Clean Water Quarterly Progress Meeting Summary
August 13, 2020

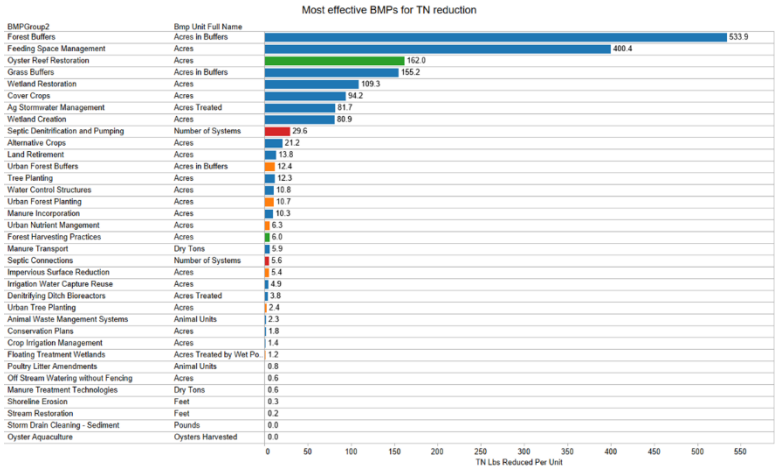
Forest Buffers

https://www.chesapeakeprogress.com/abundant-life/forest-buffers

Outcome: Restore 900 miles per year of riparian forest buffer and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.

High-level summary:

- We are far off-track in meeting our buffer goals
- We haven't fully addressed the factors from 2 years ago
- There are new opportunities
- We need unprecedented leadership from CBP at various levels



Success and Challenges

- Existing programs are inadequate
- Looking at a new natural filters restoration programs
- Secured additional technical assistance, but more is needed
- Better data for geographic and demographic targeting
- Successes in using buffers as a requirement to get to other state or federal funding
- Programmatic coordination and prioritization still lacking
- Science shows buffers are a priority practice, but the current systems do not make it a priority practice

On the Horizon

- New provisions in the 2018 Farm Bill
- Accessibility of public/private financing
- New high-res land use and hydrology data
- COVID-19 budget, logistical impacts
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We plan to:

- Work within CBP to elevate and integrate forest buffers with other projects
- Look at state/federal landowner assistance programs that could include or require buffers
- Develop and implement the natural filters restoration program
- Explore opportunities for public/private finance and provide stability to grow buffer workforce

How you can help:

- Support the new Natural Filters Restoration Program
    - Identify public funding that could be leveraged (e.g. SRF, 319)
    - Dedicate a staff person to help develop the program and stay engaged
- Prioritize buffer programs
    - Identify 1-2 landowner assistance programs that could include or require buffers, amend the program and pilot the improved program
    - Develop comprehensive statewide buffer strategy for all partners

2025 Watershed Implementation Plans (WIPs)

https://www.chesapeakeprogress.com/clean-water/watershed-implementation-plans

Outcome: By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll a standards as articulated in the Chesapeake Bay TMDL document.

Success and Challenges

- Success: Substantial amounts of technical and modeling analyses completed to date to support planning and implementation efforts
- Challenge/Opportunity: Further collaboration needed to better understand changes to levels of effort to meet water quality goals

Resources	Research	COVID
Need additional capacity, resources, and assistance to accelerate implementation, particularly in the agricultural sector	Need additional research to address partnership priorities such as co-benefits, ecosystem services, and climate-resilient BMPs	Presents uncertainty to future implementation efforts to attain water quality goals

Progress

- On track to achieve sediment targets
- Further implementation is needed to achieve nitrogen and phosphorus targets by 2025

On the Horizon

- Adjusting implementation efforts to account for COVID-19
- Continue to address climate change and Conowingo Dam
- Incorporate diversity, equity, inclusion and justice into our work
- Understand the role of behavioral change in our implementation efforts
- Addressing BMP verification issues and concerns
- Explore needs to accelerate implementation, particularly in Ag sector

We plan to

- Prioritize and narrow actions to strategic actions that strategically move us closer to 2025 goals
- Work more closely across the GITs and workgroups (e.g., forestry workgroup) to create opportunities to achieve water quality goals and attain added benefits

Help needed

- Criteria to help prioritize actions. Does the action …
    - Address a priority identified by the partnership during the next two-year period?
    - Result in a benefit that is applicable to more than one jurisdiction?
    - Support/accelerate implementation to achieve water quality goals?
- Identify specific assistance to accelerate implantation particularly in the agricultural sector
    - Additional staff, increased funding, finer-scale decision tools?
    - What will help implement BMPs that are more effective to reduce nitrogen loads?
- Optimizing nitrogen and cost effectiveness in the correct landscape setting to get closer to N targets

Water Quality Standards Attainment and Monitoring

https://www.chesapeakeprogress.com/clean-water/water-quality

Outcome: Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water-quality standards and trends in reducing nutrients and sediment in the watershed.

