

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PD4 mg/l	CHLORO-a mg/l	TEMP C	B.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
10	7/188	1530	M4		7.20	5.7	2.55	6.29	0.32	0.21	8.60	1.29	0.99	0.30	37.91	30.0	3.20	9.62	18.0	800
11	7/188	1530	M4	B	7.20	6.8	2.50	5.61	0.28	0.24	8.10	1.19	0.90	0.29	11.13	30.0	0.40	10.9	15.2	170
30	7/188	1820	M4	B	7.20	6.4	1.65	4.32	0.26	0.31	5.60	0.92	0.87	0.05	11.12	28.0	2.00	12.3	15.2	
29	7/188	1820	M4	T	7.20	6.3	2.40	4.67	0.26	0.28	5.40	1.02	0.83	0.19	9.84	27.0	2.30	12.1	14.4	
42	7/188	2205	M4	T	7.27	4.1	1.90	4.70	0.29	0.19	6.71	1.06	0.53	0.53	11.56	31.0	2.50	10.3	17.2	
43	7/188	2205	M4	B	7.34	4.1	1.90	4.80	0.29	0.29	6.44	1.01	0.84	0.17	3.96	30.0	2.00	11.2	10.4	
61	7/188	207	M4	T	7.34	5.1	3.45	6.10	0.40	0.01	8.42	1.30	0.68	0.62	14.52	31.0	1.30	7.87	18.4	
62	7/188	207	M4	B	7.34	5.1	2	5.96	0.38	0.02	8.42	1.32	0.65	0.67	18.05	31.0	1.00	9.30	31.2	
111	7/188	540	M4	B	7.31	8.7	4.55	5.55	0.81	0.13	7.56	1.23	0.58	0.65	13.73	31.0	1.70	8.08	26.2	
112	7/188	540	M4	T	7.29	15	3.20	5.35	0.30	0.14	8.12	1.36	0.79	0.57	4.07	30.0	0.60	9.73	46.8	
165	7/188	820	M4	T	7.28	4.6	2.50	4.60	0.28	0.17	6.79	1.27	0.42	0.85	33.10	28.0	1.40	10.9	11.2	
166	7/188	820	M4	B	7.30	5.3	2.35	4.26	0.28	0.18	8.07	1.27	0.64	0.63	9.67	29.0	0.80	10.6	17.6	
179	7/188	1100	M4	T	7.20	3.3	2.00	4.75	0.29	2.14	10.70	0.21	0.33	0.10	4.58	29.0	2.00	11.4	11.6	
180	7/188	1100	M4	B	7.28	4.4	2.25	4.70	0.29	1.97	10.5	1.56	0.33	1.23	7.05	28.0	2.00	10.8	16.0	3000
197	7/188	1420	M4	T	7.21	4.9	4.20	6.06	0.24	0.18	6.79	1.44	0.74	0.70	9.58	31.0	2.20	8.53	18.4	2890
198	7/188	1420	M4	B	7.20	4.5	2.52	5.96	0.38	0.04	11.12	1.41	0.63	0.78	16.97	30.0	0.40	8.75	16.2	
217	7/188	1644	M4	T	7.20	5.4	3.55	5.71	0.32	0.06	7.62	1.31	0.53	0.78	15.69	29.0	2.00	9.05	15.2	
218	7/188	1644	M4	B	7.20	6.1	2.35	4.97	0.28	0.10	10.83	1.19	0.50	0.69	2.31	29.0	0.70	10.7	15.6	
226	7/188	1950	M4	B	7.30	3.8	1.53	4.06	0.27	0.14	9.76	0.66	0.60	0.06	9.87	28.0	2.20	11.5	21.8	
225	7/188	1950	M4	T	7.30	3.55	2.52	4.34	0.28	0.12	5.75	1.02	0.61	0.41	6.73	28.0	1.90	11.7	16.2	
249	7/188	2155	M4	T	7.30	4.4	1.85	4.25	0.27	0.15	4.27	1.08	0.56	0.52	5.97	30.0	2.05	11.6	22.5	
250	7/188	2155	M4	B	7.26	4.3	1.75	4.26	0.28	0.14	3.95	1.01	0.45	0.56	9.67	30.0	1.90	12.0	30.5	
262	7/188	103	M4	T	7.23	4.5	3.38	5.96	0.36	0.05	7.32	1.28	0.49	0.79	12.59	30.0	1.00	10.3	13.7	
263	7/188	103	M4	B	7.30	4.6	3.4	5.65	0.35	0.05	5.73	1.23	0.65	0.78	8.67	31.0	0.00	9.27	16.4	
270	7/188	345	M4	T	7.25	4.3	3.30	6.38	0.40	0.02	5.98	1.31	0.49	0.82	23.1	33.0	0.60	9.21	16.5	
271	7/188	345	M4	B	7.31	3.9	3.55	6.26	0.38	0.03	6.75	1.36	0.50	0.86	*	32.0	0.70	8.88	23.0	
289	7/188	700	M4	T	7.28	3.5	2.95	5.44	0.30	0.07	4.07++	1.31	0.74	0.57	23.85	30.0	0.40	9.69	23.0	
290	7/188	700	M4	B	7.32	3.4	2.70	5.16	0.29	0.08	4.47++	1.19	0.51	0.68	11.65	27.0	2.00	10.7	20.0	17,000
315	7/188	1030	M4	T	7.18	3.9	3.05	5.27	0.29	0.13	4.92	1.15	0.54	0.61	12.11	28.0	1.30	11.1	14.0	5000
316	7/188	1030	M4	B	7.25	3.02	2.45	5.10	0.32	0.11	5.08	1.23	0.39	0.84	15.07	29.0	1.00	10.4	12.0	
329	7/188	1315	M4	B	7.21	4.1	3.5	5.50	0.30	0.31	5.49	1.45	0.62	0.83	17.60	30.0	1.40	9.15	17.2	
328	7/188	1315	M4	T	7.20	5.6	5.05	6.30	0.41	0.06	6.52	1.34	0.53	0.81	3.04	30.0	2.50	8.99	12.8	
347	7/188	1625	M4	T	7.20	4.3	3.90	6.42	0.37	0.11	6.87	1.23	0.37	0.86	6.29	30.0	0.70	10.6	11.1	
348	7/188	1625	M4	B	7.20	3.4	2.30	5.48	0.29	0.16	5.83	1.23	0.37	0.86	6.29	30.0	2.90	11.4	14.4	
360	7/188	1935	M4	T	7.18	4.3	2.70	4.55	0.28	0.23	5.19	1.12	0.21	0.91	2.23	27.0	2.40	11.8	18.8	
361	7/188	1935	M4	B	7.26	5.8	3.45	4.62	0.28	0.22	5.40	1.14	0.25	0.89	4.81	27.0	2.80	12.1	15.6	
374	7/188	2345	M4	B	7.12	4.5	4.45	4.36	0.24	0.26	4.96	1.16	0.85	0.31	2.32	27.0	2.80	11.7	16.0	
373	7/188	2345	M4	T	7.06	4.1	4.12	4.63	0.25	0.25	4.91	1.16	0.87	0.29	5.67	28.0	2.80	9.48	14.4	
387	7/188	119	M4	T	7.03	4.9	2.60	5.22	0.30	0.17	4.84	1.31	0.57	0.74	7.60	31.0	1.50	9.98	9.7	
388	7/188	119	M4	B	7.07	4.2	3.35	6.78	0.28	0.19	5.11	1.25	0.12	1.13	10.30	28.0	1.40	8.51	4.00	
400	7/188	348	M4	T	7.03	4.2	2.75	5.81	0.26	0.11	6.72	1.39	0.99	0.40	*	28.0	1.70	8.51	4.00	
401	7/188	348	M4	B	7.08	4.5	3.00	5.63	0.39	0.04	7.48	1.38	0.82	0.56	*	28.0	3.00	6.79	3.20	
425	7/188	804	M4	B	7.10	4.9	1.90	4.67	0.24	0.33	7.88	1.18	0.86	0.32	12.1	28.0	1.20	10.9	13.7	
424	7/188	804	M4	T	7.20	4.5	2.75	5.05	0.26	0.33	7.70	1.16	0.94	0.22	3.98	28.0	1.00	10.5	11.7	
442	7/188	1111	M4	T	7.10	3.1	2.30	4.47	0.26	0.33	8.67	1.21	0.94	0.27	4.26	29.0	2.30	11.2	25.0	1300
443	7/188	1111	M4	B	7.10	3.5	3.60	4.25	0.26	0.34	6.81	1.18	0.90	0.28	4.66	29.0	1.90	10.9	12.4	1300

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455	7/1488	1402	M4	T	7.07	3.9	1.73	5.64	0.33	0.21	6.92	1.43	1.05	0.38	8.39	3.80	9.62	13.5	
456	7/1488	1402	M4	B	7.02	2.6	2.20	5.02	0.29	0.23	5.86	1.35	0.99	0.36	9.65	0.70	10.4	10.0	
477	7/1488	1659	M4	T	7.15	5.2	3.40	1.88	0.38	0.10	2.07	1.17	0.93	0.24	13.9	1.90	9.05	13.6	
478	7/1488	1659	M4	B	7.13	2.8	2.10	5.15	0.30	0.13	4.84	1.32	0.88	0.44	9.19	1.40	10.1	10.2	
490	7/1488	1925	M4	T	7.06	4.4	2.85	4.49	0.26	0.16	2.42++	1.21	0.91	0.30	20.6	1.80	11.0	31.2	500
491	7/1488	1947	M4	B	7.14	4.6	2.55	4.55	0.27	0.15	2.30++	1.19	0.89	0.30	23.3	1.20	10.5	18.0	800
513	7/1588	120	M4	T	5.2	5.2	2.60	5.80	0.35	0.12	6.23	1.27	0.41	0.86	6.67	1.90	9.32	8.40	
514	7/1588	120	M4	B	4.6	4.6	2.15	4.97	0.16	0.14	8.21		0.78		52.9	2.20	10.3	22.4	
532	7/1588	500	M4	B	7.19	4.5	2.65	6.02	0.35	0.14	7.43	1.31	0.99	0.32	5.65	1.05	9.61	17.6	
531	7/1588	500	M4	T	7.17	3.8	3.00	6.31	0.35	0.16	8.15	1.30	0.96	0.34	17.1	1.10	9.45	30.4	
550	7/1588	735	M4	T	7.30	38.0	2.25	5.44	0.29	0.03	8.75	*	0.73	*	25.8		10.1	186	
551	7/1588	735	M4	B	7.30	55.0	3.40	5.20	0.29	0.06	8.28	0.21	0.22	<0.10	12.1		10.4	251	
565	7/1588	1035	M4	T	7.20	5.2	2.35	4.49	0.26	0.23	5.25	1.66	0.72	0.94	13.0	2.00	11.4	16.4	
566	7/1588	1035	M4	B	7.20	4.4	2.25	4.43	0.27	0.22	5.73	1.14	0.78	0.36	13.9	1.40	11.3	20.4	
586	7/1588	1347	M4	B	7.22	6.5	2.85	5.37	0.43	0.49	6.83	1.26	0.34	0.92	14.6		10.6	15.8	
585	7/1588	1347	M4	T	7.03	4.8	2.70	5.27	0.34	0.15	*	*	0.86	*	4.38	1.50	10.2	20.4	800
600	7/1588	1635	M4	T	7.20	5.1	4.05	6.63	0.41	0.17	6.11	1.37	0.30	1.07	36.4	3.20	8.96	19.0	2200
601	7/1588	1635	M4	B	7.27	5.2	4.18	5.88	0.39	0.18	5.83	1.38	0.55	0.83	47.1	1.70	9.40	17.5	
622	7/1588	1906	M4	T	7.13	7.3	3.10	4.92	0.28	0.19	5.60	1.13	0.78	0.35	4.90	2.50	10.5	19.6	
623	7/1588	1906	M4	B	7.22	8.3	2.95	4.68	0.28	0.19	5.85	1.12	0.78	0.34	8.57	1.90	10.9	28.2	
637	7/1588	2215	M4	B	7.28	5.2	2.80	3.87	0.26	0.25	2.40++	0.85	0.70	0.15	8.81	3.10	12.4	24.4	
636	7/1588	2215	M4	T	7.19	3.6	3.42	3.19	0.26	0.25	3.16	0.91	0.70	0.21	12.4	3.10	12.2	17.2	
656	7/1688	115	M4	T	7.20	3.5	2.40	2.43	0.32	0.39	3.08	0.79	0.15	0.64	30.0		15.1	12.4	
657	7/1688	115	M4	B	7.20	2.9	3.10	4.78	0.30	0.15	4.80	1.21	0.30	0.91	41.9		11.6	12.4	
669	7/1688	405	M4	T	7.10	2.9	3.10	5.34	0.38	0.10	6.43	1.35	0.53	0.82	28.1	1.20	10.2	10.8	
670	7/1688	405	M4	B	7.10	2.6	2.95	5.18	0.35	0.11	5.26	1.30	0.44	0.86	28.2	0.50	8.01	12.8	
695	7/1688	710	M4	B	7.20	3.4	2.40	5.74	0.35	0.10	5.59	1.27	0.38	0.89	48.0	0.40	9.85	15.6	
694	7/1688	710	M4	T	7.10	2.5	2.38	5.71	0.50	<0.05	5.44	1.30	0.38	0.92	36.2	0.70	10.7	19.1	
720	7/1688	1025	M4	T	7.20	2.9	3.30	5.90	0.39	4.74	5.88	1.29	0.87	0.42	<1.70	0.80	9.72	31.2	
721	7/1688	1025	M4	B	7.10	3.8	3.10	6.09	0.44	4.88	6.30	1.34	0.98	0.36	8.77	0.70	9.75	15.2	
735	7/1688	1408	M4	T	7.30	3.4	3.10	5.53	0.32	0.13	4.88++	1.17	0.61	0.56	14.1	0.70	10.5	25.8	
736	7/1688	1408	M4	B	7.30	2.8	2.65	5.10	0.30	0.14	4.48++	1.07	0.62	0.45	10.1	2.20	11.4	36.2	
752	7/1688	1632	M4	B	7.10	5.6	4.80	5.93	0.35	0.15	6.48	1.29	0.14	1.15	13.8	0.90	9.68	25.7	
751	7/1688	1632	M4	T	7.30	3.4	4.35	6.01	0.55	0.23	6.23	1.30	*	*	20.9	2.20	9.45	22.0	
772	7/1688	1919	M4	T	7.30	7.5	2.30	5.60	0.34	0.12	6.18	1.28	0.26	1.02	*	2.90	9.99	29.2	1100
773	7/1688	1919	M4	B	7.30	4.3	3.35	5.05	0.31	0.13	4.95	0.95	0.35	0.60	23.5	1.70	10.5	55.2	1700
815	7/1788	445	M4	T	7.06	3.6	2.45	6.53	0.46	0.07	6.72	1.32	0.87	0.45	54.8	0.80	8.20	15.6	
816	7/1788	445	M4	B	7.07	3.5	3.8	6.44	0.41	0.11	6.29	1.36	0.81	0.55	16.4	1.40	8.61	15.6	
835	7/1788	735	M4	B	7.08	4.2	3.2	6.23	0.39	0.12	6.11	1.30	0.89	0.41	7.12	0.90	9.79	13.0	14,000
834	7/1788	735	M4	T	7.11	3.0	4.28	6.45	0.39	0.14	5.87	1.34	0.96	0.38	20.7	0.60	8.84	12.6	14,000
860	7/1788	1115	M4	T	7.30	3.8	2.7	5.07	0.28	0.19	3.94++	1.14	0.71	0.43	13.7	2.00	11.5	15.6	50,000
861	7/1788	1115	M4	B	7.30	2.25	2.25	4.67	0.30	0.17	4.08++	1.09	0.45	0.64	11.4	1.70	12.1		
873	7/1788	1415	M4	T	7.00	4.4	3.58	5.62	0.31	0.15	5.24	1.23	0.79	0.44	16.7	3.00	10.9	16.0	
874	7/1788	1415	M4	B	7.00	3.6	2.05	4.81	0.28	0.18	7.53	1.14	0.76	0.38	10.6	2.00	12.2	11.6	
887	7/1788	1652	M4	B	7.29	4.0	2.45	5.65	0.32	0.13	10.75	1.22	0.78	0.44	30.6	1.70	9.19	15.2	
886	7/1788	1652	M4	T	7.21	3.3	3.45	6.28	0.47	0.10	1.29	0.85	0.44	0.44	55.1	1.70	13.1	13.7	

