

Table 4. Mathews County, Virginia Shoreline Attributes 2008 - Riparian Land Use - Watershed Summary

MATHEWS WATERSHED	TOTAL MILES SURVEYED	RIPARIAN LAND USE (miles)																											
		AGRICULTURE				BARE	COMMERCIAL				FOREST			GRASS				PAVED				RESIDENTIAL				SCRUB-SHRUB			
		no tree buffer	tree fringe only	fringe with canopy overhang	total	no tree buffer	no tree buffer	tree fringe only	fringe with canopy overhang	total	no canopy overhang	canopy overhang	total	no tree buffer	tree fringe only	fringe with canopy overhang	total	no tree buffer	tree fringe only	fringe with canopy overhang	total	no tree buffer	tree fringe only	fringe with canopy overhang	total	no tree buffer	tree fringe only	fringe with canopy overhang	total
Blackwater Creek	13.32	0.34	0.73	0.03	1.10	0.00	0.20	0.07	0.00	0.27	4.40	1.19	5.59	0.20	0.35	0.00	0.55	0.00	0.00	0.00	0.00	1.84	2.06	0.57	4.47	1.35	0.00	0.00	1.35
Chesapeake Bay	12.33	0.00	0.00	0.00	0.00	0.88	0.19	0.03	0.00	0.22	1.14	0.00	1.14	0.17	0.02	0.00	0.19	0.20	0.00	0.00	0.20	2.60	0.30	0.00	2.90	6.80	0.00	0.00	6.80
Cobbs Creek	4.69	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.03	0.09	0.87	0.47	1.34	0.12	0.42	0.00	0.54	0.00	0.00	0.00	0.00	0.70	1.58	0.11	2.39	0.33	0.00	0.00	0.33
Davis Creek	2.96	0.26	0.12	0.00	0.38	0.00	0.48	0.00	0.00	0.48	0.37	0.25	0.62	0.08	0.08	0.00	0.16	0.00	0.00	0.00	0.00	0.89	0.30	0.04	1.22	0.09	0.00	0.00	0.09
Dyer Creek	6.22	0.04	0.15	0.00	0.19	0.00	0.05	0.00	0.00	0.05	0.93	0.01	0.94	0.26	0.08	0.00	0.34	0.36	0.00	0.00	0.36	1.27	0.07	0.00	1.34	2.92	0.08	0.00	3.00
East River	56.32	1.00	2.45	1.22	4.67	0.00	0.29	0.00	0.14	0.43	8.15	5.54	13.69	3.28	5.09	0.02	8.39	0.41	0.21	0.00	0.62	8.61	11.40	5.31	25.32	3.05	0.00	0.16	3.21
Garden Creek	14.36	0.10	0.00	0.00	0.10	0.07	0.00	0.00	0.00	0.00	7.82	0.08	7.90	0.26	0.00	0.00	0.26	1.71	0.00	0.00	1.71	0.20	0.03	0.00	0.23	4.10	0.00	0.00	4.10
Gwynn Island	19.42	0.00	0.00	0.00	0.00	0.74	1.10	0.02	0.00	1.12	1.17	0.03	1.21	0.81	0.47	0.00	1.28	0.79	0.11	0.00	0.90	7.99	3.16	0.08	11.23	2.95	0.00	0.00	2.95
Harper Creek	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	1.06	0.04	0.00	0.00	0.04	0.83	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.89	0.00	0.09	0.98
Horn Harbor	27.42	0.34	0.26	0.00	0.60	0.04	0.25	0.00	0.08	0.33	5.99	0.01	6.01	0.60	1.13	0.00	1.73	0.16	0.00	0.00	0.16	4.34	5.52	0.02	9.88	8.39	0.14	0.14	8.67
Lanes Creek	3.63	0.00	0.16	0.05	0.21	0.00	0.07	0.00	0.00	0.07	0.64	0.13	0.77	0.00	0.02	0.00	0.02	0.02	0.00	0.00	0.02	0.91	0.97	0.01	1.90	0.49	0.00	0.14	0.63
Milford Haven	6.02	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.01	0.37	1.77	0.35	2.12	0.15	0.06	0.00	0.21	0.04	0.00	0.00	0.04	1.40	0.35	0.02	1.76	1.19	0.21	0.12	1.52
Mobjack Bay	9.07	0.14	0.42	0.00	0.56	0.26	0.00	0.00	0.00	0.00	1.87	0.09	1.97	0.29	0.02	0.00	0.31	0.00	0.22	0.00	0.22	1.58	0.79	0.02	2.39	3.37	0.00	0.00	3.37
North River	36.30	0.78	1.41	0.29	2.48	0.00	0.02	0.00	0.00	0.02	12.21	1.72	13.93	1.94	2.75	0.00	4.69	0.20	0.24	0.00	0.44	3.76	5.61	0.80	10.17	4.55	0.00	0.02	4.57
Pepper Creek	9.00	0.15	0.33	0.12	0.60	0.00	0.00	0.00	0.00	0.00	3.80	0.00	3.80	0.37	0.10	0.00	0.47	0.18	0.10	0.00	0.28	1.19	0.77	0.02	1.98	1.87	0.00	0.00	1.87
Piankatank River	16.69	0.00	0.05	0.00	0.05	0.11	0.00	0.00	0.00	0.00	5.67	0.79	6.46	2.38	0.70	0.00	3.08	0.13	0.08	0.00	0.21	2.60	2.46	0.06	5.12	1.53	0.13	0.00	1.66
Put In Creek	7.87	0.04	0.14	0.06	0.24	0.00	0.04	0.03	0.00	0.07	1.09	0.63	1.72	0.38	0.69	0.00	1.07	0.15	0.04	0.01	0.20	0.74	1.91	1.73	4.37	0.12	0.08	0.00	0.20
Queens Creek	11.12	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.02	0.05	2.10	0.11	2.21	0.54	0.84	0.01	1.39	0.00	0.00	0.00	0.00	3.18	3.01	0.85	7.04	0.38	0.01	0.02	0.41
Rigby Island	3.91	0.00	0.00	0.00	0.00	3.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sloop Creek	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.15	0.63	0.12	0.17	0.00	0.30	0.00	0.00	0.00	0.00	0.51	0.29	0.33	1.13	0.14	0.00	0.00	0.14
Stokes Creek	9.10	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.00	0.06	3.27	0.00	3.27	0.32	0.00	0.00	0.32	0.06	0.00	0.00	0.06	0.40	0.23	0.00	0.63	4.70	0.00	0.00	4.70
Stutts Billups Creek	27.94	0.04	0.33	0.00	0.37	0.13	0.20	0.00	0.04	0.24	4.67	1.87	6.54	1.76	1.24	0.00	3.00	0.33	0.25	0.00	0.58	5.69	4.06	4.67	14.42	2.51	0.15	0.01	2.67
Winter Harbor	38.14	0.00	0.00	0.00	0.00	0.93	0.14	0.00	0.00	0.14	8.13	0.00	8.13	0.88	0.84	0.00	1.72	0.19	0.00	0.00	0.19	2.09	2.45	0.00	4.54	21.50	0.98	0.01	22.49
Total	340.92	3.23	6.61	1.77	11.62	7.10	3.54	0.15	0.32	4.01	77.61	13.43	91.03	14.95	15.05	0.03	30.04	5.76	1.25	0.01	7.02	52.51	47.29	14.62	114.42	73.23	1.78	0.71	75.72

