

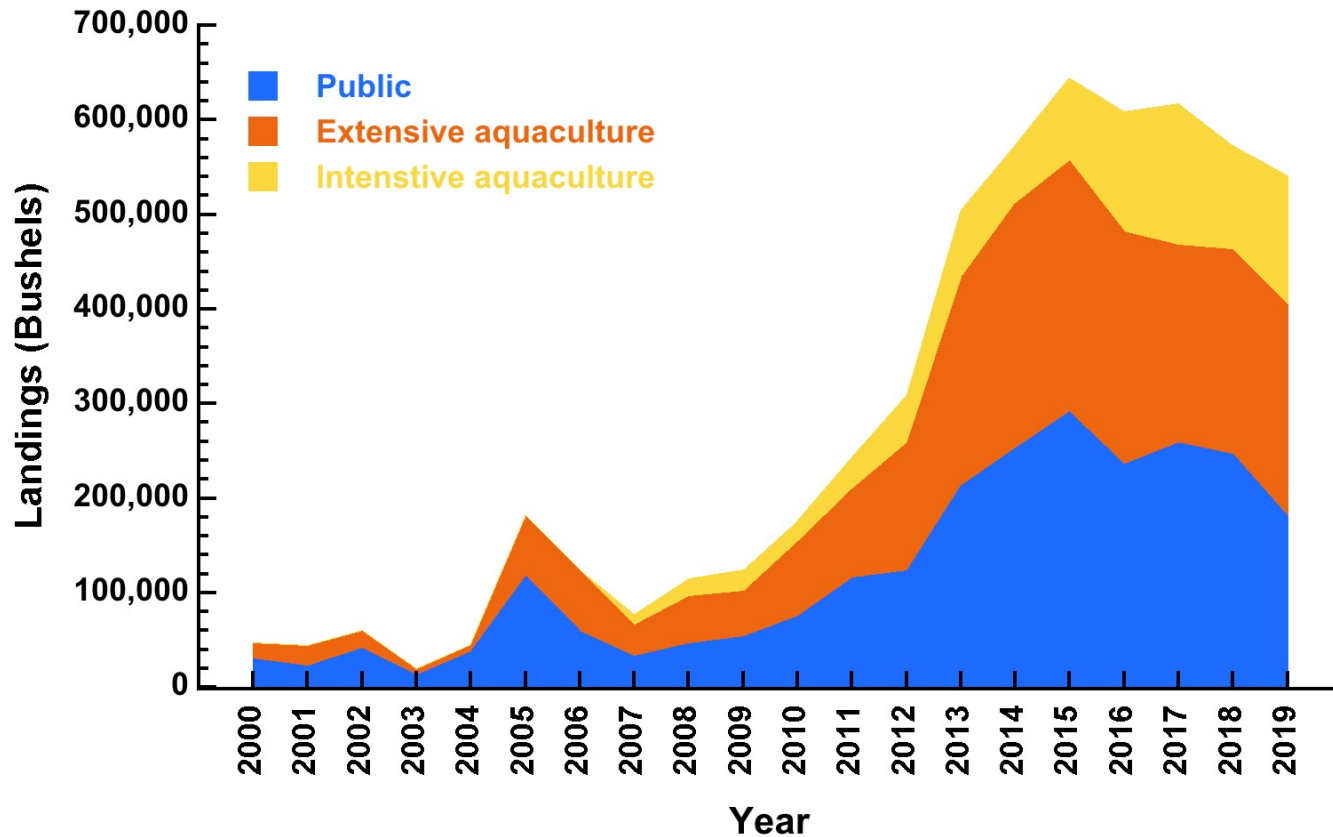
On the Co-existence of Submerged Aquatic Vegetation and Cage Based Oyster Aquaculture in Virginia

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Full study results can be found at: <https://cmap2.vims.edu/OysterInfoToolVa/>

Oyster aquaculture in Virginia



Two major challenges that impact aquaculture expansion in Virginia

1. The availability of bottom (leasing)
2. Conflict with SAV.

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Current regulation as it pertains to SAV

- Restricts aquaculture in areas where SAV is present.
- Not permitted to take up a new lease in an area that contains SAV.
- Use within existing leases can be restricted if SAV spreads into the area.
- All of this is regardless of SAV density or species.
- Based on the presence/absence of SAV from the most recent 5-year period of data on record.

