Maryland Department of Natural Resources 2021 Annual Report required by HB 841 (2019) to the Aquaculture Coordinating Council, Chesapeake Bay Program and Maryland General Assembly on Submerged Aquatic Vegetation and Shellfish Leasing – MSAR 12263

Maryland Law - Shellfish Aquaculture Leasing and SAV

Natural Resources Article §4-11A-01 et al., prohibits the issuance of a shellfish lease in an Submerged Aquatic Vegetation (SAV) Protection Zone, defined as an area of SAV as mapped in aerial surveys by the Virginia Institute of Marine Sciences (VIMS) in one or more of the 5 years preceding the application for lease.

In June 2019, the provisions in Natural Resources Article §4-11A-10(c) were revised to provide that a leaseholder may not "place shellfish, bags, nets, or structures on Submerged Aquatic Vegetation without prior written approval from the department." Accordingly, a leaseholder may not work in an area of their lease where SAV exists unless they receive prior written approval from the Maryland Department of Natural Resources (Department of DNR).

This change in law has provided the Department with the authority and ability to accept and evaluate requests from leaseholders who desire to work within areas of their respective leases where SAV exists. Under these circumstances and in accordance with the law, the Department assesses each request to determine the impact to the leaseholder of SAV-based restrictions, the potential impact of the proposed shellfish aquaculture activities on SAV, and works with the leaseholder to develop an appropriate work plan when possible.



Drone photo of bottom cages on lease

In addition, the 2019 revisions to the law require the Department to provide an annual report to the Aquaculture Coordinating Council, Chesapeake Bay Program, and Maryland General Assembly on the farm-level and cumulative impacts that placing bags, nets, or structures on SAV, with prior written approval from the Department, had on SAV, the number of leases that have SAV present, and the characteristics of gear types and frequencies of aquaculture practices used on leases where SAV is present.

Authorizing the Placement of Shellfish, Bags, Nets or Structures on SAV

- In accordance with the provisions established in Natural Resources Article §4-11A-10(c), the Department may approve the placement of shellfish, bags, nets or structures on SAV within the boundaries of a lease when conditions warrant this activity and in doing so, the Department:
 - May not authorize harvesting by dredge in areas where SAV is present.

- Shall authorize for water column leases the placement of shellfish, bags, nets or structures in at least 10% of the area where SAV is present.
- Shall authorize harvest by diving in areas on any submerged land lease where SAV is present.

Report on SAV and Shellfish Lease Interactions 2021

The spreadsheet below provides details on the shellfish aquaculture leases identified in CY21 as having SAV growing within their footprint. This information was generated using the 2019 VIMS Aerial SAV imagery. The department identified 45 shellfish leases where SAV was found within the footprint of the respective lease. A summary is depicted below:

- 45 leases identified as having SAV within their footprint: two water column and 43 submerged land leases
- Total area impacted varies widely on leases from 0.025 to 8.18 acres

