

APPENDIX D

Background Sampling Results

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NOTES:

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Periphyton:
If periphyton data shows "< 25", all substrate samples were free from any visible attached algae, therefore periphyton density is less than 25 mg/m², per sampling plan

Study Area	Station ID	Date	Time	Flow (cfs)	pH (s.u.)	Temp. (°C)	DO (mg/L)	Alk. (mg/l)	CBOD ₅ (mg/l)	TSS (mg/l)	TDS (mg/l)	Turbidity (NTUs)	Iron (mg/l)	TKN (mg/l)	NH ₃ -N (mg/l)	NO ₃ -N (mg/l)	NO ₂ -N (mg/l)	Avail. Nitro. Avail. Phos. (ratio)	D-OPO ₄ (mg/l)	TP (mg/l)	Phyto-plankton Chl-a (mg/m ³)	Avg. Peri-phyton Chl-a (mg/m ²)
North Branch Raritan River	IBB	08/09/04	1:00 PM	nr	7.39	18.1	9.95	nr	< 2.0	2.0	370	nr	0.33	0.12	< 0.05	2.00	< 0.04	409	< 0.01	< 0.02	nr	nr
		08/10/04	2:20 PM	nr	7.58	19.2	9.98	nr	< 2.0	1.0	250	nr	0.13	0.64	< 0.05	1.84	< 0.04	189	0.01	0.02	nr	4.4
		11/02/04	2:57 PM	nr	7.70	11.8	12.4	nr	< 2.0	0.5	200	nr	0.23	0.33	0.05	1.25	< 0.04	264	< 0.01	< 0.02	nr	nr
		11/03/04	1:50 PM	nr	6.76	11.3	11.3	nr	< 2.0	1.0	240	nr	0.09	0.18	< 0.05	1.43	< 0.04	295	< 0.01	< 0.02	nr	10.9
		08/04/05	1:10 PM	nr	7.89	23.6	9.14	nr	< 2.0	1.5	360	nr	0.23	0.13	< 0.05	1.59	< 0.04	327	< 0.01	0.05	nr	9.8
		08/05/05	12:45 PM	nr	7.85	23.1	9.09	nr	< 2.0	3.0	290	nr	0.19	0.07	< 0.05	1.63	< 0.04	335	< 0.01	0.05	nr	nr

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South Branch Raritan River	AgCrop	08/09/04	1:10 PM	nr	7.52	23.4	8.34	nr	< 2.0	8.0	260	nr	0.42	1.17	0.88	1.54	< 0.04	30.5	0.08	0.13	nr	nr
		08/10/04	3:30 PM	nr	7.63	26.1	7.56	nr	< 2.0	18.0	250	nr	0.74	0.94	< 0.05	1.27	< 0.04	12	0.11	0.19	nr	< 25
		11/02/04	2:30 PM	nr	7.88	14.3	12.4	nr	< 2.0	0.5	230	nr	0.37	1.13	0.07	1.20	< 0.04	27.4	0.05	0.08	nr	11.9
		11/03/04	1:20 PM	nr	7.69	13.2	10.7	nr	< 2.0	4.5	240	nr	0.33	0.45	< 0.05	1.12	< 0.04	19.7	0.06	0.11	nr	nr
		08/04/05	2:20 PM	nr	7.83	27.5	7.22	nr	< 2.0	2.5	290	nr	0.89	0.63	< 0.05	1.25	< 0.04	7.4	0.17	0.27	nr	nr
		08/05/05	1:45 PM	nr	7.91	27.7	7.87	nr	< 2.0	7.5	580	nr	0.58	0.47	0.07	1.12	< 0.04	9.46	0.13	0.22	nr	< 25