Analysis of active aquaculture in areas with SAV

- Reviewed harvest reporting records from the VMRC Mandatory Harvest Reporting Database between 2012-2019.
- Overlaid harvest on SAV data from the VIMS Submerged Aquatic Vegetation Program (2012 to 2019).

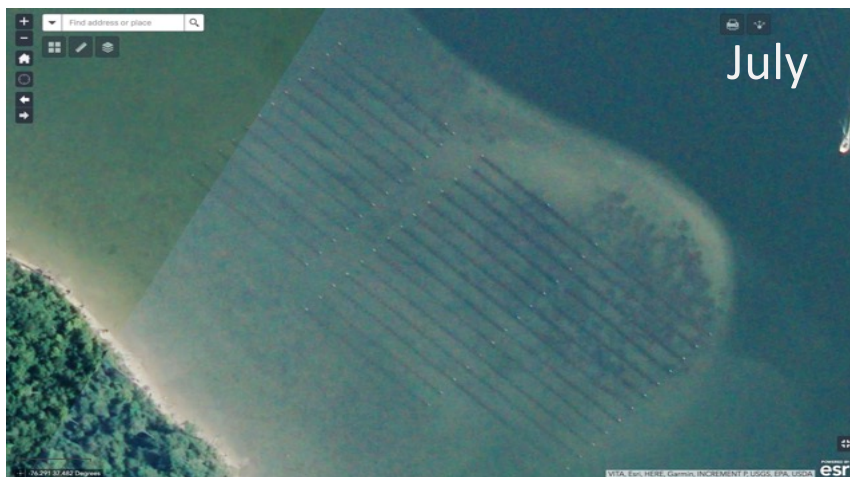
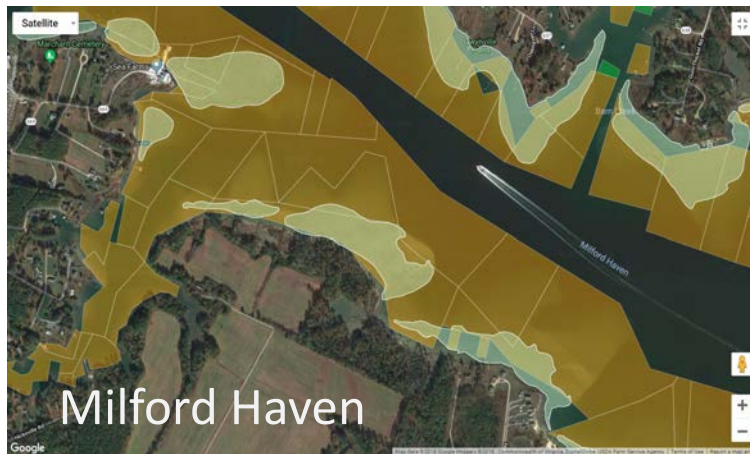


Analysis of active aquaculture: where is it happening?

- **74% (319/433)** of leases reporting intensive aquaculture harvest are within 100 ft of the shoreline
- **91% (392/433)** of leases reporting intensive aquaculture harvest are within 500 ft of the shoreline

