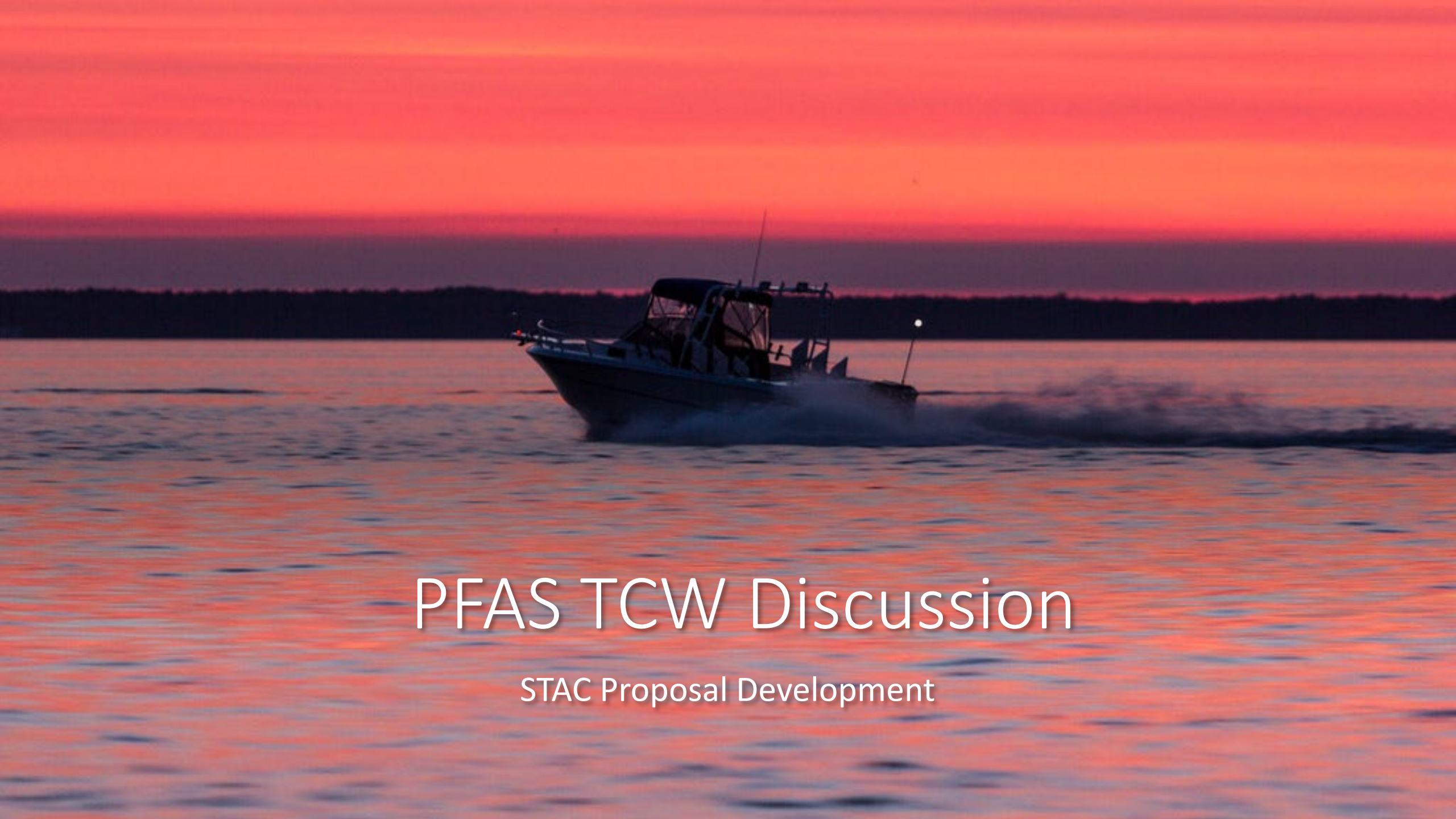
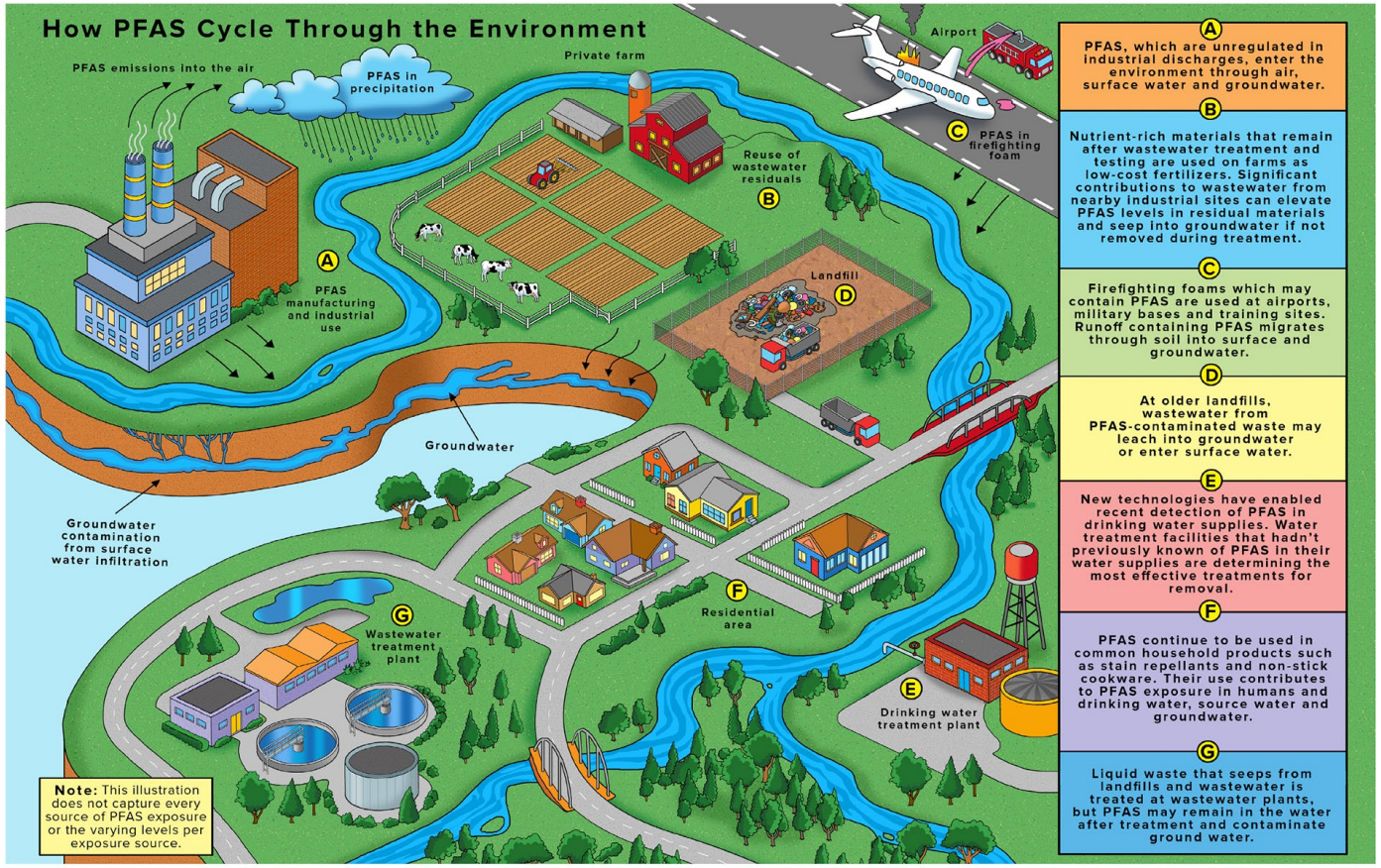


