APPENDIX A

Land Use Data for MS4 Sewersheds

Watershed Improvement Strategy Area	MS4	LDR	MDR	HDR	Multi-family	Institutional	Commercial	Office	Roadway	* Impervious 100%	95%	93%	90%	80%	75%	70%	60%	15%	Industrial	Waste Mgmt	Utilities	Forest	Vacant Land	Ag Land	Recreation & Open Space	Cemetary	Pervious	Open Water	Total Acres	Total Impervious	Dwelling Units
Acabonac Harbor, AH-3	East Hampton	28.98	22.25	0.23	0	2.5	0.8	0	6.7										0	0	0	0	0	0	16.72	0	0	0	78.2	17	41
Acabonac Harbor, AH-4	East Hampton	2.2	0	0	0	0	0	0	1.4										0	0	0	0	0	0	3.8	0	0	0	7.4	2	2
Acabonac Harbor, AH-5	East Hampton	50.2	18.79	0	0	0	0	0	0										0	0	0	0	0	0	23.52	5.79	0	0	98.3	13	51
Deep Hole Creek	Southold	1.14	2.83	0	0	0	0	0	2.65										0	0	0.1	0	0.43	6.6	0	0	0	0	13.8	3	6
Flanders Bay	Riverhead	23.79	0	0	0	0	0	0	0										0	0	0	0	55.13	75.17	0	0	0	0	154.1	9	30
	Suffolk County	0	0	0	0	55	3	0	156										0	0	0	0	6	0	30	0	0	0	250.0	149	0
	NYSDOT	0	0	0	0	0	0	0		0	1.36	1.52			0	0			0	0	0	0	0	0	0	0	0	0	2.9	3	0
	Southampton	0	10.79	0.21	0	0	0	0	3.04										0	0	0	0	0.89	0	0	0	0	0	14.9	5	17
Goose Creek	Southold	1.21	16.44	0.09	0	0	0	0	8.16										0	0	0	0	2.15	0.22	0.15	0	0	0	28.4	10	39
Hashamomuck Pond HP-1	Suffolk County	0	0	0	0	0	0	0	7										0	0	0	0	3	0	0	0	0	0	10.0	6	0
	Southold	0.3	4.55	0	0	0	0	0	2.67										0	0	0.19	0	0.45	0	0.42	0	0	0	8.6	3	6
Hashamomuck Pond HP-2	NYSDOT	0	0	0	0	0	0	0		0	0				1.2	3.39			0	0	0	0	0	0	0	0	0	0	4.6	3	0
	Southold	0	0.01	0.2	0	0	0	0	0.43										0	0	0	0	0.05	0	0	0	0	0	0.7	0	1
James Creek	NYSDOT	0	0	0	0	0	0	0		0	0	0			6.72	0			0	0	0	0	0	0	0	0	0	0	6.7	5	0
	Southold	0.07	0.38	0.01	0	0	0	0	0.66										0	0	0	0	0	0	0.8	0	0	0	1.9	1	6
Montauk Lake LM-1	Suffolk County	0	0	0	0	0	0	0	11.2										0	0	0	0	5.3	0	0	0	0	0	16.5	9	0
Montauk Lake LM-3	NYSDOT	0	0	0	0	0	0	0										6.31	0	0	0	0	0	0	0	0	0	0	6.3	1	0
	East Hampton	22.79	29.43	44.54	0	0	5.28	0	24.99										0	0	0	0	0	0	36.08	0	0	0	163.1	51	284
Little Sebonac Creek	Southampton	0	7.79	2.05	0	0	0	0	2.28										0	0	0	0	13.12	0	0	0	0	0	25.2	5	7
North Sea Harbor, NSH-1	Suffolk County	0	0	0	0	0	0	0	3.26										0	0	0	0	0	0	0.28	0	0	0	3.5	3	0
	Southampton	0	6.89	0.65	0	0	0	0	2.95										0	0	0	0	0	0	0	0	0	0	10.5	4	0
Northwest Creek	East Hampton	88.9	0	0	0	0	0	0	0										0	0	0	0	0	0	25.1	0	0	0	114.0	13	20
Noyac Creek	Southampton	0	1.38	0	0	0.01	0	0	1.27										0.02	0	0	0	0	0	0	0	0	0	2.7	1	15
Reeves Bay	NYSDOT	0	0	0	0	0	0	0		0	3.72	0			0	0			0	0	0	0	0	0	0	0	0	0	3.7	4	0
	Southampton	55.4	151	64.6	0	8.5	13.4	0	1.5										2.7	0	0	0	61	4	206.6	0	0	399	967.7	99	840
Richmond Creek	NYSDOT	0	0	0	0	0	0	0		0	0	0			0	5.92			0	0	0	0	0	0	0	0	0	0	5.9	4	0
	Southold	1.38	3.72	0	0	0.33	0	0	3.82										0	0	0	0	2.92	0.23	1.12	0	0	0	13.5	4	6
Sag Harbor SH-2	Sag Harbor	0	23.48	1.65	0	0	1.07	0	5.16										0	0	0	0	0.78	0	2.55	0.91	0	6.23	41.8	11	67
Sebonac Creek	Southampton	0	6.84	2.05	0	0	0	0	1.91										0	0	0	0	13.12	0	0	0	0	0	23.9	5	2
Stirling Creek	NYSDOT	0	0	0	0	0	0	0		0	0	0		2.23	0	0			0	0	0	0	0	0	0	0	0	0	2.2	2	0
	Southold	0	1.96	1.51	0	0	0.29	0	4.1										0	0	0	0	0.5	0	0.4	0	0	0	8.8	4	10
	Village of Greenport	0	6.71	30.09	3.42	4.77	7.82	0	17.33										0	0	0.97	0	2.71	0	2.61	3.26	0	0	79.7	35	318
Town & Jockey Creek 1	NYSDOT	0	0	0	0	0	0	0		0	0	0			0	2.68			0	0	0	0	0	0	0	0	0	0	2.7	2	0
	Southold	2.39	2.62	0.72	0	0	1.33	0	3.89										0	0	0	0	0.43	0	0.05	0	0	0	11.4	5	39
Wooley Pond	Southampton	156.5	112.6	4.54	0	0	0.96	0	7.25										0	0	0	0	36.92	5.23	12.3	0	0	44.29	380.6	55	323

*Some MS4 Operators submitted land cover rather than land use area. These submissions gave a percentage of impervious cover. Any amount under 100% impervious cover was treated as pervious cover in the model.

