WQ GIT #3: Methods to Integrate Co-Benefits of Toxic Contaminant Reduction into Decision Tools

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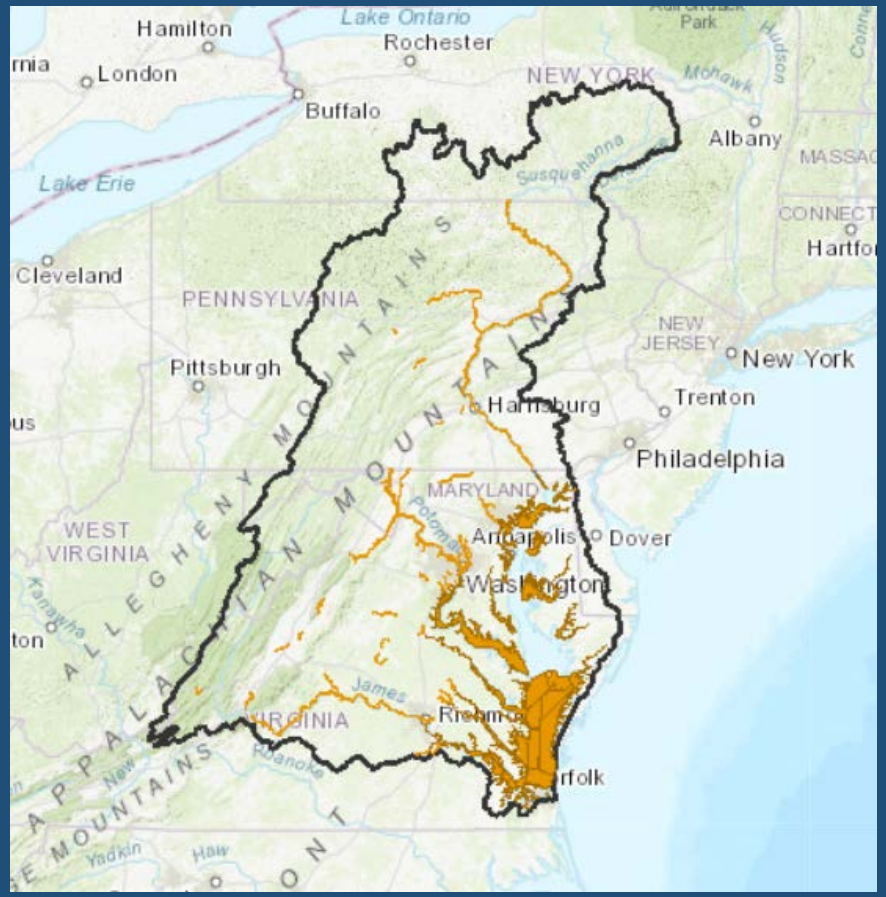
Summary – Proposed Project Outcomes

Chesapeake Bay Program
A Watershed Partnership

- Major Issues: Reduce PCBs and urban contaminants; make fish safer to eat.
- Develop methods and provide improved information to link research to needed removal efficiencies for select urban contaminant Best Management Practices (BMPs) into Chesapeake Assessment Scenario Tool (CAST) and other appropriate management tools



Summary- Proposed Project Steps

1. What BMPs?
2. Literature review of PCB reduction in BMPs and WWT → Link research to appropriate removal efficiencies (other information) needed for integration into tools
3. Review state of science related to surrogates where information is sparse to estimate contaminant removal in BMPs
4. Consult with BMP expert panel coordinator
5. Form and meet quarterly with technical advisory panel that includes CBPO watershed model staff, local and state jurisdictions, and technical experts
6. Summary report – roadmap to integrate contaminants into tools

