

Table 4. Middlesex County, Virginia Shoreline Attributes - Riparian Land Use (miles) - River System Summary 2015

RIVER SYSTEM	TOTAL* MILES SURVEYED	AGRICULTURE			BARE			COMMERCIAL			FOREST total	GRASS			INDUSTRIAL			MILITARY			PAVED			RESIDENTIAL			SCRUB-SHRUB			TIMBERED			
		no tree buffer	tree fringe**	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total		no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	no tree buffer	tree fringe	total	
Broad Creek	6	<1	0	<1	0	0	0	3	<1	3	0	<1	<1	<1	0	0	0	0	0	0	0	0	0	3	<1	3	0	0	0	0	0	0	
Bush Park Creek	6	0	<1	<1	<1	0	<1	0	0	0	1	0	0	0	0	0	0	0	0	0	<1	0	<1	2	3	4	0	0	0	0	0	0	
Chesapeake Bay	6	0	0	0	<1	0	<1	0	0	0	1	<1	<1	<1	0	0	0	0	0	0	0	0	0	5	1	5	0	0	0	0	0	0	
Healy Creek	6	0	2	2	0	0	0	0	0	0	1	<1	<1	<1	0	0	0	0	0	0	<1	0	<1	1	1	3	0	0	0	0	0	0	
Jackson Creek	9	<1	<1	<1	<1	<1	<1	1	<1	1	<1	<1	<1	1	0	0	0	0	0	0	0	0	0	6	1	7	0	0	0	0	0	0	
Lagrange Creek	28	1	9	10	0	0	0	<1	0	<1	5	<1	<1	<1	0	0	0	0	0	0	<1	<1	<1	5	5	10	<1	<1	<1	0	2	2	
Locklies Creek	7	0	1	1	0	0	0	<1	<1	<1	1	<1	<1	<1	0	0	0	0	0	0	<1	0	<1	3	2	5	0	0	0	0	0	0	
Meachim Creek	9	<1	<1	<1	<1	0	<1	0	0	0	<1	0	0	0	0	0	0	0	0	0	0	0	0	4	3	8	<1	0	<1	0	0	0	
Mill Creek	6	<1	<1	1	<1	0	<1	0	0	0	0	<1	<1	<1	0	0	0	0	0	0	<1	0	<1	2	3	5	0	0	0	0	0	0	
Moore Creek	5	0	<1	<1	<1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	<1	0	<1	0	0	0	
Parrotts Creek	13	<1	1	1	0	0	0	<1	0	<1	8	<1	<1	<1	0	0	0	0	0	0	<1	0	<1	1	1	3	0	0	0	0	0	0	
Piankatank River	43	<1	4	5	0	0	0	<1	0	<1	12	1	1	2	0	0	0	0	0	0	<1	<1	<1	16	7	23	<1	0	<1	0	0	0	
Rappahannock River	53	4	13	16	1	0	1	<1	0	<1	8	1	<1	2	0	0	0	0	0	0	1	<1	1	17	6	23	1	0	1	0	0	0	
Robinson Creek	16	<1	2	2	0	0	0	1	0	1	<1	0	0	0	0	0	0	0	0	0	<1	<1	<1	8	5	12	0	0	0	0	0	0	
Sturgeon Creek	8	0	1	1	0	<1	<1	0	0	0	<1	<1	<1	1	0	0	0	0	0	0	<1	<1	<1	5	1	6	0	0	0	0	0	0	
Urbanna Creek	14	<1	1	1	0	0	0	1	0	1	4	0	<1	<1	0	0	0	0	0	0	<1	<1	<1	4	4	8	<1	0	<1	0	0	0	
Weeks Creek	14	2	6	8	0	0	0	0	0	0	5	<1	0	<1	0	0	0	0	0	0	0	<1	<1	<1	<1	<1	<1	0	0	0	0	0	0
Whiting Creek	12	<1	3	3	0	0	0	0	0	0	3	0	<1	<1	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	0	0	
Wilton Creek	8	0	1	1	<1	0	<1	0	0	0	1	<1	<1	1	0	0	0	0	0	0	0	<1	<1	2	4	6	0	0	0	0	0	0	
Woods Creek	2	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	<1	<1	1	0	0	0	0	0	0	
Total	269	8	45	53	1	<1	1	6	<1	7	52	4	4	9	0	0	0	0	0	0	2	1	3	87	54	142	1	<1	2	0	2	2	

\*Total = upland shoreline only (upland/marsh and upland/water). Does not include marsh/water shoreline.

\*\*tree fringe: When the dominant riparian land use is not forested but a line of trees is maintained along the bank edge, the land use is noted to include a tree fringe. This tree fringe value includes tree fringe and tree fringe > 100 feet wide.

Note: Numbers have been rounded. Summing numbers across rows or down columns may not necessarily equal the exact total whole number shown.

