



# Backgrounder

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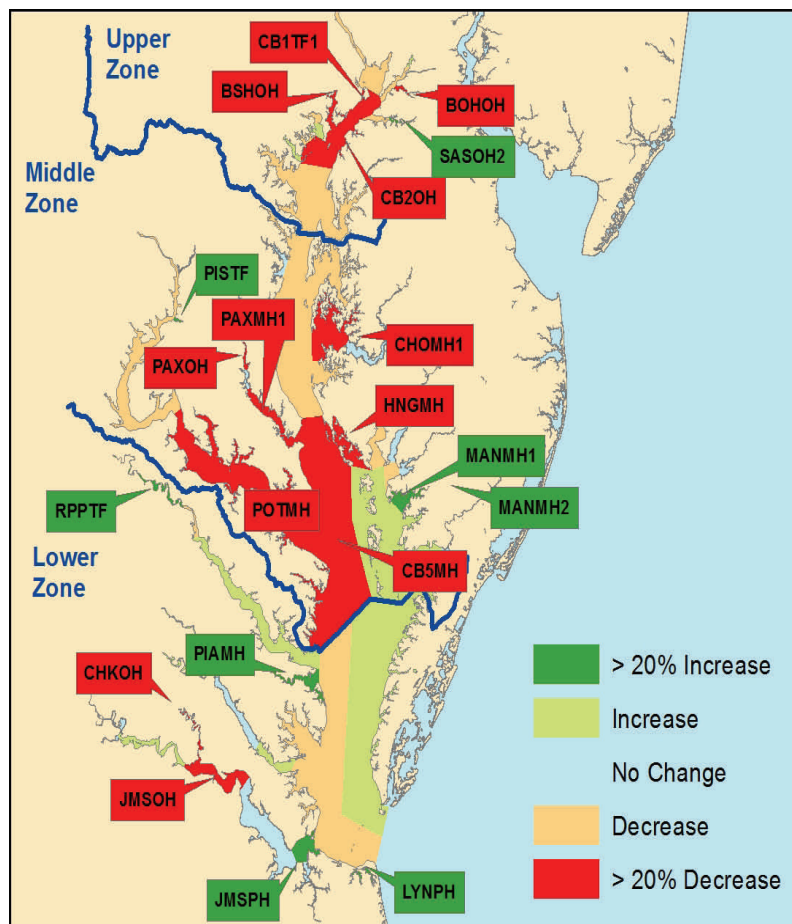
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## Underwater Bay Grasses in the Chesapeake Bay and Rivers in 2010

In 2010, 79,675 acres of underwater bay grasses were mapped in Chesapeake Bay and its tributaries.

Overall grass acreage decreased by 6,239 acres (or 7 %), from 85,914 acres in 2009 to 79,675 in 2010. This comes after three successive years of increasing acreage. Bay grass acreage decreased in two geographic zones – upper and middle, and slightly increased in the lower zone. Of the 100 areas mapped, acreage decreased in 39, increased in 28 and remained unvegetated in 33.

Bay grass distribution was mapped from black and white aerial photographs that were taken between May and October 2010, at a scale of 1:24,000, encompassing 173 flight lines.



**Upper Bay Zone** (21 CBP segments extending from the Chesapeake Bay Bridge north)  
 SAV decreased 10% from 23,597 acres in 2009 to 21,353 in 2010.

- One of the 21 segments increased by at least 20 percent and by at least 12 acres from 2009 totals:

↑139% Sassafrass River Segment 2: 52 acres (2009) vs. 127 acres (2010)

- Four of the 21 segments decreased by at least 20 percent and by at least 12 acres from 2009 totals:

↓22% Northern Chesapeake Bay Segment: 1: 1079 acres (2009) vs. 846 acres (2010)

↓62% Bohemia River: 547 acres (2009) vs. 209 acres (2010)

↓22% Upper Chesapeake Bay: 745 acres (2009) vs. 581 acres (2010)

↓38% Bush River: 381 acres (2009) vs. 236 acres (2010)

- Two of the 21 segments remained unvegetated.

