

QUARTERLY PROGRESS MEETING
August 2020
Chesapeake Bay Program



Toxic Contaminants Policy and Prevention

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Co-chair
Toxic Contaminant Workgroup*

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...



Goal: Toxic Contaminants

Policy and Prevention:

*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.*

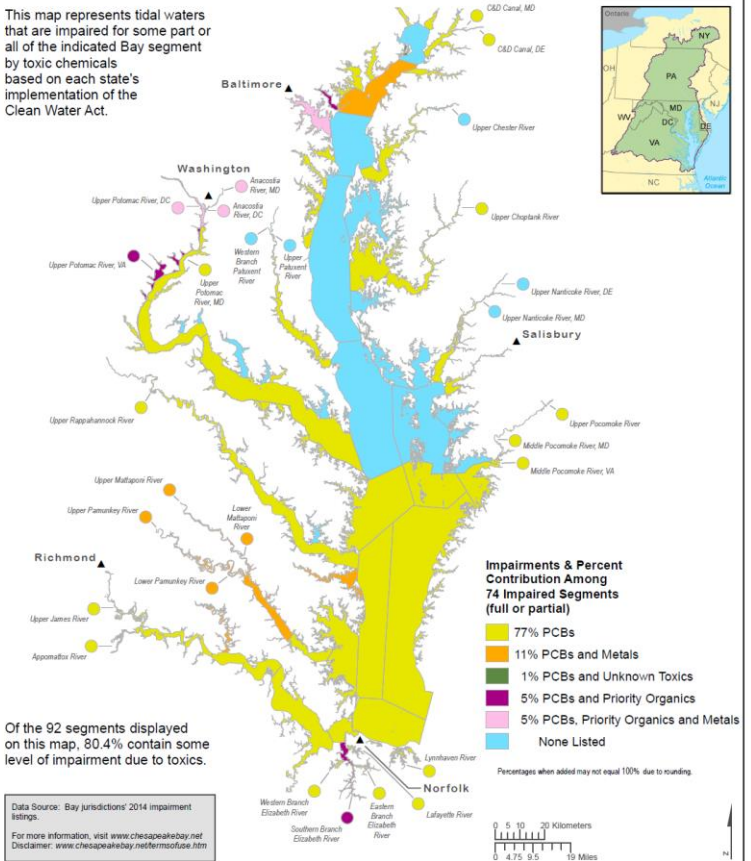
Greater than 80% of
the Bay's tidal waters
have a full or partial
overlay with an
impairment due to
toxic contaminants

Chemical Contaminants (2014)

Impairments Illustrated Using the
Chesapeake Bay Segmentation Scheme



This map represents tidal waters that are impaired for some part or all of the indicated Bay segment by toxic chemicals based on each state's implementation of the Clean Water Act.



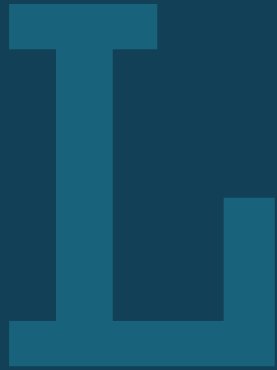


How You Can Help



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.



Learn

What have we learned in the last two years?



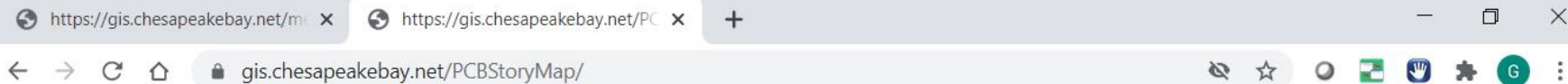
Successes and Challenges

Policy and Prevention Outcome

Regulatory Programs

- Leveraging Clean Water Act Total Maximum Daily Loads (TMDLs) remains the major strategic approach.
- PCB story map shows widespread impairments and active TMDL programs in the jurisdictions. Some areas listed as impaired for PCBs have no TMDLs active or planned.