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															P04 mg/l	DP04 mg/l						
950	7/17/88	2219	M4	T	7.20	4.1	2.85		5.24	0.32	0.19	3.99++	1.16	0.77	0.39	8.60	28.0	2.60	10.4	16.0		
951	7/17/88	2219	M4	B	7.34	4.4	2.25		4.77	0.30	0.20	3.88++	1.15	0.40	0.75	12.0	27.0	1.40	11.1	1.60		
963	7/18/88	235	M4	T	7.29	4.69	2.65		7.45	0.40	0.13	3.91++	1.39	0.22	1.17	12.1	28.0	1.90	9.32	14.0		
964	7/18/88	235	M4	B	7.30	4.5	1.75		5.23	0.35	0.13	4.20++	1.23	0.19	1.04	11.9	28.0	1.70	10.4	17.2		
983	7/18/88	455	M4	B	7.20	3.4	2.60		5.88	0.47	0.12	9.71	1.35	0.23	1.12	12.8	30.0	0.50	9.07	17.6		
982	7/18/88	455	M4	T	7.26	3.9	2.05		6.02	0.49	0.11	8.40	1.30	0.25	1.05	40.9	29.0	0.60	9.30	11.6		
991	7/18/88	750	M4	T	7.44	5.2	2.20		5.79	0.41	0.19	9.67	1.40	0.89	0.51	33.8	29.0	0.40	8.77	13.2		
992	7/18/88	750	M4	B	7.45	5.1	2.30		5.50	0.39	0.16	4.20++	1.39	0.99	1.39	4.07	30.0	0.20	9.52	18.7		
1014	7/18/88	1030	M4	T	7.42	5.9	2.32	3.7	5.03	0.31	0.19	8.24	1.15	0.96	0.19	4.97	30.0		10.9	22.5	1300	
1015	7/18/88	1030	M4	B	7.46	6.6	2.37	4.1	4.78	0.30	0.17	5.41	1.10	0.97	0.13	8.43	30.0		10.8	34.5	2400	
1029	7/18/88	1345	M4	B	7.30	3.8	2.30		4.78	0.34	0.16	4.82	1.20	0.75	0.45	2.34	32.0	1.30	10.8	11.8	3000	
1028	7/18/88	1345	M4	T	7.30	3.8	2.30		4.95	0.35	0.15	6.31	1.29	0.31	0.98	17.1	33.0	2.10	10.87	20.0	5000	
1047	7/18/88	1621	M4	T	7.30	4.8	2.85		5.64	0.45	0.11	7.31	1.21	0.42	0.79	17.9	34.0	1.30	9.43	15.3		
1048	7/18/88	1621	M4	B	7.20	4.6	2.9		5.30	0.39	0.15	4.00++	1.27	0.43	0.84	19.1	33.0	1.30	10.1	11.6		
1062	7/18/88	2002	M4	T	7.20	5.1	4.00		5.96	0.45	0.17	6.00	1.14	0.64	1.14	29.4	32.0	1.00	9.15	15.4		
1063	7/18/88	2002	M4	B	7.20	4.8	2.50		5.58	0.41	0.18	6.10	1.37	0.79	1.37	9.98	31.0	0.50	9.72	16.0		
1084	7/18/88	2251	M4	B	7.40	5.1	2.70		6.07	0.49	0.11	6.39	0.21	0.53	0.10	21.4	28.0	1.10	8.81	16.9	230	
1083	7/18/88	2251	M4	T	7.30	6.0	2.70		6.15	0.51	0.12	6.20	0.41	0.32	0.09	32.7	29.0	1.00	8.51	16.0	1100	
1096	7/18/88	121	M4	T	7.30	4.0	2.35		5.34	0.33	0.20	4.91	0.03	0.36	0.10	5.29		4.60	11.1	12.0		
1097	7/18/88	121	M4	B	7.20	3.9	2.50		3.92	0.32	0.25	4.17	0.15	0.35	0.10	35.3		2.50	12.4	16.0		
1108	7/18/88	428	M4	T	7.10	4.8	3.40		5.80	0.41	0.15	5.40	1.24	0.95	0.29	10.5	30.0	0.70	10.4	9.6		
1109	7/18/88	428	M4	B	7.10	5.4	2.80		5.14	0.34	0.18	5.27	1.24	0.87	0.37	10.5	29.0	0.60	6.91	24.4		
1127	7/18/88	716	M4	B	7.00	5.9	3.00		0.59	0.42	0.14	5.56	1.24	0.39	0.85	7.67	32.1	0.40	7.54	19.0		
1126	7/18/88	716	M4	T	7.00	5.4	3.20		0.61	0.45	0.13	5.98	1.32	0.45	0.87	13.6	31.0	0.60	8.23	16.8		
1145	7/18/88	1100	M4	T	7.30	4.4	4.3	9.98	0.55	0.36	0.17	6.29	1.20	0.91	0.29	20.0	29.0	0.40	9.91	24.8		
1146	7/18/88	1100	M4	B	7.00	2.9	4.75	11.9	5.62	0.35	0.16	9.38	1.11	0.89	0.22	5.79	30.0	0.60	8.74	15.8		
1158	7/18/88	1351	M4	T	7.00	3.9	2.70		4.77	0.31	0.22	5.97	3.98	0.87	3.11	22.23	31.0	1.00	11.4	5.2		
1159	7/18/88	1351	M4	B	7.00	3.8	3.00		4.61	0.30	0.23	4.05	3.34	0.84	2.50	6.34	30.0	1.40	9.94	11.3	500	
1178	7/18/88	1608	M4	B	6.94	4.6	2.60		4.94	0.32	0.17	7.49	4.03	0.34	3.69	11.4	31.0	1.90	11.0	10.4	1700	
1177	7/18/88	1608	M4	T	6.97	5.9	3.25		5.86	0.38	0.12	3.85++	4.53	0.43	4.10	24.5	31.0	1.70	9.71	15.4		
1191	7/18/88	1852	M4	T	6.88	6.3	4.48		6.28	0.47	0.09	7.81	5.06	0.44	4.62	6.44	33.0	1.50	8.62	15.6		
1192	7/18/88	1852	M4	B	6.87	5.4	4.00		6.14	0.45	0.11	4.63++	4.84	0.43	4.41	20.8	33.0	0.70	9.10	14.0		
1270	7/20/88	435	M4	T	6.0	6.0	1.80		6.50	0.38	0.19	10.39	1.44	0.93	0.51	*	32.0	2.10	8.72	17.8		
1271	7/20/88	435	M4	B	4.5	4.5	2.50		6.34	0.39	0.13	15.15	1.53	0.97	0.56	*	30.0	2.20	8.70	12.8		
1291	7/20/88	750	M4	B	5.6	5.6	2.90		6.50	0.47	0.16	7.78	1.29	0.42	0.87	3.19	32.0	0.60	7.86	11.8		
1290	7/20/88	750	M4	T	4.8	4.8	3.20		6.63	0.45	0.05	8.21	1.26	0.41	0.85	6.91	31.0	0.90	7.56	14.6		
1309	7/20/88	1102	M4	T	4.8	4.8	2.80		5.64	0.36	0.12	5.59	1.22	0.14	1.08	*	30.0	0.10	9.01	12.0		
1310	7/20/88	1102	M4	B	5.6	5.6	2.70		5.87	0.35	0.13	6.45	2.68	0.03	2.65	8.99	31.0	0.20	8.42	9.8		
1322	7/20/88	1427	M4	T	7.08	4.6	4.15	7.63	5.336	0.32	0.13	6.31	3.04	0.98	2.06	7.08	30.0	1.20	9.06	12.0	9000	
1323	7/20/88	1427	M4	B	7.12	4.0	3.2	6.18	5.66	0.33	0.09	5.05	3.07	1.00	2.07	2.73	30.0	1.00	8.69	9.6	>160,000	
1349	7/20/88	1612	M4	B	6.87	3.8	2.50		6.02	0.32	0.23	7.07	0.30	0.73	0.10	*	30.0	1.20	7.61	10.6		
1348	7/20/88	1612	M4	T	6.86	4.9	3.90		6.17	0.36	0.20	12.92	0.30++	0.84	++	1.95	30.0	1.00	7.25	14.8		
1356	7/20/88	1901	M4	T	6.78	4.4	3.90		5.65	0.30	0.22	7.78	1.22	0.45	0.77	6.75	32.0	2.20	7.43	22.8		
1357	7/20/88	1901	M4	B	6.78	4.0	2.70		5.56	0.47	0.31	6.55	1.34	0.48	0.86	7.20	31.0	0.40	7.97	24.4		
1396	7/21/88	144	M4	T	8.00	3.3	2.40		4.95	0.33	0.23	6.65	1.13	0.46	0.67	*	28.0	0.90	9.24	24.8	9000	
1397	7/21/88	144	M4	B	8.00	3.5	2.30		4.50	0.31	0.19	5.95	1.04	0.43	0.61	3.27	28.0	0.40	9.96	33.6	24,000	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PO4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
1416	72188	402	M4	B	7.40	3.1	1.50	4.54	0.32	0.05	3.72++	1.15	0.90	0.25	11.9	28.0	0.10	9.06	10.0	
1415	72188	402	M4	T	6.80	3.6	2.00	4.56	0.37	0.15	4.16	1.14	0.89	0.25	5.95	29.0	0.40	7.97	9.2	
1428	72188	740	M4	T	7.10	4.8	4.65	5.45	0.47	0.11	4.87	1.80	0.86	0.94	3.52	30.0	0.70	6.89	18.8	
1429	72188	740	M4	T	7.20	6.2	3.1	4.76	0.46	0.20	3.59	1.15	0.83	0.32	8.07	30.0	0.50	7.07	38.0	
1445	72188	1000	M4	T	7.20	6.0	2.25	4.75	0.38	0.13	5.65	1.26	0.86	0.40	8.04	29.0	0.10	6.53	19.4	
1446	72188	1000	M4	B	7.20	5.1	2.45	4.39	0.39	0.20	5.39	1.16	0.88	0.28	*	29.0	0.30	8.89	28.0	
1459	72188	1318	M4	B	7.20	4.3	2.30	4.53	0.31	0.15	5.69	1.17	0.86	0.31	6.68	29.0	1.10	8.89	20.8	
1458	72188	1318	M4	T	7.20	4.2	2.05	4.08	0.31	0.16	5.36	1.17	0.85	0.32	11.76	29.0	1.40	8.69	30.4	
1483	72188	1633	M4	T	7.05	4.7	2.20	4.31	0.29	0.15	6.22	1.29	0.75	0.54	7.23	29.0	1.10	9.24	12.4	
1592	72288	1130	M4	B	7.10	4.5	1.50	4.55	0.29	0.15	5.64	1.14	0.70	0.44	2.89	29.0	0.80	9.60	12.4	
1593	72288	1130	M4	T	7.40	5.5	2.05	5.27	0.44	0.02	4.49	*	0.38	*	*	29.0	5.10	4.90	52.8	30,000
1606	72288	1433	M4	B	7.40	4.2	1.68	5.14	0.33	0.02	4.42++	++	0.39	++	17.8	27.0	0.40	7.97	73	
1605	72288	1433	M4	B	7.30	4.8	1.70	5.16	0.32	0.05	11.99	1.10	0.41	0.69	5.95	28.0	0.90	6.71	15.0	
1620	72288	1644	M4	T	7.80	6.2	2.65	4.68	0.29	0.07	14.31	1.06	0.40	0.66	7.34	28.0	1.20	7.97	27.7	
1621	72288	1644	M4	B	7.80	6.0	2.15	6.99	0.34	0.06	8.41	0.94	0.87	0.07	24.0	29.0	1.30	5.63	11.0	
1633	72288	1830	M4	T	7.10	5.6	2.90	4.89	0.33	0.05	5.52	1.10	0.89	0.21	*	28.0	0.85	4.18	24.5	
1634	72288	1830	M4	B	7.50	5.0	3.40	4.88	0.38	0.08	6.15	0.99	0.82	0.17	11.5	30.0	1.70	5.81	15.3	
1658	72288	2250	M4	B	7.80	5.5	2.35	4.90	0.36	0.07	5.35	1.03	0.85	0.18	15.5	29.0	1.40	5.26	14.0	
1657	72288	2250	M4	T	7.70	5.7	4.12	4.61	0.41	0.22	8.97	0.98	0.42	0.56	19.7	29.0	0.20	4.90	12.4	
1676	72388	215	M4	T	8.10	4.0	1.05	4.64	0.41	0.05	6.54	*	0.33	*	15.9	29.0	0.70	5.08	14.9	
1677	72388	215	M4	B	8.00	3.4	2.00	4.92	0.28	0.06	10.51	1.05	0.99	0.06	5.96	27.0	1.50	7.43	12.4	
1689	72388	525	M4	T	7.00	3.9	2.35	4.60	0.27	0.07	5.12	1.02	0.98	0.04	5.14	28.0	0.30	7.79	10.0	
1690	72388	525	M4	B	7.00	3.3	2.05	4.54	0.31	0.12	5.28	1.15	0.95	0.20	6.83	28.0	1.00	5.81	11.2	
1703	72388	815	M4	B	7.30	5.0	2.15	4.50	0.30	0.10	4.86	1.11	0.95	0.16	6.24	28.0	0.80	5.26	13.3	
1702	72388	815	M4	T	7.30	5.4	2.55	4.61	0.34	0.09	5.43	1.02	0.62	0.40	14.4	30.0	0.40	5.63	16.9	
1717	72388	1027	M4	T	7.30	5.2	3.65	4.56	0.35	0.09	5.55	1.06	0.62	0.44	13.4	29.0	0.70	5.45	19.1	
1718	72388	1027	M4	B	7.30	4.8	2.55	4.68	0.33	0.11	5.94	1.10	0.62	0.48	71.4	29.0	1.00	5.26	16	
1730	72388	1240	M4	T	7.31	5.3	3.70	4.69	0.34	0.08	5.94	1.19	0.57	0.62	50.7	29.0	0.20	5.08	12.8	
1731	72388	1240	M4	B	7.26	4.3	2.65	4.39	0.32	0.08	5.64	1.09	0.47	0.62	53.1	29.0	0.20	5.45	13.6	
1757	72388	1615	M4	B	7.45	3.4	1.45	4.61	0.28	0.07	5.05	1.38	0.44	0.94	18.0	29.0	0.10	5.63	13.6	
1756	72388	1615	M4	T	7.46	4.2	1.45	4.35	0.27	0.08	5.16	1.09	0.90	0.19	19.3	28.0	0.90	7.07	7.6	
1770	72388	2000	M4	T	7.90	5.0	2.00	4.35	0.27	0.06	6.20	1.15	0.97	0.18	4.96	28.0	1.10	7.43	8.4	
1771	72388	2000	M4	B	8.00	4.3	2.20	5.26	0.53	0.05	8.15	1.12	1.08	0.04	13.9	29.0	3.40	7.07	16.8	
1873	72488	535	M4	B	7.24	4.1	1.65	4.95	0.26	0.12	6.67	0.98	1.09	0.10	7.04	29.0	2.70	5.45	18.4	
1872	72488	535	M4	T	7.25	4.0	1.70	4.95	0.26	0.12	6.67	0.98	1.09	0.10	36.2	29.0	0.50	4.54	15	
1886	72488	855	M4	T	7.85	5.8	2.05	4.98	0.29	0.01	6.18	0.79	0.98	0.10	8.09	28.0	1.30	6.17	12.9	
1887	72488	855	M4	B	7.74	5.3	1.85	4.99	0.28	0.01	5.43	0.89	0.45	0.44	32.7	28.0	1.80	4.72	14.8	
1908	72488	1107	M4	T	7.36	6.0	3.25	4.80	0.29	0.03	4.96	1.16	0.93	0.23	56.3	29.0	0.70	5.63	13.6	
1909	72488	1107	M4	B	7.34	14.0	2.6	4.74	0.14	5.01	5.01	1.35	0.36	0.99	31.3	29.0	1.50	4.90	21	
1916	72488	1417	M4	T	7.20	5.9	1.55	4.14	0.22	0.12	5.14	0.99	0.74	0.25	32.5	27.0	0.80	5.08	39.7	
1917	72488	1417	M4	B	7.20	5.7	1.45	4.06	0.22	0.12	4.05	0.95	0.77	0.18	44.8	27.0	1.00	4.18	16.8	
2000	72488	1634	M4	B	7.80	3.9	1.15	4.47	0.24	0.07	4.93	1.05	0.95	0.21	1.86	28.0	1.50	5.81	14.2	
1999	72488	1634	M4	T	8.00	3.9	1.7	4.20	0.23	0.07	3.85	1.02	0.95	0.07	2.32	29.0	2.00	5.08	17.2	
1940	72488	1832	M4	B	8.00	3.7	1.15	4.20	0.23	0.39	4.60	1.07	0.69	0.18	23.2	28.0	2.15	13.57	11.4	
1939	72488	1832	M4	T	8.20	4.3	4.0	4.20	0.22	0.11	5.32	0.97	0.84	0.13	19.2	28.0	2.70	5.63	13.6	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC		CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
															PD4 mg/l	PO4 mg/l						
1950	72488	2400	M4	T	8.00	5.9	2.75		4.41	0.27	0.07	4.35	0.95	0.75	0.20	20.8	29.0	1.40	4.54	15		
1951	72488	2400	M4	B	8.00	5.0	3.23		4.54	0.26	0.06	4.66	1.10	0.75	0.35	33.5	29.0	1.15	4.54	11.7		
1975	72588	312	M4	T	8.00	3.6	2.35		4.71	0.24	0.08	3.91++	0.98	0.97	0.01	32.9	26.0	2.10	5.26	14.7		
1976	72588	312	M4	B	7.80	3.0	2.05		4.63	0.23	0.08	5.15	1.09	0.98	0.11	30.3	26.0	1.70	6.35	18		
1987	72588	556	M4	B		4.3			4.43	0.23	0.08	5.97	1.06	0.99	0.07	25.6	27.0	1.00	5.81	11		
1986	72588	556	M4	T		4.8	1.45		3.99	0.20	0.11	5.02	1.01	0.87	0.14	30.5	27.0	0.90	5.99	7.9		
2008	72588	855	M4	T	7.40	5.6	2.6		4.37	0.25	0.09	2.83++	0.80	0.83	<0.10	23.8	27.0	1.50	4.36	15.7		
2009	72588	855	M4	B	7.90	4.3	2.05		4.54	0.24	0.07	3.29++	0.96	0.94	0.02	17.7	27.0	1.50	4.90	17.2		
2031	72588	1153	M4	T	7.51	6.7	2.4		4.40	0.26	0.09	5.07	0.90	0.79	0.11	22.2	30.0	4.1	4.60	21.4		
2032	72588	1153	M4	B	7.41	6.4	2.3		4.54	0.25	0.08	4.16	0.92	0.80	0.12	32.6	30.0	1.3	4.18	20		