Successes:

- Making good progress on analysis and communication
- New analysis tools
- Enhanced communications
- Implemented CBP's Strategic Science and Research Framework
- Advanced scientific syntheses completed
- Supported an MOU using citizen science based data

Challenges:

- Monitoring capacity is highly stressed and declining
- Unassessed criteria remain a hurdle for delisting decisions of State-adopted water quality standards with our existing framework
- Contraction of traditional long-term monitoring programming
- Limited non-traditional data use in assessments
- Needs for deeper explanation of water quality response to BMPs

On the Horizon:

- Fiscal: fixed and reduced funding levels in conjunction with a global pandemic; fewer data are available to inform Bay and watershed analyses leading to greater uncertainty
- Policy: improve water quality standards attainment indicators; discussing EPA policy for allowable grant match; stronger connection between monitoring results and implementation practices
- Science: updating assessments and explaining patterns with new data and approaches; incorporating new technology and climate impacts into future monitoring plans; utilizing citizen science to fill gaps

Based on what we learned, we plan to

- Fiscal: work with financial professionals to explore financing options; use new, already funding data
- Policy: increase jurisdiction use of results in 2-year milestones, engage more science providers
- Science: expand analysis collaboration; adopt freely available data streams; apply new tools

Help needed:

- Monitoring support: Maintain existing monitoring support
    - Request the MB commit to a future discussion on alternative financing strategies for monitoring
    - Commit to assessing application of matching funds in 117e grants and adjust matching portfolio
    - Request WQGIT and STAR formally incorporate new data streams into attainment assessments
    - Request STAC and STAR to work with partnership community to extend monitoring capacity
- Jurisdictional involvement: Maintain existing funding support
    - Commit to providing a list of jurisdictional participants for Criteria Assessment Protocol Wrkgrp
    - Work with jurisdictions on making their technical staff available to help improve use of monitoring results to inform 2-year milestones

Toxic Contaminants Policy and Prevention

https://www.chesapeakeprogress.com/clean-water/toxic-contaminants-policy-and-prevention

Outcome: Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

Progress:

- Greater than 80% of the Bay's tidal waters have a full or partial overlay with an impairment due to toxics
- Substantial work has been completed; however, levels of PCBs in fish are mostly unchanged
- The toxic Contaminants Workgroup (TCW) recommends continuing within the five existing management approaches

Success and challenges:

- Leveraging clean water act total maximum daily loads (TMDLs) remains the major strategic approach
- Implementation of management actions under established TMDLs is limited
- Jurisdictions follow unique paths in designing and implementing PCB TMDLs including modeling tools
- The jurisdictions continue PCB monitoring including fish tissue. No synthesis of that data is available.
- Fish Consumption Infographic is complete – roll-out and promotion continues
- Report on the effect of upgrade of wastewater treatment plants on PCB release
- PCB consortium – partners requested that analysis be delayed until after WIP III
    - TCW believes this approach has substantial potential merit and intends to pursue it in the coming planning cycle
    - Larger effort than what the Toxic Contaminants Workgroup can provide on its own

On the horizon:

- Fiscal development: settlement of a class-action lawsuit against Bayer (Monsanto) Corp. Some of the settlement funds will be directed to localities in the Chesapeake watershed including Baltimore Back River and DC Potomac/Anacostia.
- Strategic question is how can the CBP partnership leverage the funds and help to ensure that the PCB remediation activities are efficient and informed by the partnership's agencies.
- **What is the opportunity?**
    - Share lessons learned and best practices across the jurisdiction as the remediation activities are conducted, as well as inter-jurisdiction coordination in shared sub-watersheds such as in the Anacostia
    - TCW response is to make workgroup meetings a place for sharing, updates and promoting coordination among jurisdictions. As an example of possible work to be tracked and supported by a PCB consortium.

Help needed:

- Allocate more staff and financial resources to move PCB TMDLs forward
- Use existing permit controls (MS4, wastewater) to gain more low-detection data
- Find co-benefits with N/P/S reductions
- Consider a stronger consortium

Toxic Contaminants Research

https://www.chesapeakeprogress.com/clean-water/toxic-contaminants-research

Outcome: Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, polychlorinated biphenyls (PCBs) and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

Progress:

- Making fair progress, but sometimes hard to gain traction for toxic contaminants
- Making good progress on further characterizing the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants.
- Making fair progress on identifying which BMPs might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants.

On the Horizon:

- Science: existing studies to reduce PCSBs; mercury and EDC findings; Per- and polyfluoroalkyl substances (PFAS) status and microplastics toxicity
- Policy: Mercury emissions; PFAAS thresholds; microplastics regulations
- Fiscal: COVID-19 impacts

Based on what we learned, we plan to

- Management approach 1(MA1): Opportunity for integrated mercury monitoring
- MA2: Nature and extent of PFAS in watershed surface waters and fish
- MA3: Status/occurrence of toxic contaminants in wastewater and urban streams and select ag settings
- MA4: GIT funding proposal to explore approaches to including toxic contaminants in CBP decision tools
    - CBP responses to STAC report
- MA5: Support the microplastics action team, limit focus on other issues

Help needed:

- Science:
    - Coordinated monitoring network for mercury
    - Coordinated science approach for PFAS
- Policy:
    - Encourage jurisdictions and federal agencies to consider toxic contaminants in nitrogen, phosphorus and sediment management actions in two-year milestones
    - Approve and implement CBP responses to STAC CEC report

Proposed CBP responses to help needed:

- Enhance interaction with stakeholders for contaminant information
- Take advantage of Phase III implementations/2-year milestones
- Enhance communication materials to inform decisions
- Compile results and expand BMP studies of contaminant mitigation and relation to nutrients and sediment reductions
- Include selected BMP results in CBP tools