PFAS TCW Discussion

STAC Proposal Development

TCW Research Strategy and LAP

- Previous plan, MA5 Emerging Issues: "…While some priorities varied between stakeholders, PFAS was identified as a priority by most workgroup members."
- Current plan identified needs and actions related to PFAS
  - MA2 (Fish and wildlife health)
  - MA3 (Occurrence)



TCW Research Strategy and LAP

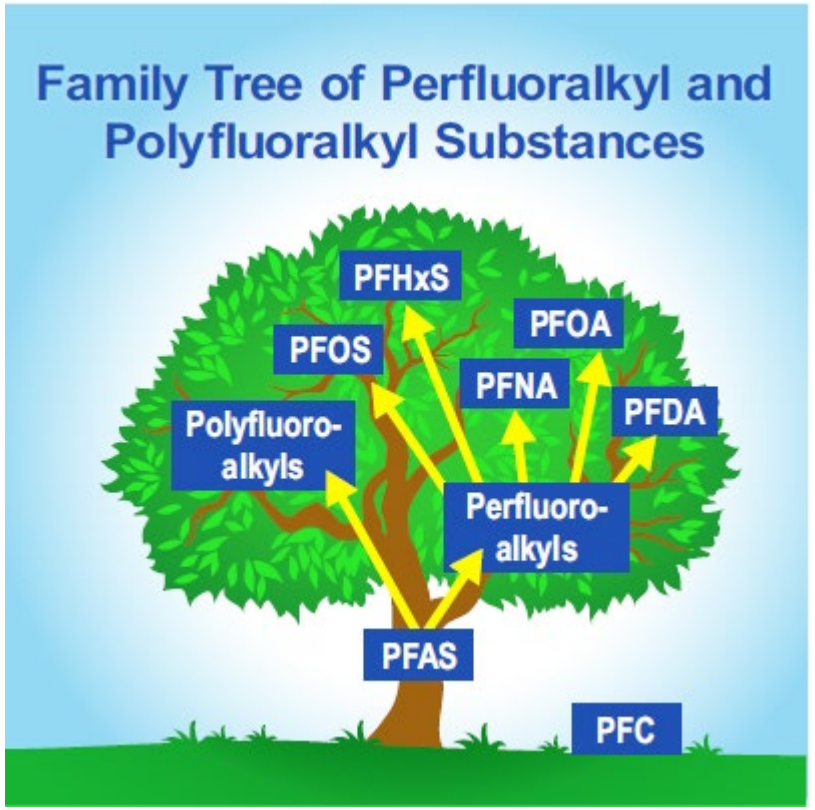
	ACTIONS – 2021-2022				
Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline
Management Approach 2: Understand the influence of contaminants in degrading the health, and contributing to mortality, of fish and wildlife					
2.2	Generate information to document fish health conditions in the Bay watershed.	Continue monitoring of and communicating results of fish conditions in areas of concern within jurisdictions. Specifically, USGS is working with PA, MD and WV. In addition, WV and PA are collaborating with USGS to assess the immune response of wild smallmouth bass. Expanded to include fish health as a result of PFAS presence. Impacts of PFAS compounds on the health of fish (CB Watershed and elsewhere), including PFAS in fish plasma from some long-term monitoring sites	USGS (Vicki Blazer)		2022
2.3	Assess the effects of toxic contaminants on wildlife	PFAS in tree swallows (Andrews AFB)	USGS Patuxent		2021-2022
2.4	PFAS Methodology and Assessment	Gather information and communicate appropriate fish and portions of fish to analyze to assess impacts for consumption advisories, recommended methods, and review of the data	DNREC, TCW, technical experts TBD		2021-2022