Watershed Improvement Strategy Area	MS4	LDR	MDR	HDR	Multi-family	Institutional	Commercial	Office	Roadway	* Impervious 100%	95%	93%	90%	80%	75%	70%	60%	15%	Industrial	Waste Mgmt	Utilities	Forest	Vacant Land	Ag Land	Recreation & Open Space	Cemetary	Pervious	Open Water	Total Acres	Total Impervious	Dwelling Units
Bellport Bay, Beaver Dam Creek	Bellport	16.43	41.6	3.94	0	13.18	0	0	10.39										0	0	0	0	9.82	13.83	0	0	0	0	109.2	26	136
	Brookhaven	172	185	2	0	86	20	0	73										56	0	290	0	83	84	116	0	0	16	1183.0	365	586
	Suffolk County	0	0.4	0	0	0	0	0	17										0	0	0	0	0.5	0	1.4	0	0	0	19.3	14	0
Centerport Harbor	Huntington	0.03	0.78	12			0.32		7.49																				20.6	10	127
	NYSDOT	0	0	0	0	0	0	0		10.42	0				0	0			0	0	0	0	0	0	0	0	0	0	10.4	10	0
Cold Spring Harbor, and tidal tribs, Inner	Huntington	0.37							0.98																				1.4	1	0
	Laurel Hollow	33.6	0	0	0	0	0	0	0										0	0	0	0	0	0	0	0	0	0	33.6	4	14
	Nassau County	0	0	0	0	0	0	0		3.24	0				0	0			0	0	0	0	0	0	0	0	0	0	3.2	3	296
	NYSDOT	0	0	0	0	0	0	0		24.39	0	0			0	0			0	0	0	0	0	0	0	0	0	0	24.4	24	0
	Oyster Bay	72.5	7.5	2.5	2.5	1	0	0	12.4										0	0	1.2	0	6.5	0	0	0	0	0	106.1	24	105
	Suffolk County	99	0	0	0	0	0	0	9										0	0	0	0	19.5	0	5	0	0	0	132.5	21	75
Conscience Bay and tidal tribs	Brookhaven	243	489	4	0	100	17	0	143										27	0	0.8	0	72	3	89	0	0	10	1197.8	323	1170
Georgica Pond Cove	Village of East Hampton	238	0	0	0	3.69	7.47	0	0										0	0	0	0	0	0	23.23	0	0	0	272.4	37	136
Georgica Pond, Upper	East Hampton	18.56	18.2	0	0	0	1.97	0	16.08										12.94	0	0	0	0	0	57.74	0	0	0	125.5	32	38
Goldsmith Inlet	Southold	0.3	2.02	0.07	0	0	0	0	2.75										0	0	0.15	0	0.24	0	0.59	0	0	0	6.1	3	6
Harts Cove	Brookhaven	167	208	89	0	9	11	0	52										8	0	0	0	52	56	71	0	0	0.1	723.1	162	620
	Suffolk County	0	0	0	0	0	0	0	6.3										0	0	0	0	0	0	0	0	0	0	6.3	5	0
Heady Creek	Village of Southampton	198.6	96.34	1.37	0	0	2.52	0	40.62										2.68	0	0.04	0	47.95	10.29	26.44	0	0	83.9	510.8	87	304
Hempstead Harbor	East Hills	6.32	205	0	0	0.25	0	0	49.68										0	0	1.35	0	0.89	0	1.39	0.53	0	0	265.4	85	585
	Flower Hill	0	70.43	0	0	1.65	0	0	16.72										0.14	0	0	0	0.07	0	0	0	0	0	89.0	29	249
	Glen Cove	2.2	193.7	135.2	71.76	26.634	31.124	0.1	141.15										38.5	0	8.9	0	18.724	0	5.13	0	0	0	673.2	289	3240
	Nassau County	0	0	0	0	0	0	0		97.9	0				0	0			0	0	0	0	0	0	0	0	0	0	97.9	98	0
	North Hempstead	0	38.21	1.5	2.93	24.98	7.6	2.44	33.84										79.12	0	0	0	1.42	0	58.28	0	0	0	250.3	98	302
	NYSDOT	0	0	0	0	0	0	0		55.07	0				0	34.64			0	0	0	0	0	0	0	0	0	0	89.7	79	0
	Old Brookville	110.6	0.8	0.2	0.5	0	0	0	8.8										0.8	0	0	0	2.1	5.7	0	0	0	0.2	129.7	21	62
	Oyster Bay	34	60.5	91.5	21.4	8	4	1	38										0	0	0.4	0	11.6	0	5.1	1.1	0	0.3	276.9	94	905
	Roslyn	0	0	0	0	0	0	0	0	5.84	0	0			0	0			0	0	0	0	0	0	0	0	1.16	0	7.0	6	20
	Roslyn Harbor	108	1	1.5	0.8	0.5	0	0	6.9										0	0	0.5	0	8.3	0	140.5	0	0	0	268.0	33	102
	Sands Point	7.8	92.1	0	0	0	0	0	0										0	0	0	0	0	0	0	0	0	0	99.9	8	30
	Sea Cliff	8.9	50.3	34.1	7.2	2.8	3	0	27.8										0	0	0.3	0	1.7	0	2.2	0	0	0	138.3	52	548
Huntington Harbor	Huntington	1.48		58.04			2.71		11.43																				73.7	30	176
	Huntington Bay	132	0	0	0	0.8	0	0	9.08										0	0	0	0	0	0	2.12	0	0	0	144.0	24	183
	Lloyd Harbor	541.1	0	0	0	29.64	0	0	43.18										0	0	0	27.44	0	0	0	0	0	0	641.4	110	220
	NYSDOT	0	0	0	0	0	0	0		36.53	0	0			0	0			0	0	0	0	0	0	0	0	0	0	36.5	37	0
	Suffolk County	0	0.2	0	0	0	0	0	17										0	0	2.3	0	0.6	0	0.4	0	0	0	20.5	15	0

*Some MS4 Operators submitted land cover rather than land use area. These submissions gave a percentage of impervious cover. Any amount under 100% impervious cover was treated as pervious cover in the model.

Watershed Improvement Strategy Area	MS4	LDR	MDR	HDR	Multi-family	Institutional	Commercial	Office	Roadway	* Impervious 100%	95%	93%	90%	80%	75%	70%	60%	15%	Industrial	Waste Mgmt	Utilities	Forest	Vacant Land	Ag Land	Recreation & Open Space	Cemetary	Pervious	Open Water	Total Acres	Total Impervious	Dwelling Units
Mattituck Inlet/Creek, Low and tidal tribs	Suffolk County	0	0	0	0	0	0	0	27										0	0	0	0	0.2	0.2	19	0	0	0	46.4	23	6
	Southold	8.32	14.47	0.08	0	0	1.21	0	12.28										0.24	0	0	0	4.5	22.75	0.81	0	0	0	64.7	16	6
Mecox Bay and tributaries	NYSDOT	0	0	0	0	0	0	0		0	0				4.33	0	34.55		0	0	0	0	0	0	0	0	0	0	38.9	24	0
	Southampton	0.66	0.31	0	0	0	0	0	4.77										0	0	0	0	0.02	0.01	2.13	0	0	0.1	8.0	4	5
Mt. Sinai Harbor, Crystal Brook	Port Jefferson	14.8	0	0	0	0	0	0	0										0	0	0	0	0	0	0	0	0	0	14.8	2	15
Narrow Bay	Brookhaven	12	446	241	0	200	31	0	153										1	0	0	0	50	0	11	0	0	0	1145.0	393	2287
	Suffolk County	0	0	0	0	0	0	0	44.1										0	0	0	0	1.4	0	20.5	0	0	0	66.0	37	0
Northport Harbor	Huntington	25.75	7.38	8.28	0.09	0	0	0	11.3										0	0	0	0	0	0	0	0	0	0	52.8	16	81
	Northport	72.26	1.47	2.12	0	3.76	8.8		36.09										0.42	0	0	10.28	29.36	0	5.4	0	0	0	170.0	57	293
	NYSDOT	0	0	0	0	0	0	0		6.87	0	0			0	0			0	0	0	0	0	0	0	0	0	0	6.9	7	0
	Suffolk County	0.6	0	0	0	22.3	0	0	0										0	0	0	0	0	0	0	0	0	0	22.9	8	0
Ogden Pond	Quogue	4.67	0	0	0	0	0	0	1.41										0	0	0	0	1.73	0	0	0.67	0	0	8.5	2	3
Patchogue Bay, Mud Creek	Brookhaven	193	752	178	0	78	208	0	230										424	0	1	0	269	48	66	0	0	22	2469.0	856	2538
	Suffolk County	0	0	0	0	0	0	0	22.2										0	0	0	0	0.1	0	0	0	0	0	22.3	18	0
Patchogue Bay, Swan River	Brookhaven	693	891	338	0	108	162	0	385										177	0	0	0	335	23	273	0	0	22	3407.0	992	4063
	Suffolk County	0	0	0	0	0	0.7	0	9										0	0	0	0	0.2	0	0	0	0	0	9.9	8	0
Penniman Creek	Quogue	5.05	0	0	0	0	0	0	2.18										0	0	0	0	0	0.12	0	0	0	0	7.4	2	5
Penny Pond	Southampton	0	0.15	0	0	0	0	0	0										0	0	0	0	0	0	0	0	0	0	0.2	0	0
Port Jefferson Harbor, North and tribs	NYSDOT	0	0	0	0	0	0	0		1.71	1.5	5.88			4.96	0			0	0	0	0	0	0	0	0	0	0	14.1	12	0
	Poquott	6.46	7.79	2.7	0	0	0	0	0.67										0	0	2.19	0	1.51	0	0	0	0	0	21.3	5	32
	Port Jefferson	7.74	85.71	25.04	0	27.26	37.15	0	56.16										0	0.2	0.16	0	2.7	0	18.86	0	0	0.27	261.3	110	277
Quantuck Canal/Moneybogue Bay	Westhampton Beach	3.15	42.98	4.95	0.47	5.39	19.14	1.58	21.82										0	0	0.26	0	3.59	0	10.19	0	0	0	113.5	47	328
Sagaponack Pond	NYSDOT	0	0	0	0	0	0	0		0					0	8.2	9.68		0	0	0	0	0	0	0	0	0	0	17.9	12	0
	Village of Sagaponack	9.4	3.4	2.5					13.6														2.1	3.7					34.7	14	27
Seatuck Cove	Brookhaven	243	250	80.5	0	16	52	0	71										11	0	0	0	212	87	292	0	0	0.4	1314.9	261	746
	Southampton	16.79	19.39	1.86	0	0.21	63.34	0	1.22										10.33	0	0	0	277.28	10.6	0	0	0	0.02	401.0	84	63
	Suffolk County	0	0	0	0	0	0	0	6.3										0	0	0	0	0	0	0	0	0	0	6.3	5	0
Setaukut Harbor, East Setauket	Brookhaven	183	496	4	0	21	32	0	132										69	0	0	0	19	0.8	28	0	0	0.3	985.1	304	1216
	NYSDOT	0	0	0	0	0	0	0		0	0	0		11.79	0	0			0	0	0	0	0	0	0	0	0	0	11.8	9	0
Setaukut Harbor, Little Bay	Brookhaven	36	47	0	0	4	0	0	16										0	0	0	0	23	0	1	0	0	0.5	127.5	31	126
Setauket Harbor, Poquott	Brookhaven	15	16	0.1	0	0	0.5	0	1										0	0	0.6	0	0.5	0	0	0	0	0	33.7	7	50
Stony Brook Harbor, Stony Brook Creek	NYSDOT	0	0	0	0	0	0	0	16.87	0	0	0			0	16.87			0	0	0	0	0	0	0	0	0	0	33.7	12	0
Stony Brook Harbor, Inner	NYSDOT	0	0	0	0	0	0	0	2.98	2.98	0	0			0	0			0	0	0	0	0	0	0	0	0	0	6.0	3	0
Stony Brook Harbor, West Meadow Creek	Brookhaven	117	339	9	0	1	0	0	81										0	0	0	0	17	0	112	0	0	33	709.0	165	936
	Suffolk County	0	0	0	0	0	0	3	0										0	0	0	0	0	0	0	0	0	0	3.0	1	0
Stony Brook Yacht Club	Brookhaven	2	22	3	0	2	2	0	10										0	0	0	0	3	0	4	0	0	0	48.0	17	105
Taylor Creek	Village of Southampton	152.8	2.6	0	0	0	0	0	12.91										0	0	0	0	6.73	0.02	12	0	0	74.2	261.3	31	97
Weesuck Creek	Suffolk County	0	0	0	0	0	0	0	11.8										0	0	0	0	0	0	0	0	0	0	11.8	12	0
	Southampton	0.66	0.2	0.11	0	0	0.1	0	0.56										0	0	0	0	0	0	0.29	0	0	0.09	2.0	1	8