Table 5. Mathews County, Virginia Shoreline Attributes 2008 - Riparian Bank Condition - Watershed Summary

MATHEWS WATERSHED	TOTAL MILES SURVEYED	BANK (bank height and erosion status - miles of shore)																							
		0-5 FEET						5-10 FEET						10-30 FEET						>30 FEET					
		erosional	erosional undercut	stable	stable undercut	transitional	transitional undercut	erosional	erosional undercut	stable	stable undercut	transitional	transitional undercut	erosional	erosional undercut	stable	stable undercut	transitional	transitional undercut	erosional	erosional undercut	stable	stable undercut	transitional	transitional undercut
Blackwater Creek	13.32	1.07	0.65	11.46	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chesapeake Bay	12.33	7.39	0.00	4.28	0.00	0.00	0.04	0.10	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cobbs Creek	4.69	0.03	0.00	2.74	0.09	0.05	0.02	0.00	0.04	1.28	0.22	0.00	0.05	0.00	0.04	0.10	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Davis Creek	2.96	0.00	0.03	2.90	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Dyer Creek	6.22	3.33	0.03	2.68	0.00	0.16	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
East River	56.32	0.45	1.97	52.43	0.00	0.93	0.40	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Garden Creek	14.36	0.17	0.00	14.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Gwynn Island	19.42	3.93	0.23	14.05	0.00	0.00	0.00	0.02	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Harper Creek	2.89	0.00	0.00	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Horn Harbor	27.42	1.03	0.11	26.21	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lanes Creek	3.63	0.36	0.00	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Milford Haven	6.02	0.07	0.00	5.85	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Mobjack Bay	9.07	0.13	0.00	8.82	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
North River	36.30	0.53	0.73	34.70	0.00	0.28	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pepper Creek	9.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Piankatank River	16.69	0.10	0.31	8.90	0.11	0.15	0.05	0.13	0.04	4.08	0.10	0.23	0.12	0.19	0.04	1.93	0.00	0.03	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Put In Creek	7.87	0.45	0.58	6.63	0.00	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Queens Creek	11.12	0.24	0.49	8.26	0.00	0.00	0.08	0.11	0.19	1.65	0.00	0.02	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rigby Island	3.91	3.63	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sloop Creek	2.20	0.03	0.00	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stoakes Creek	9.10	0.00	0.00	8.98	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stutts Billups Creek	27.94	0.13	0.06	26.89	0.30	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Winter Harbor	38.14	4.33	0.00	33.42	0.00	0.00	0.00	0.02	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	340.92	27.40	5.19	291.00	0.62	2.58	0.67	0.40	0.27	9.29	0.32	0.25	0.21	0.19	0.08	2.21	0.00	0.04	0.02	0.10	0.00	0.10	0.00	0.00	0.00