Policy and Prevention Outcome Regulatory Programs PCB Story Map



PCBs in the Chesapeake Bay 2017

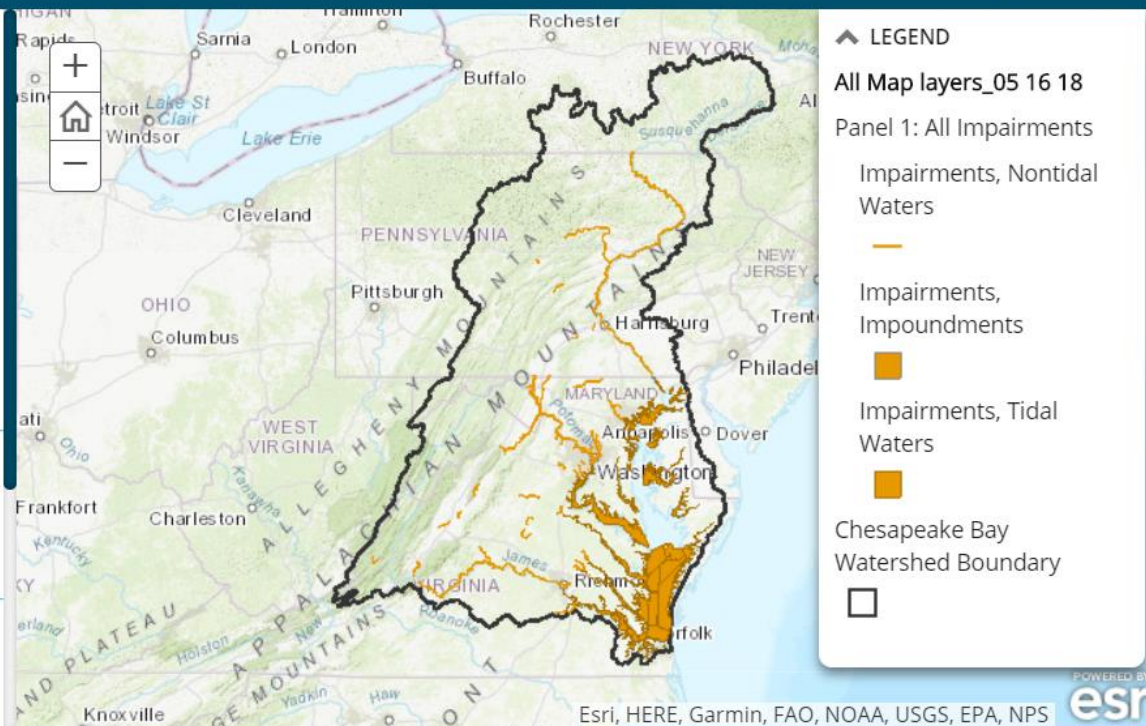
A Story Map    

1 PCB Impairments

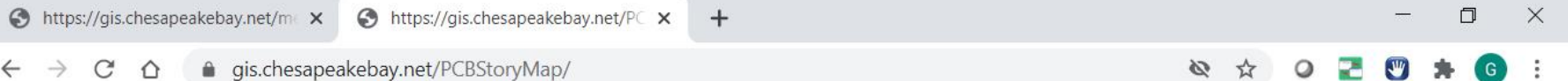
Polychlorinated biphenyls (PCBs) are a class of pollutants that are widely distributed in the Chesapeake Bay watershed. PCBs are very persistent and accumulate in fish, which can make fish unsafe to eat. This map shows areas of the watershed where PCBs have been found at levels that the states believe impair ecological health or make fish unsafe to eat.