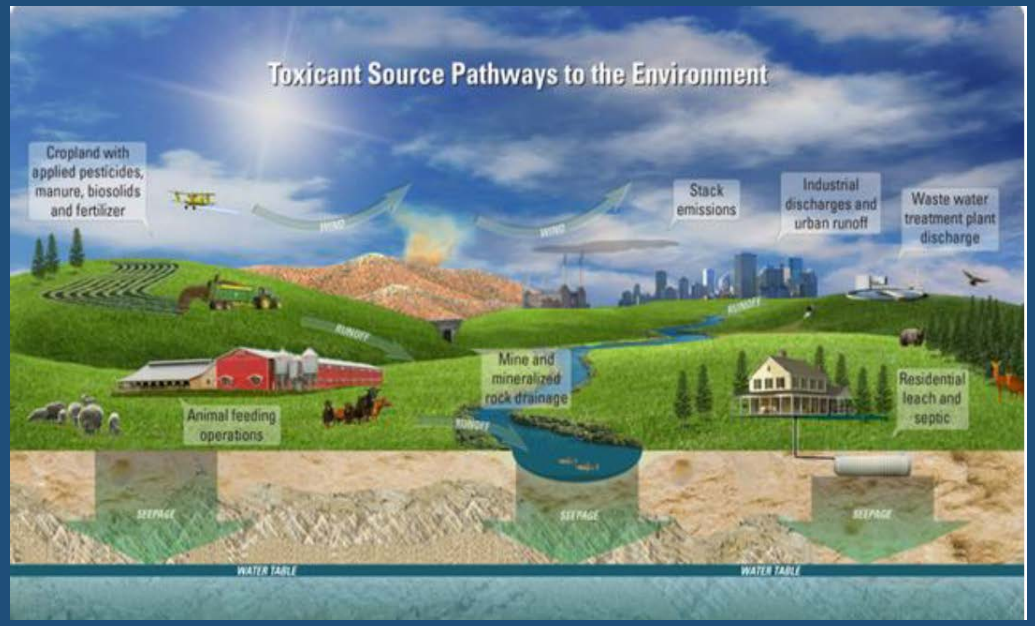
Relevance to Management Strategy and Action Plan

- Research Outcome: "IDENTIFY WHICH **BEST MANAGEMENT PRACTICES MIGHT PROVIDE MULTIPLE BENEFITS OF REDUCING NUTRIENT AND SEDIMENT POLLUTION AS WELL AS TOXIC CONTAMINANTS IN WATERWAYS**"
- Management Approach 4: Science to help prioritize options for mitigation to inform policy and prevention
  - TCW recognizes the need to understand advances in the contaminant removal in various BMPs and WWT processes as outlined in LAP
  - Integration of research findings of contaminant removal in BMPs with CBP tools is beyond capacity of TCW

Road map is needed to translate literature findings into use within tools

Proposed Project as a Catalyst

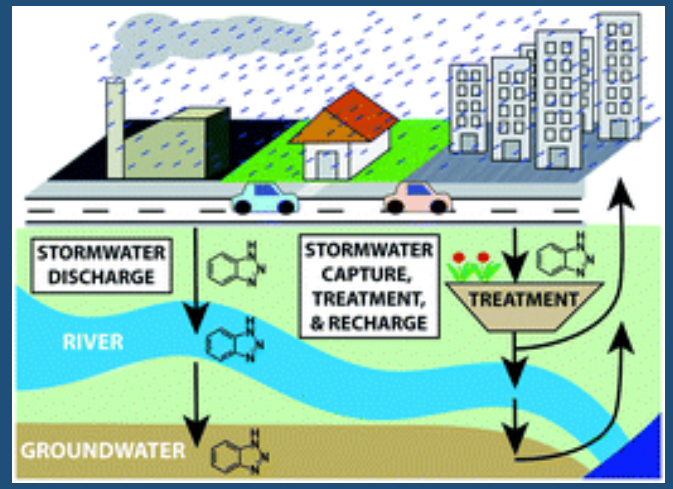
- In-kind support from USGS to manage project
- TCW tracking many advances in quantifying removal of contaminants in BMPs, WWT, and in stream remediation as part of LAP
- Logical follow up from qualitative removal assessment in BMPs (urban and ag), STAC workshop (recommendations from CBPO) and WWT removal of PCBs (2019 GIT-funded project)



Path forward to integrate the research with tools used by jurisdictions is KEY to advancement of co-benefits for contaminant removal

Proposed Project Timing?

- New and growing body of information to overcome limitations for co-benefits between nutrient, sediment and toxic contaminant reduction (e.g., enhancement of media for contaminant removal)
- Driven by the implementation of toxic contaminant TMDLs in urban areas, particularly in the west/northwestern United States, DOD research focus



Proposed Project Decision Framework

- Measuring Progress: Finding ways to incorporate toxic contaminants into CBP tools will move us in direction of more quantitative progress in reducing targeted toxic contaminants in Bay waters
- Science priority: Key aspect of the Research outcome is to understand **science of co-benefits**.

Summary: Support Needs of Other Goal Teams

- Co-benefits for:
  - Stewardship Goal Team, EC Environmental Justice and Diversity Directive: Make fish safer to consume by diverse groups in urban areas
  - Fisheries and Habitat Goal Teams: Improve habitat conditions for fisheries
  - Water Quality Goal Team: Co-benefits of nutrient and sediment to reduce contaminants
  - Water Quality Goal Team and Local Govts: Address local toxic contaminant water impairments