

Ongoing/In Progress/New Science Needs

- Assess effects of toxic contaminants on fish and shellfish in tidal waters (Research outcome)

Engaged resources

- Tracking studies and outcomes that examine the decline in tumor prevalence in the Anacostia River
- Tracking study and outcome of the yellow perch condition in urban areas
- Inform results and outcomes of studies designed to address temporal and spatial changes in fish health in mixed use watersheds in the freshwater portion of the Watershed

Needed description (please remove reference to fish consumption advisors, that is not relevant to this need)

- *New*: Impacts of PFAS on health of fish and shellfish (individual and mixtures of importance)
- *New*: Guidance for PFAS sampling and analysis methods to support fish health studies and how it differs from sampling design for fish consumption studies (bioconcentration and biomagnification)

Status of the resource

- **Full resources**
- **Partial resources**
- **No resources**

Ongoing/In Progress/New Science Needs

- Document occurrence, concentrations, and sources of legacy and widespread contaminants in different landscape settings (Research outcome)

Engaged Resources

- Tracking of results and outcomes of studies examining occurrence and concentrations of PFAS in wastewater effluent, streams receiving wastewater (USGS)
- Tracking of results and outcomes of studies examining occurrence and concentrations of PCBs and PFAS in wet pond drainages categorized by land use (USGS)
- Ongoing inventory of PFAS sampling efforts in the watershed that includes sampling and analysis methods leading to a mixture of the most common PFAS from common sources. (STAC Workshop)

Needed Descriptions

- *New*: Utilize DRBC databases of 1668 (congener-based) PCB data and PCB-era and current land use to develop a statistical model to identify patterns in PCBs related to current and/or former land use categories.
- *New*: Utilize USGS data release (Banks and others, 2022 [Priority Toxic Contaminant Metadata Inventory and Associated Total Polychlorinated Biphenyls Concentration Data - ScienceBase-Catalog](#)) to assess retrospective statistical trends in PCBs in fish tissue in 3 basins of the Chesapeake Bay watershed; lower Susequehanna, James, and Potomac.

Status of the resource

- Full resources
- **Partial resources**
- No resources

Ongoing/In Progress Science Needs

- **Improved understanding of BMP effectiveness for removal of PCBs** (Other goals/outcomes: TC Research outcome, including other contaminants)

Engaged Resources:

- Reporting of results and outcomes of study investigating wastewater BMP effectiveness (Majcher and others, 2022)
- Reporting of results and outcomes of bioretention efficacy and optimization for toxic contaminant removal (PCBs, metals, etc.; Kjellerup and Davis projects), and associations with land use (CBT restoration research effort)
- To date literature review of BMP science advances (USGS), *paper in preparation* and bibliography included in MDE PCB TMDL guidance document

Needed Description: Quantifying co-benefits for PCBs from most commonly used practices for nutrient and sediment reduction

- *Remaining need:* Ongoing literature tracking of BMP removal efficiencies for PCBs and other toxic contaminants
- *Remaining need:* Promote projects and studies that quantify removal of PCBs (other toxic contaminants) in common BMPs in different land use settings for sediment and nutrients.
- *Remaining need:* Summary science document from January national PCB strategy meeting documenting differences between the regions and any progress related to BMP removal efficiencies for PCBs

Status of the resource

- Full resources
- **Partial resources**
- No resources