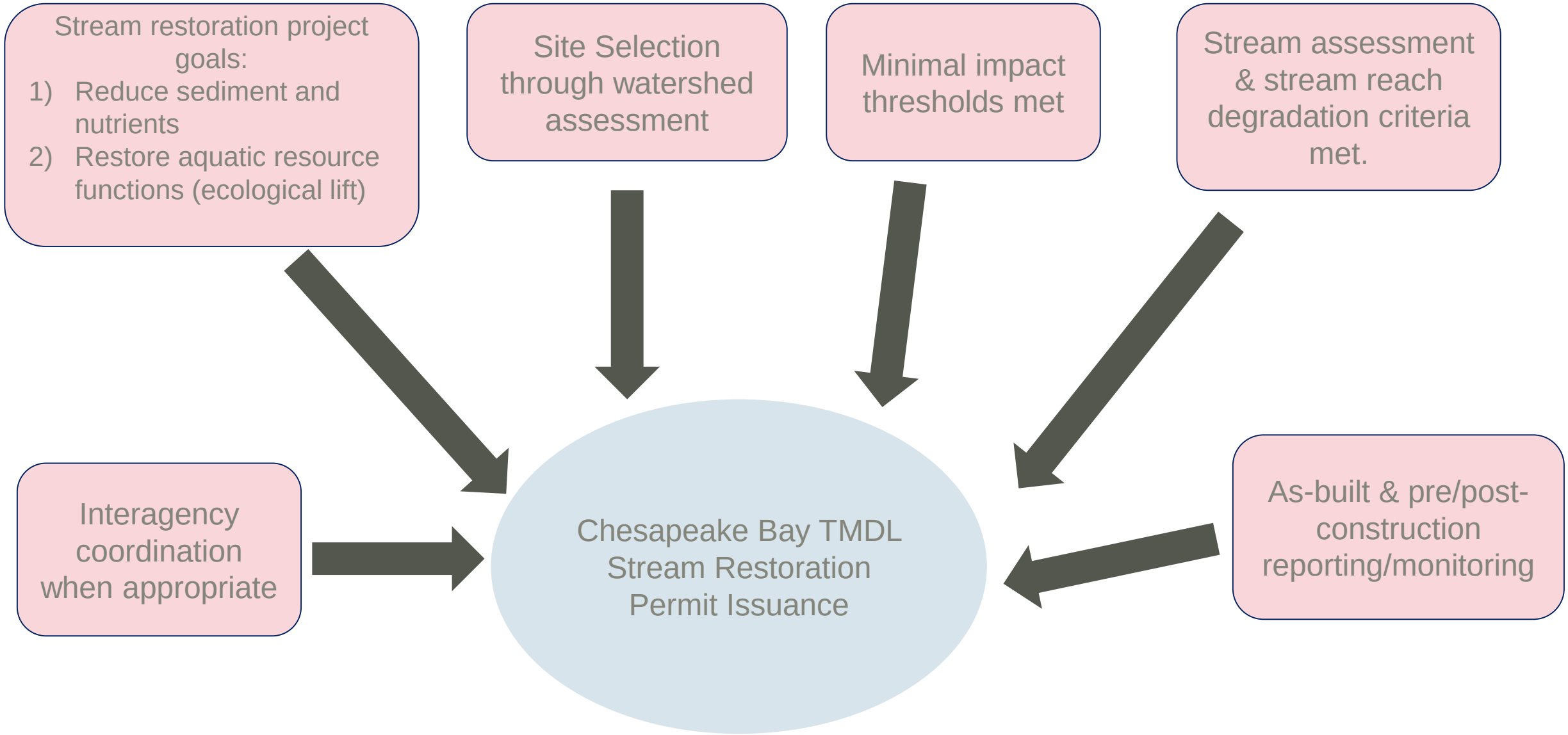
APPLICABLE AREAS OF BAY TMDL RGP

Geographic Areas: Maryland, District of Columbia, and military installations within Baltimore District Regulatory area of responsibility (Fort Belvoir, Fort Myer, and the Pentagon)