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South Branch Raritan River	AgPast	08/09/04	12:20 PM	nr	8.99	22.3	13.5	nr	< 2.0	23.0	190	nr	0.31	1.55	0.12	0.74	< 0.04	36.8	0.02	0.10	nr	nr
		08/10/04	12:30 PM	nr	9.08	23.6	13.2	nr	2.9	69	180	nr	0.49	1.14	0.14	0.66	< 0.04	43.3	0.02	0.13	nr	< 25
		11/02/04	1:00 PM	nr	8.88	14.7	15.2	nr	< 2.0	2.0	180	nr	0.16	1.17	0.12	0.48	< 0.04	32.5	0.02	0.23	nr	14.2
		11/03/04	12:00 PM	nr	8.38	13.0	14.7	nr	< 2.0	2.0	180	nr	0.08	0.21	< 0.05	0.42	< 0.04	19.4	0.02	0.06	nr	nr
		08/04/05	12:40 PM	nr	9.12	30.3	13.0	nr	< 2.0	2.5	240	nr	0.35	0.81	0.05	< 0.02	< 0.04	2.24	0.04	0.18	nr	nr
		08/05/05	12:15 PM	nr	9.04	30.7	13.2	nr	2.5	9.0	200	nr	0.31	1.10	0.13	< 0.02	< 0.04	31.2	< 0.01	0.15	nr	< 25

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South Branch Raritan River	Rural	08/09/04	2:30 PM	nr	7.35	21.9	7.38	nr	< 2.0	0.5	230	nr	0.05	0.34	0.10	2.62	< 0.04	48.9	0.06	0.06	nr	nr	
		08/10/04	2:30 PM	nr	7.12	21.9	8.15	nr	< 2.0	1.0	250	nr	< 0.05	0.45	< 0.05	2.54	< 0.04	51.7	0.05	0.09	nr	< 25	
		11/02/04	2:00 PM	nr	7.36	13.6	10.5	nr	< 2.0	< 0.5	240	nr	0.11	0.25	0.05	2.09	< 0.04	72.1	0.03	0.05	nr	19.1	
		11/03/04	2:30 PM	nr	7.09	12.5	10.3	nr	< 2.0	< 0.5	260	nr	< 0.05	0.63	< 0.05	2.04	< 0.04	59.6	0.04	0.05	nr	nr	
		08/04/05	2:45 PM	nr	NF	NF	NF	nr	NF	NF	NF	nr	NF	NF	NF	NF	NF	NF	NF	NF	NF	nr	NF
		08/05/05	12:00 PM	nr	NF	NF	NF	nr	NF	NF	NF	nr	NF	NF	NF	NF	NF	NF	NF	NF	NF	nr	NF

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Mainstem Raritan River	OldUrb	08/09/04	11:30 AM	nr	7.63	21.4	8.38	nr	< 2.0	0.5	630	nr	0.07	0.51	0.07	1.64	< 0.04	32.1	0.05	0.06	nr	n/a
		08/10/04	11:45 AM	nr	7.58	21.7	8.32	nr	< 2.0	0.5	560	nr	0.08	0.59	< 0.05	1.53	< 0.04	31.5	0.05	0.07	nr	n/a
		11/02/04	10:25 AM	nr	7.47	14.1	10.4	nr	< 2.0	0.5	380	nr	< 0.05	0.40	0.05	0.42	< 0.04	7.92	0.06	0.08	nr	< 25
		11/03/04	10:30 AM	nr	7.15	14.1	7.89	nr	< 2.0	1.5	470	nr	0.09	1.06	< 0.05	0.46	< 0.04	6.16	0.08	0.12	nr	nr
		08/04/05	12:05 PM	nr	7.51	24.7	9.02	nr	< 2.0	3.0	480	nr	0.17	0.19	< 0.05	0.55	< 0.04	10.5	0.06	0.14	nr	nr
		08/05/05	11:30 AM	nr	7.44	24.4	9.11	nr	< 2.0	5.0	660	nr	0.07	0.18	< 0.05	0.99	< 0.04	14.2	0.07	0.08	nr	< 25

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Upper Millstone River	AgWet	07/08/04	3:22 PM	nr	6.18	25.6	4.56	nr	< 2.0	20.0	140	nr	2.74	2.09	0.09	0.03	< 0.04	7.21	0.02	0.10	nr	nr
		07/09/04	1:55 PM	nr	6.27	23.4	4.87	nr	< 2.0	48	99	nr	3.90	2.07	0.15	0.09	< 0.04	15.4	0.02	0.20	nr	< 1.0
		11/10/04	2:50 PM	nr	6.84	8.6	16.1	nr	< 2.0	4.5	130	nr	0.45	0.32	< 0.05	5.82	< 0.04	1170	< 0.01	0.04	nr	< 25
		11/11/04	1:45 PM	nr	6.96	10.9	15.6	nr	< 2.0	5.5	140	nr	0.33	0.35	< 0.05	6.30	< 0.04	1270	< 0.01	0.03	nr	nr