Acres of SAV & Goal Attained: Upper Chesapeake Bay Zone				
Segment	2009	2010	Restoration Goal	2010 % of Goal
Northern Chesapeake Bay				
<i>Northern Chesapeake Bay Segment 1</i>	1078.83	845.96	754	112%
<i>Northern Chesapeake Bay Segment 2</i>	14182.46	13272.75	12,149	109%
Northeast River	240.14	228.38	89	257%
Elk River				
<i>Elk River Segment 1</i>	2070.16	1900.72	1,844	103%
<i>Elk River Segment 2</i>	461.90	475.29	190	250%
Bohemia River	546.90	208.93	354	59%
Chesapeake & Delaware Canal	7.24	15.74	7	225%
Upper Chesapeake Bay	745.46	581.43	705	82%
Sassafras River				
<i>Sassafras River Segment 1</i>	807.98	783.59	1,073	73%
<i>Sassafras River Segment 2</i>	53.18	127.01	95	134%
Bush River	381.29	236.11	350	67%
Gunpowder river				
<i>Gunpowder River Segment 1</i>	854.53	857.03	1,860	46%
<i>Gunpowder River Segment 2</i>	1033.14	872.97	572	153%
Middle River	780.35	658.28	879	75%
Back River	0.00	0.02	340	0%
Upper Central Chesapeake Bay	234.46	202.58	1,370	15%
Patapsco River	11.54	0.00	389	0%
Magothy River	12.11	1.75	579	0%
Lower Chester River	95.34	84.12	2,928	3%
Middle Chester River	0.00	0.00	77	0%
Upper Chester River	0.00	0.00	230	0%
<b>UPPER ZONE TOTAL</b>	<b>23597.00</b>	<b>21352.63</b>	<b>23630.00</b>	<b>90%</b>

**Middle Bay Zone** (51 segments south of the Bay Bridge to the Rappahanock River and Pocomoke Sound)  
 SAV decreased 11percent from 39, 612 acres in 2009 to 35,446 in 2010.

- **Three of the 51 segments increased** by at least 20 percent and by at least 12 acres from 2009 totals:

- ▲ 49% Manokin River Segment 1: 585 acres (2009) vs. 871 acres (2010)
- ▲ 100% Manokin River Segment 2: 0 acres (2009) vs. 13 acres (2010)
- ▲ 91% Piscataway Creek: 274 acres (2009) vs. 523 acres (2010)

- **Six of the 51 segments decreased** by at least 20 % and by at least 12 acres from 2009 totals:

- ▼ 38% Mouth of the Choptank River: 649 acres (2009) vs. 404 acres (2010)
- ▼ 38% Lower Central Chesapeake Bay (MD & VA): 4579 acres (2009) vs. 2831 acres (2010)
- ▼ 56% Honga River: 4922 acres (2009) vs. 2175 acres (2010)
- ▼ 55% Lower Patuxent River Segment 1: 40 acres (2009) vs. 18 acres (2010)
- ▼ 28% Middle Patuxent River: 92 acres (2009) vs. 66 acres (2010)
- ▼ 38% Lower Potomac River (MD): 336 acres (2009) vs. 207 acres (2010)

- Twenty of the 51 segments remained unvegetated in 2010.

<b>Acres of SAV &amp; Goal Attained: Middle Chesapeake Bay Zone</b>				
<b>Segment</b>	<b>2009</b>	<b>2010</b>	<b>Restoration Goal</b>	<b>2010 % of Goal</b>
Middle Central Chesapeake Bay	0.37	0.00	2,533	0%
Eastern Bay	473.24	421.69	6,209	7%
Mouth of the Choptank River	649.03	404.12	8,184	5%
Lower Choptank River	0.00	0.00	1,621	0%
Middle Choptank River	0.00	0.00	72	0%
Upper Choptank River	0.00	0.00	NZG	N/A
Little Choptank River	176.61	170.85	4,076	4%
Severn River	211.01	174.78	455	38%
South River	0.00	0.00	479	0%
Rhode River	0.00	0.00	60	0%
West River	0.00	0.00	238	0%
Lower Central Chesapeake Bay				
<i>Lower Central Chesapeake Bay (MD)</i>	<i>2280.03</i>	<i>432.07</i>	<i>8,270</i>	<i>5%</i>
<i>Lower Central Chesapeake Bay (VA)</i>	<i>2299.09</i>	<i>2398.57</i>	<i>7,633</i>	<i>31%</i>