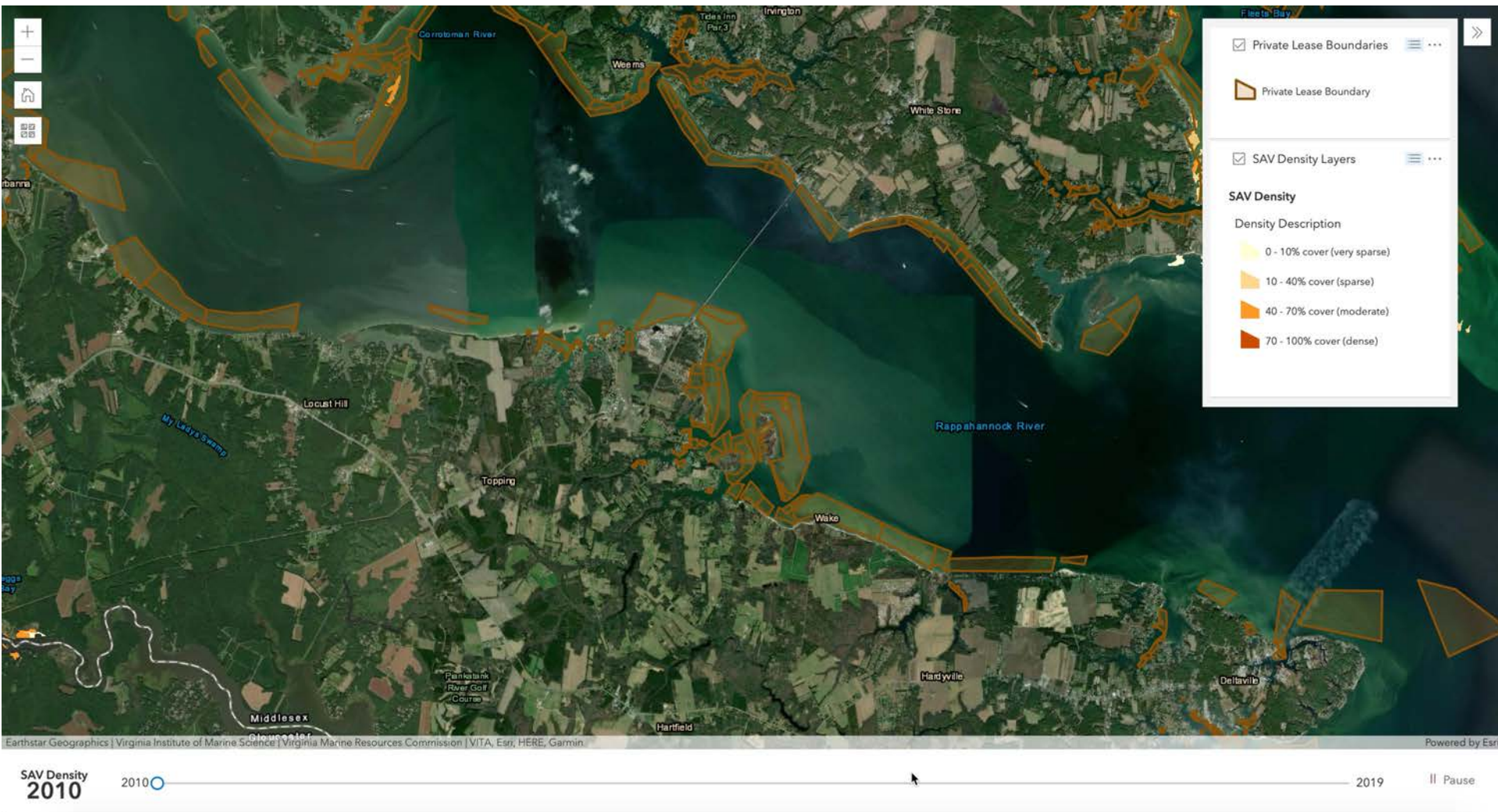
Oysters and clams combined	100 ft Buffer	200 ft Buffer	300 ft Buffer	500 ft Buffer	Chesapeake Bay Totals
Total Leases	2,466	2,741	2,903	3,116	3,856
Percent Leases	64	71	75	81	100
Total Intensive Harvest	319	352	367	392	433
Percent Intensive Harvest (of total)	8	9	10	10	11
Percent Intensive Harvest	74	81	85	91	100