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Upper Millstone River	DWW	07/08/04	1:30 PM	nr	6.02	23.8	5.08	nr	< 2.0	4.0	210	nr	1.12	0.42	0.07	0.10	< 0.04	37.2	< 0.01	0.05	nr	n/a
		07/09/04	8:40 AM	nr	5.82	19.9	4.93	nr	< 2.0	7.5	170	nr	1.41	0.49	0.09	0.14	< 0.04	14.9	0.02	0.06	nr	n/a
		09/07/04	5:50 PM	nr	6.08	22.0	3.69	nr	< 2.0	13.5	110	nr	2.75	0.81	0.19	< 0.02	< 0.04	7.93	0.03	0.10	nr	< 25
		09/08/04	4:32 PM	nr	6.24	22.8	4.69	nr	< 2.0	4.0	80	nr	3.05	0.62	0.09	< 0.02	< 0.04	24.8	< 0.01	0.06	nr	nr
		11/10/04	4:00 PM	nr	5.81	7.9	5.34	nr	< 2.0	4.5	72	nr	2.45	0.24	< 0.05	< 0.02	< 0.04	11	< 0.01	0.04	nr	< 25
		11/11/04	2:50 PM	nr	5.90	7.9	5.45	nr	4.0	13.0	89	nr	2.92	0.68	< 0.05	< 0.02	< 0.04	11	< 0.01	0.05	nr	nr

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Upper Millstone River	MRB	07/08/04	6:50 PM	nr	7.05	25.1	8.34	nr	< 2.0	4.0	150	nr	2.00	0.42	0.07	1.40	< 0.04	67.6	0.02	0.07	nr	nr
		07/09/04	1:45 PM	nr	6.61	25.3	8.53	nr	< 2.0	6.0	85	nr	2.25	1.17	0.09	1.22	< 0.04	88.9	0.02	0.07	nr	23.9
		09/07/04	3:35 PM	nr	6.89	22.1	8.76	nr	< 2.0	< 0.5	79	nr	1.44	0.56	0.07	1.34	< 0.04	71.4	0.02	0.06	nr	13.2
		09/08/04	9:00 AM	nr	7.18	20.0	6.85	nr	< 2.0	2.0	140	nr	2.14	0.42	0.08	1.26	< 0.04	272	< 0.01	0.05	nr	nr
		11/10/04	2:15 PM	nr	6.66	7.6	11.7	nr	< 2.0	9.0	57	nr	2.83	0.23	0.08	1.21	< 0.04	119	0.01	0.06	nr	< 25
		11/11/04	12:45 PM	nr	6.79	8.5	11.6	nr	< 2.0	8.0	72	nr	2.49	0.29	0.06	1.17	< 0.04	251	< 0.01	0.04	nr	nr

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Matchaponix Brooks	MCBB	07/08/04	1:00 PM	nr	6.91	19.7	7.87	nr	< 2.0	8.0	260	nr	1.71	0.30	0.07	4.03	< 0.04	824	< 0.01	0.06	nr	nr
		07/09/04	11:50 AM	nr	6.65	18.4	8.27	nr	< 2.0	5.0	94	nr	1.95	0.37	0.09	3.94	< 0.04	311	0.01	0.07	nr	< 1.0
		09/07/04	2:25 PM	nr	6.73	18.3	8.06	nr	< 2.0	0.5	110	nr	2.58	0.34	0.09	3.46	< 0.04	238	0.02	0.10	nr	53.0
		09/08/04	9:40 AM	nr	7.14	14.1	7.77	nr	< 2.0	2.0	88	nr	2.89	0.93	0.08	3.07	< 0.04	633	< 0.01	0.06	nr	nr
		11/10/04	1:45 PM	nr	6.44	8.8	10.6	nr	< 2.0	6.5	77	nr	1.93	0.11	< 0.05	3.32	< 0.04	673	< 0.01	0.04	nr	< 25
		11/11/04	12:40 PM	nr	6.50	9.0	10.2	nr	< 2.0	6.5	89	nr	1.93	0.21	< 0.05	3.41	< 0.04	691	< 0.01	0.03	nr	nr