2 PCB TMDLs as of 2017

3 PCB TMDLs In Development



Policy and Prevention Outcome Regulatory Programs PCB Story Map



PCBs in the Chesapeake Bay 2017

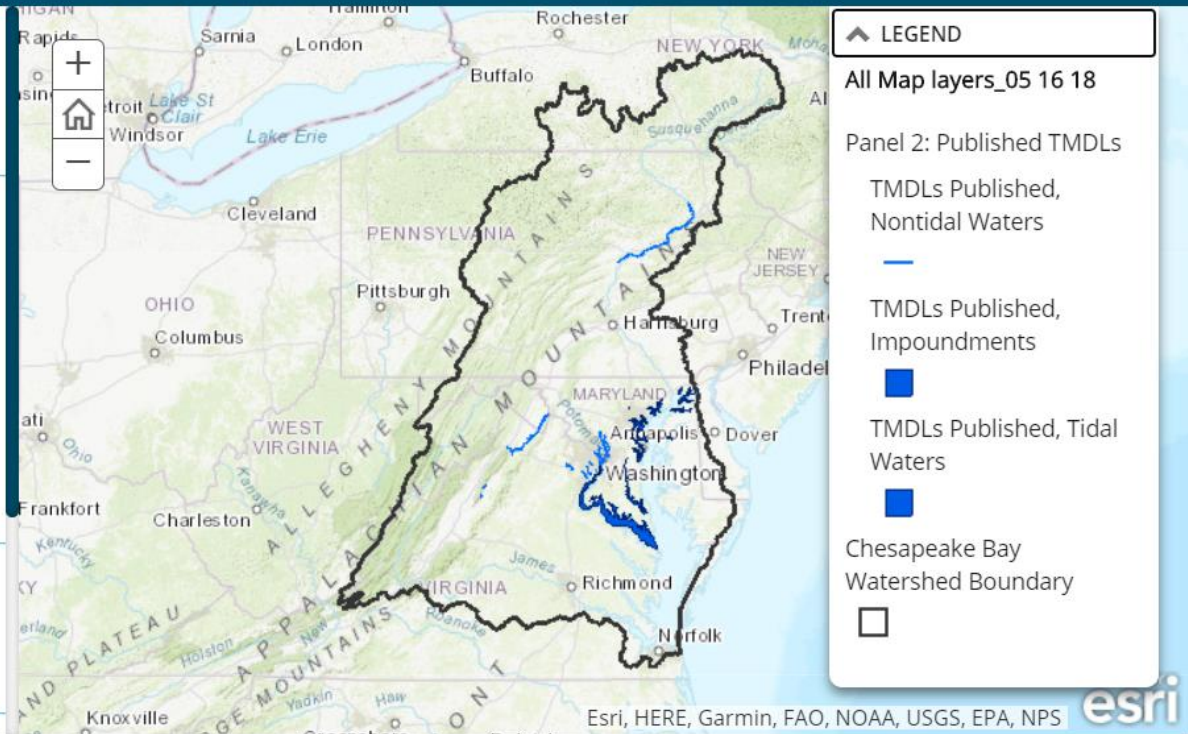
A Story Map    

1 PCB Impairments

2 PCB TMDLs as of 2017

When the states determine that a waterbody is impaired, they are required by the Clean Water Act to make a plan to reduce pollution. Such a plan is called a Total Maximum Daily Load (TMDL). This map shows where the states have developed TMDLs for PCBs.

3 PCB TMDLs In Development



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS



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7/31/2020



Policy and Prevention Outcome Regulatory Programs PCB Story Map

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PCBs in the Chesapeake Bay 2017

A Story Map

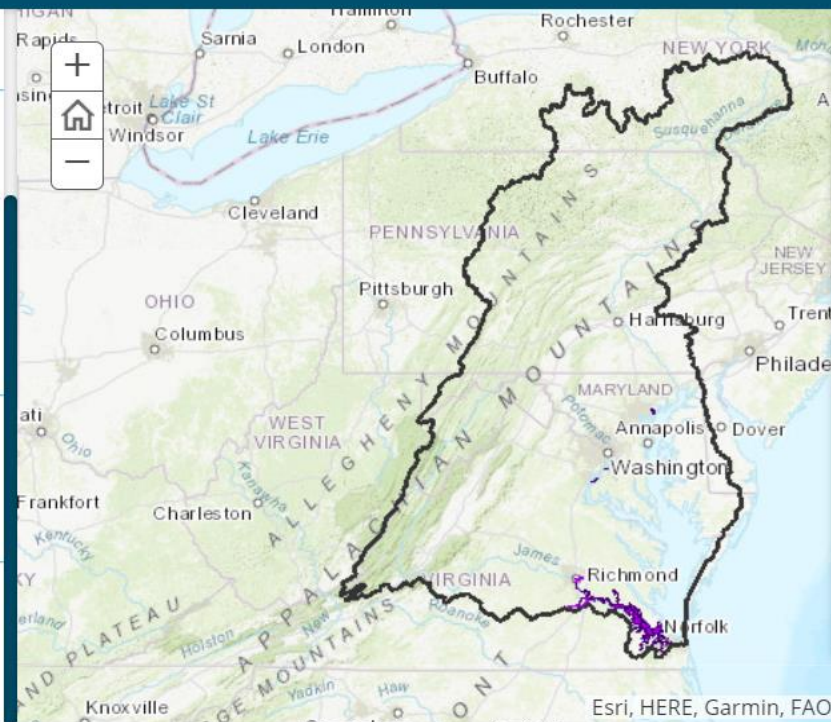


3 PCB TMDLs In Development

The development of a TMDL is a lengthy process. This map shows where TMDLs are being developed and public notice has been posted.