Analysis of active aquaculture in areas with SAV: Seasonal changes

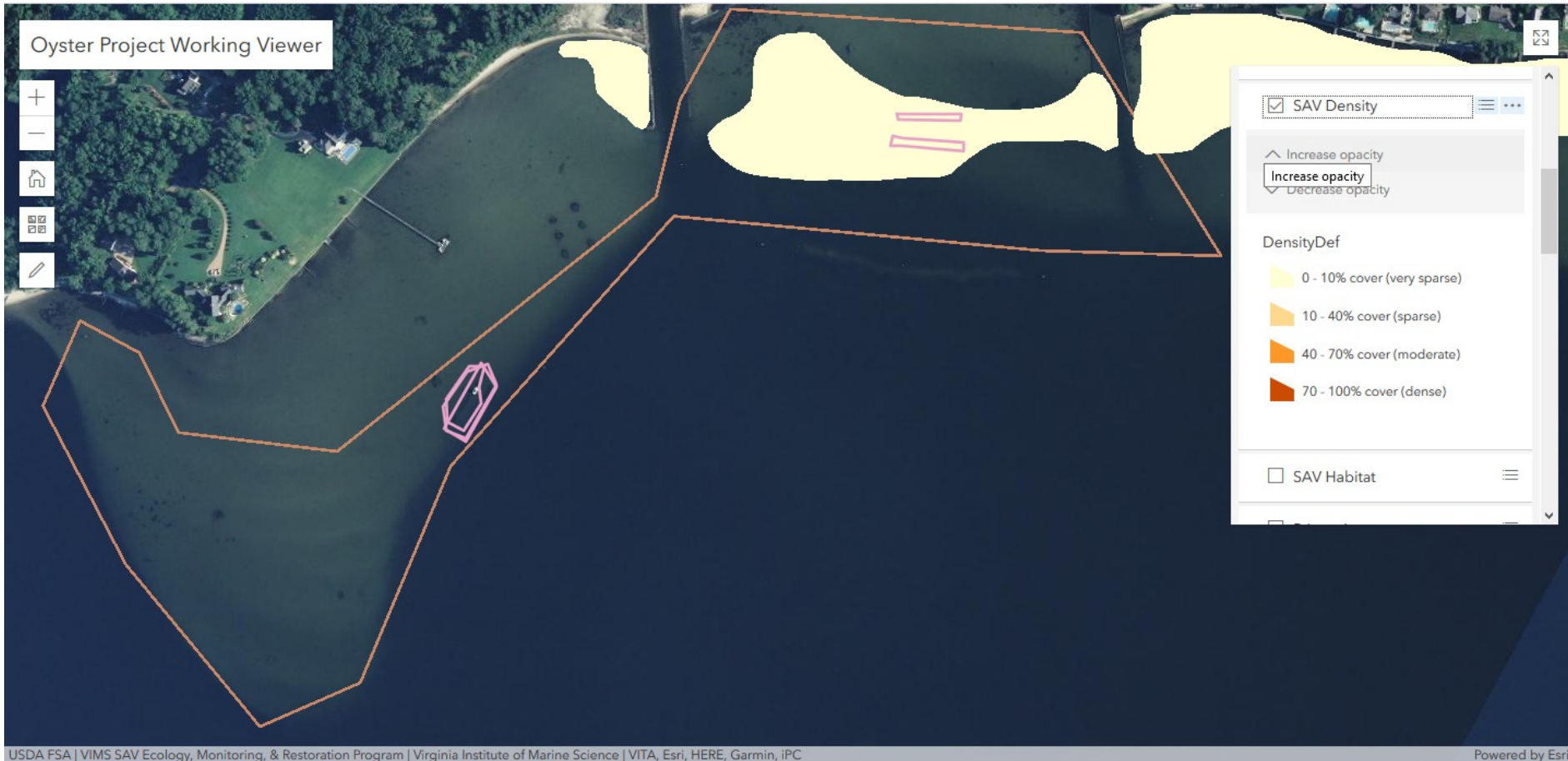


Analysis of active aquaculture in areas with SAV

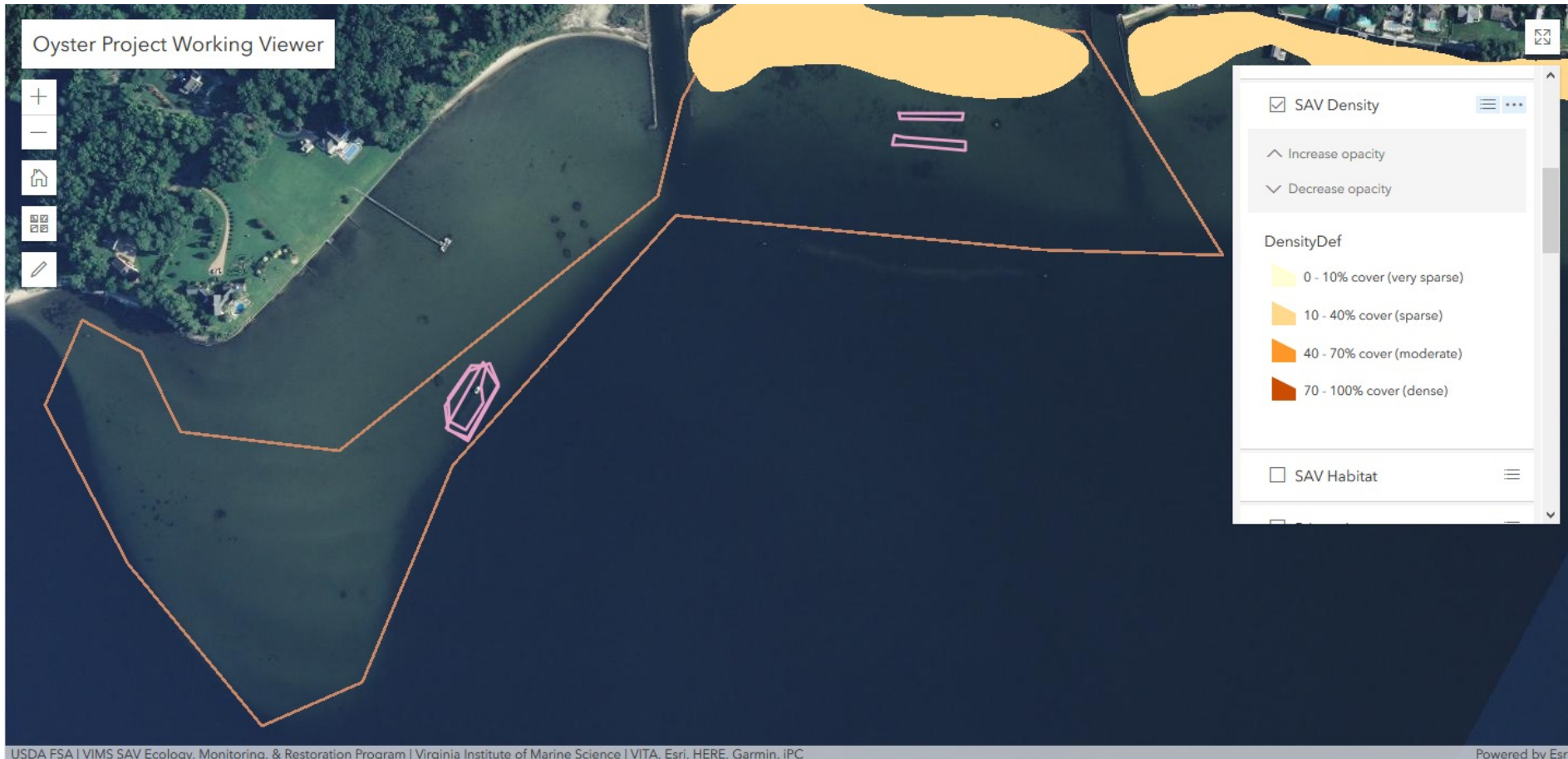
SAV coverage change over time