**Chart Continued >>>>>**

Backgrounder: Underwater Bay Grasses in the Chesapeake Bay and Rivers in 2010

<b>Acres of SAV &amp; Goal Attained: Middle Chesapeake Bay Zone (Cont'd)</b>				
<b>Segment</b>	<b>2009</b>	<b>2010</b>	<b>Restoration Goal</b>	<b>2010 % of Goal</b>
Honga River	4922.13	2174.82	7,761	28%
Fishing Bay	147.20	138.48	197	70%
Lower Nanticoke River	0.00	0.00	3	0%
Middle Nanticoke River	0.00	0.00	12	0%
Upper Nanticoke River	0.00	0.00	NZG	N/A
Wicomico River	0.00	0.00	3	0%
Tangier Sound				
<i>Tangier Sound Segment 1 (MD)</i>	<i>7128.80</i>	<i>7912.93</i>	<i>24,683</i>	<i>32%</i>
<i>Tangier Sound Segment 1 (VA)</i>	<i>5634.97</i>	<i>5657.71</i>	<i>13,579</i>	<i>42%</i>
<i>Tangier Sound Segment 2 (MD)</i>	<i>4.67</i>	<i>4.65</i>	<i>74</i>	<i>6%</i>
Manokin River				
<i>Manokin River Segment 1</i>	<i>585.30</i>	<i>871.16</i>	<i>4,294</i>	<i>20%</i>
<i>Manokin River Segment 2</i>	<i>0.00</i>	<i>12.90</i>	<i>59</i>	<i>22%</i>
Big Annemessex River				
<i>Big Annemessex River Segment 1</i>	<i>849.37</i>	<i>949.22</i>	<i>2,021</i>	<i>47%</i>
<i>Big Annemessex River Segment 2</i>	<i>0.00</i>	<i>0.00</i>	<i>22</i>	<i>0%</i>
Lower Pocomoke River				
<i>Lower Pocomoke River (MD)</i>	<i>119.85</i>	<i>151.45</i>	<i>877</i>	<i>17%</i>
<i>Lower Pocomoke River (VA)</i>	<i>1720.90</i>	<i>1932.50</i>	<i>4,066</i>	<i>48%</i>
<i>Middle Pocomoke River</i>	<i>0.00</i>	<i>0.00</i>	<i>22</i>	<i>0%</i>
<i>Upper Pocomoke River</i>	<i>0.00</i>	<i>0.00</i>	<i>NZG</i>	<i>N/A</i>
Lower Patuxent River				
<i>Lower Patuxent River Segment 1</i>	<i>39.64</i>	<i>17.89</i>	<i>1,459</i>	<i>1%</i>
<i>Lower Patuxent River Segment 2</i>	<i>0.00</i>	<i>0.00</i>	<i>172</i>	<i>0%</i>
<i>Lower Patuxent River Segment 3</i>	<i>0.00</i>	<i>0.00</i>	<i>NZG</i>	<i>N/A</i>
<i>Lower Patuxent River Segment 4</i>	<i>0.00</i>	<i>0.00</i>	<i>1</i>	<i>0%</i>
<i>Lower Patuxent River Segment 5</i>	<i>0.00</i>	<i>0.00</i>	<i>2</i>	<i>0%</i>
<i>Lower Patuxent River Segment 6</i>	<i>0.00</i>	<i>0.00</i>	<i>NZG</i>	<i>N/A</i>
Middle Patuxent River	92.00	66.15	115	58%
Upper Patuxent River	164.03	147.94	205	72%
Western Branch of the Patuxent River	0.00	1.26	0	N/A
Lower Potomac River				
<i>Lower Potomac River (MD)</i>	<i>335.90</i>	<i>207.18</i>	<i>7,088</i>	<i>3%</i>
<i>Lower Potomac River (VA)</i>	<i>0.00</i>	<i>0.00</i>	<i>4,250</i>	<i>0%</i>
Middle Potomac River				
<i>Middle Potomac River Segment 1 (MD)</i>	<i>1219.12</i>	<i>1124.18</i>	<i>1,387</i>	<i>81%</i>
<i>Middle Potomac River Segment 1 (VA)</i>	<i>2939.92</i>	<i>2848.98</i>	<i>1,503</i>	<i>190%</i>
<i>Middle Potomac River Segment 2 (MD)</i>	<i>155.75</i>	<i>136.92</i>	<i>262</i>	<i>52%</i>
<i>Middle Potomac River Segment 3 (MD)</i>	<i>82.63</i>	<i>82.11</i>	<i>1,153</i>	<i>7%</i>
Upper Potomac River				
<i>Upper Potomac River (DC)</i>	<i>64.08</i>	<i>84.56</i>	<i>383</i>	<i>22%</i>
<i>Upper Potomac River (MD)</i>	<i>2920.89</i>	<i>1954.34</i>	<i>2,142</i>	<i>91%</i>
<i>Upper Potomac River (VA)</i>	<i>3255.23</i>	<i>3684.26</i>	<i>2,093</i>	<i>176%</i>
Mattawoman Creek	865.75	759.91	792	96%
Piscataway Creek	274.04	522.96	789	66%
Anacostia River (D.C.)	0.00	0.00	6	0%
<b>MIDDLE ZONE TOTAL</b>	<b>39611.56</b>	<b>35446.47</b>	<b>115229</b>	<b>31%</b>