Table 6. Mathews County, Virginia Shoreline Attributes 2008 - Riparian Buffer Condition, *Phragmites australis* and Survey Dates - Watershed Summary

MATHEWS WATERSHED	TOTAL MILES SURVEYED	BANK COVER			NATURAL BUFFER								PHRAGMITES (miles)	MILES REMOTELY SURVEYED	FIELD SURVEY DATES
		(miles)			BEACH	(miles)									
		bare	partial	full		MARSH									
						embayed	extensive	fringe <5	fringe 5-10	fringe 10-15	fringe >15				
Blackwater Creek	13.32	0.80	0.81	11.71	0.00	0.12	0.00	6.90	1.48	0.23	2.48	0.27	0.67	June 16 & 23, 2008	
Chesapeake Bay	12.33	0.75	3.59	7.99	8.15	0.00	2.89	0.78	0.83	0.67	0.83	4.24	0.76	June 17, 19, 24, & 26, 2008	
Cobbs Creek	4.69	0.00	0.45	4.24	0.06	0.07	0.00	1.84	0.04	0.00	0.00	0.00	0.00	June 18, 2008	
Davis Creek	2.96	0.00	0.00	2.96	0.00	0.00	0.00	1.09	0.88	0.39	0.05	0.32	0.03	June 20, 2008	
Dyer Creek	6.22	0.00	0.01	6.21	0.10	0.00	2.70	1.26	1.55	0.23	0.29	1.96	0.63	June 26, 2008	
East River	56.32	1.23	1.60	53.50	0.29	0.47	0.77	32.45	7.01	1.68	5.10	0.67	8.97	June 6, 9, 16, & 20, 2008	
Garden Creek	14.36	0.05	0.00	14.30	0.07	0.00	13.46	0.46	0.08	0.04	0.30	0.00	14.34	no field survey	
Gwynn Island	19.42	1.12	1.47	16.83	5.37	0.04	0.00	7.11	0.33	0.17	1.38	0.11	1.04	June 10, 2008	
Harper Creek	2.89	0.00	0.00	2.89	0.00	0.00	2.65	0.25	0.00	0.00	0.00	0.42	0.25	June 20, 2008	
Horn Harbor	27.42	0.43	0.11	26.88	0.33	0.80	5.62	14.18	2.13	0.97	1.07	1.19	0.23	June 24 & 26, 2008	
Lanes Creek	3.63	0.17	0.02	3.44	0.20	0.06	0.00	2.66	0.17	0.01	0.03	0.07	0.11	June 11, 2008	
Milford Haven	6.02	0.07	0.00	5.95	1.09	0.05	0.76	2.36	0.45	0.07	0.44	0.42	1.04	June 11, 12, 17, & 18, 2008	
Mobjack Bay	9.07	0.26	0.00	8.81	0.66	0.04	3.16	0.81	1.27	0.51	2.18	1.42	1.49	June 20 & 26, 2008	
North River	36.30	0.51	0.64	35.15	0.93	0.11	3.17	19.09	3.73	1.14	5.06	0.58	9.76	June 16, 18, & 23, 2008	
Pepper Creek	9.00	0.00	0.00	9.00	0.00	0.14	3.11	1.50	1.15	0.45	2.65	0.14	0.23	June 20, 2008	
Piankatank River	16.69	0.49	1.39	14.80	5.02	0.19	0.34	5.32	0.26	0.00	0.15	0.07	1.77	June 10, 18, & 26, 2008	
Put In Creek	7.87	0.11	0.28	7.47	0.00	0.00	0.00	5.12	0.88	0.15	0.34	0.02	0.58	June 6 & 9, 2008	
Queens Creek	11.12	0.54	0.29	10.29	0.34	0.14	0.00	6.55	0.64	0.20	0.40	0.19	1.07	June 11 & 18, 2008	
Rigby Island	3.91	2.98	0.00	0.93	3.55	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	June 10 & 17, 2008	
Sloop Creek	2.20	0.00	0.00	2.20	0.00	0.04	0.00	1.19	0.58	0.15	0.07	0.00	0.17	June 20, 2008	
Stoakes Creek	9.10	0.00	0.00	9.10	0.00	0.00	5.71	0.30	0.42	0.39	1.99	0.27	0.08	June 17, 2008	
Stutts Billups Creek	27.94	0.00	0.34	27.61	1.85	0.48	2.02	10.65	2.76	1.04	3.16	0.46	3.64	June 12 & 17, 2008	
Winter Harbor	38.14	0.23	0.80	37.12	1.23	0.87	23.45	5.88	2.33	1.15	2.31	1.41	14.75	June 19 & 26, 2008	
Total	340.92	9.73	11.81	319.38	29.24	3.62	69.81	127.73	28.98	9.65	31.18	14.23	61.60		