NOTES: # - Insufficient sample for repeat analysis

++ - Matrix Interference

++ - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

++ - Estimated

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	CBOD5 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PD4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
12	7/1/88	1600	M5	1	7.26	4.6	3.65		6.43	0.51	0.13	7.70	1.27	0.90	0.37	46.75	28.5	2.80	8.29	20.4	800
13	7/1/88	1600	M5	8	7.30	6.1	4.00		6.42	0.48	0.19	6.90	1.29	0.88	0.41	48.74	30.0	4.20	8.30	15.6	500
32	7/1/88	1851	M5	8	7.26	6.1	3.00		6.34	0.33	0.33	8.50	1.26	1.07	0.19	10.80	31.0	1.10	9.19	17.8	
31	7/1/88	1851	M5	1	7.22	6.1	2.50		6.43	0.32	0.13	8.60	0.92	1.01	0.10	27.70	30.0	2.00	9.54	15.2	
44	7/1/88	2235	M5	1	7.31	4.6	2.38	4.53	6.69	0.38	6.88	18.4	1.23	1.03	0.20	10.32	31.0	0.70	8.34	13.2	
45	7/1/88	2235	M5	8	7.28	3.9	1.35	5.78	2.89	0.34	0.14	8.10	1.21	1.00	0.21	17.03	30.0	0.50	7.96	12.4	
63	7/1/88	237	M5	1	7.40	13.0	3.75		6.37	1.14	0.05	7.28	0.87	0.41	0.46	38.00	30.0	1.50	7.24	30.0	
64	7/1/88	237	M5	8	7.40	9.8	3.30		4.19	1.15	0.05	5.65	0.80	0.41	0.49	61.03	30.0	1.50	6.31	30.4	
113	7/1/88	612	M5	8	7.29	8.0	5.55		6.60	0.46	0.06	9.57	1.46	0.90	0.56	7.32	31.0	0.60	6.85	28.4	
114	7/1/88	612	M5	1	7.31	8.1	3.50		6.48	0.44	0.06	9.62	3.37	0.91	2.46	11.06	31.0	1.20	6.85	27.8	
167	7/1/88	850	M5	1	7.30	6.4	3.15		6.12	0.42	0.06	8.70	1.18	0.62	0.56	6.76	31.0	1.40	8.35	16.0	
168	7/1/88	850	M5	8	7.32	6.0	2.75		6.07	0.39	0.06	9.76	1.37	0.57	0.80	9.61	31.0	0.20	8.80	15.8	
181	7/1/88	1125	M5	1	7.23	5.1	3.10		6.23	0.44	0.04	9.66	1.48	0.45	1.03	25.03	30.0	2.00	8.52	28.4	
182	7/1/88	1125	M5	8	7.32	3.4	1.95		6.30	0.45	0.05	13.0	1.26	0.48	0.78	6.80	30.0	2.50	8.48	16.4	
199	7/1/88	1455	M5	1	7.26	6.2	3.62		5.93	0.38	0.83	8.67	1.06	0.60	0.46	54.69	29.0	2.10	7.57	22.0	2410
200	7/1/88	1455	M5	8	7.27	6.0	4.10		3.80	1.27	0.05	5.60	1.09	0.37	0.72	50.06	28.0	4.30	8.91	23.4	9000
219	7/1/88	1710	M5	1	7.20	5.2	3.38		5.62	0.64	0.05	10.81	1.22	0.47	0.75	2.52	33.0	0.70	8.64	19.6	
220	7/1/88	1710	M5	8	7.30	6.1	3.70	5.0	5.69	0.61	0.05	12.04	1.27	0.47	0.80	*	31.0	2.40	8.20	13.6	
228	7/1/88	2009	M5	8	7.30	4.1	1.73	5.9	5.74	0.37	0.05	6.88	1.28	0.56	0.72	13.63	32.0	1.20	8.96	76.2	
227	7/1/88	2009	M5	1	7.30	3.3	2.38		6.15	0.41	0.05	7.50	1.31	0.58	0.73	43.23	32.0	1.50	8.40	19.0	
251	7/1/88	2255	M5	1	7.27	8	1.55		5.97	0.39	0.05	6.41	1.22	0.35	0.87	15.69	33.0	1.00	9.33	19.3	
252	7/1/88	2255	M5	8	7.27	4.7	1.65		5.71	0.32	0.08	5.15++	1.39	0.56	0.83	10.68	31.0	0.40	9.61	29.0	
264	7/1/88	125	M5	1	7.26	14.0	5.72		5.17	0.78	0.05	6.14	1.00	0.47	0.53	11.83	33.0	0.30	9.27	59.0	
265	7/1/88	125	M5	8	7.32	15.0	5.50		5.84	0.78	0.05	8.68	1.00	0.45	0.55	2.67	31.0	0.20	8.48	61.0	
273	7/1/88	357	M5	8	7.32	52.0	6.70		3.46	1.61	0.05	4.84	0.75	0.32	0.43	159.9	35.0	0.20	6.52	258.0	
272	7/1/88	357	M5	1	7.26	38.0	4.85		3.42	1.57	0.05	5.58	0.98	0.29	0.89	126	33.0	0.30	8.32	33.2	
291	7/1/88	721	M5	1	7.28	7.5	3.05		6.09	0.63	0.05	6.01	1.49	1.03	0.46	29.24	31.0	2.00	8.35	45.6	
292	7/1/88	721	M5	8	7.33	38.0	3.50		6.52	0.46	0.02	6.30	1.40	0.69	0.51	33.10	34.0	0.40	8.60	14.4	9000
317	7/1/88	1052	M5	1	7.19	4.3	3.00		6.56	0.40	0.04	2.28++	1.37	0.63	0.74	2.54	30.0	1.40	8.79	14.8	16,000
318	7/1/88	1052	M5	8	7.25	4.7	2.00		6.97	0.94	0.02	6.28	1.33	0.48	0.85	78.12	30.0	1.50	7.89	25.6	
331	7/1/88	1337	M5	1	7.13	8.3	5.35	7.025	6.05	0.96	0.05	6.87	1.29	0.48	0.81	85.94	30.0	1.50	7.67	28.0	
330	7/1/88	1337	M5	8	7.32	5.6	4.88	11.55	5.23	1.22	0.27	6.28	1.16	0.26	0.90	47.5	30.0	3.20	7.30	18.4	
349	7/1/88	1648	M5	1	7.26	4.5	5.18		5.84	1.07	0.12	6.26	1.24	0.37	0.87	43.4	30.0	1.90	7.89	20.0	
350	7/1/88	1648	M5	8	7.20	3.9	3.25		6.56	0.39	0.12	7.37	1.39	0.38	1.01	6.99	29.0	2.50	8.95	15.2	2400
363	7/1/88	2005	M5	1	7.26	36	3.85		6.29	0.36	0.14	6.08	1.36	0.37	0.99	2.96	29.0	1.90	9.30	17.6	3000
376	7/1/88	2345	M5	8	7.09	4.3	3.00		5.81	0.34	0.17	6.36	1.39	0.30	0.30	9.22	28.0	1.20	9.92	23.2	
375	7/1/88	2345	M5	1	7.06	5.0	3.60		5.99	0.35	0.20	4.02	1.39	0.98	0.41	11.9	28.0	1.30	9.36	25.2	
389	7/1/88	133	M5	1	7.05	8.1	3.35		6.07	0.54	1.19	4.82++	1.40	0.74	0.66	60.16	30.0	1.80	7.80	29.6	
390	7/1/88	133	M5	8	7.09	8.5	6.10		5.98	0.51	0.05	6.74	1.34	0.74	0.60	36.62	30.0	2.10	7.50	39.6	
402	7/1/88	402	M5	1	7.07	8.1	3.50		3.99	1.40	0.15	5.83	1.17	0.49	0.68	*	28.0	1.80	6.78	6.40	
403	7/1/88	402	M5	8	7.10	76	4.35		3.90	1.38	0.03	5.48	1.16	0.45	0.71	*	28.0	1.70	6.16	61.6	
404	7/1/88	425	M5	1	7.20	35.0	7.80		0.14	1.13	0.42	2.97	0.80	0.05	0.80	87.38	26.0	9.20	2.36	19.3	
426	7/1/88	830	M5	1	7.06	6.36	3.90		6.21	0.44	0.21	9.39	1.46	1.13	0.33	11.90	29.0	0.80	8.70	17.0	
427	7/1/88	830	M5	8	7.00	6.5	3.60		6.17	0.40	0.19	7.86	1.48	1.00	0.48	26.5	30.0	0.70	8.76	19.2	
444		1129	M5	1	7.00	3.8	3.50		5.82	0.37	0.23	1.19	1.41	1.08	0.33	19.1	30.0	1.40	8.84	11.2	300

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	WQ3 mg/l	WQ2 mg/l	WQ3 mg/l	TKN mg/l	TPD4 mg/l	OPD4 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
445	7/14/88	1129	W5	B	7.00	3.6	3.40	5.99	0.21	0.92	7.58	1.45	1.31	0.14	21.5	30.0	1.40	6.78	14.5	500
457	7/14/88	1444	W5	T	7.24	7.8	4.68	5.18	0.92	0.16	6.59	1.43	0.85	0.58	72.4	31.0	3.50	8.02	26.8	
458	7/14/88	1444	W5	B	7.19	6.2	4.28	5.18	0.83	0.22	7.98	1.41	0.79	0.62	68.2	31.0	3.50	8.06	28.8	
479	7/14/88	1721	W5	T	7.24	6.9	4.10	3.76	1.45	<0.05	4.34	1.21	0.66	0.55	158.2	30.0	6.00	7.64	3.60	
480	7/14/88	1721	W5	B	7.40	7.5	3.92	3.75	1.39	0.49	4.15	1.25	0.65	0.60	11.6	30.0	4.60	7.58	14.0	
492	7/14/88	2020	W5	T	7.08	4.8	4.10	6.32	0.40	0.11	2.77**	1.35	0.99	0.36	26.13	31.0	2.80	8.59	15.6	210
494	7/14/88	2020	W5	B	7.09	13.0	5.65	6.52	0.52	0.08	6.63	1.46	0.49	0.97	39.4	22.9	2.60	8.27	39.6	
515	7/15/88	140	W5	T	4.8	2.75		6.42	0.50	0.08	5.54**	1.45	0.48	0.97	12.8	32.0	0.70	8.02	15.2	
516	7/15/88	140	W5	B	5.3	2.80		4.35	1.72	0.05	5.29	1.42	0.35	1.07	83.8	29.0	2.80	7.08	30.4	
534	7/15/88	500	W5	B	7.23	4.8	4.05	4.19	1.43	0.39	5.27	1.40	0.45	0.95	89.8	28.0	2.80	7.21	30.0	
533	7/15/88	500	W5	T	7.13	7.1	3.90	5.97	0.68	0.13	8.06	1.44	0.50	0.94	45.3	30.0	1.90	8.28	30.8	
552	7/15/88	755	W5	T	7.30	8.9	2.65	5.96	0.08	0.70	6.79	1.35	0.50	0.85	21.15	31.0	0.70	7.88	50.4	
553	7/15/88	755	W5	B	7.30	9.8	2.45	5.95	0.37	0.16	7.70	1.43	0.92	0.51	11.77	31.0	1.50	9.15	17.4	
567	7/15/88	1055	W5	T	7.20	7.2	2.85	5.83	0.36	0.17	7.60	1.42	0.89	0.53	22.35	30.0	0.80	9.12	20.3	
568	7/15/88	1055	W5	B	7.20	4.9	2.50	6.36	0.55	8.18	7.58	1.50	0.94	0.56	5.88	31.0	1.20	8.41	24.2	
588	7/15/88	1409	W5	B	7.14	3.25		6.22	0.61	0.13	7.95	1.43	0.91	0.52	31.3	31.0	2.30	8.36	24.3	
587	7/15/88	1409	W5	T	7.16	5.9	3.85	6.22	0.61	0.13	7.95	1.43	0.91	0.52	31.3	31.0	2.30	8.36	24.3	
602	7/15/88	1700	W5	T	7.24	7.1	5.93	3.85	1.83	0.02	5.13	1.19	0.52	0.67	42.55	30.0	6.70	7.42	46.0	2300
603	7/15/88	1700	W5	B	7.42	8.8	6.53	3.36	1.77	0.09	3.79	1.17	0.69	0.48	42.98	30.0	8.00	7.44	48.4	11,000
624	7/15/88	1927	W5	T	7.13	8.1	4.15	5.46	0.67	0.14	6.61	1.25	0.83	0.42	44.21	32.0	3.50	8.63	35.4	
625	7/15/88	1927	W5	B	7.19	7.6	4.05	5.56	0.57	0.12	6.76	1.27	0.89	0.38	29.86	32.0	2.10	8.72	40.0	
639	7/15/88	2236	W5	T	7.22	6.5	4.28	5.33	0.40	0.18	4.98**	1.37	0.89	0.48	13.80	31.0	2.00	9.38	21.2	
638	7/15/88	2236	W5	T	7.15	6.5	4.32	5.43	0.41	0.19	6.89	1.11	0.84	0.27	16.85	31.0	2.30	9.30	20.6	
658	7/16/88	135	W5	T	7.20	3.0	3.00	4.26	0.29	0.15	4.95	1.10	0.36	0.74	52.7	30.0	0.80	9.10	15.0	
659	7/16/88	135	W5	B	7.20	3.8	5.80	5.78	0.49	0.09	5.30	1.37	0.62	0.75	47.5	30.0	0.80	9.11	18.6	
671	7/16/88	425	W5	T	7.20	6.6	3.95	3.82	1.39	0.04	4.08	*	0.44	*	29.49	29.0	2.00	7.90	35.0	
672	7/16/88	425	W5	B	7.20	7.1	4.20	3.91	1.39	<0.05	4.81	0.99	0.72	0.27	5.34	30.0	2.20	8.20	37.2	
697	7/16/88	740	W5	B	7.20	6.1	4.25	5.54	0.90	<0.05	5.85	1.29	0.42	0.87	159.3	30.0	0.80	9.58	28.9	
696	7/16/88	740	W5	T	7.20	9.3	3.60	5.67	0.92	<0.05	5.63	1.17	0.43	0.74	144.8	30.0	0.80	8.84	31.4	
722	7/16/88	1045	W5	T	7.20	2.9	2.55	4.57	0.28	5.93	3.98**	1.17	0.79	0.38	4.34	30.0	1.80	11.7	11.6	
723	7/16/88	1045	W5	B	7.20	2.8	2.15	4.37	0.28	9.16	5.33	1.12	0.23	0.89	34.3	32.0	1.20	8.63	22.5	
737	7/16/88	1428	W5	T	7.30	3.1	4.20	6.16	0.63	0.02	6.70	1.23	0.60	0.63	35.1	31.0	0.80	8.74	20.0	
738	7/16/88	1428	W5	B	7.40	6.4	3.50	6.22	0.57	0.05	5.85**	1.27	0.46	0.81	35.1	31.0	0.80	7.67	49.6	
754	7/16/88	1654	W5	B	7.40	20.0	4.06	3.93	1.56	<0.05	5.64	1.40	0.45	0.95	135.0	31.0	5.50	7.04	62.0	5000
753	7/16/88	1654	W5	T	7.50	14.0	4.12	3.80	1.62	<0.05	5.27	1.07	0.33	0.74	129.2	31.0	6.00	8.78	32.4	9000
774	7/16/88	1942	W5	T	7.10	6.6	4.38	5.62	0.81	0.06	6.56	1.30	0.32	0.98	114.6	34.0	3.80	8.82	33.7	
775	7/16/88	1942	W5	B	7.30	6.4	4.38	5.64	0.79	0.06	6.55	1.25	0.36	0.89	<7.28	33.0	3.30	8.82	33.7	
817	7/17/88	505	W5	T	7.03	6.9	5.12	2.81	2.11	<0.05	3.55	1.16	0.49	0.67	108.7	29.0	3.00	7.15	42.0	
818	7/17/88	505	W5	B	7.08	4.9	5.22	2.67	2.16	<0.05	3.17	1.20	0.53	0.67	151.2	29.0	2.10	7.05	43.2	
837	7/17/88	805	W5	B	7.16	3.9	3.82	5.25	1.03	0.02	6.11	1.32	0.76	0.56	59.3	30.0	0.80	8.44	27.2	9000
836	7/17/88	805	W5	T	7.11	4.7	3.95	5.23	1.10	0.02	5.43	1.22	0.79	0.43	128.0	30.0	1.00	8.12	26.4	90,000
862	7/17/88	1135	W5	T	7.10		3.25	6.47	0.51	0.06	6.50	1.27	0.35	0.92	37.3	32.0	0.60	9.11	12.0	
863	7/17/88	1135	W5	T	7.20		2.6	6.34	0.44	0.07	5.38**	1.28	0.30	0.98	24.3	31.0	0.60	9.72	12.8	
875	7/17/88	1435	W5	T	7.00	4.6	4.5	6.19	0.86	<0.05	13.00	1.27	0.74	0.53	13.1	31.0	3.20	8.78	15.6	
876	7/17/88	1435	W5	B	7.00	4.7	3.7	6.25	0.56	0.03	6.79	1.30	0.83	0.47	35.9	31.0	2.10	9.18	17.8	
889	7/17/88	1714	W5	B	7.29	20.0	6.05	3.76	1.59	0.67	5.37	1.31	0.52	0.79	*	31.0	3.60	7.88	56.4	