Table 5. Middlesex County, Virginia Shoreline Attributes - Riparian Bank Condition - River System Summary 2015

RIVER SYSTEM	TOTAL* MILES SURVEYED	BANK COVER (miles)			BANK HEIGHT (miles)		
		bare	partial	total	0-5 feet	5-30 feet	>30 feet
Broad Creek	6	0	<1	6	6	<1	0
Bush Park Creek	6	<1	1	5	2	4	0
Chesapeake Bay	6	<1	<1	6	6	0	0
Healy Creek	6	<1	<1	5	2	4	0
Jackson Creek	9	<1	<1	9	6	3	0
Lagrange Creek	28	0	<1	27	20	7	0
Locklies Creek	7	<1	<1	7	4	3	0
Meachim Creek	9	<1	1	8	3	6	0
Mill Creek	6	0	<1	6	3	3	0
Moore Creek	5	<1	<1	4	2	2	0
Parrotts Creek	13	<1	<1	13	7	6	0
Piankatank River	43	<1	2	41	26	17	<1
Rappahannock River	53	3	2	47	33	20	0
Robinson Creek	16	0	0	16	14	2	0
Sturgeon Creek	8	<1	<1	7	4	3	0
Urbanna Creek	14	<1	<1	14	6	8	0
Weeks Creek	14	0	<1	13	13	1	0
Whiting Creek	12	0	<1	12	2	10	0
Wilton Creek	8	<1	<1	8	2	7	0
Woods Creek	2	0	<1	2	1	1	0
Total	269	4	8	257	164	105	<1

\*Total = upland shoreline only (upland/marsh and upland/water). Does not include marsh/water shoreline.

Note: Numbers have been rounded. Summing numbers across rows or down columns may not necessarily equal the exact total whole number shown.

Table 6. Middlesex County, Virginia Shoreline Attributes - Natural Buffers, *Phragmites australis* and Marsh Survey Dates - River System Summary 2015

RIVER SYSTEM	BEACH (miles)	# Wetland Polygons		Marsh Type (acres)					MARSH												PHRAGMITES <sup>3</sup> (percent of field checked marshes)	MARSH SURVEY DATES	
		total	field checked	marsh	marsh island	no marsh forested	no marsh scrub-shrub	total marsh	Community Type <sup>1</sup> (acres)														
									I	II	III	IV	V	VI	VII	VIII <sup>2</sup>	IX	X	XI	XII	DNS <sup>**</sup>		
Broad Creek	<1	44	29	6	0	0	0	6	2	0	1	1	0	0	0	1	0	0	0	1	1	38	July 7, 2015
Bush Park Creek	<1	72	63	10	0	<1	0	10	6	<1	<1	<1	0	0	0	<1	0	0	0	2	1	10	July 7, 2015
Chesapeake Bay	2	30	3	8	0	0	0	8	0	<1	0	0	0	0	0	0	0	0	0	1	7	33	June 30 & July 7, 2015
Healy Creek	<1	57	50	8	0	<1	0	8	3	0	1	0	0	<1	0	<1	0	0	0	1	3	14	June 30, 2015
Jackson Creek	<1	101	100	15	0	<1	0	15	6	<1	2	<1	0	<1	0	<1	0	0	0	7	<1	4	June 30, 2015
Lagrange Creek	1	144	93	185	0	<1	0	185	2	0	<1	<1	<1	0	0	1	0	0	0	64	119	4	July 9, 2015
Locklies Creek	<1	62	54	40	0	5	0	40	4	0	15	<1	0	<1	0	<1	0	0	0	10	11	15	July 7-8, 2015
Meachim Creek	1	82	72	12	0	0	0	12	1	<1	3	0	0	0	0	<1	0	0	0	3	5	1	July 8, 2015
Mill Creek	1	49	40	31	0	<1	1	31	10	<1	12	0	0	0	0	<1	0	0	0	2	7	5	July 7, 2015
Moore Creek	<1	59	49	8	0	<1	0	8	4	<1	1	<1	0	0	0	0	0	0	0	1	2	4	June 30, 2015
Parrotts Creek	<1	50	35	119	0	0	0	119	27	0	0	0	8	0	0	1	0	0	0	12	72	17	July 10, 2015
Piankatank River	3	220	200	311	0	7	0	311	6	8	15	34	99	0	<1	10	0	0	36	47	56	17	June 30 & July 1, 2015
Rappahannock River	19	164	118	290	0	8	4	290	2	<1	37	<1	0	7	0	6	0	0	0	64	174	31	July 7-10, 2015
Robinson Creek	<1	155	128	35	0	0	0	35	15	0	<1	1	0	0	0	<1	0	0	0	5	14	4	July 9, 2015
Sturgeon Creek	<1	90	77	11	0	0	0	11	4	<1	2	<1	0	0	0	<1	0	0	0	3	2	4	July 7, 2015
Urbanna Creek	<1	112	97	46	0	<1	0	46	24	<1	<1	0	0	0	0	1	0	0	0	4	17	7	July 8, 2015
Weeks Creek	<1	90	37	52	0	0	0	52	2	1	<1	0	0	0	0	2	0	0	0	2	46	11	July 9, 2015
Whiting Creek	<1	81	10	49	0	<1	0	49	<1	<1	0	<1	0	0	0	<1	0	0	0	11	38	60	July 8, 2015
Wilton Creek	<1	65	59	16	0	<1	0	16	6	0	1	<1	0	0	0	0	0	0	0	<1	9	0	June 30 & July 1, 2015
Woods Creek	<1	19	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	n/a	DNS
<b>Total</b>	<b>28</b>	<b>1746</b>	<b>1314</b>	<b>1259</b>	<b>0</b>	<b>22</b>	<b>5</b>	<b>1259</b>	<b>123</b>	<b>11</b>	<b>90</b>	<b>36</b>	<b>107</b>	<b>7</b>	<b>&lt;1</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>239</b>	<b>588</b>		