*Some MS4 Operators submitted land cover rather than land use area. These submissions gave a percentage of impervious cover. Any amount under 100% impervious cover was treated as pervious cover in the model.

APPENDIX B

Pollutant Load Reductions for the Watershed Improvement Strategy Areas

(Part IX.)

C. Pathogen Impaired Watershed MS4s (Mapped in Appendix 6, 7 and 9)

Table IX.C - Pollutant Load Reduction and Timetable for Pathogen Impaired Watershed Improvement Strategy Areas

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Budds Pond*	05/01/2013	09/30/2012	61	09/30/2022
Stirling Creek*	05/01/2013	09/30/2012	28	09/30/2022
Town & Jockey Creeks*	05/01/2013	09/30/2012	76	09/30/2022
Goose Creek*	05/01/2013	09/30/2012	70	09/30/2022
Hashamomuck Pond, Zone HP-1*	05/01/2013	09/30/2012	77	09/30/2022
Hashamomuck Pond , Zone HP-2*	05/01/2013	09/30/2012	43	09/30/2022
Richmond Creek*	05/01/2013	09/30/2012	71	09/30/2022
Deep Hole Creek*	05/01/2013	09/30/2012	29	09/30/2022
James Creek*	05/01/2013	09/30/2012	51	09/30/2022
Flanders Bay	05/01/2012	03/09/2012	98	03/09/2021
Reeves Bay	05/01/2012	03/09/2012	97	03/09/2021
Sebonac Creek	05/01/2012	03/09/2012	58	03/09/2021
North Sea Harbor, Zone NSH-1	05/01/2012	03/09/2012	97	03/09/2021
North Sea Harbor, Zone NSH-2	05/01/2012	03/09/2012	62	03/09/2021
North Sea Harbor, Zone NSH-3	05/01/2012	03/09/2012	99	03/09/2021
North Sea Harbor, Zone NSH-5	05/01/2012	03/09/2012	74	03/09/2021
Wooley Pond	05/01/2012	03/09/2012	97	03/09/2021
Noyac Creek, Zone NC-1	05/01/2012	03/09/2012	64	03/09/2021
Sag Harbor, Zone SH-2*	05/01/2013	09/30/2012	50	09/30/2022
Northwest Creek*	05/01/2013	09/30/2012	76	09/30/2022
Acabonac Harbor, Zone AH-2*	05/01/2013	09/30/2012	42	09/30/2022
Acabonac Harbor, Zone AH-3*	05/01/2013	09/30/2012	85	09/30/2022
Acabonac Harbor, Zone AH-4*	05/01/2013	09/30/2012	81	09/30/2022
Acabonac Harbor, Zone AH-5*	05/01/2013	09/30/2012	87	09/30/2022
Montauk Lake, Zone LM-1*	05/01/2013	09/30/2012	52	09/30/2022
Montauk Lake, Zone LM-2*	05/01/2013	09/30/2012	52	09/30/2022
Montauk Lake, Zone LM-3*	05/01/2013	09/30/2012	48	09/30/2022
Little Sebonac Creek	05/01/2012	03/09/2012	70	03/09/2021
Oyster Bay (Harbor 2)	05/01/2012	03/09/2012	20	03/09/2021
Oyster Bay (Harbor 3)	05/01/2012	03/09/2012	90	03/09/2021

*Additionally Designated Area

Watershed	Watershed Improvement Strategy Deadline	First Retrofit Plan Submission Deadline	Pollutant Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Hempstead Harbor, north, and tidal tributaries	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, and tidal tributaries, Inner	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, Eel Creek	05/01/2013	09/30/2012	90	09/30/2022
Huntington Harbor	05/01/2013	09/30/2012	89	09/30/2022
Centerport Harbor	05/01/2013	09/30/2012	91	09/30/2022
Northport Harbor	05/01/2013	09/30/2012	92	09/30/2022
Stony Brook Harbor and West Meadow Creek	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Creek	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Yacht Club	05/01/2013	09/30/2012	48	09/30/2022
Port Jefferson Harbor, North and tribs	05/01/2013	09/30/2012	94	09/30/2022
Conscience Bay and tidal tribs	05/01/2013	09/30/2012	99	09/30/2022
Setaukut Harbor, Little Bay	05/01/2013	09/30/2012	84	09/30/2022
Setauket Harbor, East Setauket	05/01/2013	09/30/2012	79	09/30/2022
Setauket Harbor, Poquot	05/01/2013	09/30/2012	100	09/30/2022
Mt. Sinai Harbor, Crystal Brook	05/01/2013	09/30/2012	88	09/30/2022
Mt. Sinai Harbor, Inner Harbor	05/01/2013	09/30/2012	96	09/30/2022
Mt. Sinai Harbor, Pipe Stave Hollow	05/01/2013	09/30/2012	93	09/30/2022
Mattituck Inlet/Creek, Low, and tidal tributaries	05/01/2013	09/30/2012	64	09/30/2022
Goldsmith Inlet	05/01/2013	09/30/2012	91	09/30/2022
West Harbor - Darby Cove	05/01/2013	09/30/2012	41	09/30/2022
Georgica Pond, Upper	05/01/2013	09/30/2012	93	09/30/2022

Georgica Pond, Lower	05/01/2013	09/30/2012	93	09/30/2022
Georgica Pond Cove	05/01/2013	09/30/2012	92	09/30/2022
Sagaponack Pond	05/01/2013	09/30/2012	88	09/30/2022
Mecox Bay and tributaries	05/01/2013	09/30/2012	89	09/30/2022
Heady Creek and tributaries	05/01/2013	09/30/2012	88	09/30/2022
Taylor Creek and tributaries	05/01/2013	09/30/2012	52	09/30/2022
Penny Pond	05/01/2013	09/30/2012	31	09/30/2022
Weesuck Creek and tidal tributaries	05/01/2013	09/30/2012	37	09/30/2022
Penniman Creek and tidal tributaries	05/01/2013	09/30/2012	32	09/30/2022
Ogden Pond	05/01/2013	09/30/2012	28	09/30/2022
Quantuck Bay-Quantuck Creek	05/01/2013	09/30/2012	91	09/30/2022
Quantuck Canal/Moneybogue Bay	05/01/2013	09/30/2012	62	09/30/2022
Seatuck Cove	05/01/2013	09/30/2012	94	09/30/2022
Harts Cove	05/01/2013	09/30/2012	12	09/30/2022
Narrow Bay	05/01/2013	09/30/2012	16	09/30/2022
Bellport Bay, Beaver Dam Creek	05/01/2013	09/30/2012	94	09/30/2022
Bellport Bay, West Cove	05/01/2013	09/30/2012	94	09/30/2022
Patchogue Bay, Swan River	05/01/2013	09/30/2012	90	09/30/2022
Patchogue Bay, Mud Creek	05/01/2013	09/30/2012	71	09/30/2022

By the deadlines specified in Table IX.C, covered entities that own or operate MS4s within the listed watersheds shall develop and implement the following pollutant specific BMPs in MS4 sewersheds discharging to the listed waters. Covered entities who own or operate MS4s within these watersheds shall also submit to the Department, progress reports as specified in Part V.D.