4 PCB TMDLs Planned for Development

5 PCB Impairments without Existing or Planned TMDLs



LEGEND

All Map layers_05 16 18

Panel 3: TMDLs In Progress--draft posted

TMDLs in Development, Nontidal Waters

TMDLs In Development, Tidal Waters

Chesapeake Bay Watershed Boundary



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

POWERED BY
esri

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Policy and Prevention Outcome Regulatory Programs PCB Story Map

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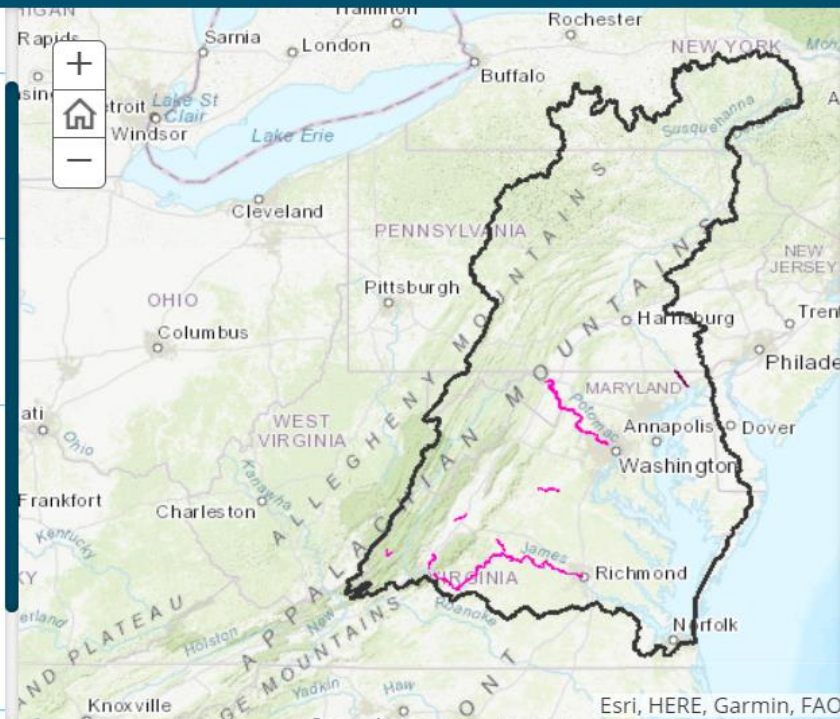
PCBs in the Chesapeake Bay 2017

A Story Map



- 1
- 2 PCB TMDLs as of 2017
- 3 PCB TMDLs In Development
- 4 PCB TMDLs Planned for Development

TMDLs can take years to develop. This map shows where PCB TMDLs are just starting development (pre-public notice) or are scheduled for development.



LEGEND

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Panel 4: TMDLs In Progress--In Development

TMDLs Planned for Development, Nontidal Waters

TMDLs Planned for Development, Impoundments

TMDLs Planned for Development, Tidal Waters

Chesapeake Bay

Esri, HERE, Garmin, FAO,



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7/31/2020

Policy and Prevention Outcome Regulatory Programs PCB Story Map

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gis.chesapeakebay.net/PCBStoryMap/