\*\*DNS = Did Not Survey

<sup>1</sup>Community Type: I = Saltmarsh Cordgrass / low marsh  
 II = Saltmeadow / high marsh  
 III = Black Needlerush  
 IV = Saltbush  
 V = Big Cordgrass  
 VI = Cattail  
 VII = Arrow Arum – Pickerel Weed  
 VIII = Reed Grass (*Phragmites australis*)  
 IX = Yellow Pond Lily  
 X = Saltwort  
 XI = Freshwater mix  
 XII = Brackish mix

<sup>2</sup>Type VIII - Field checked marshes where *Phragmites australis* was estimated to cover >50% marsh area.

<sup>3</sup>Phragmites - percent of field checked marshes where *Phragmites australis* is present in any amount.

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Table 7. Middlesex County, Virginia Shoreline Attributes - Shoreline Features - River System Summary 2015

RIVER SYSTEM	TOTAL* MILES SURVEYED	Number									Miles							
		docks	dilapidated docks	boathouses	ramps		marinas		w harfs	jetties	bulkhead	dilapidated bulkhead	debris	marsh toe revetment	riprap	unconventional	breakw ater	groinfields
Broad Creek	6	78	1	23	11	0	0	8	0	0	1	0	0	<1	1	0	<1	<1
Bush Park Creek	6	38	0	4	4	0	4	1	0	0	<1	0	0	<1	<1	0	0	0
Chesapeake Bay	6	81	4	0	10	0	0	0	0	0	1	0	0	<1	2	0	<1	2
Healy Creek	6	21	1	5	1	0	1	0	0	0	<1	0	0	0	<1	0	0	<1
Jackson Creek	9	133	0	9	8	0	4	2	0	3	1	0	0	<1	1	0	<1	<1
Lagrange Creek	28	88	2	16	6	0	0	1	0	0	<1	0	0	<1	1	0	0	1
Locklies Creek	7	41	1	8	5	0	2	1	0	0	<1	0	0	<1	1	0	0	0
Meachim Creek	9	89	3	63	3	0	0	0	0	0	1	0	0	0	1	0	<1	0
Mill Creek	6	48	2	19	2	1	0	0	1	2	<1	<1	0	<1	1	0	0	<1
Moore Creek	5	53	0	7	3	0	0	0	0	2	<1	0	0	<1	<1	0	<1	0
Parrotts Creek	13	28	3	7	6	0	0	0	0	0	<1	<1	0	<1	<1	0	0	<1
Piankatank River	43	314	1	78	18	2	2	1	0	7	4	<1	0	1	5	<1	<1	2
Rappahannock River	53	313	25	34	15	1	1	2	0	6	4	0	<1	<1	8	<1	1	8
Robinson Creek	16	142	1	10	5	0	3	2	0	2	1	0	0	<1	2	0	<1	0
Sturgeon Creek	8	121	1	19	9	0	2	0	0	2	1	<1	0	<1	1	<1	<1	<1
Urbanna Creek	14	69	0	30	7	1	2	2	0	1	<1	<1	0	<1	1	0	0	0
Weeks Creek	14	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Whiting Creek	12	60	0	2	1	0	0	0	0	0	<1	0	0	0	<1	0	0	<1
Wilton Creek	8	59	0	1	2	0	2	0	0	0	<1	0	0	<1	1	0	0	0
Woods Creek	2	3	0	0	0	0	0	0	0	0	0	0	0	0	<1	0	0	0
<b>Total</b>	<b>269</b>	<b>1781</b>	<b>45</b>	<b>335</b>	<b>117</b>	<b>5</b>	<b>23</b>	<b>20</b>	<b>1</b>	<b>25</b>	<b>15</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>3</b>	<b>27</b>	<b>&lt;1</b>	<b>1</b>	<b>13</b>

\*Total = upland shoreline only (upland/marsh and upland/water). Does not include marsh/water shoreline.

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