APPENDIX D

MS4s with No Discharges to Watershed Improvement Strategy Area

Peconic Bay Pathogen WIS Area	MS4s	Permit #
Acabonac Harbor AH-2	East Hampton	20A526
Acabonac Harbor AH-2	Suffolk County	20A180
Acabonac Harbor AH-3	Suffolk County	20A180
Acabonac Harbor AH-4	Suffolk County	20A180
Acabonac Harbor AH-5	Suffolk County	20A180
Deep Hole Creek	Suffolk County	20A180
Goose Creek	NYSDOT	20A288
Goose Creek	Suffolk County	20A180
Hashamomuck Pond HP-2	Suffolk County	20A180
James Creek	Suffolk County	20A180
Little Sebonac Creek	Suffolk County	20A180
Montauk Lake LM-1	East Hampton	20A526
Montauk Lake LM-2	East Hampton	20A526
Montauk Lake LM-2	Suffolk County	20A180
Montauk Lake LM-3	Suffolk County	20A180
North Sea Harbor NSH-2	Southampton	20A454
North Sea Harbor NSH-2	Suffolk County	20A180
North Sea Harbor NSH-3	Southampton	20A454
North Sea Harbor NSH-3	Suffolk County	20A180
North Sea Harbor NSH-5	Southampton	20A454
North Sea Harbor NSH-5	Suffolk County	20A180
Northwest Creek	Suffolk County	20A180
Noyac Creek	Suffolk County	20A180
Reeves Bay	Suffolk County	20A180
Richmond Creek	Suffolk County	20A180
Sag Harbor SH-2	North Haven	20A500
Sag Harbor SH-2	Suffolk County	20A180
Sebonac Creek	Suffolk County	20A180
Stirling Creek	Suffolk County	20A180
Town & Jockey Creek 1	Suffolk County	20A180
Wooley Pond	Suffolk County	20A180

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27 Shellfishing WIS Area	MS4s	Permit #
Bellport Bay, Beaver Dam Creek	NYSDOT	20A288
Bellport Bay, West Cove	Bellport	20A363
	Brookhaven	20A411
	NYSDOT	20A288
	Suffolk County	20A180
Centerport Harbor	Suffolk County	20A180
Cold Spring Harbor, and tidal tribs, Inner	Lloyd Harbor	20A299
Cold Spring Harbor, Eel Creek	Cove Neck	20A440
	Suffolk County	20A180
Conscience Bay and tidal tribs	Old Field	20A407
	Suffolk County	20A180
Georgica Pond Cove	East Hampton	20A526
	NYSDOT	20A288
	Suffolk County	20A180
Georgica Pond Lower	East Hampton	20A526
	Suffolk County	20A180
	Village of East Hampton	20A533
Georgica Pond Upper	NYSDOT	20A288
	Southampton	20A454
	Suffolk County	20A180
	Village of East Hampton	20A533
Goldsmith Inlet	Suffolk County	20A180
Heady Creek	NYSDOT	20A288
	Southampton	20A454
	Suffolk County	20A180
Hempstead Harbor	Brookville	20A439
	Munsey Park	20A319
	Old Westbury	20A434
	Roslyn Estates	20A446
	Suffolk County	20A180
	Upper Brookville	20A442
Mecox Bay and tributaries	Suffolk County	20A180
	Village of Southampton	20A456
Mt. Sinai Harbor, Crystal Brook	Brookhaven	20A411
	Suffolk County	20A180
Mt. Sinai Harbor, Inner Harbor	Brookhaven	20A411
	Suffolk County	20A180
Mt. Sinai Harbor, Pipe Stave Hollow	Brookhaven	20A411
	Suffolk County	20A180

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27 Shellfishing WIS Area	MS4s	Permit #
Ogden Pond	NYSDOT	20A288
	Suffolk County	20A180
Patchogue Bay, Mud Creek	NYSDOT	20A288
Patchogue Bay, Swan River	NYSDOT	20A288
Penniman Creek	NYSDOT	20A288
	Suffolk County	20A180
Penny Pond	Suffolk County	20A180
Port Jefferson Harbor, North and tribs	Brookhaven	20A411
	Suffolk County	20A180
Quantuck Canal/Moneybogue Bay	Suffolk County	20A180
Quantuck Creek	NYSDOT	20A288
	Quogue	20A455
	Southampton	20A454
	Suffolk County	20A180
Sagaponack Pond	Southampton	20A454
	Suffolk County	20A180
Seatuck Cove	NYSDOT	20A288
Setauket Harbor, Poquott	NYSDOT	20A288
	Poquott	20A337
	Suffolk County	20A180
Setaukut Harbor, East Setauket	Suffolk County	20A180
Setaukut Harbor, Little Bay	Suffolk County	20A180
Stony Brook Harbor, Inner	Head of the Harbor	20A353
	Nissequogue	20A351
	Smithtown	20A277
	Suffolk County	20A180
Stony Brook Harbor, Stony Brook Creek	Brookhaven	20A411
	Head of the Harbor	20A353
	Nissequogue	20A351
	Smithtown	20A277
	Suffolk County	20A180
Stony Brook Harbor, West Meadow Creek	Old Field	20A407
Stony Brook Yacht Club	Suffolk County	20A180
Taylor Creek	NYSDOT	20A288
	Southampton	20A454
	Suffolk County	20A180
Weesuck Creek	NYSDOT	20A288

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APPENDIX E

Waterbodies Below TMDL Allowable Load for MS4s

Peconic Bay Pathogen WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr)[2] f	Permit #
Acabonac Harbor AH-2	East Hampton	25600	7-39a	ND	ND	20A526
	Suffolk County			ND		20A180
Deep Hole Creek	Southold	24830	7-17	3,927	3,927	20A524
	Suffolk County			ND		20A180
Goose Creek	NYSDOT	ND	7-10	ND	13,232	20A288
	Southold			13,232		20A524
	Suffolk County			ND		20A180
Hashamomuck Pond HP-2	NYSDOT	21520	7-12b	3,670	4,143	20A288
	Southold			473		20A524
	Suffolk County			ND		20A180
James Creek	NYSDOT	18046	7-20	5,599	6,363	20A288
	Southold			763		20A524
	Suffolk County			ND		20A180
Little Sebonac Creek	Southampton	6779	7-44	6,176	6,176	20A454
	Suffolk County			ND		20A180
Montauk Lake LM-1	East Hampton	47977	7-41a	ND	10,067	20A526
	Suffolk County			10,067		20A180
Montauk Lake LM-2	East Hampton	15148	7-41b	ND	ND	20A526
	Suffolk County			ND		20A180
Montauk Lake LM-3	East Hampton	187710	7-41c	64,279	66,130	20A526
	NYSDOT			1,851		20A288
	Suffolk County			ND		20A180
North Sea Harbor NSH-2	Southampton	9014	7-29b	ND	ND	20A454
	Suffolk County			ND		20A180
North Sea Harbor NSH-3	Southampton	83	7-29c	ND	ND	20A454
	Suffolk County			ND		20A180
North Sea Harbor NSH-5	Southampton	4274	7-29d	ND	ND	20A454
	Suffolk County			ND		20A180
Noyac Creek	Southampton	5070	7-33	1,609	1,609	20A454
	Suffolk County			ND		20A180
Town & Jockey Creek 1	NYSDOT	19921	7-8	2,111	8,457	20A288
	Southold			6,346		20A524
	Suffolk County			ND		20A180

[1] The Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL Loads tables are found in Peconic Bay Pathogens TMDL (Battelle, 2006)

[2] ND - These MS4 Operators certified No Discharge to the Impaired Waterbody

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Oyster Bay Harbor Pathogen WIS Area a	MS4s b	Allowable MS4 Load (billion TC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion TC/yr) e	Total MS4 Load (billion TC/yr) f	Permit #
Oyster Bay Harbor 3	Oyster Bay	37,093	ES-1	12,927	16,966	20A373
	Village of Mill Neck			4,039		20A449

[1] The summary tables of current Total Coliform Loads and percent reductions necessary to meet the target TMDL Loads are found in Pathogen Total Maximum Daily Loads For Shellfish Waters in Oyster Bay Harbor and Mill Neck Creek Nassau County, New York (NYSDEC, 2003)

The Oyster Bay/Millneck Creek TMDL established a 90% reduction in Total Coliform resulting in a maximum allowable load to Oyster Bay Harbor 3 (OBH3) from stormwater of 37,093 Billion TC/year. There are three MS4 Operators that discharge directly or indirectly to Oyster Bay Harbor 3: the Village of Mill Neck, Town of Oyster Bay and Nassau County.