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY	CBOD5	CBOD20	NH3	NO2	NO3	TKN	TP04	DP04	ORGANIC P04	CHLORO-a	TEMP	D.O.	SALINITY	TSS	FEC. COL.	(MPN)
						ntu	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	C	mg/l	ppt	mg/l	org/100ml	
888	7/17/88	1714	M5	1	7.21	7.9	2.04		3.72	1.71	<0.05	12.13	0.86	0.54	0.32	128.2	31.0	3.70	7.74	54.0		
952	7/17/88	2236	M5	1	7.37	5.1	3.33		6.46	0.55	0.11	3.28++	1.47	0.42	1.05	11.3	32.0	1.70	8.16	17.8		
953	7/17/88	2236	M5	8	7.31	5.9	3.15		6.26	0.48	0.11	2.43++	1.31	0.43	0.88	4	32.0	1.70	7.89	37.6		
945	7/18/88	255	M5	1	7.26	6.3	3.05		6.24	0.67	0.07	5.73	1.23	0.21	1.02	17.1	29.0	0.60	7.80	25.8		
966	7/18/88	255	M5	8	7.29	7.4	2.3		6.08	0.64	0.05	5.85	1.17	0.24	0.93	55.8	30.0	0.90	8.80	6.40		
984	7/18/88	515	M5	1	7.27	16.0	3.70		3.74	1.89	<0.05	8.01	1.20	0.22	0.98	115.9	28.0	0.50	7.65	61.6		
985	7/18/88	515	M5	8	7.27	3.8	1.75		3.79	1.97	<0.05	8.76	1.20	0.22	0.98	144.2	28.0	0.60	7.52	76.4		
993	7/18/88	823	M5	1	7.39	4.8	3.40		4.40	1.42	<0.05	<0.20++	0.83	0.20	0.63	145.9	28.0	0.50	7.65	61.6		
994	7/18/88	823	M5	8	7.45	5.6	4.12		4.31	1.37	<0.05	<0.20++	1.23	0.72	1.23	88.6	29.0	0.70	8.07	25.5		
1016	7/18/88	1053	M5	1	7.41	4.9	4.05		5.70	0.58	0.12	10.36	1.27	0.94	0.33	<1.82	28.0	1.00	8.74	31.4		
1017	7/18/88	1053	M5	8	7.45	8.6	2.0		6.02	0.46	0.09	<0.20++	1.34	1.02	0.32	30.7	27.0	0.20	8.08	32.2		
1031	7/18/88	1410	M5	1	7.30	5.4	4.33	4.8	5.72	0.53	0.13	6.22	1.21	0.08	1.13	21.8	34.0	0.50	8.20	21.4		
1030	7/18/88	1410	M5	1	7.30	5.4	4.33	7.05	5.67	0.60	0.12	7.22	1.29	0.09	1.20	15.9	35.0	0.30	8.65	23.1		
1049	7/18/88	1707	M5	1	7.30	5.6	4.5		4.92	0.93	0.15	3.40++	0.99	0.45	0.54	62.4	33.0	0.30	8.44	55.0		
1050	7/18/88	1707	M5	8	7.40	7.6	4.6		4.91	0.95	0.11	4.20++	0.13	0.35	<0.10	65.0	33.0	0.30	8.08	31.8		
1064	7/18/88	2031	M5	1	7.30	4.3	2.03		5.53	0.65	0.15	6.00	1.12	0.74	1.12	96.7	32.0	0.30	8.58	31.2		
1065	7/18/88	2031	M5	8	7.30	5.4	3.35		5.57	0.69	0.15	6.20	1.10	0.78	1.10	47.3	29.0	0.30	8.15	20.4		
1086	7/18/88	2319	M5	8	7.00	4.5	2.55		4.50	0.30	0.20	3.26++	0.04	0.25	<0.10	14.2	29.0	1.60	11.6	12.4		
1085	7/18/88	2319	M5	1	7.20	4.4	1.65		5.06	0.34	0.18	3.42++	0.33	0.27	0.06	6.47	31.0	1.90	10.4	11.2		
1098	7/18/88	144	M5	1	7.30	5.6	3.15		6.21	0.54	0.14	5.63	0.34	<0.10	<0.10	24.0		1.30	9.13	15.8		
1099	7/18/88	144	M5	8	7.00	5.2	2.75		5.82	0.46	0.13	6.50	1.08	0.34	0.74	31.7		0.30	21.6	12.0		
1110	7/18/88	450	M5	1	7.20	14.0	3.20		6.80	0.80	0.17	6.12	1.37	0.82	0.55	99.5	31.0	0.60	8.11	42.6		
1111	7/18/88	450	M5	8	7.10	15.0	2.35		6.39	0.78	0.17	4.37	0.81	0.77	0.04	35.5	29.0	0.50	3.15	62.0		
1129	7/18/88	738	M5	8	7.00	5.9	4.52		0.39	1.37	0.29	6.03	0.84	0.30	0.54	77.7	30.0	0.70	8.80	22.6		
1128	7/18/88	738	M5	1	7.00	4.5	3.85		0.39	1.37	0.33	5.27	0.94	0.30	0.64	71.2	30.0	0.80	7.55	17.2		
1147	7/18/88	1120	M5	1	7.10	4.5	5.2	14.5	6.75	0.60	0.16	6.66++	1.12	0.89	0.23	<1.55	31.0	0.40	8.51	22.14		
1148	7/18/88	1120	M5	8	7.10	4.1	2.98		6.28	0.59	0.16	10.8	1.11	0.89	0.22	91.8	31.0	0.30	7.57	21.1		
1160	7/18/88	1411	M5	1	7.00	4.9	3.58		6.10	0.46	0.15	7.14	4.46	0.90	3.56	<1.42	33.0	0.90	7.83	12.5		
1161	7/18/88	1411	M5	8	7.00	4.5	3.40		6.13	0.50	0.07	8.26	4.66	1.07	3.59	77.5	33.0	0.30	8.74	11.5		
1180	7/18/88	1633	M5	8	6.87	6.1	5.72		6.07	0.59	0.09	8.93	5.17	0.49	4.68	17.0	33.0	0.90	8.41	13.6		
1179	7/18/88	1633	M5	1	6.81	6.9	24.8		5.82	0.60	0.06	9.10	4.42	0.43	3.99	38.3	33.0	1.30	8.50	30.4		
1193	7/18/88	1916	M5	1	6.87	9.0	5.75		4.08	1.24	0.23	5.48	3.61	0.33	3.28	41.4	31.0	2.10	7.55	36.0		
1194	7/18/88	1916	M5	8	6.87	8.1	4.65		4.23	1.24	0.23	5.48	3.32	0.30	3.02	98.4	31.0	2.20	7.56	31.2		
1272	7/20/88	450	M5	1	4.8	2.80			5.19	0.87	0.21	8.21	0.95	0.68	0.27	4	30.0	2.20	7.23	22.2		
1273	7/20/88	450	M5	8	6.6	3.40			5.27	0.83	0.28	11.26	1.22	0.67	0.55	4	30.0	2.30	7.61	23.5		
1293	7/20/88	820	M5	8	7.60	4.20			2.20	1.40	0.38	2.67	0.70	0.26	0.44	24.1	27.0	0.60	4.86	3.12		
1292	7/20/88	820	M5	1	8.1	4.10			2.93	1.26	0.29	3.82	1.11	0.35	0.76	19.8	27.0	0.50	5.38	18.8		
1311	7/20/88	1126	M5	1	6.8	3.10			4.78	0.84	0.16	5.01	2.56	0.75	1.81	4	32.0	0.60	5.77	18.8		
1312	7/20/88	1126	M5	8	7.2	3.70			5.08	0.75	0.14	5.14	2.86	0.82	2.06	<2.57	31.0	0.40	5.69	18.4		
1324	7/20/88	1448	M5	1	7.06	6.1	3.6	7.03	5.68	0.57	0.08	4.80	2.42	0.80	2.50	<2.67	32.0	0.50	7.43	12.8		
1325	7/20/88	1448	M5	8	7.06	6.4	3.7	5.7	5.71	0.58	0.14	5.39	3.48	0.87	2.61	16.3	32.0	0.50	7.43	13.2		
1351	7/20/88	1626	M5	1	6.92	4.8	3.80		5.16	0.67	0.17	7.53	1.05	0.42	0.63	26.4	31.0	0.70	7.61	16.8		
1350	7/20/88	1626	M5	8	6.87	4.5	2.70		4.88	0.71	0.21	5.68	0.12++	0.70	++	21.1	31.0	0.60	6.89	12.0		
1358	7/20/88	1920	M5	1	6.80	5.8	4.50		2.93	1.10	0.40	4.98	0.77	0.35	0.42	24.5	28.0	0.70	5.26	20.8		
1359	7/20/88	1920	M5	8	6.87	5.0	2.70		2.89	1.11	0.38	2.25++	0.68	0.34	0.34	21.4	28.0	0.80	5.45	19.6		
1398	7/21/88	203	M5	1		3.6	2.80		5.46	0.55	0.13	6.91	1.17	0.19	0.98	8.50	30.0	0.20	7.25	30.8		

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	(MPN)
1399	72188	203	W5	B		4.5	2.60	5.87	0.47	0.12	5.11	1.27	0.43	0.84	6.10	29.0	2.20	7.97	22.2		
1418	72188	425	W5	B	7.30	4.3	1.60	5.12	0.50	0.06	4.99	1.30	0.87	0.43	2.56	30.0	0.30	7.61	23.0		
1417	72188	425	W5	T	7.20	4.5	2.10	4.90	0.51	0.19	4.94	1.16	0.90	0.26	2.40	30.0	0.40	6.89	12.4		
1447	72188	628	W5	T	7.10	5.3	2.05	3.37	0.70	0.26	4.05	1.52	0.83	0.69	10.1	29.0	0.50	5.81	18.0		
1448	72188	628	W5	B	7.20	6.4	2.35	3.16	0.70	0.24	4.31	0.99	0.73	0.26	7.87	29.0	0.20	5.99	17.6		
1431	72188	810	W5	B	7.10	6.5	3.18	1.83	0.77	0.55	2.71	0.91	0.27	0.64	*	27.0	0.30	3.64	28.8		
1430	72188	810	W5	T	7.10	6.5	1.57	1.95	0.81	0.45	3.23	0.87	0.27	0.60	35.3	28.0	0.40	3.64	29.2		
1461	72188	1341	W5	B	7.30	5.75	2.10	4.62	0.51	0.10	5.33	1.01	0.78	0.23	20.6	31.0	2.30	6.71	20.4	15,000	
1460	72188	1341	W5	T	7.20	6.25	2.15	4.54	0.49	0.12	5.87	1.20	0.76	0.44	3.34	31.0	2.10	6.53	21.2	3320	
1484	72188	1653	W5	T	7.15	6.0	2.40	4.89	0.50	0.11	7.58	1.21	0.77	0.44	25.3	31.0	2.20	8.25	15.2		
1485	72188	1653	W5	B	7.05	6.05	2.05	4.76	0.50	0.09	5.43	1.17	0.76	0.41	20.6	31.0	2.30	6.35	18.8		
1594	72288	1145	W5	T	7.50	8.2	2.95	2.44	0.48	0.28	2.39	0.56	0.44	0.12	30.8	27.0	1.75	3.04	40.35		
1595	72288	1145	W5	B	7.30	7.8	2.35	2.40	0.51	0.22	6.99	0.58	0.52	0.06	88.2	27.0	1.50	3.37	25.05		
1608	72288	1451	W5	B	7.20	6.2	1.30	5.55	0.44	0.05	13.30	1.20	1.07	0.13	11.56	30.0	0.30	6.71	9.25	1070	
1607	72288	1451	W5	T	7.40	7.3	1.75	4.81	0.45	0.04	6.52	1.00	0.82	0.18	53.4	30.0	1.50	5.17	19.5	4890	
1622	72288	1702	W5	T	7.90	7.8	2.85	5.90	0.43	0.15	4.90	0.81	0.61	0.20	*	30.0	0.85	4.18	15.0		
1623	72288	1702	W5	B	8.00	7.4	2.55	3.59	0.43	0.11	5.60	0.83	0.66	0.17	16.4	30.0	1.85	4.45	12.7		
1635	72288	1843	W5	T	7.90	22.6	3.90	3.06	0.43	0.22	6.42	0.64	0.55	0.09	45.9	27.0	1.60	3.73	91.0	14,700	
1636	72288	1843	W5	B	7.70	12.25	3.98	3.07	0.45	0.41	7.48	0.78	0.58	0.20	25.0	26.0	0.95	3.64	20.3	21,900	
1660	72288	2323	W5	B	8.00	7.0	2.40	2.51	0.38	0.27	5.38	0.60	0.41	0.19	43.2	28.0	1.45	2.65	17.7		
1659	72288	2323	W5	T	7.80	7.3	3.35	5.20	0.39	0.26	4.14	*	0.36	*	35.1	28.0	1.00	2.56	18.5		
1678	72388	240	W5	T	7.60	6.0	4.45	4.39	0.38	0.19	4.18	1.32	0.95	0.37	10.8	29.0	1.25	4.54	13.0		
1679	72388	240	W5	B	7.10	5.9	4.13	4.58	0.38	0.06	5.75	1.11	1.04	0.07	12.7	29.0	1.20	4.54	17.7		
1691	72388	545	W5	T	7.10	935	3.00	4.17	0.37	0.13	4.86++	1.07	0.88	0.19	7.59	28.0	0.55	4.63	35.5		
1692	72388	545	W5	B	7.10	11	2.50	3.45	0.28	0.16	4.35	0.71	0.87	0.10	15.4	29.0	0.30	4.81	42.5		
1705	72388	835	W5	B	7.20	16	2.50	2.76	0.35	0.26	4.35	0.40	0.27	0.13	95.1	27.0	0.30	3.10	40.4	24,000	
1704	72388	835	W5	T	7.20	18	2.20	2.73	0.35	0.24	4.13	1.28	0.28	1.00	122.6	28.0	0.40	3.10	39.3	8000	
1719	72388	1045	W5	T	7.00	7.3	3.90	1.86	0.29	0.33	3.62	0.50	0.19	0.31	27.5	27.0	0.90	2.20	23.0		
1720	72388	1045	W5	B	7.01	8.1	3.40	2.04	0.30	0.30	2.96	0.48	0.22	0.26	25.5	27.0	0.20	2.38	23.2		
1732	72388	1255	W5	T	7.32	9.4	3.30	3.26	0.35	0.15	4.57	0.73	0.31	0.42	51.8	31.0	1.10	4.18	24		
1733	72388	1255	W5	B	7.32	9.1	2.00	3.46	0.36	0.13	4.48	0.81	0.40	0.41	19.3	31.0	0.30	4.36	27.7		
1759	72388	1650	W5	B	7.45	5.2	2.10	4.92	0.30	0.04	5.35	1.01	0.96	0.05	10.9	29.0	0.30	5.63	17	500	
1758	72388	1650	W5	T	7.34	5.3	2.25	5.00	0.31	0.04	6.11	1.09	0.95	0.14	29.0	29.0	1.00	5.26	15.2	500	
1772	72388	2020	W5	T	7.90	6.6	3.55	4.28	0.32	0.14	5.10	0.87	0.92	0.10	46.2	29.0	2.40	4.54	18.5		
1773	72388	2020	W5	B	7.60	3.8	1.95	5.09	0.31	0.04	7.19	1.11	0.09	1.02	45.7	24.0	0.60	5.63	18		
1952	72488	35	W5	T	7.80	15.0	3.4	1.50	0.15	0.29	2.48	0.59	0.81	0.10	22.7	25.0	1.70	1.12	28.3		
1953	72488	35	W5	B	7.15	16.0	3.2	1.49	0.16	0.30	2.64	0.60	0.27	0.33	32.8	29.0	1.00	4.72	19.4		
1875	72488	600	W5	B	7.15	5.5	2.45								*	28.0	0.90	4.54	17.3		
1874	72488	600	W5	T	7.19	5.5	2.20								51.9		0.90	2.38	29.2		
1888	72488	915	W5	T	7.19	13.0	2.0	2.43	0.23	0.21	2.43	0.22++	0.48	++			0.90	2.38	29.2		
1889	72488	915	W5	B	7.15	13.0	2.4	2.60	0.24	0.19	0.18++	0.92	++	++	25.9		1.20	2.56	28.8		
1911	72488	1145	W5	B	7.32	8.5	1.55	1.98	0.22	0.26	2.83	0.65	0.41	0.24	61.4	26.0	1.50	1.66	27.7		
1910	72488	1145	W5	T	7.42	7.4	3.1	1.33	0.16	0.31	1.45	0.56	0.33	0.23	53.7	26.0	2.00	1.12	24.1		
1919	72488	1433	W5	B	7.06	8.6	2.4	3.52	0.28	0.10	4.23	0.84	0.67	0.17	19.7	29.0	1.40	4.00	28		
1918	72488	1433	W5	T	7.08	9.0	2.55	3.31	0.28	0.10	2.74++	0.87	0.65	0.22	37.1	29.0	1.90	3.82	24.0		
2001	72488	1701	W5	T	7.90	7.1	2.50	4.25	0.31	0.06	2.63++	0.69	0.79	0.10	65.9	30.0	3.20	3.82	23	1300	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DAY & NET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TPD4 mg/l	DPO4 mg/l	P04 mg/l	CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	(MPN)
2002	72488	1701	W5	B	7.90	4.3	2.4	4.45	0.29	0.06	0.06	3.94	0.98	0.84	0.17	24.1	29.0	1.30	4.00	18	500	
1942	72488	1846	W5	B	8.20	5.25	2.65	3.96	0.26	0.09	0.09	3.94	0.98	0.81	0.17	24.1	29.0	2.80	4.54	18.9		
1941	72488	1846	W5	T	8.00	5.1	3.05	3.86	0.27	0.29	0.29	4.44	1.01	0.73	0.28	41.1	29.0	2.10	4.18	15.6	5000	
1971	72588	334	W5	T	7.70	4.5	3.45	4.07	0.28	0.09	0.09	4.00	1.06	0.74	0.32	55.3	27.0	2.00	3.46	21.4		
1972	72588	334	W5	B	7.70	7.9	3.1	4.11	0.28	0.22	0.22	3.41++	0.80	0.70	0.10	60.1	26.0	2.60	3.64	29.5		
1989	72588	622	W5	B	7.70	4.0		4.76	0.26	0.05	0.05	4.99	1.01	0.92	0.09	4	29.0	1.10	4.72	13.3		
1988	72588	622	W5	T	7.60	6.0		4.64	0.25	0.08	0.08	5.42	0.94	0.04	0.90	52.7	29.0	1.10	4.18	16		
2010	72588	915	W5	T	7.60	6.7	2.2	2.92	0.24	0.16	0.16	2.10++	0.77	0.64	0.13	43.3	28.0	1.40	2.92	18.4		
2011	72588	915	W5	B	7.50	6.7	2.45	5.23	0.24	0.18	0.18	4	0.76	0.64	0.12	61.7	27.0	1.40	2.92	20		
2033	72588	1217	W5	T	7.40	8.3	2.75	1.64	0.15	0.30	0.30	2.74	0.56	0.37	0.19	49.9	28.0	1.30	1.30	8.4		
2034	72588	1217	W5	B	7.38	8.2	2.1	1.85	0.15	0.29	0.29	2.40	0.12++	0.47	++	59.9	27.0	1.70	1.48	18.8		