TCW Research Strategy and LAP

	ACTIONS – 2021-2022				
Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline
Management Approach 3: Document the occurrence, concentrations, and sources of contaminants in different landscape					
3.2	Better define sources and occurrence of PFAS in the watershed	Stay informed of the USGS-EPA collaborative effort to produce a nation-wide map of PFAS sources and a prioritization scheme for identifying DW monitoring sites for pilot study to be conducted in 2022.	USGS (Kelly Smalling)		2021-2022
		Inventory state jurisdiction and DC efforts and studies underway to define PFAS occurrence in multiple media (excluding drinking water)	TCW and CBP		2021-2022
Management Approach 5: Gather information on issues of emerging concern.					
5.1	Continue to investigate previously prioritized issues of emerging concern including microplastics, road salt (chloride) and PFAS.	Track progress related to fish consumption advisories in neighboring watersheds (DRB) to help outline possible strategies for CB, advances in monitoring and analysis of PFAS in environmental media (excluding drinking water) to inform formulation of fish consumption advisories in CB.	TCW		2021-2022

SRS Quarterly Presentation to MB Aug 2020

- Narrative Analysis Request: "…Support jurisdiction and federal interaction to have a more coordinated science approach for PFAS that takes advantage of existing and planned studies."
  - Each jurisdiction provided a POC for PFAS related efforts
  - Invited to this discussion to share priorities and efforts



[from PA DEP, https://www.dep.pa.gov/Citizens/My-Water/drinking_water/PFAS/Pages/default.aspx]

Feedback at last meeting

- Many jurisdictions are conducting or planning to conduct PFAS-related projects
- *Interest* in a Chesapeake Bay-centered PFAS workshop

Our charge today

- *Objective 1: To affirm there is a unique need to be met through a STAC Workshop related to presence and ecological effects of PFAS in the Chesapeake Watershed.*
- *Objective 2: Invite input into content for the STAC Workshop Proposal*

Round Robin

- MD, DE, DC, PA, WV, NY – Ongoing/planned efforts, priorities, biggest gaps/questions
- Federal agencies
- Academic

MDE/UMCES PFAS Scientific Roundtable

- Understanding and characterizing the “PFAS footprint”, which includes broad assessments of fish tissue and sources
- Gaps remain relative to toxicity, fate and transport, degradation of PFAS in the environment; human exposure and the most significant pathways; treatment effectiveness; and obtaining accurate measurements of PFAS in various materials
- Suggested priorities include investigating the occurrence of PFAS: (a) in effluents of Wastewater Treatment Plants (WWTPs) and in biosolids; (b) at landfills and in their leachate; and (c) at locations where there is some evidence of a large amount of PFAS containing products or materials processed from the past.
  - October 2020, summary document https://mde.maryland.gov/programs/Water/water_supply/Documents/PFAS-Roundtable2020-10-05.pdf , 20 subject matter experts, 6 federal agencies, representatives from MD, PA and DE

Proposal Elements TBD Today

- Administrative needs (next slide)
- Purpose and Objectives of workshop
- Questions/Topics to be addressed

Vicki Blazer, fish biologist with the U.S. Geological Survey, removes kidney of euthanized fish collected from the South Branch of the Potomac River. The organ was to be analyzed to assess whether it was affecting the ability of the fish to fight off disease. Studies have found that PFAS can affect the immune system of lab animals. (Heather Walsh / USGS)

Letters of Support – Volunteers (due 2/12)

- 1 – Partner Organization
- 1- STAC Member

Steering Committee - Volunteers

- 1- STAC Member
- TCW Leadership
- 6 other potential members – academic, jurisdiction, federal agencies, other?