Waters: Nontidal waters and nontidal wetlands in the Chesapeake Bay watershed

BAY TMDL RGP STREAM RESTORATION FRAMEWORK



OTHER FRAMEWORK SUPPORT

Quarterly meetings between regulators, applicants, and practitioners

Chesapeake Bay Trust & other partners support for restoration research

Restoration Research Award Program
Application Package

www.chesapeakebaytrust.org / 410 974 2941

AT A GLANCE

The Restoration Research Award Program links the questions to key restoration questions focused on the effectiveness of watershed restoration projects

Information Session: January 11 from 11 am to 12 pm, webinar details in the "Information Session" section.

Applicant Q&A with Review Panel: Apr 17, 2019 (11:30 am to 12:30 pm)

Deadline: 4:00 pm, February 2, 2019

Submit Your Application by following instructions at: www.cbtrust.org/restoration-research

Background and Goal of the Program

Efforts to restore the Chesapeake Bay and its tributaries call for a significant increase in the number of watershed restoration projects intended to improve both water quality and habitat. The practitioner, regulatory, management, policy, and scientific communities are united in their desire to support the best, most cost-effective practices at the most optimal sites. However, differences of opinion sometimes exist, and questions about the performance and function of some of these practices persist.

The goal of this award program is to answer several key restoration questions that serve as a barrier to watershed restoration project implementation. Funding partners hope that answering these questions will ultimately lead to increased confidence in proposed restoration project outcomes, clarification of the optimal site conditions in which to apply particular restoration techniques, information useful to regulatory agencies in project permitting, and information that will help guide monitoring programs.

This program is funded by Chesapeake Bay Trust (the Trust), the Maryland Department of Natural Resources, the Maryland Department of Transportation State Highway Administration (MDOT SHA), Montgomery County Department of Environmental Protection, and the National Fish and Wildlife Foundation through the Environmental Protection Agency's Chesapeake Bay Program Office. This program supports the Pooled Monitoring Initiative that is designed to connect key stormwater and stream restoration questions posed by the regulatory and practitioner communities with researchers in the scientific community.

Information Session

A workshop at which the program will be described and questions from potential applicants will be answered will be held January 11, 2019, from 11 am to 12 pm. Interested parties may attend via webinar at https://cbtrust.webex.com/cbtrust/j.php?MTID=m0799b5b8bfa5085b742d0bde40b8213

1

ECOLOGICAL STREAM RESTORATION PRACTICES

	Stream Restoration Practice	
	Chesapeake Bay TMDL	**Section 404 Compensatory Mitigation**
Project Objectives	Primary: Reduce downstream transport of sediment and nutrients Restore aquatic resource functions of a degraded stream (404 permit objective)	Restore natural/historic aquatic resource functions of a degraded stream (suite of functions)
Implementing Regulation	State water quality regulations	Federal mitigation rule
Users	Generally public sector	Private and public sector
Standards/Management	Requirements for monitoring not as rigorous. Less or no requirements for performance standards, site protection, financial assurances, and long term management	Rigorous requirements for performance standards, monitoring, site protection, financial assurances, and long term management

CONSIDERATIONS FOR COMBINING 404 MITIGATION & TMDL STREAM RESTORATION PROJECTS

Stream restoration credits can be used as either 404 offsets or as a TMDL offset. Once debited for either purpose, the credits are retired.

Tracking and accounting challenges - Ledgers should be clear to avoid selling/counting a credit twice – partner with state water quality agency

Entire stream restoration project must meet more rigorous 404 compensatory mitigation standards - site protection, financial assurances, monitoring, performance standards, and long-term management and associated funding

Stacked credits have greater potential utility to a mitigation bank sponsor & cross-programmatically

Better quality project designs for complex ecological lift, rather than single-function sites

NEXT STEPS

Bay TMDL RGP is up for renewal in June 2020.

Incorporate lessons learned and key technical and programmatic issues into reissuance decision to ensure high quality projects that result in both reliable and verifiable pollutant reduction and restoration of stream functions that support biological resources

Develop stream mitigation protocol (MD)

QUESTIONS?