NOTES: * - Insufficient sample for repeat analysis

++ - Matrix Interference

E - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

++ - Estimated

7/25/88
V33

~~7/25/88~~

Avg
= 6.99

135562
194

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES HACKENSACK RIVER STUDY

JULY DRY & NET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PO4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	ISS mg/l	FEC. COLI org/100ml	(MPN)
1	7/11/88	1445	M6	M	7.60	23	8.00		0.74	0.65	0.81	2.54	0.31	0.11	0.20	59.30	29.0	8.80	2.12	63.3	6000	
20	7/11/88	1740	M6	M	7.00	20.5	10.8		1.97	1.49	0.43	7.16	0.87	0.23	0.64	44.24	22.0	6.80	4.70	80.9		
33	7/11/88	2030	M6	M	7.00	9.9	5.08	14.63	3.94	1.29	0.28	6.00	0.76	0.49	0.27	5.07	27.0	7.90	6.22	27.6		
52	7/11/88	2355	M6	M	7.00	21	5.20		1.74	1.79	0.02	4.04	0.67	0.24	0.43	64.97	27.0	5.00	4.87	82.8		
82	7/12/88	700	M6	M	6.70	19	4.35		1.15	2.09	0.27	21.8	0.63	0.12	0.51	2.83	26.0	0.50	3.81	59.2	3,000,000	
156	7/12/88	920	M6	M	7.30	5.2	<2		0.06	<0.05	0.11	0.76	<0.10	<0.05	<0.10	3.08	25.0	8.40	0.24	13.2		
183	7/12/88	1145	M6	M	7.00	38.0	3.20		0.80	1.92	0.30	4.51	0.67	0.08	0.59	27.77	27.0	3.00	4.05	53.6		
188	7/12/88	1445	M6	M	6.80	20.0	7.30		0.41	0.94	0.60	4.29	0.45	<0.05	0.45	131.30	27.0	4.00	2.14	100	30,000	
206	7/12/88	1740	M6	M	7.35	3.3	<2		1.02	0.19	0.37	0.32**	0.43	0.07	0.36	1.80	28.0	4.00	20.3	36.0		
229	7/12/88	2020	M6	M	6.90	7.8	6.425	15.58	1.23	2.54	**	4.44	0.78	0.24	0.54	142.22	27.0	2.60	5.57	29.6		
234	7/12/88	2305	M6	M	7.00	4.9	7.2		1.01	2.51	<0.05	4.05	0.61	0.15	0.46	90.15	27.0	3.40	5.21	30.7		
253	7/13/88	145	M6	M	7.10	39.0	6.90		0.24	0.21	1.99	4.02	0.65	<0.05	0.65	43.69	25.0	1.70	3.56	85.0		
274	7/13/88	440	M6	M	7.20	30.0	5.15		0.73	0.73	0.64	3.25	0.53	<0.05	0.53	137.0	25.0	1.30	1.68	74.0		
294	7/13/88	653	M6	M	7.20	40.0	6.73		0.15	2.46	<0.05	2.55	0.67	0.11	0.56	136.43	25.0	0.40	0.31	155	17,000	
306	7/13/88	956	M6	M	7.30	36.0	3.00		2.96	2.13	0.05	4.53	0.99	0.20	0.79	182.45	27.0	0.60	5.27	41.5		
319	7/13/88	1235	M6	M	7.50	44.0	10.8		1.16	1.95	**	3.31	0.77	0.06	0.71	62.33	29.0	5.50	3.60	52.8		
332	7/13/88	1620	M6	M	8.20	23.0	10.20	19.43	0.59	0.88	0.76	3.03	0.55	<0.05	0.55	240.3	26.0	10.2	1.99	59.2	50,000	
351	7/13/88	1855	M6	M	7.50	350	15.6		1.28	2.10		2.82	1.08	0.09	0.99	74.8	27.0	7.20	4.01	96.6		
364	7/13/88	2105	M6	M	7.20	71	5.75		2.19	1.75		3.67	0.90	0.44	0.46	70.3	27.0	3.80	5.94	26.7		
391	7/14/88	125	M6	M	7.20	18.0	6.72		0.43	2.14	<0.05	3.10	0.66	0.06	0.60	62.17	25.0	3.60	3.92	29.6		
405	7/14/88	425	M6	M	7.10	1.9	<2		<0.05	<0.05	<0.05	0.46	<0.10	<0.05	<0.10	6.54	22.0	4.20	0.27	24.0		
415	7/14/88	730	M6	M	4.50	30.0	6.70		0.25	2.23	2.29	2.65	0.92	0.15	0.77	234.86	26.0	1.50	3.78	116		
434	7/14/88	1050	M6	M	7.30	7.8	3.45		1.27	2.33	0.21	3.98	0.86	0.31	0.55	209.79	28.0	1.80	5.30	20.8	28,000	
446	7/14/88	1340	M6	M	7.60	14.0	9.60		0.17	1.29	0.59	3.74	1.16	<0.05	1.16	187.1	28.0	7.10	3.82	64.1		
460	7/14/88	1555	M6	M	7.80	30.0	6.56	16.4	0.15	1.75	5.53	3.43	1.55	<0.05	1.55	255.6	29.0	10.5	3.60	138	17,000	
481	7/14/88	1845	M6	M	7.30	45.0	5.40		6.73	2.23	0.02	4.22	0.86	0.20	0.66	329.7	29.0	6.20	4.39	27.2		
504	7/14/88	2315	M6	M	7.10	8.0	6.65		0.50	2.37	0.31	2.93	0.75	0.07	0.68	123.9	26.0	5.90	4.24	61.6		
517	7/15/88	135	M6	M	7.20	15.0	5.75		0.32	1.25	0.65	3.00	0.68	<0.05	0.68	33.1	26.0	4.30	2.63	92.0		
522	7/15/88	415	M6	M	7.20	30.0	5.85		0.425	0.96	0.81	3.12	1.12	<0.05	1.12	287.5	25.0	3.30	2.34	86.4		
541	7/15/88	445	M6	M	7.30	30.0	6.62		0.89	2.56	0.50	4.16	0.80	0.12	0.68	284.62	27.0	3.50	4.94	43.2	30,000	
556	7/15/88	1130	M6	M	7.40	13.0	5.05		0.23	1.96	0.66	4.36	1.01	0.10	0.91	149.02	26.5	11.0	3.71	92.8		
589	7/15/88	1430	M6	M	8.20	30.0	9.90	8.40	0.18	0.85	0.69	3.42	0.61	<0.05	0.61	175.7	30.0	10.0	2.28		2920	
605	7/15/88	1715	M6	M	7.80	38.0	5.75		0.12	0.59	1.88	2.97	0.46	0.05	0.41	142.68	29.0	11.35	3.57	116.8		
626	7/15/88	2000	M6	M	7.80	38.0	5.75		1.13	3.20	0.07	2.90	0.96	0.31	0.65	162.80	28.0	8.35	6.04	50.4		
640	7/15/88	2240	M6	M	7.10	9.3	4.78		5.72	0.50	0.07	6.88	*	0.52	*	132.9	27.0	1.00	4.60	55.7		
660	7/16/88	300	M6	M	7.50	4.0	5.92		0.29	0.92	0.72	3.49	0.31	0.02	0.29	509.7	26.0	**	2.36	104		
675	7/16/88	530	M6	M	7.50	28.0	12.72		0.45	1.42	<0.05	3.30	1.38	<0.05	1.38	563.7	25.0	**	3.26	99.9		
699	7/16/88	810	M6	M	7.40	32.0	9.88	17.33	0.45							350.5	31.0	**				
711B	7/16/88	1130	M6	M	7.60	16.0			0.49	3.62		3.71	0.36	*	*	479.3	31.0	**	5.83	42.0		
711A	7/16/88	1130	M6	M	4.60	16.0	5.18		0.26	2.48	<0.05	3.55	0.70	0.12	0.58	527.2	30.0	**	4.68	80.1		
726	7/16/88	1420	M6	M	7.50	25.0	5.28		0.22	0.63	1.45	3.20	0.82	0.45	0.37	251.0	31.0	**	3.14	121	12,000	
742	7/16/88	1645	M6	M	7.90	35.0	9.73		0.17	1.13	0.67	3.70	1.37	0.08	1.29	45.1	30.0	**	3.18	93.3		
763	7/16/88	1935	M6	M	7.90	31.0	4.25		0.37	2.57	2.60	1.60	1.48	0.13	1.35	108.9	26.0	**	5.03	78.0	30,000	
776	7/16/88	2135	M6	M	7.40	9.6	5.72		0.45	2.49	0.05	2.62	0.57	0.17	0.40	317.0	27.0	**	5.08	17.6		
794	7/17/88	107	M6	M	6.60	8.5	5.7		0.59	0.59	0.67	2.58	1.12	<0.05	1.12	245.1	26.0	**	2.06	146		
825	7/17/88	550	M6	M	7.10	18.0	7.37		0.59													

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(NPN) FEC. COLL org/100ml
839	7/17/88	800	M6	M	7.00	15.0	7.77	0.58	0.56	0.74	2.95	0.64	<0.05	0.64	230.5	27.0	++	2.26	9.20	
848	7/17/88	1015	M6	M	7.30	13.0	14.4	0.45	0.96	1.23	3.14	0.50	0.24	0.26	463.8	29.0	++	4.00	66.0	
864	7/17/88	1225	M6	M	7.60	8.6	7.6	0.54	2.28		3.02	0.57	0.09	0.48	19.6	32.0	++	5.35	43.2	
877	7/17/88	1700	M6	M	7.90	25.0	5.4	0.09	0.80	0.56	1.43	1.46	<0.05	1.46	558.4	6.0	++	2.95	144	
954	7/18/88	118	M6	M	7.20	9.4	6.08	0.80	1.89		3.01	0.60	0.08	0.52	285.8	28.0	4.70	4.58	39.2	
967	7/18/88	325	M6	M	7.00	15.0	4.63	0.69	1.50		3.20	0.29	0.08	0.21	332.9	28.0	4.30	4.03	59.6	
995	7/18/88	755	M6	M	12.30	19.0	8.03	0.47	0.31	0.71	3.29	0.60	*	*	7.27	22.0	4.00	1.52	57.8	
1005	7/18/88	1045	M6	M	7.30	20.0	6.73	0.74	1.34	0.59	4.56	0.69	0.12	0.69	*	29.0	8.50	4.12	59.2	
1019	7/18/88	1340	M6	M	6.90	16.0	3.20	0.68	1.74		2.78	0.46	0.14	0.32	169.4	26.0	3.20	4.57	43.2	1700
1038	7/18/88	1600	M6	M	7.60	9.6	6.77	0.42	1.25	0.55	<0.20**	0.67	<0.05	0.67	28.9	30.0	9.80	4.06	77.6	
1051	7/18/88	1845	M6	M	7.90	30.0	9.78	0.08	0.43	0.67	1.81	0.11	0.08	0.03	134.2	24.5	6.80	2.12	105	17,000
1066	7/18/88	2120	M6	M	7.90	35.0	11.1	0.15	0.77	0.82	2.50	0.17	0.11	0.17	259.2	28.0	8.90	3.17	111	
1087	7/18/88	30	M6	M	7.10	15.0	8.60	1.19	2.01		4.43	0.55	0.25	0.30	194.5	28.0	4.90	5.22	46.8	
1112	7/19/88	510	M6	M	7.30	27.0	6.85	0.46	0.85	0.89	2.98	0.33	<0.05	0.33	<2.88	27.0	5.50	0.28	82.0	
1117	7/19/88	740	M6	M	8.60	24.0	9.44	0.44	0.39	0.75	3.08	0.22	<0.05	0.22	284.9	26.0	5.50	1.06	68.4	3460
1136	7/19/88	1030	M6	M	7.30	24.0	9.05	0.636	0.83	0.39	3.12	0.29	0.10	0.19	20.9	27.0	5.80	3.0	80.0	
1149	7/19/88	1300	M6	M	7.10	7.4	6.18	1.42	1.67		3.69	2.64	0.22	2.42	102.9	30.0	4.50	4.96	27.0	
1168	7/19/88	1610	M6	M	7.30	23.0	7.13	0.92	1.38	0.59	5.01	3.56	0.19	3.37	168.9	0.0	6.65	4.42	52.4	
1182	7/19/88	1850	M6	M	7.40	39.0	9.92	0.28	0.57	0.60	4.78	3.52	<0.05	3.52	526.8	29.0	6.90	2.56	129	
1196	7/19/88	2125	M6	M	7.20	33.0	5.62	0.46	0.56	0.60	2.00	1.45	<0.05	1.45	39.4	27.0	6.10	2.66	113	
1222	7/20/88	50	M6	M	6.90	13.0	6.18	1.63	1.53	0.43	3.39	2.78	0.28	2.50	46.5	28.0	2.60	4.59	32.4	160,000
1274	7/20/88	520	M6	M	7.00	30.0	6.00	0.59	0.24	1.03	4.63	0.30	0.10	0.20	40.5	26.0	4.20	1.25	153	
1281	7/20/88	810	M6	M	6.80	41.0	4.70	0.67	0.08	0.90	2.67	0.57	0.16	0.41	80.4	25.0	5.00	0.26	127	
1300	7/20/88	1020	M6	M	6.80	25.0	6.90	0.79	0.13	0.75	2.19	0.21	0.12	0.09	49.5	26.0	4.50	0.69	103.2	
1313	7/20/88	1250	M6	M	7.10	18.0	5.00	0.83	0.69	0.34	2.63	1.58	0.07	1.51	43.4	28.0	4.20	1.86	42.0	30,000
1339	7/20/88	1600	M6	M	7.10	15.0	3.775	0.67	0.30	0.73	3.28	0.29	0.09	0.20	97.5	29.0	5.70	7.5	24.4	
1361	7/20/88	2045	M6	M	6.25	9.1	2.50	0.69	0.07	0.88	2.56	0.15	0.10	0.05	26.2	23.0	2.60	<0.22	46.8	300
1387	7/21/88	55	M6	M	7.00	17.0	17.0	0.76	0.22	0.73	1.83	0.20	0.10	0.10	*	26.0	2.80	<0.22	31.7	
1406	7/21/88	346	M6	M	6.50	9.5	4.30	0.72	0.13	0.70	1.41	0.23	0.05	0.18	67.0	25.0	3.10	<0.22	29.6	
1419	7/21/88	620	M6	M	6.50	35.0	3.80	0.63	0.07	0.81	1.56	0.21	0.09	0.12	32.1	25.0	3.40	<0.22	72.8	
1432	7/21/88	945	M6	M	6.60	32.5	3.08	0.59	<0.05	0.90	1.78	0.86	0.08	0.78	35.1	26.0	4.20	<0.22	76.8	
1449	7/21/88	1345	M6	M	6.90	2.5	3.95	0.78	0.19	0.69	2.49	0.26	0.11	0.15	47.6	26.0	2.40	<0.22	32.8	13,000
1473	7/21/88	1620	M6	M	7.00	13	4.40	0.72	0.18	0.69	3.03	0.20	<0.05	0.20	*	26.5	1.40	<0.22	22.4	
1487	7/21/88	1900	M6	M	6.90	5.5	3.50	0.70	0.09	0.74	2.31	0.22	0.05	0.17	<1.37	21.0	4.80	<0.22	64.8	
1500	7/21/88	2210	M6	M	6.40	3.30	3.30	0.42	<0.05	0.32	1.77	<0.10	<0.05	<0.10	<1.08	23.0	7.10	<0.22	51.2	
1534	7/22/88	120	M6	M	6.20	13.0	2.00	0.61	0.07	0.61	1.90	1.45	0.17	1.28	27.0	24.0	3.10	<0.22	49.5	90,000
1567	7/22/88	400	M6	M	6.40	23.0	2.15	0.59	0.06	0.63	2.23	*	0.12	*	22.9	23.0	4.70	<0.22	80	
1572	7/22/88	650	M6	M	7.40	20.0	1.30	0.46	<0.05	0.58	2.19	*	0.10	*	7.55	23.0	6.10	<0.22	63.0	
1583	7/22/88	1045	M6	M	6.50	24.0	1.43	0.44	<0.05	0.57	1.76	0.42	<0.05	0.42	44.1	25.0	5.50	<0.22	52.0	
1596	7/22/88	1400	M6	M	6.80	26.0	2.55	0.60	0.07	0.54	1.53	0.39	0.15	0.24	44.2	24.0	4.90	<0.22	55.25	
1624	7/22/88	1720	M6	M	7.10	7.9	2.35	0.44	<0.05	0.51	2.32	*	0.14	*	33.8	25.0	4.70	<0.22	14.8	11,000
1637	7/22/88	1940	M6	M	7.00	27.0	5.08	0.44	<0.05	0.51	2.59	0.12	0.09	0.03	2.00	24.0	4.50	<0.22	67.5	
1648	7/22/88	2200	M6	M	6.80	2.2	4.05	0.44	<0.05	0.54	2.59	0.12	0.09	0.03	2.00	24.0	4.50	<0.22	46.0	50,000
1661	7/23/88	130	M6	M	8.60	18	3.80	0.58	<0.05	0.47	2.14	0.42	0.14	0.28	35.5	23.0	2.90	<0.22	48.8	
1680	7/23/88	408	M6	M	8.60	7.8	3.63	0.75	0.11	0.39	*	0.21	*	*	*	23.0	2.60	<0.22	18.2	
1693	7/23/88	755	M6	M	7.30	11	2.20	0.61	0.06	0.44	1.82	0.21	0.15	0.06	15.7	24.0	3.50	<0.22	44.8	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	MD2 mg/l	MD3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PD4 mg/l	ORGANIC		CHLORO-a mg/e3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
1721	72388	1030	M6	M	7.30	2.4	1.45	0.52	0.05	0.48	0.48	1.42	<0.10	0.06	<0.10	<0.10	<0.10	51.1	24.0	3.90	<0.22	32	50,000
1735	72388	1335	M6	M	7.70	20	1.85	0.59	0.08	0.37	0.37	1.53	<0.10	0.08	<0.10	<0.10	<0.10	25.5	25.0	4.50	<0.22	77	
1747	72388	1620	M6	M	7.20	2.7	<2.00	0.15	<0.05	0.08	0.08	0.92	<0.10	<0.05	<0.10	<0.10	<0.10	8.07	25.0	8.30	<0.22	9	
1761	72388	1830	M6	M	7.20	8.4	3.15	0.80	0.11	0.37	0.37	1.95	0.21	0.28	<0.10	<0.10	<0.10	33.7	25.0	4.30	<0.22	23.8	
1774	72388	2205	M6	M	8.20	21	1.60	0.68	0.07	0.44	1.92	1.92	<0.10	0.22	<0.10	<0.10	<0.10	33.8	24.0	3.60	<0.22	51.7	
1798	72488	100	M6	M	7.30	20	1.00	0.59	0.06	0.48	1.78	1.78	<0.10	0.07	<0.10	<0.10	<0.10	33.3	24.0	4.40	<0.22	49.5	
1837	72488	400	M6	M	7.30	14.0	1.45	0.72	0.08	1.77	0.47++	0.47++	<0.10	<0.05	<0.10	<0.10	<0.10	45.9	24.0	4.10	<0.22	28.4	
1863	72488	810	M6	M	7.10	22.0	2.00	0.26	<0.05	0.48	1.05	1.05	<0.10	<0.05	<0.10	<0.10	<0.10	43.4	23.0	5.90	<0.22	53.2	
1890	72488	1045	M6	M	7.50	23.0	1.65	3.89	0.26	0.09	4.32	0.73	<0.10	0.09	<0.10	<0.10	<0.10	38.7	24.0	4.60	<0.22	80	
1899	72488	1340	M6	M	7.00	29.0	3.73	0.51	<0.05	0.53	1.96	<0.10	0.09	<0.10	<0.10	<0.10	<0.10	57.2	25.0	4.00	<0.22	62.2	
1920	72488	1545	M6	M	7.10	21.0	2.55	0.63	0.07	0.36	0.96	0.96	0.30	0.15	0.15	0.15	0.15	53.6	25.5	4.20	<0.22	26.8	
1930	72488	1900	M6	M	6.90	8.2	3.5	0.66	0.09	0.36	1.44	0.38	0.19	0.19	0.19	0.19	0.19	53.6	24.0	8.00	<0.22	93.1	
1960	72488	2235	M6	M	7.20	34.0	3.7	0.31	<0.05	0.65	0.76	0.76	0.23	0.30	<0.10	<0.10	*	23.0	5.40	<0.22	51.1		
1954	72588	45	M6	M	7.50	33.0	3.45	0.52	0.06	0.54	1.23	0.52	0.52	0.14	0.38	0.38	0.38	33.9	23.0	3.60	<0.22	73.5	
1977	72588	345	M6	M	6.90	24.0	4.02	0.55	0.06	0.47	0.93	0.93	0.33	0.20	0.13	0.13	0.13	30.3	24.0	3.60	<0.22	34.7	
1990	72588	810	M6	M	7.20	16.0	2.15	0.16	<0.05	0.88	0.51	0.51	0.11	0.09	0.09	0.09	0.09	5.17	25.0	7.0	<0.22	30.6	
2022	72588	1035	M6	M	7.30	7.4	1.55																

