APPENDIX A: 2011 WINNICUT RIVER WATERSHED VRAP DATA

Measurements not meeting New Hampshire surface water quality standards
Turbidity measruements potentially above the water quality standard
Measurements not meeting NHDES quality assurance/quality control standards

[A] Specific conductance > 835 µS/cm indicate exceedance of chronic chloride standard of 230 mg/L
[B] Chronic water quality standard

21-WNC, Winnicut River, South Road Bridge, North Hampton

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
08/06/2011	9:15	2.30	27.5	6.19	3.2	647.0	22.8					
09/01/2011	8:25	1.29	13.8	5.98	1.9	331.7	18.8					
09/13/2011	7:55	1.90	20.0	5.90	2.1	324.5	17.8	10	0.120	65	1.1	<0.05

20-WNC, Winnicut River, Route 101 Bridge, North Hampton

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/20/2011	8:02	2.40	27.6	6.36	8.9		21.8		0.160	120	1.1	<0.05
08/06/2011	9:40	2.72	30.4	6.54	4.9	681.0	23.6					
09/01/2011	9:00	1.21	13.3	6.01	2.0	353.3	19.4	240		64	1.5	<0.05
09/13/2011	8:12	2.18	22.9	6.08	5.5	339.5	17.6	30	0.150	63	1.1	<0.05

16-WNC, Winnicut River, Lovering Road Bridge, North Hampton

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	*E.coli* Geometric Mean	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**<126**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/20/2011	9:30	3.01	35.5	6.25	6.6	421.0	23.2	50		0.200	88	1.2	<0.05
08/06/2011	7:15	3.11	30.2	6.23	2.6	434.6	22.4						
09/01/2011	9:31	2.05	22.7	6.38	4.0	336.8	19.4	30			59	0.88	<0.05
09/13/2011	9:01	2.08	23.5	6.25	1.6	360.5	19.7	20	31	0.039	71	0.82	<0.05

02-COR, Cornelius Brook, Lovering Road, North Hampton

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**<835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/20/2011	9:06	2.39	28.5	6.55	5.0	410.3	22.8		0.110	45	0.75	<0.05
08/06/2011	8:43	2.30	26.5	6.55	2.2	395.4	20.7					
09/01/2011	10:05	2.93	32.8	6.54	1.4	299.4	20.8	120		33	0.51	<0.05
09/13/2011	9:35	2.98	31.6	6.40	0.4	306.2	17.9	180	0.023	38	0.5	<0.05

11-WNC, Winnicut River, Winnicut Road, Stratham

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	*E.coli* Geometric Mean	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**<126**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/28/2011	10:33	7.76	87.0	6.84	0.8	462.1	20.6	80		0.025	82	<0.25	0.26
08/14/2011	11:18	6.12	69.3	6.72	1.1	383.1	20.7						
08/31/2011	10:03	5.72	61.0	6.60	0.0	300.0	19.7	50		0.045	75	0.87	<0.05
09/15/2011	11:33	6.18	69.0	6.58	0.6	370.5	20.5	30	49	0.038	69	0.72	

06-NOB, Northon's Brook, 400ft Upstream of I-95, Greenland

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	*E.coli* Geometric Mean	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**<126**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/20/2011	10:14	5.55	63.0	6.21	35.6	247.7	21.4	540		0.050	40	1.3	0.09
08/06/2011	10:25	4.13	49.0	6.37	55.3	209.9	23.8						
09/01/2011	11:05	6.53	73.0	6.08	7.3	211.6	20.3	350			35	0.73	0.21
09/13/2011	10:20	6.85	76.3	6.04	4.8	196.9	20.5	380	416	0.045	33	0.72	0.2

05-WNC, Winnicut River, Downstream from GCNE/Powerline, Greenland

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/28/2011	9:50	6.74	78.0	6.98	4.6	423.5	23.0	30	0.037	70	0.5	<0.05
08/14/2011	10:12	5.85	65.8	6.75	2.43	380.0	21.1					
08/31/2011	9:34	5.83	63.9	6.66	2.9	294.0	19.8	80	0.054	71	1.4	<0.05
09/15/2011	10:43	5.61	62.0	6.69	1.4	365.2	20.3					

02-WNC, Winnicut River, Route 33 Bridge, Greenland

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above background**	**<835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/28/2011	8:50	5.19	61.9	6.88	3.6	415.0	23.1	70	0.070	63	0.61	<0.05
08/14/2011	8:58	5.57	62.3	6.78	1.9	404.4	20.8					
08/31/2011	8:57	5.20	56.8	6.70	2.3	289.0	19.4					

09/15/2011	9:32	4.79	64.2	6.73	2.3	364.3	20.3	230	0.050	65	0.72	<0.05

WINPS003, Packer's Brook, Tidal Creek Outflow, Greenland

Date	Time of Sample	DO (mg/L)	DO (% sat.)	pH	Turbidity (NTUs)	Specific Conductance (µS/cm)	Water Temp. (°C)	*E. coli* (CTS/100mL)	Total Phosphorus (mg/L)	Chloride (mg/L)	TKN (mg/L)	Nitrate (NO^3) + Nitrite (NO^2) (mg/L)
Standard	**NA**	**>5.0**	**>75% Daily Average**	**6.5-8.0**	**<10 NTU above backgrd**	**835 µS/cm[A]**	**NA**	**<406**	**Narrative**	**<230[B]**	**Narrative**	**Narrative**
07/28/2011	8:00	2.90	32.5	6.63	2.9	577.0	20.3		0.130	110	0.9	<0.05
08/14/2011	8:13	2.96	32.4	6.26	0.69	435.3	19.9					
08/27/2011	7:55							60	0.059	80	0.98	<0.05
08/31/2011	7:55	3.82	40.5	6.39	0.2	341.0	18.1					
09/15/2011	8:36	3.07	33.8	6.36	0.3	361.3	19.9	130	0.064	64	1	<0.05