Using GIS the watershed areas contributing to OBH3 were determined to be 155 acres from the Village of Mill Neck and 122 acres from the Town of Oyster Bay inclusive of Nassau County. DEC used the National Land Cover Database (NLCD) to determine the breakdown of land cover within each of the watersheds. DEC input the land cover from each contributing watershed area into the Watershed Treatment Model (WTM) using an annual rainfall value of 45.95 in and Total Coliform coefficient value of 20,000 consistent with the approved TMDL. The total predicted MS4 pathogen load for the combined contributing watershed areas (16,966 Billion TC/year) is well below the maximum allowable load (37,093 Billion TC/year). Therefore no further reductions through the use of retrofits are required.

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27 Shellfishing WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr)[2] f	Permit #
Bellport Bay, West Cove	Bellport	1,809,554	7-80	ND	ND	20A363
	Brookhaven			ND		20A411
	NYSDOT			ND		20A288
	Suffolk County			ND		20A180
Centerport Harbor	Huntington	365,692	7-10	10,265	19,236	20A297
	NYSDOT			8,971		20A288
	Suffolk County			ND		20A180
Cold Spring Harbor, and tidal tribs, Inner	Huntington	700,633	7-4	782	92,771	20A297
	Laurel Hollow			7,495		20A441
	Lloyd Harbor			ND		20A299
	Nassau County			2,789		20A022
	NYSDOT			20,998		20A288
	Oyster Bay			30,861		20A371
	Suffolk County			29,846		20A180
Cold Spring Harbor, Eel Creek	Cove Neck	12,721	7-6	ND	ND	20A440
	Suffolk County			ND		20A180
Georgica Pond Cove	East Hampton	104,714	7-50	ND	58,614	20A526
	NYSDOT			ND		20A288
	Suffolk County			ND		20A180
	Village of East Hampton			58,614		20A533
Georgica Pond, Lower	East Hampton	12,378	7-48	ND	ND	20A526
	Suffolk County			ND		20A180
	Village of East Hampton			ND		20A533
Georgica Pond, Upper	East Hampton	53,076	7-46	30,857	30,857	20A526
	NYSDOT			ND		20A288
	Southampton			ND		20A454
	Suffolk County			ND		20A180
	Village of East Hampton			ND		20A533
Goldsmith Inlet	Southold	38,299	7-40	2,718	2,718	20A524
	Suffolk County			ND		20A180
Harts Cove	Brookhaven	796,592	7-74	182,891	187,380	20A411
	Suffolk County			4,489		20A180
Heady Creek	NYSDOT	217,443	7-56	ND	108,929	20A288
	Southampton			ND		20A454
	Suffolk County			ND		20A180
	Village of Southampton			108,929		20A456
Hempstead Harbor	Brookville	1,303,335	7-2	ND	923,824	20A439
	East Hills			97,705		20A001
	Flower Hill			33,229		20A171
	Glen Cove			298,536		20A100
	Munsey Park			ND		20A319
	Nassau County			84,284		20A022
	North Hempstead			95,638		20A318
	NYSDOT			69,743		20A288
	Old Brookville			32,636		20A447
	Old Westbury			ND		20A434
	Oyster Bay			103,603		20A371
	Roslyn			5,057		20A071
	Roslyn Estates			ND		20A446
	Roslyn Harbor			36,907		20A059
	Sands Point			10,330		20A444
	Sea Cliff			56,156		20A075
	Suffolk County			ND		20A180
	Upper Brookville			ND		20A442
Huntington Harbor	Huntington	1,592,353	7-8	31,895	277,927	20A297
	Huntington Bay			35,792		20A292
	Lloyd Harbor			165,345		20A299
	NYSDOT			31,450		20A288
	Suffolk County			13,445		20A180

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27 Shellfishing WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr)[2] f	Permit #
Mattituck Inlet/Creek, Low and tidal tribs	Southold	1,019,146	7-38	16,170	35,706	20A524
	Suffolk County			19,536		20A180
Mecox Bay and tributaries	NYSDOT	724,169	7-54	22,720	26,462	20A288
	Southampton			3,742		20A454
	Suffolk County			ND		20A180
	Village of Southampton			ND		20A456
Mt. Sinai Harbor, Crystal Brook	Brookhaven	314,333	7-32	ND	3,109	20A411
	Port Jefferson			3,109		20A326
	Suffolk County			ND		20A180
Mt. Sinai Harbor, Inner Harbor	Brookhaven	67,069	7-34	ND	ND	20A411
	Suffolk County			ND		20A180
Mt. Sinai Harbor, Pipe Stave Hollow	Brookhaven	72,010	7-36	ND	ND	20A411
	Suffolk County			ND		20A180
Narrow Bay	Brookhaven	6,809,338	7-76	424,822	457,171	20A411
	Suffolk County			32,349		20A180
Northport Harbor	Huntington	589,489	7-12	18,651	90,070	20A297
	Northport			57,032		20A303
	NYSDOT			5,915		20A288
	Suffolk County			8,472		20A180
Ogden Pond	NYSDOT	380,488	7-66	ND	2,066	20A288
	Quogue			2,066		20A455
	Suffolk County			ND		20A180
Patchogue Bay, Mud Creek	Brookhaven	1,370,082	7-84	871,830	887,648	20A411
	NYSDOT			ND		20A288
	Suffolk County			15,818		20A180
Patchogue Bay, Swan River	Brookhaven	1,248,986	7-82	1,045,934	1,052,810	20A411
	NYSDOT			ND		20A288
	Suffolk County			6,876		20A180
Penniman Creek	NYSDOT	313,356	7-64	ND	2,605	20A288
	Quogue			2,605		20A455
	Suffolk County			ND		20A180
Penny Pond	Southampton	637,722	7-60	41	41	20A454
	Suffolk County			ND		20A180
Port Jefferson Harbor, North and tribs	Brookhaven	283,319	7-22	ND	138,127	20A411
	NYSDOT			10,689		20A288
	Poquott			10,259		20A337
	Port Jefferson			117,179		20A326
	Suffolk County			ND		20A180
Quantuck Canal/Moneybogue Bay	Suffolk County	364,248	7-70	ND	46,187	20A180
	Westhampton Beach			46,187		20A457
Quantuck Creek	NYSDOT	140,485	7-68	ND	ND	20A288
	Quogue			ND		20A455
	Southampton			ND		20A454
	Suffolk County			ND		20A180
Sagaponack Pond	NYSDOT	272,780	7-52	10,753	24,609	20A288
	Southampton			ND		20A454
	Suffolk County			ND		20A180
	Village of Sagaponack			13,856		20A534
Setaukut Harbor, East Setauket	Brookhaven	795,282	7-28	337,410	345,817	20A411
	NYSDOT			8,407		20A288
	Suffolk County			ND		20A180
Setaukut Harbor, Little Bay	Brookhaven	59,434	7-26	34,416	34,416	20A411
	Suffolk County			ND		20A180
Stony Brook Harbor, Inner	Head of the Harbor	6,780	7-14	ND	2,566	20A353
	Nissequogue			ND		20A351
	NYSDOT			2,566		20A288
	Smithtown			ND		20A277
	Suffolk County			ND		20A180

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27 Shellfishing WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr)[2] f	Permit #
Stony Brook Harbor, Stony Brook Creek	Brookhaven	20,045	7-16	ND	10,780	20A411
	Head of the Harbor			ND		20A353
	Nissequogue			ND		20A351
	NYSDOT			10,780		20A288
	Smithtown			ND		20A277
	Suffolk County			ND		20A180
Stony Brook Yacht Club	Brookhaven	332,495	7-18	17,056	17,056	20A411
	Suffolk County			ND		20A180
Taylor Creek	NYSDOT	366,911	7-58	ND	45,281	20A288
	Southampton			ND		20A454
	Suffolk County			ND		20A180
	Village of Southampton			45,281		20A456
Weesuck Creek	NYSDOT	1,136,756	7-62	ND	10,949	20A288
	Southampton			790		20A454
	Suffolk County			10,159		20A180

[1] These *Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL*Tables are found in Shellfish Pathogen TMDLs for 27 303(d)-listed Waters (Battelle, 2007)

[2] ND - These MS4 Operators certified No Discharge to the Impaired Waterbody.

