



Testimony in Support of House Bill 807 Natural Resources – Submerged Aquatic Vegetation Surveys

February 19, 2024

Thank you for this opportunity to submit testimony in **SUPPORT** of **HB 807**.

This bill alters the definition of “aerial survey” for purposes of surveying submerged aquatic vegetation (SAV) to include any other survey that uses data that (1) pertains to SAV in the State and (2) is approved by the Department of Natural Resources (DNR). Conforming changes are made to incorporate the “SAV survey,” instead of the aerial survey. The bill also requires DNR to study and report on the implications and feasibility of using alternative methods other than an aerial survey to delineate SAV protection zones. By December 31, 2024, DNR must submit the report to the General Assembly.

Submerged aquatic vegetation plays a pivotal role in maintaining the health and balance of our watersheds by providing:

Biodiversity Preservation: SAV provides essential habitat and nursery grounds for a wide variety of aquatic species. By preserving these underwater meadows, we ensure the survival of valuable ecosystems, contributing to the overall biodiversity of Maryland's waters.

Water Quality Improvement: SAV serves as a natural filter, improving water quality by absorbing excess nutrients and pollutants. Their presence also **sequesters carbon, helping to mitigate the effects of climate change** and storm surge, and enhancing the resilience of coastal areas.

Economic Benefits: Preserving SAV contributes significantly to the economic well-being of our state. Healthy aquatic ecosystems support commercial fisheries as well as recreational activities such as fishing, boating, and bird watching, driving tourism while providing livelihoods for watermen and many local communities.

Additionally, as part of the 2014 Chesapeake Bay Watershed Agreement, **Maryland has committed to increasing SAV habitat to 185,000 acres of underwater grasses in the Bay**, with a measured target of 130,000 acres by 2025. Progress reached an estimated 76,462 acres of underwater grasses in 2022, **53,538 acres short of the 2025 goal**.

Given the lack of progress toward the goal of 130,000 acres of restored SAV by 2025, protecting SAV beds and areas adjacent to existing SAV beds and their seed bank is imperative to meeting restoration goals. These areas likely have the most appropriate bottom type, and their proximity to extant SAV beds makes them, according to the Chesapeake Bay Program's SAV Restoration Guide, the number one “*high-priority site-selection measurement*,” stating “*site selection is one of the most important, if not the most important, elements to consider to facilitate SAV survival and expansion (Fonseca 2011). A fundamental rule of thumb is to plant in similar conditions from which the seeds or plants were harvested (Fonseca et al. 1998; Fonseca 2011). The planting site should also be one where SAV has grown previously or where nearby SAV beds are present. These basic guidelines help to ensure that conditions at the planting site can support SAV growth.*”

ShoreRivers

Isabel Hardesty, Executive Director
Annie Richards, Chester Riverkeeper | Matt Pluta, Choptank Riverkeeper
Ben Ford, Miles Wye Riverkeeper | Zack Kelleher, Sassafras Riverkeeper

The current regulatory language for determining protection zones specifies that the VIMS aerial flyover survey **is the only way data for the delineation of SAV Protection Zones can be collected**. New technologies like high-resolution or spectrographic imagery on satellites and machine-learning or AI image processing are not allowable under current regulations, even as the cost of the flyover continues to increase every year, and is dependent on weather and water clarity.

Giving the Department of Natural Resources the opportunity to determine which technologies are best for science-based and timely data-gathering increases the flexibility for DNR to evaluate and choose the best tool for the job. **Supporting changes to regulatory language to allow for modern data collection methods, such as satellite or drone imagery and machine learning-assisted processing, may improve the accuracy and responsiveness of SAV mapping.** This modernization would ensure that SAV Protection Zones remain up-to-date and reflective of current conditions.

Modernized data collection and processing may allow DNR to increase the frequency with which SAV Protection Zones are evaluated and delineated. **Advocating for yearly updates to SAV Protection Zones based on mapped data helps in addressing changes in SAV bed size, location, and shape.** This approach ensures that protection measures remain relevant and adaptable, mitigating issues like the proposed removal of protection areas despite reported increases in SAV Bay-wide.

Image processing and analysis are also very expensive and time-consuming. The lag time between when images are taken and when the GIS maps are produced can take up to a year, creating situations like this year, where **5,000 acres of SAV Protection Zones are being removed at the same time that SAV beds expanded by 12% Bay-wide.**

HB 807 presents an opportunity to modernize the approach to surveying submerged aquatic vegetation (SAV) in Maryland. By expanding the definition of "aerial survey" to encompass alternative methods approved by the Department of Natural Resources (DNR), such as satellite imagery and machine learning, this bill may not only enhance data collection accuracy and timeliness but also support the state's commitment to biodiversity preservation, water quality improvement, and economic resiliency. The proposed changes align with Maryland's goals for SAV habitat restoration, ensuring that protection measures remain adaptive and effective in the face of evolving environmental challenges. Therefore, I urge full support for HB 807 to advance science-based decision-making and safeguard the health of our aquatic ecosystems for generations to come.

Sincerely,

Benjamin Ford, Miles-Wye Riverkeeper, on behalf of ShoreRivers