Analysis of active aquaculture in areas with SAV: Interannual changes



Analysis of active aquaculture in areas with SAV: Interannual changes



Analysis of active aquaculture in areas with SAV: Interannual changes



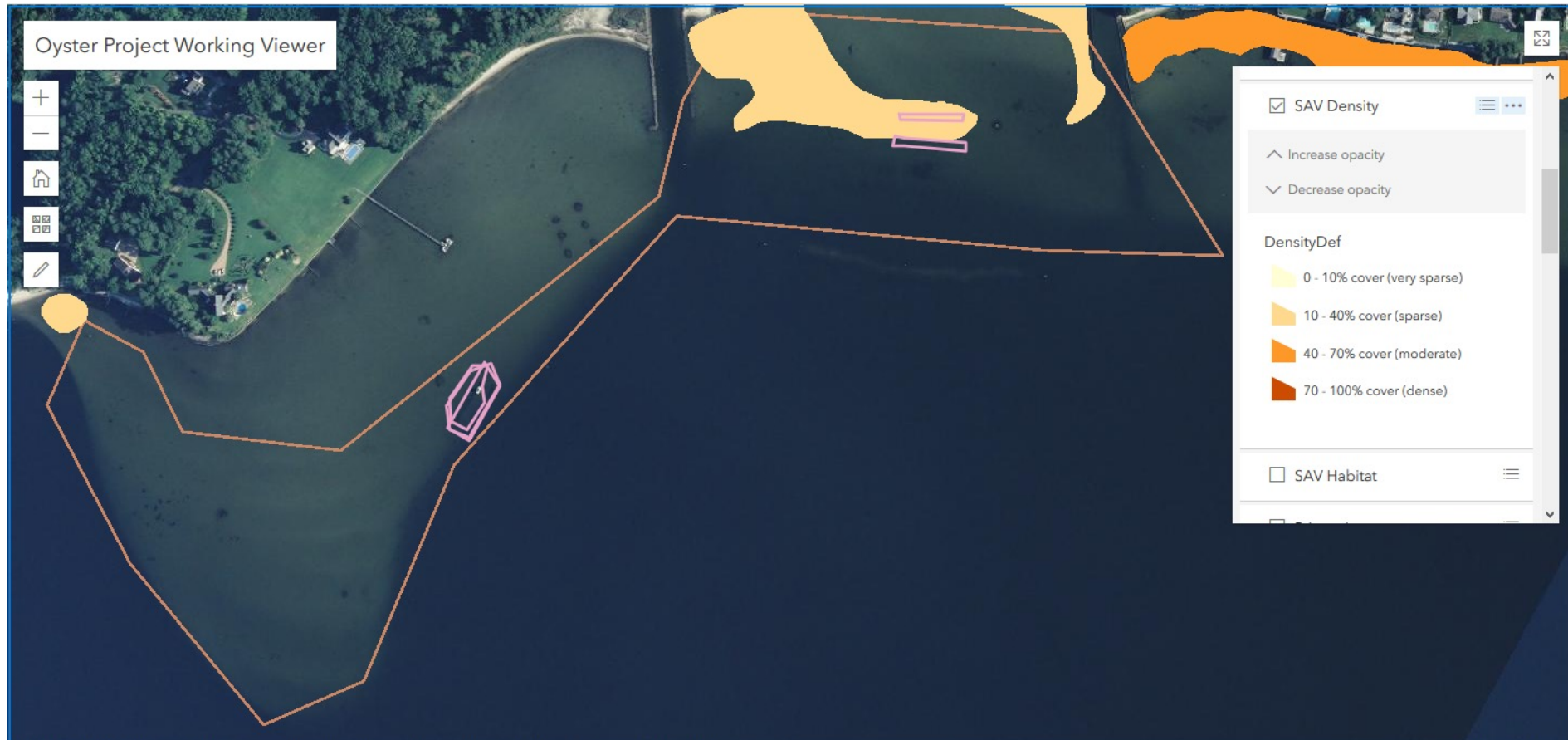
Analysis of active aquaculture in areas with SAV: Interannual changes



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Analysis of active aquaculture in areas with SAV: Interannual changes