NOTES: * - Insufficient sample for repeat analysis

++ - Matrix Interference

++ - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-lute not reliable

++ - Estimated

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NO3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
2	71188	1314	M7	M	6.80	5.4	1.20		0.08	<0.05	0.16	1.18	<0.10	0.10	0.10	9.27	25.0	9.90	0.27	13.8	<20
21	71188	1650	M7	M	6.50	4.8	<2		0.15	<0.05	0.17	1.97	<0.10	<0.05	<0.10	10.01	25.0	8.60	0.24	13.4	
34	71188	1955	M7	M	7.00	4.8	0.88	1.83	0.24	<0.05	0.73	0.91	<0.10	0.07	<0.10	3.62	25.0	5.40	0.29	19.6	
53	71188	2240	M7	M	7.10	5.4	<2		0.17	<0.05	0.18	1.90	<0.10	<0.05	<0.10	<1.85	24.0	7.40	0.30	17.2	
83	71288	620	M7	M	7.50	5.9	<2		0.10	<0.05	0.09	0.74	<0.10	<0.05	<0.10	26.7	22.0	7.90	0.29	15.8	
157	71288	855	M7	M	7.20	9.0	6.10		1.77	1.98	0.14	4.78	0.70	0.19	0.51	62.91	23.0	0.40	5.07	21.6	
184	71288	1100	M7	M	6.50	48.0	2.95		0.13	<0.05	0.10	0.71	<0.10	<0.05	<0.10	113.54	24.0	2.80	0.27	41.2	
189	71288	1415	M7	M	6.80	4.9	1.05		<0.05	<0.05	0.08	0.55	<0.10	<0.05	<0.10	1.66	25.0	3.90	0.25	8.00	
207	71288	1705	M7	M	7.50	39.0	5.90		0.44	1.53	0.51	6.80	1.00	0.08	0.92	84.44	27.0	4.50	3.67	55.6	
230	71288	1940	M7	M	7.90	1.8	0.6	2.5	<0.05	<0.05	0.08	0.57	<0.10	<0.05	<0.10	5.04	24.0	9.80	0.29	9.32	
235	71288	2230	M7	M	7.90	5.6	<2		<0.05	<0.05	0.08	0.41	<0.10	<0.05	<0.10	9.09	24.0	9.50	0.29	18.0	
254	71388	105	M7	M	7.00	6.8	<2		<0.05	<0.05	0.09	0.58	<0.10	0.08	<0.10	4.74	23.0	8.80	0.29	25.0	
275	71388	340	M7	M	7.00	4.8	<2		0.08	<0.05	0.08	<0.20	<0.10	<0.05	<0.10	4.34	23.0	8.90	0.26	<10.0	
307	71388	1030	M7	M	7.60	5.4	1.35		<0.05	<0.05	0.07	0.51	<0.10	<0.05	<0.10	19.70	27.0	9.10	0.34	19.2	
320	71388	1305	M7	M	7.60	4.8	2.10		0.06	<0.05	<0.05	0.35	<0.10	<0.05	<0.10	<0.10	23.0	9.30	0.31	14.4	70
333	71388	1600	M7	M	7.70	5.2	<2		0.07	<0.05	0.07	0.40	<0.10	<0.05	<0.10	3.97	29.0	9.50	0.26	10.0	
352	71388	1825	M7	M	7.60	3.5	1.925	2.925	<0.05	<0.05	0.07	0.40	<0.10	0.28	++	9.87	26.0	9.9	0.26	16.8	
365	71388	2135	M7	M	7.50	33	<2		0.33	<0.05	0.07	0.40	<0.10	<0.05	<0.10	1.77	27.0	10.2	0.29	10.8	<20
392	71488	40	M7	M	7.20	18.0	<2		<0.05	<0.05	0.05	0.41	<0.10	<0.05	<0.10	2.02	26.0	9.90	0.36	8.80	
406	71488	340	M7	M	7.00	3.4	<2		<0.05	0.28	0.08	0.80	<0.10	<0.05	<0.10	12.72	24.0	9.10	0.29	42.7	
416	71488	640	M7	M	7.10	3.9	<2		0.20	0.15	0.91	0.75	<0.10	<0.05	<0.10	8.74	24.0	8.40	0.32	10.0	
435	71488	1015	M7	M	0.60	29	1.15		<0.05	<0.05	0.18	1.40	<0.10	<0.05	<0.10	3.39	24.0	8.38	0.33	2.40	60
447	71488	1300	M7	M	7.30	2.5	<2		<0.05	<0.05	0.22	2.12	<0.10	<0.05	<0.10	<1.42	26.0	8.80	0.24	7.20	
461	71488	1522	M7	M	7.30	2.5	0.85	1.95	<0.05	<0.05	0.05	0.34	<0.10	<0.05	<0.10	5.80	25.0	9.60	0.24	8.40	
482	71488	1810	M7	M	7.10	2.9	<2		<0.05	<0.05	0.05	<0.20	<0.10	<0.05	<0.10	<0.10	25.0	8.90	0.26	14.0	40
505	71488	2115	M7	M	7.10	8.6	1.60		5.17	0.55	0.11	6.56	1.28	0.45	0.83	4.53	28.0	9.40	0.37	8.40	
518	71588	50	M7	M	7.00	2.8	<2		0.11	<0.05	0.07	0.37	<0.10	<0.05	<0.10	<1.60	22.0	7.10	0.24	0.40	
523	71588	325	M7	M	6.90	8.6	<2		0.11	<0.05	0.08	0.45	<0.10	<0.05	<0.10	4.10	22.0	4.00	0.26	18.0	
542	71588	705	M7	M	7.10	2.5	<2		0.07	<0.05	0.09	0.36	<0.10	<0.05	<0.10	1.91	22.0	8.40	2.16	14.4	
557	71588	1035	M7	M	7.20	4.1	<2		<0.05	<0.05	0.07	0.61	<0.10	<0.05	<0.10	4.05	22.5	8.10	0.27	13.8	
590	71588	1310	M7	M	7.50	2.6			<0.05	<0.05	0.05	0.38	<0.10	<0.05	<0.10	1.90	23.0	8.50	0.24	10.4	70
606	71588	1650	M7	M	7.60	3.5	11.5	22.1	<0.05	<0.05	0.05	0.22	<0.10	<0.05	<0.10	14.5	28.0	10.3	0.24	12.4	80
627	71588	1900	M7	M	7.50	3.2	<2.00		<0.05	<0.05	0.05	0.55	<0.10	<0.05	<0.10	6.15	29.0	9.70	0.26	21.0	
641	71588	2200	M7	M	7.80	2.4	2.30		<0.05	<0.05	0.05	3.66	<0.10	<0.05	<0.10	4.58	24.0	6.50	0.29	12.2	
661	71688	100	M7	M	7.60	20.0	2.35		0.29	2.38	0.19	4.04	0.58	0.08	0.50	2.70	23.0	++	0.24	9.00	
676	71688	430	M7	M	7.30	4.9	2.20		0.07	<0.05	0.05	0.53	<0.10	<0.05	<0.10	4.07	23.0	++	0.24	14.1	
700	71688	720	M7	M	7.20	3.8	2.82	2.83	<0.05	<0.05	0.05	0.56	<0.10	<0.05	<0.10	3.83	26.0	++	0.24	15.4	
712	71688	1045	M7	M	7.30	4.4	2.00		0.07	<0.05	0.06	0.74	<0.10	<0.03	<0.10	8.32	24.0	++	0.24	12.0	
727	71688	1340	M7	M	7.40	1.9	<2.00		0.13	<0.05	0.08	0.59	<0.10	<0.05	<0.10	<2.62	23.0	++	0.24	10.0	800
743	71688	1610	M7	M	7.50	3.2	<2.00		0.05	<0.05	0.05	0.74	<0.10	<0.05	<0.10	<0.10	27.0	++	0.24	10.3	
764	71688	1850	M7	M	7.40	2.0			0.09	<0.05	0.09	0.59	<0.10	<0.05	<0.10	<0.10	24.0	++	0.26	10.0	
777	71688	2100	M7	M	7.80	1.9	2.25		0.09	<0.05	0.06	0.87	<0.10	<0.05	<0.10	3.92	25.0	++	0.23	11.6	93
795	71788	20	M7	M	6.90	1.8	2.20		0.14	<0.05	0.05	0.29	<0.10	<0.05	<0.10	4.64	25.0	++	0.23	10.2	
826	71788	530	M7	M	6.80	22.0	1.65		0.16	<0.05	0.08	0.22	<0.10	<0.05	<0.10	83.3	27.0	++	0.23	9.2	
840	71788	725	M7	M	6.80	2.4	1.45		0.14	<0.05	0.06	0.4	<0.10	<0.05	<0.10	<0.10	25.0	++	0.25	9.00	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MCP) FEC. COLI org/100ml
849	7/1788	945	W7	M	7.00	2.1	1.9	2.75	0.13	<0.05	<0.05	0.40	<0.10	<0.05	<0.10	10.0	25.0	**	0.24	10.3	
865	7/1788	1155	W7	M	7.50	2.3	1.2		0.11	<0.05	0.07	0.37	<0.10	<0.05	<0.10	4.50	27.0	**	0.30	10.2	
878	7/1788	1615	W7	M	7.30	2.5	2.0		0.08	<0.05	0.05	0.50	<0.10	<0.05	<0.10	3.81	29.0	**	0.24	11.0	
941	7/1788	2255	W7	T	7.40	22.0	4.02		0.60	1.70		3.63	0.63	<0.05	<0.10	253.7	26.0	**	4.85	66.0	
955	7/1888	40	W7	M	7.30	4.3	1.5		0.09	<0.05	0.07	0.35	<0.10	<0.05	<0.10	12.3	25.0	8.20	0.28	14.5	
968	7/1888	300	W7	M	7.60	3.5	1.10		0.06	<0.05	0.10	0.40	<0.10	<0.05	<0.10	13.0	25.0	8.15	0.27	11.4	
986	7/1888	715	W7	M	7.30	5.7	2.38	3.5	<0.05	<0.05	<0.05	0.36	<0.10	<0.05	<0.10	21.6	25.0	8.50	0.22	19.0	
1006	7/1888	1000	W7	M	7.50	3.1	1.35		0.08	<0.05	0.06	0.54	<0.10	<0.05	<0.10	11.32	29.0	7.10	0.28	10.8	20
1020	7/1888	1255	W7	M	7.30	2.9	1.50		<0.05	<0.05	<0.05	0.31	<0.10	<0.05	<0.10	12.32	26.0	8.80	0.26	14.2	
1039	7/1888	1530	W7	M	7.50	2.1	1.5		<0.05	<0.05	<0.05	0.41	<0.10	<0.05	<0.10	12.07	30.0	12.4	0.26	7.6	
1052	7/1888	1805	W7	M	7.90	14.0	9.22		<0.05	<0.05	<0.05	1.08	<0.10	<0.05	<0.10	24.8	26.0	8.90	0.24	186	13,700
1067	7/1888	2100	W7	M	7.00	4.6	2.32		<0.05	<0.05	0.00	0.32	<0.10	<0.05	<0.10	14.1	27.0	8.50	0.26	20.0	
1088	7/1988	0	W7	M	6.80	3.5	4.75		0.06	<0.05	<0.05	0.39	<0.10	<0.05	<0.10	2.70	26.0	8.35	0.26	20.4	
1113	7/1988	430	W7	M	7.30	11.0	3.00				0.00	0.42	<0.10	<0.07	<0.10	71.0	25.0	7.40	0.22	30.4	
1118	7/1988	700	W7	M	7.30	4.1	1.30		0.14	<0.05	0.07	0.34	<0.10	<0.05	<0.10	148.6	25.0	7.60	0.22	9.2	241
1137	7/1988	945	W7	M	7.30	4.8	1.65	3.3	0.09	<0.05	<0.05	1.02	<0.10	<0.05	<0.10	5.42	26.0	7.90	0.28	45.2	
1150	7/1988	1225	W7	M	7.10	3.0	1.30		0.09	<0.05	0.06	0.42	2.09	<0.05	2.09	5.42	25.0	8.30	0.33	24.4	
1170	7/1988	1530	W7	M	7.20	2.9	1.15		0.17	0.09	0.76	0.83	3.04	0.08	2.96	10.3	26.0	4.30	0.22	3.6	
1183	7/1988	1825	W7	M	7.10	4.9	2.40		0.09	<0.05	0.06	<0.20	4.13	<0.05	4.13	10.3	26.0	8.40	0.22	18.0	
1197	7/1988	2100	W7	M	7.20	2.9	1.65		0.10	<0.05	<0.05	<0.20	1.89	0.04	1.85	12.4	25.0	8.20	0.25	12.4	500
1223	7/2088	15	W7	M	7.00	4.2	1.10		0.11	<0.05	0.08	0.58	1.08	0.12	0.96	13.6	25.0	8.40	0.26	13.6	
1275	7/2088	455	W7	M	7.20	2.9	2.60		0.12	<0.05	0.22	1.90	<0.10	0.10	<0.10	13.2	25.0	8.70	0.22	13.2	
1282	7/2088	720	W7	M	7.40	3.4	1.00		0.11	<0.05	0.09	8.20	<0.10	0.13	<0.10	25.0	25.0	8.30	0.24	12.5	
1301	7/2088	850	W7	M	6.80	2.9	1.90		0.14	<0.05	0.11	0.31	<0.10	0.10	<0.10	25.0	25.0	8.30	0.23	10.8	1400
1314	7/2088	1210	W7	M	6.80	4.1	2.00		0.13	<0.05	0.10	0.37	1.34	<0.05	1.34	3.69	25.0	8.60	0.26	11.5	
1340	7/2088	1515	W7	M	6.80	2.5	1.13	1.55	0.12	<0.05	0.14	0.97	0.10	<0.05	0.10	11.5	25.0	8.90	0.22	8.4	
1362	7/2088	1945	W7	M	6.90	2.7	2.0		0.07	<0.05	0.95	1.51	<0.10	<0.05	<0.10	2.67	28.0	9.00	0.22	9.2	160,000
1388	7/2188	30	W7	M	6.80	2.7	2.7		0.08	<0.05	0.18	1.49	<0.10	<0.05	<0.10	3.26	25.0	8.80	0.22	9.8	
1407	7/2188	315	W7	M	6.80	2.3	1.60		0.08	<0.05	0.08	0.23	<0.10	<0.05	<0.10	8.63	25.0	9.10	0.22	6.4	
1420	7/2188	550	W7	M	7.10	2.0	1.50		0.09	<0.05	0.09	0.35	<0.10	<0.05	<0.10	5.93	26.0	8.90	0.22	9.2	
1433	7/2188	910	W7	M	7.10	2.3	0.8	2.73	0.06	<0.05	0.11	0.66	<0.10	*	*	2.19	26.0	9.10	0.22	32.0	
1450	7/2188	1310	W7	M	7.10	3.5	1.05		0.12	<0.05	0.11	0.75	<0.10	<0.05	<0.10	1.58	26.0	8.90	0.22	7.2	
1474	7/2188	1545	W7	M	7.30	5.1	2.00		0.17	<0.05	0.13	1.28	<0.10	<0.05	<0.10	1.78	26.0	9.20	0.22	12.8	
1488	7/2188	1820	W7	M	7.50	1.9	2.00		0.11	<0.05	0.13	0.85	<0.10	<0.05	<0.10	1.70	20.0	9.10	0.22	10.0	
1501	7/2188	2140	W7	M	6.90	11.0	4.00		0.76	0.23	0.14	2.37	0.68	0.11	0.57	48.4	24.0	7.10	2.92	29.2	1100
1535	7/2288	35	W7	M	7.40	2.3	2.00		0.14	<0.05	0.12	0.89	<0.10	<0.05	<0.10	1.78	23.0	8.60	0.22	10.4	
1568	7/2288	315	W7	M	6.60	1.8	2.00		0.15	<0.05	0.15	1.46	<0.10	<0.05	<0.10	5.26	23.0	8.80	0.22	8.0	
1573	7/2288	615	W7	M	7.30	3.7	2.00		0.16	<0.05	0.11	1.46	<0.10	<0.05	<0.10	4.80	23.0	8.90	0.22	7.00	
1594	7/2288	1005	W7	M	7.00	4.9	0.85	1.23	0.17	<0.05	0.10	1.37	<0.10	<0.05	<0.10	4.90	23.0	8.60	0.22	9.50	3000
1597	7/2288	1435	W7	M	7.00	1.5	2.00		0.21	<0.05	0.09	0.46	*	<0.05	*	1.48	25.0	8.40	0.22	6.00	
1625	7/2288	1640	W7	M	7.20	8.2	2.00		0.22	<0.05	0.09	0.86	<0.10	<0.05	<0.10	1.77	25.0	8.50	0.22	16.0	
1638	7/2288	1900	W7	M	7.20	3.0	1.50		0.15	<0.05	0.08	1.06	<0.10	<0.05	<0.10	3.70	25.0	8.40	0.22	7.2	
1649	7/2288	2130	W7	M	7.30	27	1.15		0.13	<0.05	0.09	1.83	<0.10	0.03	<0.10	2.03	25.0	8.50	0.22	4.80	6000
1662	7/2288	50	W7	M	8.20	2.0	2.00		0.15	<0.05	0.08	0.58	<0.10	<0.05	<0.10	5.92	24.0	8.20	0.22	6.0	
1681	7/2288	330	W7	M	8.20	2.6	2.00		0.15	<0.05	0.08	0.58	<0.10	<0.05	<0.10	5.92	24.0	6.10	0.22	8.2	
1694	7/2288	720	W7	M	8.00	2.6	2.00		0.18	<0.05	0.09	0.61	<0.10	<0.05	<0.10	1.12	24.0	7.80	0.22	7.5	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC			TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
															P04 mg/l	CHLORO-a mg/a3						
1722	72388	1000	M7	M	8.30	16	<2.00	0.17	<0.05	0.09	0.93	<0.10	<0.05	<0.10	3.08	23.0	7.80	<0.22	6.2	170		
1736	72388	1300	M7	M	8.40	2.5	<2.00	0.18	<0.05	0.08	0.93	<0.10	<0.05	<0.10	<1.84	25.0	7.80	<0.22	7.2			
1748	72388	1545	M7	M	7.50	3.6	<2.00	0.27	0.09	1.02	1.07	<0.10	<0.05	<0.10	*	25.0	6.20	<0.22	6.8			
1762	72388	1800	M7	M	7.30	2.7	<2.00	0.19	<0.05	0.08	0.75	<0.10	<0.05	<0.10	*	25.0	8.40	<0.22	8.8			
1775	72388	2128	M7	M	8.60	2.6	<2.00	0.24	<0.05	0.09	0.85	<0.10	<0.05	<0.10	2.54	23.0	7.70	<0.22	9.2			
1799	72488	20	M7	M	7.80	28	1.80	0.18	<0.05	0.10	1.41	<0.10	<0.05	<0.10	10.8	23.0	7.20	<0.22	66.6			
1838	72488	330	M7	M	7.60	2.1	<2.00	0.25	<0.05	0.15	0.56	<0.10	<0.05	<0.10	8.63	23.0	7.60	<0.22	6.5			
1864	72488	735	M7	M	7.20	2.3	1.20	0.22	0.07	0.02	0.74	<0.10	0.09	<0.10	*	24.0	7.80	<0.22	9.2			
1891	72488	1005	M7	M	7.40	2.6	<2.0	3.68	0.26	0.11	4.30	0.72	<0.05	0.72	12.1	24.0	6.90	<0.22	7.3			
1900	72488	1310	M7	M	7.80	2.5	<2.0	0.08	0.63	<0.10	*	*	<0.05	0.11	<3.30	25.0	7.80	<0.22	6.8			
1921	72488	1515	M7	M	7.40	2.8	<2.0	0.21	<0.05	<0.05	0.44	<0.10	<0.05	<0.10	3.30	26.0	0.00	<0.22	10			
1931	72488	1820	M7	M	7.30	2.0	<2.0	0.18	<0.05	<0.05	0.44	<0.10	<0.05	<0.10	3.05	26.0	8.00	<0.22	7.25			
1959	72488	2150	M7	M	7.80	3.0	1.7	0.53	1.32	0.11	0.05	0.11	<0.05	0.11	*	25.0	7.40	<0.22	8.1			
1955	72588	15	M7	M	7.60	1.9	1.65	0.08	0.54	<0.10	0.05	0.10	<0.05	<0.10	2.9	24.0	6.80	<0.22	6			
1978	72588	310	M7	M	7.30	2.2	1.75	0.15	0.94	<0.10	0.05	<0.10	<0.05	<0.10	<1.82	23.0	6.90	<0.22	8.4			
1991	72588	730	M7	M	7.80	11.0	1.35	0.18	<0.05	0.90	0.53	0.12	0.08	0.04	<1.46	25.0	6.70	<0.22	34.8			
2023	72588	1000	M7	M	7.20	7.0	1.95	0.38	<0.05	0.83	<0.20	*	0.10	*	*	24.0	6.6	<0.22	17.2			

