# SB 638\_CBF\_FWA.pdf Uploaded by: Allison Colden Position: FWA



## CHESAPEAKE BAY FOUNDATION

Environmental Protection and Restoration
Environmental Education

#### Senate Bill 638

Natural Resources - Submerged Aquatic Vegetation Protection Zones - Aerial Surveys

Date: March 2, 2023 Position: Support with Amendments

To: Education, Energy & Environment Committee From: Allison Colden, Sr. Fisheries Scientist

Chesapeake Bay Foundation (CBF) **SUPPORTS** SB 638 **WITH AMENDMENTS** which would require annual updates to submerged aquatic vegetation (SAV) protection zones to ensure information on SAV beds is kept up to date and these important habitats are afforded necessary protections from damage.

SAV is a critically important habitat in Chesapeake Bay. Underwater grasses provide shelter and nursery areas to fish and blue crabs. SAV also serves as a food item for turtles and foraging waterfowl who use the Chesapeake Bay as a stopover on their migratory routes. The wave-dampening effect of SAV results in increased water clarity and reduced erosion of adjacent shorelines. Underwater grasses, along with mangroves and marshes, are considered "blue carbon" habitats, due to their ability to remove and sequester carbon from the atmosphere. One acre of seagrass can remove 1,230 pounds of carbon per acre per year.<sup>1</sup>

The rebound of Chesapeake Bay seagrasses is the largest recorded in the world and has been directly linked to the reduction in nutrient inputs under the Chesapeake Bay Clean Water Blueprint or "pollution diet." In 2018, SAV acreage exceeded 100,000 acres for the first time since 1979. Despite this significant advance, there is much more work to do to achieve the goal of 185,000 acres of SAV established by the 2014 Chesapeake Bay Watershed Agreement.<sup>3</sup>

SB 638 requires the Department of Natural Resources to update the boundaries of SAV protection zones annually. This would help ensure that the progress made to date is not undermined by practices that would directly or indirectly harm SAV by bringing SAV delineations closer to real-time. Currently, delineations occur every 3 years.

However, SB 638 also replaces the SAV survey of record, the aerial survey conducted annually by the Virginia Institute of Marine Science (VIMS), with "an aerial survey compiled by... an entity approved by the Department." While there are advancements under development, including the use of satellite imagery and remote sensing technology for mapping SAV, those technologies are currently not available for management use.

Moving from the VIMS survey to a survey more capable of rapid response is a worthwhile objective for SAV monitoring, but the transition away from this critically important and long-term data series will require thoughtful calibration and implementation. Therefore, we recommend amendments that retain the use of

<sup>1</sup> Mcleod, E. *et al.* 2011. A blueprint for blue carbon: toward in improved understanding of the role of vegetated coastal habitats in sequestering CO<sub>2</sub>. Frontiers in Ecology and the Environment. 9 (10) 552-560. <a href="https://doi.org/10.1890/110004">https://doi.org/10.1890/110004</a>

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<sup>&</sup>lt;sup>2</sup> Lefcheck, J.S. et al. 2018. Long-term nutrient reductions lead to the unprecedented recovery of a temperate coastal region. Proceedings of the National Academies of Sciences. 115 (14) 3658-3662. https://doi.org/10.1073/pnas.1715798115

<sup>&</sup>lt;sup>3</sup> Chesapeake Progress. Submerged Aquatic Vegetation (SAV). https://www.chesapeakeprogress.com/abundant-life/sav

the VIMS aerial survey for use in SAV protection zone delineation until such time alternative surveys or technologies approved by the Chesapeake Bay Program become available.

## CBF urges the Committee's FAVORABLE report WITH AMENDMENTS on SB 638.

For more information, please contact Matt Stegman, Maryland Staff Attorney at <a href="mailto:mstegman@cbf.org">mstegman@cbf.org</a>.

