



# 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.”<sup>2</sup> 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 an 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. <https://doi.org/10.1890/110004>

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

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403

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 [mstegman@cbf.org](mailto:mstegman@cbf.org).