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APPENDIX F

Waterbodies Above TMDL Allowable Load for MS4s

Peconic Bay Pathogen WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr) f	Excess Pathogen Load (billion FC/yr) g=(f-c)	Individual MS4 Operator Load Reduction (billion FC/yr)[2] h=e*(g/f)	Permit #
Acabonac Harbor, AH-3	East Hampton	1647	7-39b	23,914	23,914	22,267	22,267	20A526
	Suffolk County			ND[2]			0	20A180
Acabonac Harbor, AH-4	East Hampton	1253	7-39c	1,967	1,967	714	714	20A526
	Suffolk County			ND[2]			0	20A180
Acabonac Harbor, AH-5	East Hampton	1295	7-39d	21,041	21,041	19,746	19,746	20A526
	Suffolk County			ND[2]			0	20A180
Flanders Bay	NYSDOT	9993	7-22	2,898	187,377	177,384	2,743	20A288
	Riverhead			11,366			10,760	20A020
	Southampton			6,535			6,186	20A454
	Suffolk County			166,578			157,694	20A180
Hashamomuck Pond, HP-1	Southold	4153	7-12a	4,130	10,224	6,071	2,453	20A524
	Suffolk County			6,094			3,619	20A180
North Sea Harbor, NSH-1	Southampton	831	7-29a	5,278	8,158	7,327	4,740	20A454
	Suffolk County			2,880			2,587	20A180
Northwest Creek	East Hampton	4177	7-37	24,320	24,320	20,143	20,143	20A526
	Suffolk County			ND[2]			0	20A180
Reeves Bay	NYSDOT	3925	7-24	3,779	128,549	124,624	3,663	20A288
	Southampton			124,770			120,960	20A454
	Suffolk County			ND[2]			0	20A180
Richmond Creek	NYSDOT	4317	7-14	4,663	9,965	5,648	2,643	20A288
	Southold			5,302			3,005	20A524
	Suffolk County			ND[2]			0	20A180
Sag Harbor SH-2	Sag Harbor	5250	7-35	14,767	14,767	9,517	9,517	20A095
	North Haven			ND[2]			0	20A500
	Suffolk County			ND[2]			0	20A180
Sebonac Creek	Southampton	4842	7-26	5,518	5,518	676	676	20A454
	Suffolk County			ND[2]			0	20A180
Stirling Creek	NYSDOT	35751	7-6	1,960	49,579	13,828	547	20A288
	Southold			5,221			1,456	20A524
	Suffolk County			ND[2]			0	20A180
	Village of Greenport			42,399			11,826	20A528
Wooley Pond	Southampton	993	7-31	91,800	91,800	90,807	90,807	20A454
	Suffolk County			ND[2]			0	20A180

[1] The *Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL Loads* tables are found in Peconic Bay Pathogens TMDL (Battelle, 2006)

[2] ND - These MS4 Operators certified No Discharge to the Impaired Waterbody. The Individual Load Reduction for these MS4 Operators is zero.

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27 Shellfishing WIS Area a	MS4s b	Allowable MS4 Load (billion FC/yr) c	Load Allocation Table Number[1] d	Individual MS4 Operator Load (billion FC/yr)[2] e	Total MS4 Load (billion FC/yr) f	Excess Pathogen Load (billion FC/yr) g=(f-c)	Individual MS4 Operator Load Reduction (billion FC/yr) h=e*(g/f)	Permit #
Bellport Bay, Beaver Dam Creek	Bellport	175,318	7-78	29,795	417,329	242,011	17,278	20A363
	Brookhaven			375,219			217,591	20A411
	NYSDOT			ND[2]			0	20A288
	Suffolk County			12,315			7,142	20A180
Conscience Bay and tidal tribs	Brookhaven	84,786	7-24	358,964	358,964	274,178	274,178	20A411
	Old Field			ND[2]			0	20A407
	Suffolk County			ND[2]			0	20A180
Seatuck Cove	Brookhaven	238,389	7-72	267,659	340,478	102,089	80,255	20A411
	NYSDOT			ND[2]			0	20A288
	Southampton			68,330			20,488	20A454
	Suffolk County			4,489			1,346	20A180
Setauket Harbor, Poquott	Brookhaven	4,152	7-30	8,987	8,987	4,835	4,835	20A411
	NYSDOT			ND[2]			0	20A288
	Poquott			ND[2]			0	20A337
	Suffolk County			ND[2]			0	20A180
Stony Brook Harbor, West Meadow Creek	Brookhaven	32,315	7-20	184,764	185,571	153,256	152,590	20A411
	Old Field			ND[2]			0	20A407
	Suffolk County			807			666	20A180

[1] These *Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL* Tables are found in Shellfish Pathogen TMDLs for 27 303(d)-listed Waters (Battelle, 2007)

[2] ND - These MS4 Operators certified No Discharge to the Impaired Waterbody. The Individual Load Reduction for these MS4 Operators is zero.

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APPENDIX G

Proposed Retrofit Compliance Schedule

Proposed Compliance Schedule for Retrofit Program

Task	Deliverable	Due Date
Identify existing SMPs that meet criteria for retrofit credits and determine load reduction provided using DEC Pathogen Reduction Credit worksheet.	• Storm Sewer System Map completed in accordance with Part IX.C.3.b of MS4 General Permit (to have been completed by May 1, 2015) showing existing SMPs evaluated; and, • Completed Pathogen Reduction Credit Worksheet providing information on existing SMPs that meet retrofit criteria with data layer of drainage area contributing to SMPs. If Pathogen Reduction Credit Worksheet shows reductions achieved with existing SMPs meets or exceeds pathogen reduction requirement specified in Appendix F, MS4 Operator is no longer subject to compliance schedule requirements or semi-annual reporting for the waterbody. Report on maintenance of SMPs with annual report.	In advance of Retrofit Program Plan Due Date
Commence retrofit program (only if completed worksheet shows additional reductions needed).	Approvable engineering report providing a description of process and procedures for identification & selection of retrofit projects[1] to augment existing SMPs (if worksheet shows retrofits are needed to meet pathogen reduction requirement specified in Appendix F). Report must describe: • Policy and procedures for project permitting, design, funding, construction and maintenance. • Potential funding sources including but not limited to GIGP, other SRF, NFWF (LIS), PEP, Non-Ag/NPS (EPF), WQIP and other local funding for work to complete retrofit project. • Schedule for deliverables with due dates in accordance with 6NYCRR Part 750-1.14 (not to exceed 9 months between deliverables)	EDP[2] + 9 mos
Conduct desktop analysis to identify potential retrofit project locations needed to augment reductions achieved with existing SMPs.	Data layer showing location of potential retrofit projects[1]	Within 9 months of approval of report
Rank and select potential retrofit projects[1].	Inventory and ranking of potential retrofit projects[1]. Include: • Proposed Retrofit Worksheet with projected pollutant reduction associated with potential retrofit projects[1]. • Schedule for commencement and implementation of retrofit projects[1].	Within 18 months of approval of report
Selection of Retrofit Practices for each year (as necessary)	Approvable Engineering report and concept plan	October 15th[3]
Complete design of selected retrofit projects[1] for upcoming construction season per approved schedule.	Plans & Specifications for upcoming construction season.	January 15th[3]
Commence construction of retrofit projects[1] per approved schedule.	Report on compliance or noncompliance with interim dates with semi-annual report.	June 1st[3]

[1] Retrofit projects can include new SMPs or upgrades to existing SMPs

[2] EDP = Effective Date of Permit – Renewal of MS4 General Permit will represent DEC's written notification of individual Ms4 Operator's responsibilities.