## Arundel Rivers Testimony FAV w Amend for SB638.pdf Uploaded by: Elle Bassett

Position: FWA



## Testimony encouraging a FAVORABLE WITH AMENDMENTS report on Senate Bill 638 – Natural Resources – Submerged Aquatic Vegetation Protection Zones – Aerial Surveys

Education, Energy, and the Environment Committee March 2, 2023

Dear Chairman Feldman and Members of the Committee,

Thank you for the opportunity to submit testimony in **SUPPORT OF SB437 WITH AMENDMENTS**, on behalf of Arundel Rivers Federation. Arundel Rivers is a non-profit organization dedicated to the protection, preservation, and restoration of the South, West and Rhode Rivers with over 3,500 supporters. Our mission is to work with local communities to achieve clean, fishable, and swimmable waterways for present and future generations.

Submerged aquatic vegetation, or "SAV," are a critical part of the Chesapeake ecosystem – providing food, habitat and oxygen, while also absorbing nutrients, trapping sediment, and preventing erosion. SAV contributes to better water quality, benefiting the economy, society, and ecology of the Bay. As part of the Chesapeake Bay Watershed Agreement, signed in 2014, Maryland has committed to increasing SAV habitat to 185,000 acres of underwater grasses in the Bay.

To assist in reaching and understanding our progress towards Maryland's SAV habitat goals and protecting SAV beds, SAV Protection Zones are delineated by the Department to protect SAV beds from the impacts of clam harvesting, specifically the hydraulic escalator clam dredge. These Zones are delineated using data collected annually by the Virginia Institute of Marines Science (VIMS).

Senate Bill 638 will require the Department to increase the frequency of the SAV Protection Zone updates from every three years to annually. Three-year updates do not account for new bed establishment or bed expansion. For example, if a new SAV bed were to grow in 2020 and 2021, the bed would be vulnerable to the hydraulic escalator clam dredge until the 2022 update. While this bed may be included in Protection Zones in the future, the bed may already be damaged beyond repair. Comparatively, Virginia's criteria for delineating SAV restoration areas includes annual updates and publication of the most recent year survey conducted by VIMS. Considering the Department receives the VIMS data annually, we are supportive of the Department protecting grass beds at the earliest sign of growth, which would require annual updates.

However, SB 638 also replaces the aerial survey conducted annually by VIMS, with "an aerial survey compiled by... an entity approved by the Department." While there are advancements under development, including the use of satellite imagery and remote sensing technology for mapping SAV, those technologies are currently not available for management use and we therefore feel that this is a premature recommendation. We recommend amendments that retain the use of the VIMS aerial survey for use in SAV protection zone delineation until such time alternative surveys or technologies approved by the Chesapeake Bay Program become available.

Arundel Rivers Federation encourages the protection of SAV to improve local water quality, fisheries economy, and meet our restoration goals, and respectfully requests a **FAVORABLE WITH AMENDMENTS REPORT on SB638.** 

Sincerely,

Elle Bassett

Elle Rough

South, West and Rhode Riverkeeper

Arundel Rivers Federation

## SB638\_Testimony\_ShoreRivers\_SUPPORT w Amendments.p Uploaded by: Matt Pluta

Position: FWA



## Testimony in <u>SUPPORT with Amendments</u> of SB638 - Natural Resources - Submerged Aquatic Protection Zones - Aerial Surveys

March 1, 2023

Dear Chairman Feldman and Members of the Committee.

Thank you for this opportunity to submit testimony in **SUPPORT with Amendments** of **SB638** on behalf of ShoreRivers and the organizations listed below. ShoreRivers is a river protection group on Maryland's Eastern Shore with more than 2,000 members. Our mission is to protect and restore our Eastern Shore waterways through science-based advocacy, restoration, and education.

Submerged Aquatic Vegetation (SAV) as defined by the Department of Natural Resources are rooted vascular plants that generally grow beneath the water surface, but may have leaves that extend to and grow on the surface of the water. **They are a critical part of the Chesapeake ecosystem, providing food, habitat and oxygen, while also absorbing nutrients, trapping sediment, and preventing erosion.** SAV contributes to better water quality, benefiting the economy, society, and ecology of the Bay. As part of the Chesapeake Bay Watershed Agreement, signed in 2014, 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 108,000 acres of underwater grasses in 2018.

