

Chesapeake Bay Program Beyond 2025 Assessment of Chesapeake Bay Watershed Agreement Outcomes



[Theme]

Living Resource
Goal

Fish Passage Outcome

Habitat GIT: FPWG

Continually increase access to habitat to support sustainable migratory fish populations in the Chesapeake Bay watershed's freshwater rivers and streams. By 2025, restore historical fish migration routes by opening an additional 132 miles every two years to fish passage. Restoration success will be indicated by the consistent presence of alewife, blueback herring, American shad, hickory shad, American eel and brook trout, to be monitored in accordance with available agency resources and collaboratively developed methods.

OVERALL RECOMMENDATION: UPDATE

The Fish Passage Workgroup (Rename to Aquatic Organism Passage Workgroup) believes if any reorganizing takes place, our workgroup pairs well with the Brook Trout and Stream Health Workgroups, in addition to Water Quality and Healthy Watersheds GITs.

Brook Trout: *Our primary goal of restoring connectivity directly benefits brook trout populations by providing opportunity for brook trout habitat expansion. Temperature barriers are also a subject of overlap between our two workgroups.*

Stream Health: *In relation to the Stream Health Workgroup, head cutting scenarios could be considered a barrier for aquatic organisms. Stream restoration work addressing flow dynamics and geomorphological change that cause barriers to aquatic organism passage (AOP) could be necessary for connectivity for living resources in shallow water habitats.*

Water Quality: *Dam removal improves water quality, and if acid mine drainage/chemical barriers are considered as AOP barriers in the future, there is clear overlap with Water Quality GIT goals.*

Healthy Watersheds: *With a new emphasis on conservation in the pillars of the Chesapeake Bay Program, collaboration with the Healthy Watershed Workgroup is intuitive to ensure connectivity through state-identified healthy ecosystems and conserving those areas.*

With these considerations in mind, the Fish Passage Workgroup proposes updating our current outcome and name to reflect this collaboration with the other workgroups:

DRAFT Outcome Language Recommended for the new AOP Workgroup

Outcome:

Improving habitat, water quality, and creating more resilient and sustainable populations of fish and other aquatic organisms throughout the Chesapeake Bay freshwater rivers and streams by continually removing barriers to aquatic organism passage to restore connectivity to 150 miles of aquatic habitat every two years.

We believe this new Outcome is SMART and better reflects the future goals, opportunities, and challenges of the AOP Workgroup. In considering this new outcome, we recognize the following

challenges and opportunities as well as the timescale needed to complete this Outcome, how the Outcome relates to the Bay Agreement mission, and the resources needed to achieve this Outcome:

- We recognize the benefits of aquatic connectivity for all native species and communities, including migratory and resident fish (e.g., brook trout), and other aquatic dependent organisms (e.g., freshwater mussels, hellbender, bog turtles). Aquatic organism passage is essential to the long-term resilience and sustainability of the ecosystem and the people that live in the Chesapeake Bay.
- Increasing collaboration with the Brook Trout Workgroup and others, we will consider thermal barriers, chemical barriers, and acid mine drainage as impediments to AOP, not just traditional physical barriers. Removing these types of barriers will also work to improve many Bay Agreement goals, including but not limited to improved water quality and long-term climate resilience and ecosystem sustainability.
- AOP restoration including dam removal and road stream crossing improvements will also improve resilience of infrastructure and reduce negative implications, frequency, and severity of flood events.
- We recognize that dam removals serve an important stream restoration function to improve water quality and lead to a healthier, more resilient Chesapeake Bay.
- We recognize that funding (especially federal funding) is a critical component of meeting our goals. Loss of federal funding will likely mean that goals are not met. However, we see recent developments in mitigation banking as an opportunity to help cover this shortfall, but this will largely be dictated by the private sector. Additional funding opportunities could be state revolving funds. With the emphasis on new barriers such as chemical, acid mine drainage, and temperature barriers, grant opportunities could broaden as well.
- The Chesapeake Fish Passage Prioritization tool evaluates and prioritizes opportunities throughout the watershed. Additionally, social science and outreach are resources needed to build landowner and stakeholder support for dam removal and road-stream crossing improvement projects.
- Culvert and road/stream barriers present an opportunity to reach goals because many of these projects are on local, state, or federal property or right of ways where project support is easier to obtain. Collaboration with these government agencies presents a unique opportunity to offer mitigation credits for not only maintaining infrastructure but improving it with AOP and flood considerations in mind.
- The AOP Workgroup will rely on Bay Program and resource agency support to continue to develop and implement mitigation banking sources not only with government agencies but also with the private sector.
- Pennsylvania has a unique dam safety program where dam owners fund dam inspections and funds are available to help remove unwanted and hazardous dams. Adoption of these practices to other states in the Bay Watershed would help facilitate dam removal. Visibility of this practice as an effective way to get more projects done could be streamlined by the Bay Program and would provide a powerful tool for AOP connectivity.
- Dam removal efforts will focus on obsolete or outdated dams.

What value is gained by having an AOP Workgroup within the Chesapeake Bay Program?

- Aquatic Organism Passage is a bridge between multiple goals and is a mode of increasing habitat for multiple species focused on many different groups within the program.
- This could be the stream restoration arm of the Bay Program that focuses on existing shallow water living resources which currently doesn't exist anywhere else. With new emphasis on other types of physical barriers (stream flow dynamics & geomorphology) and chemical barriers (ex. acid mine drainage), the scope of work is expanded for the AOP workgroup.
- The Bay Program provides legislative opportunity to needs identified by those working within the AOP Workgroup.
- The Bay Program provides a commitment from the jurisdictions within the watershed to address findings and implement best management approaches.