Table 7. Mathews County, Virginia Shoreline Attributes 2008 - Shoreline Features - Watershed Summary

MATHEWS WATERSHED	TOTAL MILES SURVEYED	SHORELINE FEATURES																	
		No. docks	No. dilapidated docks	No. boathouses	No. ramps		No. outfalls	No. groinfields	No. marinas		No. jetties	No. breakwater sets	Miles of debris	Miles of unconventional	Miles of bulkhead	Miles of dilapidated bulkhead	Miles of marsh_toe	Miles of riprap	Miles of wharf
Blackwater Creek	13.32	51	5	5	4	0	0	0	0	1	0	0	0.00	0.00	0.06	0.00	0.03	0.58	0.00
Chesapeake Bay	12.33	23	2	1	2	0	3	1	0	1	0	1	0.00	0.00	0.19	0.07	0.08	0.32	0.00
Cobbs Creek	4.69	58	2	7	1	0	0	0	3	0	1	0	0.04	0.01	0.31	0.03	0.10	0.98	0.00
Davis Creek	2.96	13	2	3	5	0	0	0	2	0	0	0	0.14	0.00	0.05	0.02	0.00	0.07	0.24
Dyer Creek	6.22	14	3	2	4	0	0	0	0	0	0	0	0.00	0.01	0.09	0.00	0.03	0.04	0.00
East River	56.32	287	23	37	19	1	0	0	2	0	0	5	0.26	0.53	0.99	0.05	0.35	4.43	0.13
Garden Creek	14.36	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Gwynn Island	19.42	176	3	14	6	1	5	16	3	1	3	4	0.15	0.07	1.71	0.29	0.27	5.73	0.00
Harper Creek	2.89	2	0	0		0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Horn Harbor	27.42	120	7	11	7	0	1	0	1	1	0	0	0.21	0.08	0.43	0.04	0.08	0.78	0.00
Lanes Creek	3.63	27	3	5	1	0	1	0	0	0	0	0	0.03	0.01	0.16	0.01	0.02	0.19	0.00
Milford Haven	6.02	20	4	1	2	0	0	2	0	0	0	1	0.00	0.11	0.29	0.00	0.02	0.88	0.04
Mobjack Bay	9.07	32	0	1	2	0	0	0	0	0	0	0	0.07	0.00	0.00	0.00	0.03	0.95	0.00
North River	36.30	97	4	16	7	0	0	0	0	0	2	1	0.10	0.05	0.49	0.00	0.43	1.70	0.05
Pepper Creek	9.00	16	0	1	1	0	0	0	0	0	0	0	0.05	0.00	0.00	0.04	0.00	0.18	0.00
Piankatank River	16.69	99	3	14	2	0	1	9	0	0	6	5	0.02	0.05	0.93	0.01	0.50	4.29	0.00
Put In Creek	7.87	49	2	6	0	1	0	0	0	0	0	0	0.07	0.06	0.25	0.03	0.02	0.40	0.00
Queens Creek	11.12	155	2	26	4	0	4	1	1	0	0	1	0.05	0.05	1.04	0.00	0.24	1.60	0.00
Rigby Island	3.91	0	0	0		0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sloop Creek	2.20	13	0	1	1	0	0	0	0	0	0	0	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Stoakes Creek	9.10	7	1	0	2	0	0	0	1	0	0	0	0.00	0.07	0.14	0.00	0.00	0.09	0.00
Stutts Billups Creek	27.94	169	3	48	11	0	0	2	3	0	1	1	0.04	0.24	1.08	0.30	0.30	3.25	0.00
Winter Harbor	38.14	45	3	1	1	1	0	0	1	0	0	0	0.00	0.01	0.09	0.00	0.00	0.07	0.00
Total	340.92	1473	72	200	82	4	15	31	17	4	13	19	1.26	1.35	8.29	0.89	2.48	26.53	0.46