This bill will require the Department of Natural Resources to increase the frequency of the SAV Protection Zone updates from every three years to annually. Three-year updates do not account for new bed establishment or bed expansion. Comparatively, Virginia's criteria for delineating SAV restoration areas includes annual updates and publication of the most recent year survey conducted by the Virginia Institute of Marine Science (VIMS). Considering the Department receives the VIMS data annually, we urge the Department to implement policies that will make this annual update of the delineated zones possible. Increasing the frequency of these updates will not only improve the protection of SAV, but will also improve the public fisheries for our commercial watermen, and increase the transparency of the delineation process.

However, the bill also suggests changing the agency that conducts the annual aerial survey from VIMS to "an entity approved by the department," which we do not support at this time. While there are several advances being made with newer technologies like satellite imagery and drones, these processes have not been fully developed or studied yet, and thus there is not a viable alternative to VIMS at this point in time. Once these alternatives are further developed then it would be worth considering making such a proposed switch, but at this time we suggest an amendment that removes this language from the bill.

We support this bill because it will increase the protection of these critical underwater grass species in the Bay and reduce conflict over the resource. We urge the Committee to adopt a **FAVORABLE** report on **SB950** with the requested amendments.

Sincerely,

Zack Kelleher Sassafras Riverkeeper, on behalf of ShoreRivers

#### **ShoreRivers**

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

## **SB0638\_DNR\_OPP\_EEE\_3-2-23.pdf**Uploaded by: Emily Wilson

Position: UNF



Wes Moore, Governor Aruna Miller, Lt. Governor Josh Kurtz, Acting Secretary Allan Fisher, Deputy Secretary

March 2, 2023

BILL NUMBER: Senate Bill 638 – First Reader

SHORT TITLE: Submerged Aquatic Vegetation Protection Zones - Aerial Surveys

**DEPARTMENT'S POSITION: OPPOSE** 

### **EXPLANATION OF DEPARTMENT'S POSITION:**

The Department contracts the Virginia Institute of Marine Sciences (VIMS) to perform annual aerial surveys to determine submerged aquatic vegetation (SAV) abundance and distribution in Maryland waters of the Chesapeake Bay, its tidal tributaries, and the Atlantic Coastal Bays. The VIMS annual SAV aerial survey is the oldest and continuous bay-wide SAV survey in existence, and is used by the State of Maryland, the Commonwealth of Virginia and numerous federal agencies for SAV criteria assessments, tracking restoration goals and assessing impacts to SAV habitat. By contracting with VIMS, there is consistent standard operating procedures and guidelines for the acquisition of aerial imagery, photo interpretation and SAV bed delineation and bed density estimates, as well as quality assurance and quality control compliance.

SB 638 would also increase the frequency of SAV Protection Zone updates from every three years to every year, with a March 1<sup>st</sup> deadline. It would be nearly impossible for the Department to meet a March 1<sup>st</sup> deadline given the time required for updating the delineations and movement through the regulatory update process. Additionally, the Department must make a request to the United States Coast Guard for any change, addition or deletion of any buoy, which requires a 45-day lead time. It is illegal to move, remove or add any buoy without a permit from the Coast Guard.

### **BACKGROUND INFORMATION:**

A Submerged Aquatic Vegetation (SAV) Protection Zone means an area delineated by the Department for the protection from uprooting and the restoration of submerged aquatic vegetation. Under current law, updated delineations to SAV Protection Zones are based on an aerial survey.

Senate Bill 807 of 2000 implemented the current text of Natural Resources Article, Section 4-1006.1.

### **BILL EXPLANATION:**

SB 638 alters the definition of "aerial survey" relating to submerged aquatic vegetation protection zones to mean an aerial survey compiled by an entity approved by the Department of Natural Resources for the annual Bay-wide Submerged Aquatic Vegetation Mapping Program. The bill also requires the Department to update the delineations of submerged aquatic vegetation zones annually, rather than every three years, and prior to March 1<sup>st</sup> of each year.

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