NOTES: * - Insufficient sample for repeat analysis

** - Matrix Interference

** - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

** - Estimated

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CRD5 mg/l	CRD20 mg/l	MH3 mg/l	MH2 mg/l	MH3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
3	71188	1415	M8	M	7.10	4.5	5.15		0.21	0.18	1.11	4.08	0.07	0.12	<0.10	6.94	28.0	5.00	0.33	12.7	8000
22	71188	1715	M8	M	5.50	3.5	2.40		0.30	0.17	1.01	1.41	0.10	0.09	0.01	<2.42	26.0	5.20	0.34	6.8	
35	71188	2015	M8	M	4.00	3.9	6.45	9.1	0.22	0.16	1.00	2.12	<0.10	<0.05	<0.10	3.62	26.0	4.10	0.32	14.4	
54	71188	2315	M8	M	7.20	3.4	2.80		0.11	0.15	0.78	1.56	<0.10	<0.05	<0.10	<2.48	27.0	3.30	0.36	9.8	
84	71288	640	M8	M	7.40	3.6	3.05		0.28	0.13	0.96	1.29	0.14	<0.05	0.14	<2.70	24.0	3.70	0.32	8.0	
158	71288	910	M8	M	7.30	5.5	8.70		0.48	0.21	1.71	2.08	0.17	<0.05	0.17	3.65	23.0	3.80	0.30	17.6	
185	71288	1130	M8	M	6.50	6.1	4.25					2.66	0.31			4.63	24.0	3.20	0.24	15.2	
190	71288	1430	M8	M	7.20	3.5	3.92		0.86	0.19	0.89	3.24	0.30	0.05	0.25	<2.19	25.0	3.30	0.27	14.0	>160,000
209	71288	1720	M8	M	7.30	4.9	2.85		0.63	0.18	0.61	1.17	0.16	<0.05	0.16	<2.42	26.0	4.00	0.30	9.33	
231	71288	1955	M8	M	6.90	3.4	2.35	5.98	0.56	0.15	0.59	1.22	<0.10	<0.05	<0.10	1.73	24.0	4.10	0.31	9.80	
236	71288	2253	M8	M	7.10	3.0	1.75		0.45	0.18	0.57	1.09	<0.10	<0.05	<0.10	<2.09	24.0	3.90	0.33	7.33	
255	71388	120	M8	M	7.50	4.5	2.45		0.32	0.14	0.67	1.07	<0.10	<0.05	<0.10	1.51	24.0	3.50	0.35	27.0	
276	71388	410	M8	M	7.30	3.5	1.45		0.40	0.12	0.76	0.77	<0.10	<0.05	<0.10	<2.16	23.0	3.20	0.33	6.0	
296	71388	813	M8	M	7.40	3.5	<2		0.27	0.13	0.75	0.53	<0.10	0.04	<0.10	1.72	22.0	2.90	4.70	5.20	
308	71388	1050	M8	M	7.50	4.0	2.10		0.33	0.13	0.80	0.76	0.09	<0.05	0.09	<2.23	24.0	4.30	0.33	8.00	5000
321	71388	1330	M8	M	7.50	40.1	1.80		0.32	0.13	0.89	0.91	<0.10	<0.05	<0.10	30.42	24.0	4.30	0.32	9.33	
334	71388	1510	M8	M	7.40	3.6	2.62	4.72	0.31	0.14	0.94	1.05	<0.10	<0.05	<0.10	<2.00	25.0	4.75	0.33	6.00	
353	71388	1840	M8	M	7.40	34	2.80		0.29	0.13	1.05	0.74	0.17	<0.05	0.17	1.60	25.0	4.70	0.33	28.0	16,000
366	71388	2150	M8	M	7.20	44	2.70		0.22	0.12	1.08	0.73	<0.10	<0.05	<0.10	1.88	24.0	4.10	0.35	6.80	
393	71488	105	M8	M	7.40	3.5	1.40		0.21	0.12	1.00	0.68	0.15	<0.05	0.15	4.02	23.0	3.70	0.32	21.8	
407	71488	405	M8	M	7.60	15.0	4.90		0.41	0.94	0.45	2.54	0.80	0.51	<0.10	136.77	25.0	5.80	4.26	25.6	
417	71488	710	M8	M	7.10	3.4	<2		0.23	0.14	0.98	0.24	<0.10	0.05	<0.10	<2.18	22.0	3.40	0.33	5.60	
436	71488	1033	M8	M	7.50	35	2.45		0.17	0.12	1.12	2.14	0.20	0.05	0.15	1.75	25.0	3.80	0.32	30.4	1100
448	71488	1325	M8	M	7.30	3.9	3.50		0.16	0.25	0.79	<0.20	0.10	<0.05	0.10	1.63	25.0	4.00	0.31	8.80	5000
483	71488	1825	M8	M	7.40	3.0	1.95		0.05	0.12	0.87	0.70	0.10	<0.05	0.10	1.51	26.0	4.80	0.29	8.00	
462	71488	1825	M8	M	7.40	3.0	1.38	2.98	0.12	0.12	1.08	0.70	0.10	<0.05	0.10	<2.49	26.0	5.40	0.32	5.60	
506	71588	2255	M8	M	7.10	3.1	4.38		0.16	0.12	0.85	1.10	0.15	<0.05	0.15	<2.05	26.0	4.00	0.34	12.4	
519	71588	110	M8	M	7.20	3.6	<2		0.26	0.13	0.98	1.44	<0.10	<0.05	<0.10	2.62	25.0	3.60	0.29	6.40	
524	71588	345	M8	M	7.20	4.5	2.30		0.49	0.17	0.81	1.44	<0.10	<0.05	<0.10	6.90	25.0	4.20	0.31	153.6	
543	71588	615	M8	M	7.30	6.0	2.40		0.67	0.13	0.63	1.23	<0.10	<0.05	<0.10	6.80	25.0	4.20	0.31	20.8	
558	71588	1010	M8	M	7.40	4.8	1.15		0.44	0.13	0.83	1.33	<0.10	<0.05	<0.10	6.08	26.5	5.00	0.32	29.4	5000
591	71588	1400	M8	M	7.50	5.7	2.75		0.37	0.14	1.03	1.03	<0.10	<0.05	<0.10	11.3	28.0	6.00	0.32	10.0	9000
607	71588	1700	M8	M	7.50	4.0	2.4	4.55	0.26	0.13	1.14	0.80	<0.10	<0.05	<0.10	<2.47	24.0	5.80	0.29	11.4	
628	71588	1920	M8	M	7.40	2.9	2.20		0.16	0.14	1.16	0.57	<0.10	<0.05	<0.10	<2.51	26.0	4.50	0.27	8.86	
642	71588	2225	M8	M	7.40	3.4	2.50		0.16	0.13	1.16	0.58	<0.10	<0.05	<0.10	4.58	25.0	6.70	0.27	7.80	
662	71688	154	M8	M	7.20	3.9	2.10		<0.05	<0.05	<0.05	0.35	<0.10	<0.05	<0.10	4.51	24.0	++	0.26	7.00	
677	71688	510	M8	M	7.20	2.9	1.95		0.26	0.14	1.12	0.61	<0.10	<0.05	<0.10	21.5	24.0	++	0.26	8.00	
701	71688	745	M8	M	7.10	2.5	2.62	2.63	0.24	0.14	1.05	0.67	<0.10	<0.05	<0.10	4.68	26.0	++	0.25	8.80	
713	71688	1310	M8	M	7.30	2.4	2.25		0.25	0.14	1.01	1.00	<0.10	<0.05	<0.10	10.8	27.0	++	0.26	9.20	6000
744	71688	1625	M8	M	7.40	2.5	2.55		0.14	0.14	0.99	1.14	<0.10	<0.05	<0.10	<2.36	29.0	++	0.25	7.6	
765	71688	1920	M8	M	7.30	2.6	1.3		0.17	0.15	0.97	1.04	<0.10	<0.05	<0.10	7.16	27.0	++	0.26	5.8	
778	71688	2120	M8	M	7.30	3.2	1.9		0.17	0.14	1.00	1.59	<0.10	<0.05	<0.10	4.85	24.0	++	0.26	12.4	1700
827	71788	545	M8	M	6.80	3.9	3.75		0.70	0.14	1.04	1.16	0.26	<0.05	0.26	<2.78	25.0	++	<0.22	47.2	
841	71788	745	M8	M	6.80	4.6	2.35		0.67	0.14	0.92	1.17	0.16	<0.05	0.16	2.78	25.0	++	0.26	24.3	
850	71788	1000	M8	M	7.00	4.9	3.68	7.33	0.54	0.13	1.09	1.14	<0.10	<0.05	<0.10	3.03	25.0	++	0.23	17.2	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NH2 mg/l	NH3 mg/l	TKN mg/l	TP04 mg/l	BP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI (NPN) org/100ml
866	7/1788	1215	W8	M	7.00	4.5	2.75		0.07	0.13	1.11	1.05	<0.10	<0.05	<0.10	32.3	25.0	++	<0.22	15.2	
879	7/1788	1640	W8	M	6.90	4.5	2.45		0.26	0.12	1.11	0.70	0.14	<0.05	0.14	6.23	28.0	++	<0.22	7.6	
943	7/1788	2215	W8	M	7.00	2.9	4.85		0.12	0.10	1.10	0.74	<0.10	<0.05	<0.10	3.08	27.0	++	<0.22	9.2	
796	7/1788	2440	W8	M	6.50	4.6	9.80		0.29	0.18	1.24	1.04	0.11	<0.05	0.11	<2.70	26.0	++	<0.22	43.2	
956	7/1888	100	W8	M	7.20	2.8	2.75		0.18	0.10	0.87	0.47	<0.10	<0.05	<0.10	4.64	26.0	3.40	<0.22	10.3	
969	7/1888	310	W8	M	7.00	2.1	3.0		0.16	0.10	0.94	0.61	<0.10	<0.05	<0.10	<1.90	25.0	3.50	<0.22	9.60	
997	7/1888	740	W8	M	7.00	5.7	2.58	4.73	0.23	0.10	0.82	0.74	0.13	0.06	0.13	<2.75	25.0	3.70	<0.22	13.6	
1007	7/1888	1035	W8	M	7.30	3.1	1.1		0.13	0.11	0.79	1.15	<0.10	0.26	<0.10	<2.72	24.0	3.60	<0.22	5.6	
1021	7/1888	1320	W8	M	6.90	3.1	3.20		0.25	0.10	0.80	0.95	<0.10	0.08	<0.10	<2.53	27.0	4.90	<0.22	8.64	
1040	7/1888	1545	W8	M	7.40	1.4	2.15		0.14	0.10	0.85	0.76	<0.10	0.09	<0.10	<2.56	27.0	4.50	<0.22	4.4	17,000
1053	7/1888	1835	W8	M	7.40	2.1	1.10		0.10	0.10	0.85	0.45	<0.10	0.05	0.05	*	27.0	8.50	<0.22	12.5	
1068	7/1888	2110	W8	M	6.80	2.9	4.38		0.17	0.11	0.65	0.47	0.12	0.09	0.03	<1.73	27.0	2.60	4.56	6.8	
1114	7/1988	450	W8	M	7.10	2.4	1.60		0.19	0.10	0.75	0.42	0.13	0.27	<0.10	<2.34	24.0	2.80	3.78	5.25	1300
1119	7/1988	715	W8	M	6.80	2.6	1.10		0.19	0.10	0.75	0.42	0.13	0.27	<0.10	<2.34	24.0	2.80	3.78	5.25	1300
1138	7/1988	1005	W8	M	7.10	2.6	1.65	3.53	0.22	0.09	0.38	0.99	0.13++	0.50	++	<2.10	25.0	3.80	<0.22	8.00	
1151	7/1988	1240	W8	M	7.00	3.3	2.15		0.09	<0.05	0.06	0.65	1.26	<0.05	1.26	13.1	26.0	2.90	<0.22	14.4	
1189	7/1988	1545	W8	M	7.20	3.6	2.95		0.10	0.09	0.71	0.38	3.30	0.05	3.25	<1.72	26.0	3.60	0.22	8.00	
1198	7/1988	2110	W8	M	7.30	2.6	2.30		0.11	0.10	0.62	0.68	<0.10	0.04	<0.10	<1.44	26.0	3.50	<0.22	7.75	
1089	7/1988	2415	W8	M	6.90	2.6	3.55		0.08	0.09	1.91	1.83	1.06	0.14	0.92	9.13	25.0	5.30	<0.22	11.1	
1224	7/2088	25	W8	M	6.80	26.0	4.75		0.34	<0.05	1.07	4.07	0.21	0.12	0.09	12.7	25.0	6.80	<0.22	115	1300
1276	7/2088	510	W8	M	7.10	31.0	4.84		0.31	<0.05	1.06	1.06	<0.10	0.14	<0.10	<2.09	24.0	7.00	<0.22	42.8	
1283	7/2088	750	W8	M	6.50	16.0	2.20		0.20	0.05	1.13	0.86	0.18	0.15	0.03	2.28	24.0	6.70	<0.22	40.4	
1302	7/2088	1000	W8	M	6.60	19.0	3.90		0.27	<0.05	0.99	0.87	1.76	0.07	1.69	<0.84	23.0	6.70	<0.22	31.2	22,600
1315	7/2088	1235	W8	M	6.40	15.0	1.90		0.25	<0.05	0.94	1.33	0.18	<0.05	0.18	<2.42	23.0	6.75	<0.22	27.4	
1341	7/2088	1540	W8	M	6.40	6.6	3.33	5.43	0.23	<0.05	0.14	1.42	<0.10	0.06	<0.10	<1.43	24.0	6.40	<0.22	11.4	90,000
1363	7/2088	2030	W8	M	5.90	6.2	1.00		0.18	<0.05	1.24	1.47	<0.10	0.05	<0.10	<1.20	24.0	7.00	<0.22	42.0	
1389	7/2188	45	W8	M	6.60	7.1	7.1		0.26	<0.05	1.20	<0.20	<0.10	0.05	<0.10	<0.39	24.0	6.70	<0.22	14.8	
1408	7/2188	335	W8	M	6.40	61	2.70		0.22	<0.05	1.03	0.57	<0.10	<0.05	<0.10	<2.89	24.0	7.00	<0.22	20.8	
1421	7/2188	600	W8	M	6.50	9.6	2.25		0.26	<0.05	1.08	0.98	<0.10	<0.05	<0.10	1.53	23.0	7.10	<0.22	5.60	
1434	7/2188	930	W8	M	6.60	5.8	1.145	2.78	0.16	<0.05	0.94	1.08	<0.10	<0.05	<0.10	<2.36	24.5	6.70	<0.22	13.6	24,000
1451	7/2188	1325	W8	M	7.00	6.7	1.55		0.18	<0.05	0.91	1.06	<0.10	<0.05	<0.10	<2.59	24.0	6.80	<0.22	9.60	
1475	7/2188	1605	W8	M	7.20	6.6	1.20		0.26	<0.05	0.86	1.18	<0.10	<0.05	<0.10	42.2	20.0	0.00	<0.22	6.00	
1489	7/2188	1840	W8	M	7.00	4.1	<2.00		0.21	<0.05	0.49	1.64	<0.10	<0.05	<0.10	2.45	23.0	7.50	<0.22	261	
1502	7/2188	2150	W8	M	6.20	24.0	2.60		0.16	<0.05	0.50	1.26	*	0.08	*	8.99	23.0	7.50	<0.22	112	90,000
1536	7/2288	55	W8	M	6.20	14.0	2.00		0.12	<0.05	0.63	0.91	0.12	0.11	0.01	4.45	23.0	7.40	<0.22	37.6	
1569	7/2288	340	W8	M	7.50	9.2	<2.00		0.21	<0.05	0.72	1.66	0.14	0.10	0.04	<1.10	23.0	7.20	<0.22	22.5	
1574	7/2288	630	W8	M	6.80	9.7	1.30	2.78	0.15	<0.05	0.84	0.87	<0.10	0.09	<0.10	<1.29	23.0	7.00	<0.22	13.5	
1585	7/2288	1025	W8	M	7.00	4.8	1.38		0.18	<0.05	0.91	1.34	0.17	0.07	0.10	<1.54	25.0	7.70	<0.22	12.0	
1598	7/2288	1415	W8	M	7.70	5.7	1.15		0.12	<0.05	0.96	1.58	0.16	0.07	0.09	<1.43	24.0	6.30	<0.22	10.2	50,000
1626	7/2288	1700	W8	M	7.20	5.4	2.65		0.12	<0.05	0.96	1.42	0.18	0.07	0.11	<1.56	24.0	6.50	<0.22	39.0	
1639	7/2288	1925	W8	M	7.20	4.5	1.90		0.21	<0.05	1.02	0.69	0.15	0.08	0.07	<1.38	23.5	6.40	<0.22	7.6	160,000
1650	7/2288	2150	W8	M	7.20	4.1	1.20		0.19	0.05	0.97	1.28	0.13	0.05	0.08	5.77	23.0	6.00	<0.22	7.6	
1663	7/2388	110	W8	M	8.60	4.1	1.20		0.20	0.07	1.03	6.10	0.10	0.07	0.03	<1.80	23.0	8.70	<0.22	9.5	
1682	7/2388	350	W8	M	7.20	32.4	1.15		0.16	0.07	1.04	<0.10	0.06	0.06	<0.10	<1.49	23.0	6.80	<0.22	8.8	
1695	72?	740	W8	M	7.20	3.6	1.65		0.16	0.07	1.04	<0.10	0.06	0.06	<0.10	<1.49	23.0	6.80	<0.22	8.8	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PO4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	ISS mg/l	FEC. COLI org/100ml
1723	72388	1020	W8	M	7.60	4.2	<2.00		0.23	0.07	1.04	1.40	<0.10	<0.05	<0.10	<2.28	23.0	6.10	<0.22	9.7	
1737	72388	1320	W8	M	7.60	3.6	<2.00		0.24	0.08	1.02	1.27	<0.10	<0.05	<0.10	<1.97	23.0	6.20	<0.22	7.2	3000
1749	72388	1610	W8	M	7.40	8.1	2.90		0.88	0.14	0.37	2.06	0.24	0.26	<0.10	*	24.0	3.30	<0.22	25	
1763	72388	1815	W8	M	7.30	3.8	<2.00		0.30	0.09	1.02	1.31	<0.10	0.05	<0.10	<1.17	23.5	6.20	<0.22	3.8	
1776	72388	2148	W8	M	7.60	3.5	1.55		0.25	0.09	1.23	1.11	<0.10	0.05	<0.10	<1.38	24.0	6.00	<0.22	7.9	
1800	72488	40	W8	M	7.90	18	<2.00		0.37	0.06	0.75	1.71	<0.10	<0.05	<0.10	3.72	23	6.40	<0.22	81.3	
1839	72488	345	W8	M	7.60	18.0	<2.00		0.13	<0.05	0.56	0.55	<0.10	0.08	<0.10	6.02	23.0	7.20	<0.22	57.4	
1865	72488	750	W8	M	7.10	11.0			0.11	<0.05	0.56	0.89	<0.10	0.15	<0.10	8.67	22.0		<0.22	25.6	
1892	72488	1025	W8	M	7.50	7.5	<2.0		4.75	0.27	0.28	4.80	<0.10	0.12	<0.10	16.6	24.0	7.20	<0.22	24.6	
1901	72488	1325	W8	M	7.30	5.6	2.1		0.10	<0.05	0.49	0.90	<0.10	<0.05	<0.10	4.57	23.0	7.50		18	14,000
1922	72488	1535	W8	M	7.20	5.8	2.55		0.11	<0.05	0.69	0.59	0.23	0.06	0.17	2.42	24.0	0.00		86.0	
1932	72488	1840	W8	M	7.10	5.8	3.15		0.12	<0.05	0.91	0.91	0.13	0.06	0.07	*	24.5	7.00		17.7	
1962	72488	2215	W8	M	8.30	38.0											23.0	3.90		123.7	
1956	72588	30	W8	M	7.60	18.0	5.3		0.08	<0.05	0.86	0.66	0.16	<0.05	0.16	<1.93	23.0	7.10		57.2	
1979	72588	325	W8	M	7.50	13.0	3.4		0.10	<0.05	0.94	0.80	0.11	0.08	0.03	<2.40	22.0	7.20		33	
1992	72588	755	W8	M	7.20	10.0	<2.0		0.14	<0.05	0.88	0.72	0.12	0.09	0.03	*	24.0	6.90		20	
2024	72588	1020	W8	M	7.50	7.4	2.9		0.13	<0.05	0.91	<0.20	<0.10	0.09	<0.10	<2.86	24.0	6.7		20	