Lease Number	Lease Type	Water Body	Lease Acrea ge	Acres Impacted (2019 VIMS Survey	Aerial Survey Field Survey Date	SAV Species Found	2022 Restriction Dates
DO678	SLL	Little Choptank River	6.6	0.03	n/a	n/a	n/a
DO728	WC	Long Cove	6.3	3.93	August 23, 2021	Widgeon Grass	n/a
SM641	SLL	St. George Creek		0.50	June 15, 0001	Widgeon Grass	Apr 15 - Oct 31,
SM041 SM711	SLL	St. George Creek	2.8 6.4	0.50 2.82	June 15, 2021 June 15, 2021	Widgeon Grass	2022 n/a
514/11	JEL	St. Hilgoes Creek	0.4	2.02	Julie 15, 2021	widgeon orass	Apr 15 - Oct 31,
SM719	SLL	St. George Creek	6.8	3.49	June 15, 2021	Widgeon Grass	2022
SM723	SLL	St. Marys River	7.9	4.40	June 15, 2021	n/a	n/a
SM753	WC	Herring Creek	4.4	0.11	n/a	n/a	n/a
SO775	SLL	Big Annemessex River	91.9	0.14	n/a	n/a	n/a
TA506	SLL	Irish Creek	3.0	1.05	July 13, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022 Apr 15 - Oct 31,
TA508	SLL	Irish Creek	19.2	8.18	July 13, 2021	Widgeon Grass	2022
TA510	SLL	Irish Creek	5.8	1.33	July 23, 2021	Widgeon Grass	n/a
				_			Apr 15 - Oct 31,
TA511	SLL	Haskins Cove	4.7	0.82	July 23, 2021	Widgeon Grass	2022 Apr 15 - Oct 31,
TA520	SLL	Leadenham Creek	5.5	1.24	June 25, 2021	Widgeon Grass	2022
TA521 TA523	SLL SLL	Leadenham Creek Leadenham Creek	2.8 2.1	0.32	June 25, 2021 June 25, 2021	n/a Widgeon Grass	n/a n/a
1A523	SLL	Leadennani Creek	2,1	0.91	Julie 25, 2021	widgeon Grass	Apr 15 - Oct 31,
TA525	SLL	Tred Avon River	10.6	1.60	August 18, 2021	Widgeon Grass	2022
TA535	SLL	Plaindealing Creek	19.0	0.69	August 17, 2021	n/a	n/a
TA547	SLL	Cummings Creek	2.2	0.80	June 24, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA549	SLL	Harris Creek	19.3	6.33	June 24, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA549 TA550	SLL	Harris Creek	4.7	0.13	n/a	n/a	n/a
TA551	SLL	Harris Creek	17.5	0.52	n/a	n/a	n/a
TA552	SLL	Harris Creek	5.9	0.68	June 24, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA553	SLL	Briary Cove	8.8	1.29	July 8, 2021	Widgeon Grass	n/a
TA555	SLL	Harris Creek	7.9	0.23	n/a	n/a	n/a
TA558	SLL	Polla Croolr	0.5	1.01	June 25, 2021	Widgeon Grass	Apr 15 - Oct 31,
TA558 TA559	SLL	Balls Creek Balls Creek	9.5 6.2	1.91 0.35	n/a	n/a	2022 n/a
111009	UIII	Build Creek	0.2	0.35	ii/u	ii/u	Apr 15 - Oct 31,
TA562	SLL	Broad Creek	12.5	2.23	June 29, 2021	Widgeon Grass	2022 Apr 15 - Oct 31,
TA563	SLL	Broad Creek	1.5	0.50	June 29, 2021	Widgeon Grass	2022 Apr 15 - Oct 31,
TA567	SLL	Broad Creek	9.5	0.73	June 29, 2021	Widgeon Grass	2022
TA571	SLL	Broad Creek	3.6	0.85	June 29, 2021	Widgeon Grass	n/a
TA574	SLL	San Domingo Creek	5.4	4.07	July 7, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA575	SLL	San Domingo Creek	4.3	0.90	July 7, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA578	SLL	San Domingo Creek	9.9	0.61	July 7, 2021	Widgeon Grass	n/a Apr 15 - Oct 31,
TA579	SLL	San Domingo Creek	5.2	2.17	July 7, 2021	Widgeon Grass	2022
TA580	SLL	San Domingo Creek	12.6	0.49	n/a	n/a	n/a
TA581	SLL	Edge Creek	7.5	7.15	July 12, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA585	SLL	Trippe Creek	13.4	0.85	August 18, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA586	SLL	Trippe Creek	4.4	0.10	n/a	n/a	n/a
TA588	SLL	Broad Creek	7.4	0.91	June 29, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA599	SLL	Irish Creek	0.1	0.03	July 13, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA600	SLL	Irish Creek	0.3	0.04	July 13, 2021	Widgeon Grass	Apr 15 - Oct 31, 2022
TA602	SLL	Elberts Cove	18.4	1.56	July 12, 2021	Widgeon Grass	n/a
TA607	SLL	Irish Creek	5.6	0.46	July 23, 2021	n/a	n/a Apr 15 - Oct 31,
TA608	SLL	Edge Creek	5.3	0.73	July 12, 2021	Widgeon Grass	2022
	SLL	Sinepuxent Bay	11.2	n/a	May 19, 2021	Eel Grass	n/a

Table 1: 2021 SAV & Lease Interactions (2019 VIMS Aerial Survey Data)

In 2021, the Department conducted field surveys on 36 shellfish leases where SAV was identified by VIMS. These surveys were conducted to confirm the presence, extent, and species of SAV that may be growing in the area defined by these leases. A summary is depicted below:

- 36 leases surveyed: included one water column and 35 submerged land leases
- SAV confirmed on 32 leases: 31 submerged land leases and one water column lease
- Widgeon Grass was the dominant species present: 31 out of 32 leases
- Eel Grass was found on one lease
- Partial or full lease area usage restrictions were placed on 23 submerged land leases for 2022: 19 partial and four full restrictions
- Restrictions on usage were all based on Time of Year

In cases where conditions warrant establishing a lease usage restriction, the Department uses field survey data to map the extent of SAV within the lease and makes a determination on whether a partial or full lease restriction is needed to protect SAV. Partial restrictions require a leaseholder to avoid working in a particular mapped area of SAV. A full usage restriction is only established when SAV coverage on a lease is so extensive that there are no open areas large enough to effectively work the lease. In both cases, these usage restrictions are only in effect during the SAV growing season. This provides the leaseholder with the opportunity to work their lease at other times.

The Department has not received any requests from leaseholders to place shellfish, bags, nets or structures in areas of SAV that were found to be growing within their leases in 2020 or 2021. Consequently, the Department has not yet provided any written approvals to leaseholders authorizing them to work in areas of SAV on their respective leases.



SAV like Widgeon Grass is critical for bay health