PCBs in the Chesapeake Bay 2017

A Story Map

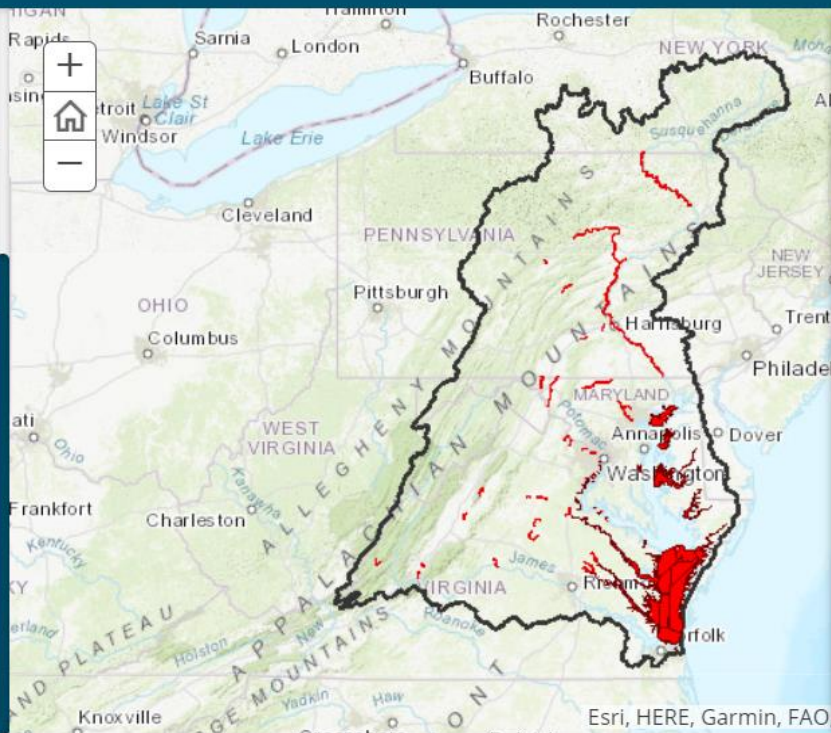


3 PCB TMDLs In Development

4 PCB TMDLs Planned for Development

5 PCB Impairments without Existing or Planned TMDLs

There are areas in the Chesapeake Bay watershed that do not have TMDLs in place or under development to address PCBs. This map shows those areas. These are the places where the Chesapeake Bay Program partnership can work together to develop TMDLs and reduce the amount of PCBs in the environment including the PCBs that accumulate in fish.



LEGEND

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Panel 5: Impairments with No TMDL Planned or Existing

Impairments with No TMDL, Nontidal Waters



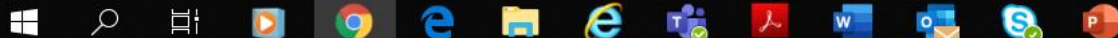
Impairments with No TMDL, Impoundments



Impairments with No TMDL, Tidal Waters



Chesapeake Bay Watershed Boundary





Successes and Challenges

Policy and Prevention Outcome

Regulatory Programs

- 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.



Successes and Challenges

Policy and Prevention Outcome

Voluntary Programs

- Report completed! Feasibility of reducing the amount of PCBs-in-service across the watershed concluded that a greater mass exists in fluorescent light ballasts (FLBs) than in electrical transformers. Indicates legitimate strategy shift to focus on the controlled removal of FLBs possibly in schools and in collaboration with the sustainable schools outcome.



Successes and Challenges

- Marquis project, the fish consumption infographic, is complete. Roll-out and promotion will continue.

Policy and Prevention Outcome Education and Awareness





Successes and Challenges

Policy and Prevention Outcome

Science and Research

- Report completed - Effect on PCB releases following upgrade of wastewater treatment plants to ENR
- PCBs are reduced through upgrades; however, PCBs are not destroyed but rather partition to biosolids.
- Raises questions about the disposal of biosolids and the potential for cycling back into the environment.



Successes and Challenges

Policy and Prevention Outcome

PCB Consortium

- Partners requested that consideration of a cooperative inter-jurisdiction PCB consortium be delayed until after WIP III. Subsequently, staff time has not allowed this assessment to begin. TCW believes this approach has substantial potential merit and intends to pursue it in the coming planning cycle.



What is our Expected and Actual Progress?

Insert top level indicator



On the Horizon

Policy and Prevention Outcome

Fiscal Development

- 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.



On the Horizon

Policy and Prevention Outcome

Fiscal Development

- **What is the opportunity?** Share lessons learned and best practices across the jurisdictions as the remediation activities are conducted plus inter-jurisdiction coordination in shared sub-watersheds such as the Anacostia.
- TCW response is to make workgroup meetings a place for sharing, updates, learning and promoting coordination among jurisdictions. An example of possible work to be tracked and supported by a PCB consortium.



Adapt

How does all of this impact our work?



**Based on what we
learned, we plan to ...**

The TCW does not envision adding new major elements. Plan to work within the existing management approaches. All proposed activities for the coming planning cycle fit within existing management approaches.

Policy and Prevention Outcome





Help

*How can the Management Board
lead the Program to adapt?*



Help Needed

Policy and Prevention Outcome

- 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



Discussion