**Lower Bay Zone** (28 segments south of the Rappahannock River and Pocomoke Sound to mouth of the Bay)  
 SAV increased 1% from 22,706 acres in 2009 to 22,876 acres in 2010.

- **Four of the 28 segments increased** by at least 20% and by at least 12 acres from 2009 totals:

↑158% Upper Rappahannock River: 176 acres (2009) vs. 454 acres (2010)

↑42% Piankatank River: 344 acres (2009) vs. 488 acres (2010)

↑42% Mouth of the James River: 336 acres (2009) vs. 477 acres (2010)

↑100% Lynnhaven & Broad Bays: 0 acres (2009) vs. 15 acres (2010)

- **Two of the 28 segments decreased** by at least 20% and by at least 12 acres from 2009 totals:

↓20% Chickahominy River: 961 acres (2009) vs. 764 acres (2010)

↓56% Middle James River: 43 acres (2009) vs. 19 acres (2010)

- Eleven of the 28 segments remained unvegetated in 2010.

Acres of SAV & Goal Attained: Lower Chesapeake Bay Zone				
Segment	2009	2010	Restoration Goal	2010 % of Goal
Western Lower Chesapeake Bay	545.64	530.62	1,267	42%
Eastern Lower Chesapeake Bay	7413.97	7494.90	15,107	50%
Lower Rappahannock River	1461.56	1471.05	1,700	87%
Corrotoman River	490.41	571.22	768	74%
Middle Rappahannock River	8.57	5.44	4	136%
Upper Rappahannock River	176.12	453.97	66	688%
Piankatank River	344.17	488.14	3,479	14%
Mobjack Bay	8701.93	8123.44	15,901	51%
Lower York River	564.18	625.44	2,793	22%
Middle York River	0.00	0.00	239	0%
Lower Mattaponi River	0.00	0.00	NZG	N/A
Upper Mattaponi River	424.78	493.01	85	580%
Lower Pamunkey River	0.00	0.00	NZG	N/A
Upper Pamunkey River	892.44	938.55	187	502%
Mouth of the James River	336.22	477.24	300	159%
Lower James River	0.00	0.00	200	0%
Lower Elizabeth River	0.00	0.00	NZG	N/A
Western Branch of the Elizabeth River	0.00	0.00	NZG	N/A
South Branch of the Elizabeth River	0.00	0.00	NZG	N/A
Eastern Branch of the Elizabeth River	0.00	0.00	NZG	N/A
Lafayette River	0.00	0.00	NZG	N/A
Chickahominy River	960.94	764.26	535	143%
Middle James River	42.77	18.85	15	126%
Upper James River				
<i>Upper James River Segment 1</i>	<i>333.94</i>	<i>396.88</i>	<i>1,000</i>	<i>40%</i>
<i>Upper James River Segment 2</i>	<i>0.00</i>	<i>0.00</i>	<i>200</i>	<i>0%</i>
Appomattox River	0.00	0.00	379	0%
Mouth of the Chesapeake Bay	8.28	8.11	11	74%
Lynnhaven & Broad Bays	0.00	15.02	107	14%
<b>LOWER ZONE TOTALS</b>	<b>22705.90</b>	<b>22876.13</b>	<b>46030</b>	<b>50%</b>