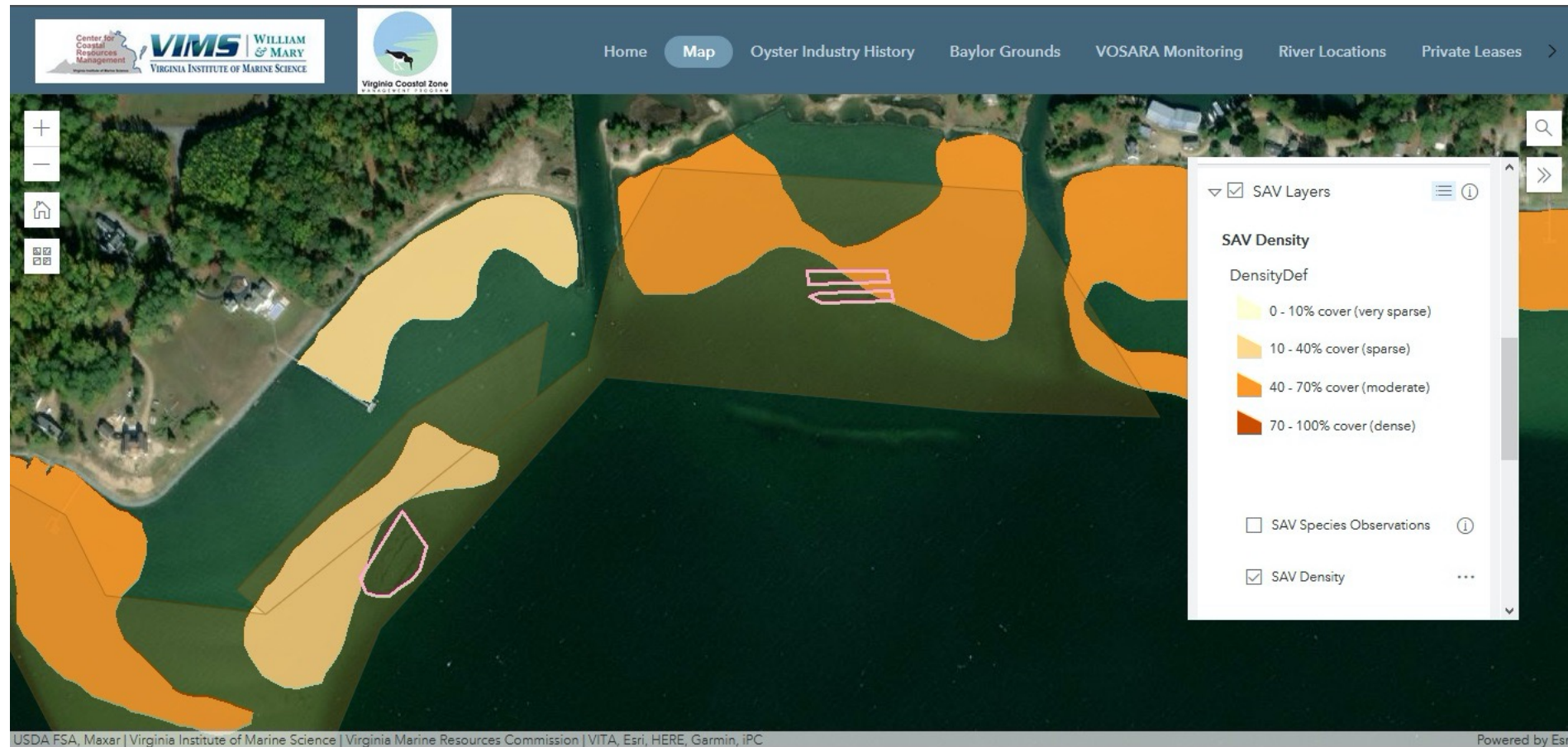
Analysis of active aquaculture in areas with SAV: Interannual changes



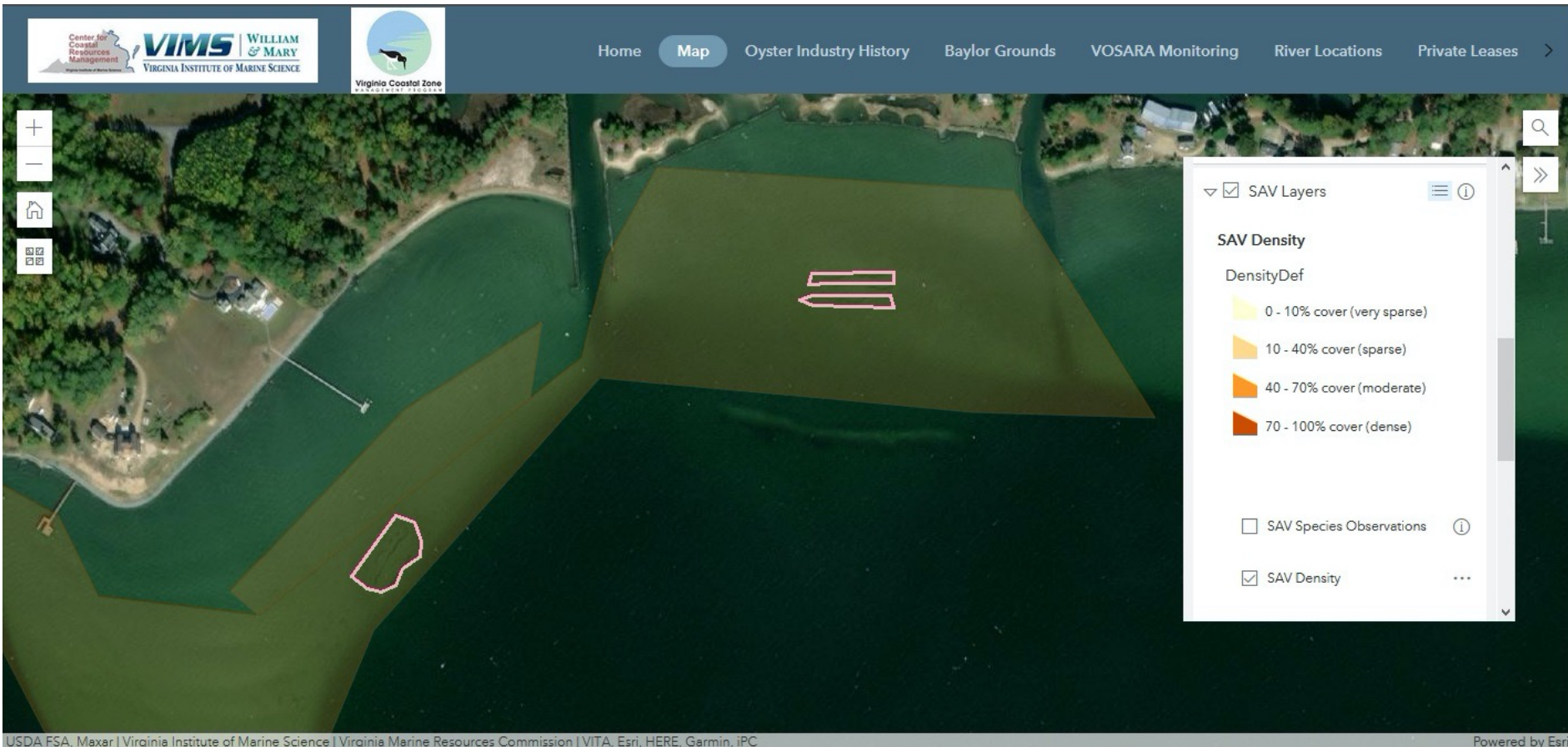
Analysis of active aquaculture in areas with SAV: Interannual changes