[3] Each year until achieve required reductions or final deadline

Complete construction of selected retrofit projects[1] for year; and,	Report on compliance or noncompliance with interim dates with semi-annual report. Submit updated worksheet and updated data layer of sewershed reflecting completed projects.	December 1st[3]
Complete retrofit program	Updated worksheet and data layers showing pollutant removal meets or exceeds that specified in Appendix F.	Final deadline[4]

APPENDIX H

Proposed Ambient Monitoring Schedule

Proposed Compliance Schedule for Ambient Monitoring to Confirm Water Quality.

Task	Deliverable	Due Date
Develop monitoring program designed to demonstrate consistent compliance with WQS.	Approvable Engineering Report including Quality Assurance Project Plan.	EDP[1] + 9 months
Commence monitoring program	Written notice of compliance or noncompliance with interim date.	Within 9 months of DEC approval of report
Sample receiving water in accordance with approved plan.	Sampling data[2] for samples collected during Semi-annual reporting period.	June 1st[3]
Sample receiving water in accordance with approved plan.	Sampling data[2] for samples collected during Semi-annual reporting period.	December 1st[3]
Complete Ambient Monitoring Program and data analysis.	Sampling data and request for relief from Part IX.C if consistent compliance with WQS is supported by data.	Commencement of Study + 2 years

[1] EDP = Effective Date of MS4 General Permit renewal.

[2] If sampling data shows above standards, submit approvable engineering report outlining retrofit program or engineering report for identification of other sources with proposed schedule. Otherwise, continue sampling per approved QAPP.

[3] Each year of study

APPENDIX I

Proposed Source Identification Schedule

Proposed Compliance Schedule for Source Identification or Control Program.

Task	Deliverable	Due Date
Develop strategy to prove source of pathogen impairment not MS4	Approvable Engineering Report describing the suspected source and outlining proposed source identification program or strategy. QAPP outlining sampling to demonstrate progress or prove other sources. Proposes schedule for implementation with final completion no later than 2 years after commencement of study.	EDP[1] + 9 months
Commence source identification program	Written notice of compliance or noncompliance with interim date.	Within 9 months of approval of report
Sample receiving water in accordance with approved plan.	Sampling data[2] for samples collected during Semi-Annual Reporting period.	June 1st[3]
Sample receiving water in accordance with approved plan.	Sampling data[2] for samples collected during Semi-Annual Reporting period	December 1st[3]
Complete source identification program.	Submit final report on program.	Commencement of Study + 2 years

[1] EDP = Effective Date of MS4 General Permit Renewal

[2] If sampling data shows above standards, implement compliance schedule for retrofit program or identification of other sources with dates adjusted accordingly. Otherwise, continue sampling per approved QAPP.

[3] Each year during study period

APPENDIX J

TMDL Allowable Load that Formed the Basis of MS4 Permit Conditions

Derivation of MS4 Pollutant Load Reduction Requirement from **Peconic Bay Pathogen TMDL** for MS4s previously designated under the MS4 General Permit prior to 2006

Table IX.C of the MS4 General Permit

(Part IX.)

C. **Pathogen Impaired Watershed MS4s (Mapped in Appendix 6, 7 and 9)**

Table IX.C - Pollutant Load Reduction and Timetable for Pathogen Impaired Watershed Improvement Strategy Areas

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Budds Pond*	05/01/2013	09/30/2012	61	09/30/2022
Stirling Creek*	05/01/2013	09/30/2012	28	09/30/2022
Town & Jockey Creeks*	05/01/2013	09/30/2012	76	09/30/2022
Goose Creek*	05/01/2013	09/30/2012	70	09/30/2022
Hashamomuck Pond, Zone HP-1*	05/01/2013	09/30/2012	77	09/30/2022
Hashamomuck Pond , Zone HP-2*	05/01/2013	09/30/2012	43	
Richmond Creek*	05/01/2013	09/30/2012	71	
Deep Hole Creek*	05/01/2013	09/30/2012	29	
James Creek*	05/01/2013	09/30/2012	51	
Flanders Bay	05/01/2012	03/09/2012	98	
Reeves Bay	05/01/2012	03/09/2012	97	
Sebonac Creek	05/01/2012	03/09/2012	58	

Final Report for Peconic Bay TMDL September 2006

Table 7-24. Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL Loads in Reeves Bay

Rollback Based on Station 216	Condition	Units	Reeves Bay	Load Reduction (billion FC/yr)	Load Reduction (%)
Existing Conditions	Nonpoint Sources	(billion FC/yr)	10,911	-	-
	Permitted Point Source Contributions	(billion FC/yr)	120,351	-	-
	Total Existing Loads	(billion FC/yr)	131,262	-	-
TMDL	LA	(billion FC/yr)	8,183	2,728	25
	WLA	(billion FC/yr)	3,925	116,425	97
	MOS	(billion FC/yr)	1,345	-	

DEC used this value when comparing the combined MS4 load to the "TMDL Load that formed the basis of the Pollutant Load Reduction specified in the MS4 General Permit."

Table IX.C from MS4 General Permit (page 80)

(Part IX.)

C. **Pathogen Impaired Watershed MS4s (Mapped in Appendix 6, 7 and 9)**

Table IX.C - Pollutant Load Reduction and Timetable for Pathogen Impaired Watershed Improvement Strategy Areas

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Budds Pond*	05/01/2013	09/30/2012	61	09/30/2022
Stirling Creek*	05/01/2013	09/30/2012	28	09
Town & Jockey Creeks*	05/01/2013	09/30/2012	76	09
Goose Creek*	05/01/2013	09/30/2012	70	09
Hashamomuck Pond, Zone HP-1*	05/01/2013	09/30/2012	77	09
Hashamomuck Pond , Zone HP-2*	05/01/2013	09/30/2012	43	09
Richmond Creek*	05/01/2013	09/30/2012	71	09
Deep Hole Creek*	05/01/2013	09/30/2012	29	09
James Creek*	05/01/2013	09/30/2012	51	09
Flanders Bay	05/01/2012	03/09/2012	98	03
Reeves Bay	05/01/2012	03/09/2012	97	03
Sebonac Creek	05/01/2012	03/09/2012	58	03

Derivation of MS4 Pollutant Load Reduction Requirements from **Peconic Bay Pathogen TMDL** for MS4s additionally designated under MS4 General Permit

* = Additionally Designated Area

Table 7-8. Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL Loads in Town and Jockey Creeks

Rollback Based on Station 2.1	Condition	Units	Town and Jockey Creeks	Load Reduction (billion FC/yr)	Load Reduction (%)
Existing Conditions	Nonpoint Sources	(billion FC/yr)	81,675	-	-
	Permitted Point Source Contributions	(billion FC/yr)	0	-	-
	Total Existing Loads	(billion FC/yr)	81,675		-
TMDL	LA	(billion FC/yr)	19,921	59,541	76
	WLA	(billion FC/yr)	0	0	0
	MOS	(billion FC/yr)	2,213	-	-
	TMDL	(billion FC/yr)	22,134	59,541	76

Note: The TMDL value reported in the table is the annually integrated value. The TMDL (daily) value is 60.64 billion FC/day.

Note: A TMDL was not calculated for Zone TJ-2 because, based on available water quality data, there were no coliform concentration exceedances

DEC used this value when comparing the combined MS4 load to the "TMDL Load that formed the basis of the Pollutant Load Reduction specified in the MS4 General Permit."

Table IX.C of MS4 General Permit (page 81)

Watershed	Watershed Improvement Strategy Deadline	First Retrofit Plan Submission Deadline	Pollutant Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Hempstead Harbor, north, and tidal tributaries	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, and tidal tributaries, Inner	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, Eel Creek	05/01/2013	09/30/2012	90	09/30/2022
Huntington Harbor	05/01/2013	09/30/2012	89	09/30/2022
Centerport Harbor	05/01/2013	09/30/2012	91	09/30/2022
Northport Harbor	05/01/2013	09/30/2012	92	09/30/2022
Stony Brook Harbor and West Meadow Creek	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Creek	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Yacht Club	05/01/2013	09/30/2012	48	09/30/2022
Port Jefferson Harbor, North and tribs	05/01/2013	09/30/2012	94	09/30/2022
Conscience Bay and tidal tribs	05/01/2013	09/30/2012	99	09/30/2022
Setaukut Harbor, Little	05/01/2013	09/30/2012	84	09/30/2022

Derivation of Pollutant Load Reduction from

Shellfish Pathogen TMDLs for 27 303(d) listed Waters

Table 7-4. Summary of Current Fecal Coliform Loads and Percent Reductions Necessary to Meet Target TMDL Loads in Cold Spring Harbor--Inner.