Analysis of active aquaculture in areas with SAV: Interannual changes



Analysis of active aquaculture in areas with SAV: Interannual changes



Analysis of active aquaculture in areas with SAV: Interannual changes (5 year intervals)

	2012 to 2016			2013 to 2017			2014 to 2018			2015 to 2019		
Total Leases	3,856			3,856			3,856			3,856		
Percent Leases	100			100			100			100		
	Number of Leases	Percent of Total	SAV Leases	Number of Leases	Percent of Total	SAV Leases	Number of Leases	Percent of Total	SAV Leases	Number of Leases	Percent of Total	SAV Leases
Non-Riparian Leases with SAV	919	24	100	1,003	26	100	1,046	27	100	1,037	27	100
Non-Riparian Leases with No SAV	2,937	76		2,853	74		2,810	73		2,819	73	
Intensive Harvest - Oysters & Clams	Number of Leases	Percent of Total	Percent of Intensive Leases	Number of Leases	Percent of Total	Percent of Intensive Leases	Number of Leases	Percent of Total	Percent of Intensive Leases	Number of Leases	Percent of Total	Percent of Intensive Leases
Intensive Harvest with SAV	126	3	40	146	3	41	159	4	43	172	4	44
Intensive Harvest with No SAV	189	5	60	206	5	59	209	5	57	220	6	56
Total Intensive Harvest	315	8	100	352	9	100	368	10	100	392	10	100

Maryland House Bill 841

Effective October 1, 2019

Aquaculture – Submerged Aquatic Vegetation – Placement of Shellfish, Bags, Nets, and Structures

Section 4-11A-10

(C-1) IN APPROVING THE PLACEMENT OF SHELLFISH, BAGS, NETS, OR STRUCTURES ON SUBMERGED AQUATIC VEGETATION UNDER SUBSECTION (C)(1) OF THIS SECTION, THE DEPARTMENT:

- (1) MAY NOT AUTHORIZE HARVESTING BY DREDGE IN AREAS WHERE SUBMERGED AQUATIC VEGETATION IS PRESENT;
- (2) SHALL AUTHORIZE FOR WATER COLUMN LEASES THE PLACEMENT OF SHELLFISH, BAGS, NETS, OR STRUCTURES IN AT LEAST 10% OF THE AREA WHERE SUBMERGED AQUATIC VEGETATION IS PRESENT



SAV
2012

2010



2017

▶ Play

The Bottom Line

- Aquaculture and SAV can co-exist.

Additional information and full study results can be found at:

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