	Condition	Cold Spring Harbor (Inner)	Load Reduction	Load Reduction (%)
Existing Conditions (billion FC/yr)	Nonpoint Sources	56,833	-	-
	Permitted Point Source Contributions--STPs	0	-	-
	Permitted Point Source Contributions—MS4s	14,012,663		
	Total Existing Loads	14,069,496	-	-
TMDL (billion FC/day)	LA	8	148	95
	WLA—STPs	0	0	0
	WLA—MS4s	1,919	36,471	95
	MOS	-	-	-
	TMDL	1,927	36,619	95
TMDL (billion FC/yr)	LA	2,842	53,991	95
	WLA—STPs	0	0	0
	WLA—MS4s	700,633	13,312,030	95
	MOS	-	-	-
	TMDL	703,475	13,366,021	95

Shellfish Pathogen TMDLs for 27 303(d) listed Waters, September 2007

DEC used this value when comparing the combined MS4 load to the "TMDL Load that formed the basis of the Pollutant Load Reduction specified in the MS4 General Permit."

Derivation of MS4 Pollutant Load Reduction Requirement for **Oyster Bay Harbor 3**

Table IX.C of MS4 General Permit (page 80)

Nashamoniuck Pond, Zone HP-2*	05/01/2013	05/30/2012	43	05/30/2022
Richmond Creek*	05/01/2013	09/30/2012	71	09/30/2022
Deep Hole Creek*	05/01/2013	09/30/2012	29	09/30/2022
James Creek*	05/01/2013	09/30/2012	51	09/30/2022
Flanders Bay	05/01/2012	03/09/2012	98	03/09/2021
Reeves Bay	05/01/2012	03/09/2012	97	03/09/2021
Sebonac Creek	05/01/2012	03/09/2012	58	03/09/2021
North Sea Harbor, Zone NSH-1	05/01/2012	03/09/2012	97	03/09/2021
North Sea Harbor, Zone NSH-2	05/01/2012	03/09/2012	62	
North Sea Harbor, Zone NSH-3	05/01/2012	03/09/2012	99	
North Sea Harbor, Zone NSH-5	05/01/2012	03/09/2012	74	
Wooley Pond	05/01/2012	03/09/2012	97	
Noyac Creek, Zone NC-1	05/01/2012	03/09/2012	64	
Sag Harbor, Zone SH-2*	05/01/2013	09/30/2012	50	
Northwest Creek*	05/01/2013	09/30/2012	76	
Acabonac Harbor, Zone AH-2*	05/01/2013	09/30/2012	42	
Acabonac Harbor, Zone AH-3*	05/01/2013	09/30/2012	85	
Acabonac Harbor, Zone AH-4*	05/01/2013	09/30/2012	81	
Acabonac Harbor, Zone AH-5*	05/01/2013	09/30/2012	87	
Montauk Lake, Zone LM-1*	05/01/2013	09/30/2012	52	
Montauk Lake, Zone LM-2*	05/01/2013	09/30/2012	52	
Montauk Lake, Zone LM-3*	05/01/2013	09/30/2012	48	
Little Sebonac Creek	05/01/2012	03/09/2012	70	
Oyster Bay (Harbor 2)	05/01/2012	03/09/2012	20	
Oyster Bay (Harbor 3)	05/01/2012	03/09/2012	90	

*Additionally Designated Area

Table ES-1. TMDLS and Target Percent Reductions

Zone	Waterbody	Subwatershed	Current Point Source Load	Current Non Pt. Source Load	Current Total Loads*	TMDL	MOS	TMDL WLA	TMDL LA	TOTAL MOS+ WLA+ LA	PERCENT REDUCTION
MNC	Mill Neck Creek	Storm Water	95699					95699	0		
		Continental Villas STP	849					116	0		
		Boats/marinas		10886				0	10886		
		Waterfowl/Horses		2232				0	2232		
		Other Non-Point Sources		850				0	850		
		TOTAL	96548	13968	110516	164522	54739	95815	13968	164522	0
OBH1	Oyster Bay Harbor	Zone MNC		21744				0	21744		
		Storm Water	14950					14950	0		
		Waterfowl/Horses		18				0	18		
		Other Non-Point Sources		72				0	72		
		TOTAL	14950	21834	36784	55176	18392	14950	21834	55176	0
OBH2	Oyster Bay Harbor	Storm Water	9363					7454	0		
		Waterfowl/Horses		635				0	635		
		Other Non-Point Sources		52				0	52		
		TOTAL	9363	687	10050	9045	905	7454	687	9046	10
OBH3	Oyster Bay Harbor	Storm Water	376685					37093	0		
		Waterfowl/Horses		353				0	353		
		Boats/marinas		54432				0	2722		
		Other Non-Point Sources		1604				0	1604		
		TOTAL	376685	56389	433074	46413	4641	37093	4679	46413	89
OBH4	Oyster Bay Harbor	Storm Water	147296					147296	0		
		Waterfowl/Horses		1000				0	1000		
		Boats/Marinas		18144				0	18144		
		Other Non-Point Sources		734				0	734		
		TOTAL	147296	19878	167174	287372	120198	147296	19878	287372	0

Notes:
1. Units are in billion colonies/year (BCY)
2. Mill Neck Creek (MNC) and OBH1 has an MOS of 33% and OBH4 has an additional MOS of 42% This is due to a lack of current data in this stretch and provides an ultimate level of safety while the TMDL is implemented and results measured.
3. OBH2 will meet a TMDL of 9045 by providing a 10% MOS and a 20% reduction in the Storm Water
4. OBH3 will meet a TMDL of 46,413 by providing a 10% MOS, an 90% reduction in the Storm Water and a 95% reduction the loading from boats/marinas.

Pathogen Total Maximum Daily Loads for Shellfish Waters in Oyster Bay Harbor & Mill Neck Creek, September 2003 (page ES-7)

DEC used this value when comparing the combined MS4 load to the "TMDL Load that formed the basis of the Pollutant Load Reduction specified in Table IX.C of the MS4 General Permit."

APPENDIX K

Waterbodies Meeting
Water Quality Standards

Appendix K

Waterbodies Meeting Water Quality Standards

The MS4 General Permit provides that where ambient monitoring demonstrates consistent compliance with water quality standards, MS4 Operators with load reduction goals may request that the Department suspend the additional WIS requirements to install stormwater retrofits. The waterbodies listed below consistently meet water quality standards.

West Harbor/Fishers Island/Darby Cove is listed in Table IX.C of the MS4 General Permit with a pollutant load reduction requirement of 41%. The Town of Southold petitioned DEC for relief from the requirements of Part IX.C for stormwater discharges to West Harbor – Darby Cove. Through the 2013 Guidance Document, the Town of Southold provided information that all of West Harbor – Darby Cove consistently meets water quality standards for shellfishing but this waterbody is administratively closed due to the presence of a year-round marina. DEC verified that the ambient monitoring of this water body demonstrates consistent compliance with water quality standards. Since Fishers Island was additionally designated as requiring coverage under the MS4 General Permit using DEC's Designation Criteria for Identifying Regulated Municipal Separate Storm Sewer Systems (MS4s) based solely on the 27 Shellfish TMDL requiring reductions of a pollutant associated with stormwater, DEC granted relief from the SPDES permit requirements for stormwater discharges to West Harbor-Darby Cove. Therefore, MS4 requirements will not be imposed for stormwater discharges to West Harbor – Darby Cove.

Budds Pond is listed in Table IX.C with a pollutant load reduction requirement of 61%. The Town of Southold provided information that Budds Pond is administratively closed due to the presence of a year-round marina. DEC verified that Budds Pond is closed seasonally for administrative reasons due to the presence of boats and not poor water quality. Therefore, MS4 reduction requirements in Part IX.C will not be imposed for stormwater discharges to Budds Pond and semi-annual reporting will not be required. Progress with implementation of the six minimum control measures will be reported with the annual report.

Oyster Bay (Harbor 2) is listed in Table IX.C with a pollutant load reduction requirement of 20%. Amendments to 6NYCRR Part 41 were adopted on March 16, 2011 reclassifying Oyster Bay (Harbor 2) from seasonally uncertified to certified year round for shellfishing. Therefore, MS4 reductions under Part IX.C will not be imposed for stormwater discharges to Oyster Bay (Harbor 2) and semi-annual reporting will not be required. Progress with implementation of the six minimum control measures will be reported with the annual report.