NOTES: * - Insufficient sample for repeat analysis

** - Matrix Interference

++ - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

+- - Estimated

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
4	7/1188	1515	M9		7.20	13	2.85		1.66	1.24	0.15	2.73	0.93	0.66	0.27	3.62	29.0	1.70	5.18	26.4	800
23	7/1188	1815	M9		7.20	10.5	4.70		1.92	1.12	0.16	6.71	++	0.66	++	61.66	26.0	4.40	5.49	38.4	
36	7/1188	2100	M9		7.10	13	7.05	14.2	2.41	1.12	0.14	3.20	<0.10++	0.65	++	26.57	28.0	3.10	5.23	26.8	
55	7/1188	2357	M9		4.00	8.5	3.75		2.91	1.03	<0.05	4.30	1.02	0.73	0.29	20.37	29.0	1.80	5.98	21.2	
85	7/1288	720	M9		7.30	13	5.85		1.46	1.27	<0.05	4.46	0.87	0.44	0.43	45.51	23.0	1.80	4.85	23.0	
159	7/1288	950	M9		7.75	14.0	5.12		0.94	1.24	0.02	3.96	0.93	0.40	0.53	75.50	26.0	4.50	5.00	23.3	
186	7/1288	1215	M9		7.0	43.0	4.02		1.38	1.14	0.05	4.21	0.95	0.30	0.65	95.09	24.0	3.80	5.38	21.7	
191	7/1288	1500	M9		7.3	8.9	3.50		1.78	1.17	<0.05	3.66	1.00	0.44	0.66	23.86	24.0	2.00	5.52	21.5	1700
210	7/1288	1805	M9		8.4	380	6.45		0.44	1.25	0.01	4.68	1.00	0.26	0.74	44.67	27.0	1.80	4.67	28.6	
232	7/1288	2040	M9		7.0	9.3	6.00	13.98	0.99	1.23	<0.05	2.65	0.90	0.34	0.56	66.87	22.0	4.10	5.13	26.8	
237	7/1288	2330	M9		7.5	8.1	3.85		1.59	1.15	<0.05	4.16	0.92	0.35	0.57	38.95	27.0	6.50	5.70	29.3	
256	7/1388	220	M9		7.8	42.0	5.50		0.83	1.38	<0.05	2.97	0.88	0.36	0.52	71.14	26.0	2.60	5.43	22.5	
277	7/1388	515	M9		7.7	13.0	3.80		1.06	1.10	0.18	2.34	0.88	0.11	0.77	64.9	25.0	3.50	4.65	29.0	
297	7/1388	841	M9		7.6	9.5	4.17		0.64	1.28	<0.05	3.02	0.88	0.62	0.26	86.68	25.0	2.80	0.47	18.3	
309	7/1388	1130	M9		8.0	13.0	5.1		1.17	1.04	0.10	3.19	0.86	0.35	0.51	59.88	28.0	2.40	4.88		1060
322	7/1388	1405	M9		8.7	18.0	7.49		0.61	1.03	0.20	2.80	0.76	0.25	0.31	83.23	29.0	10.9	4.10	30.4	
335	7/1388	1450	M9		8.2	20.0	7.516	19.0	0.62	0.96	0.19	2.43	0.75	0.17	0.58	78.04	26.0	6.2	4.16	54.0	
354	7/1388	1920	M9		8.2	20.0	7.96		0.60	1.05	0.29	2.03	0.84	0.18	0.46	53.49	27.0	10.2	4.35	52.0	4900
367	7/1388	2240	M9		8.3	8.3	6.42		0.74	0.91	0.38	2.64	0.87	0.57	0.30	66.35	25.0	9.35	4.74	24.6	
394	7/1488	210	M9		7.5	15.0	5.05		1.05	0.85	0.36	2.84	0.93	0.50	0.43	73.32	25.0	4.05	4.80	16.0	
408	7/1488	455	M9		7.0	18.0	8.70		1.02	<0.05	0.39	3.47	0.21	<0.05	0.21	72.75	21.5	2.60	0.53	127.6	
418	7/1488	800	M9		7.6	15.0	5.02		0.72	0.81	0.61	2.94	0.75	0.50	0.25	96.9	26.0	4.80	4.67	25	
437	7/1488	1120	M9		8.3	130	6.08		0.67	0.83	0.55	3.05	0.93	0.55	0.38	160.5	28.0	3.0	4.78	23.4	900
449	7/1488	1410	M9		8.5	18.0	6.62		0.36	0.81	0.52	2.98	0.92	0.47	0.45	142.4	29.0	3.10	4.44	33.8	
463	7/1488	1621	M9		8.5	15.0	6.25	15.25	0.59	0.78	0.55	3.37	0.93	0.41	0.52	134.8	30.0	12.6	4.97	33.0	
484	7/1488	1920	M9		8.1	15.0	5.88		0.88	0.75	0.30	0.28++	0.93	0.46	0.47	92.6	28.0	5.70	4.77	36.0	1700
507	7/1488	2355	M9		7.3	1.9	8.18		0.10	<0.05	0.26	1.17	<0.10	<0.05	<0.10	35.1	30.0	3.40	8.00	36.7	
525	7/1558	445	M9		7.4	7.9	3.40		3.15	0.67	0.22	7.80	1.00	0.48	0.52	92.9	26.0	4.40	5.58	23.6	
520	7/1588	200	M9		7.3	7.5	2.95		4.32	0.62	0.15	4.91	1.11	0.42	0.69	21.1	29.0	2.50	6.43	18.0	
544	7/1588	640	M9		7.6	12.0	4.35		2.27	0.61	0.28	3.98	0.96	0.31	0.65	96.8	26.0	2.20	5.38	25.2	
559	7/1588	1110	M9		8.4	13.0	6.82		1.24	0.60	0.27	3.63	0.96	0.15	0.81	84.68	26.0	6.50	4.79	39.6	
592	7/1588	1510	M9		8.75		7.20		1.10	0.61		3.55	0.93	0.22	0.71	*	27.0	12.4	5.02	30.4	5000
608	7/1588	1750	M9		8.8	25.0	1.93	3.4	0.71	0.55	0.19	1.34	0.84	0.40	0.44	107.92	31.0	15.6	4.74	75.6	1700
629	7/1588	2025	M9		8.6	15.0	5.30		0.51	0.51	0.29	2.01	0.85	0.39	0.26	38.76	29.0	15.0	4.59	44.4	
643	7/1588	2300	M9		8.1	9.5	5.30		1.63	0.58	0.21	1.95	1.44	<0.05	1.44	68.35	30.0	9.30	5.32	58.8	
663	7/1688	320	M9		8.4	2.4	6.45		0.19	0.13	1.18	0.68	<0.10	<0.05	<0.10	174.0	28.0	9.70	4.62	41.2	
678	7/1688	615	M9		8.3	15.0	6.60		1.18	0.52	0.21	3.40	0.80	0.46	0.34	195.3	27.0	++	4.74	28.8	
702	7/1688	845	M9		8.3	9.5	7.6	15.15	0.86	0.53	0.18	2.68	0.76	0.21	0.55	278.0	27.0	++	4.86		
714	7/1688	1155	M9		8.2	9.2	5.62		1.27	0.51	0.22	3.31	0.74	0.50	0.24	216.1	30.0	++	5.05	3.64	
729	7/1688	1440	M9		8.5	9.6	6.62		0.75	0.53	0.16	3.02	0.90	*	*	288.0	31.0	++	4.88	52.8	
745	7/1688	1700	M9		8.8	14.0	4.15		0.54	0.48	0.17	2.80	0.75	0.24	0.51	235.0	31.0	++	4.64	46.0	230
766	7/1688	2000	M9		8.8	13.0	4.45		0.41	0.46	0.25	3.01	0.85	0.34	0.51	9.25	31.0	++	4.87	43.2	
779	7/1688	2215	M9		7.5	9.8	5.95		1.60	0.55	0.17	2.13	0.87	0.23	0.64	97.2	28.0	++	5.24	25.6	800
797	7/1788	130	M9		6.9	9.0	5.03		2.47	0.53	0.08	2.97	0.92	0.53	0.39	266.7	26.0	++	5.34	48.8	
828	7/1788	622	M9		7.8	11.0	6.25		1.26	0.53	0.11	2.66	0.91	0.21	0.70	100.5	27.0	++	4.64	28.0	
842	7/1788	820	M9		8.0	15.0	5.3		1.23	0.52	0.10		0.86	0.19	0.67	*	28.0	++	4.80	20.6	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PO4 mg/l	CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	(MPN)
851	7/17/88	1035	M9	M	8.3	13.0	5.58	14.33	0.78	0.45	0.19	2.71	0.81	0.11	0.70	181.9	30.0	++	4.66	34.0	
867	7/17/88	1255	M9	M	8.6	17.0	7.0	0.39	0.41	0.12	2.51	0.72	0.15	0.57	96.1	32.0	++	4.49	34.4		
880	7/17/88	1720	M9	M	8.8	14.0	6.58	0.15	0.39	0.20	0.86	0.75	0.30	0.45	337.8	31.0	++	4.50	25.2		
944	7/17/88	2250	M9	M	8.0	150	5.65	1.33	0.45	0.27	3.43	0.89	0.19	0.70	245.4	27.0	++	5.07	30.8		
957	7/18/88	140	M9	M	8.0	14.0	3.95	1.36	0.42	0.22	2.36	0.83	0.20	0.63	139.1	27.0	4.80	4.42	29.0		
970	7/18/88	340	M9	M	8.0	11.0	5.18	1.40	0.34	0.16	3.45	0.88	0.19	0.69	127.3	28.0	5.80	4.58	31.6		
998	7/18/88	820	M9	M	8.0	3.9	3.63	0.85	0.38	0.28	3.10	0.84	0.42	0.84	197.6	26.0	7.30	4.05	34.4		
1008	7/18/88	1120	M9	M	8.3	28	3.92	0.89	0.39	0.23	4.38	0.83	0.43	0.83	95.2	30.0	8.60	4.05	27.6		
1022	7/18/88	1405	M9	M	8.9	1.8	6.35	0.08	0.35	0.19	2.71	0.61	0.18	0.43	18.4	31.0	13.0	3.89	42.3	2400	
1041	7/18/88	1625	M9	M	9.2	19.0	7.72	0.05	0.33	0.17	2.82	0.66	0.27	0.39	282.5	32.0	17.2	3.98	47.1		
1054	7/18/88	1905	M9	M	8.8	16.0	5.88	0.60	0.36	0.16	1.11	0.74	0.26	0.74	106.5	29.0	11.5	4.31	45.6	2800	
1069	7/18/88	2140	M9	M	8.5	18.0	8.35	0.45	0.34	0.05	1.68	0.55	0.33	0.22	11.72	29.0	4.00	4.17	56.9		
1090	7/18/88	50	M9	M	8.3	16.0	6.55	1.50	0.38	0.17	4.01	0.66	0.47	0.19	43.7	29.0	7.60	4.72	35.6		
1115	7/18/88	530	M9	M	8.3	15.0		1.38	0.37	0.23	2.82	0.74	0.49	0.25	45.6	29.0	8.20	0.34	28.8		
1120	7/18/88	805	M9	M	8.4	2.1	5.78	0.56	0.30	0.19	3.01	0.58	0.35	0.24	39.0	27.0	8.70	0.35	34.0	170	
1139	7/18/88	1100	M9	M	8.3	18.0	4.98	0.59	0.29	0.18	4.75	0.59	0.50	2.84	76.4	29.0	8.70	3.29	37.3		
1152	7/18/88	1325	M9	M	7.0	9.1	5.52	1.38	0.34	0.22	3.37	3.34	0.50	2.84	63.3	29.0	7.10	3.86	27.8		
1171	7/18/88	1635	M9	M	7.7	14.0	5.12	1.725	0.33	0.21	4.63	4.66	0.27	4.39	63.3	29.0	6.10	4.67	27.2		
1185	7/18/88	1910	M9	M	8.0	15.0	7.08	0.79	0.36	0.17	3.23	3.52	0.35	0.24	99.0	29.0	5.60	4.45	28.0		
1199	7/18/88	2140	M9	M	7.9	14.0	6.20	1.22	0.34	0.17	2.44	4.16	0.05	4.16	51.2	28.0	5.90	4.59	34.0		
1225	7/20/88	115	M9	M	7.6	9.6	5.50	0.22	0.38	0.13	1.80	3.22	0.64	2.58	57.8	28.0	4.50	5.16	31.6	>160,000	
1277	7/20/88	540	M9	M	7.8	14.0	5.10	1.48	0.38	0.10	4.72	0.61	0.46	0.15	51.2	28.0	5.00	4.44	28.0		
1284	7/20/88	835	M9	M	8.0	14.0	4.60	0.89	0.31	0.05	0.72	0.60	0.24	0.36	41.5	27.0	6.20	3.66	29.8		
1303	7/20/88	1045	M9	M	7.8	14.0	3.40	0.87	0.29	0.05	2.42	0.67	0.05	0.67	38.4	28.0	6.00	3.60	37.4		
1316	7/20/88	1315	M9	M	8.2	14.0	4.10	0.76	0.43	0.05	2.41	2.25	0.42	1.83	22.6	29.0	7.30	3.09	25.6	2400	
1342	7/20/88	1625	M9	M	8.4	14.0	6.58	0.74	0.25	0.06	2.75	0.54	0.31	0.23	84.4	29.0	9.50	3.46	30.0		
1364	7/20/88	2130	M9	M	7.5	12.0	5.00	0.68	0.26	0.19	3.55	0.60	0.23	0.37	31.4	25.0	8.10	3.28	32.8	9000	
1390	7/21/88	115	M9	M	8.6	5.00	5.00	0.32	0.22	0.14	3.05	0.34	0.29	0.05	33.7	27.0	7.20	2.92	26.0		
1409	7/21/88	415	M9	M	7.7	97	5.00	0.87	0.26	0.14	1.24	0.60	0.25	0.35	11.9	28.0	6.10	3.10	29.2		
1422	7/21/88	645	M9	M	7.7	15.0	6.38	0.79	0.27	0.11	1.25	0.53	0.30	0.23	37.0	27.0	6.70	3.10	28.0		
1435	7/21/88	1015	M9	M	7.8	13.0	4.58	0.66	0.21	0.16	2.29	0.40	0.29	0.11	46.5	27.0	6.10	2.74	22.8		
1452	7/21/88	1410	M9	M	8.0	3.0	4.28	0.43	0.23	0.20	1.41	0.10	0.29	0.10	57.2	27.0	7.60	2.92	26.8	1700	
1476	7/21/88	1640	M9	M	7.5	12	3.80	1.44	0.11	0.62	2.76	0.55	0.14	0.41	4.40	28.0	0.50	3.28	26.0		
1490	7/21/88	1920	M9	M	7.5		3.20	0.97	0.26	0.19	3.07	0.52	0.30	0.22	9.37	26.0	6.10	3.28	28.0		
1503	7/21/88	2235	M9	M	7.0	2.4	2.40	0.12	0.05	0.11	1.06	0.10	0.05	0.10	23.0	23.0	8.70	0.22	12.4		
1537	7/22/88	135	M9	M	7.7	11.0	4.00	0.77	0.28	0.10	3.14	0.45	0.38	0.07	25.2	25.0	5.40	2.92	30.4	8000	
1570	7/22/88	430	M9	M	7.2	9.6	3.90	0.76	0.30	0.06	2.95	0.58	0.42	0.16	56.5	26.0	5.25	2.92	26.5		
1575	7/22/88	710	M9	M	7.4	9.7	3.95	0.69	0.28	0.07	3.45	0.58	0.42	0.16	44.2	26.0	4.85	2.74	21		
1586	7/22/88	1115	M9	M	7.5	12.0	3.52	0.75	0.24	0.07	2.44	0.45	0.37	0.08	78.8	26.0	6.65	2.38	20.0		
1599	7/22/88	1335	M9	M	8.0	15.4	4.75	0.48	0.25	0.05	1.66	0.58	0.29	0.29	61.6	26.0	6.95	2.65	30.4		
1627	7/22/88	1740	M9	M	8.5	10.1	14.8	0.39	0.25	0.08	3.31	0.55	0.17	0.38	69.9	26.0	9.30	2.47	30.7	2400	
1640	7/22/88	2010	M9	M	8.5	11.05	4.90	0.34	0.24	0.11	2.79	0.46	0.29	0.17	67.1	26.0	9.40	2.38	42.0		
1651	7/22/88	2245	M9	M	8.3	16	7.90	0.25	0.23	0.12	2.57	0.30	0.09	0.09	81.7	25.0	8.20	2.38	38.0	160,000	
1664	7/23/88	154	M9	M	8.7	14	3.98	0.28	0.19	0.24	1.05	0.30	0.20	0.10	51.1	25.0	7.55	2.02	21.2		
1683	7/23/88	435	M9	M	8.5	9.0	3.90	0.15	0.25	0.15	0.21	0.21	0.23	0.10	52.5	24.0	6.70	1.84	19.9		
1696	7/23/88	820	M9	M	8.0	13	3.75	0.41	0.22	0.20	1.75	0.62	0.23	0.39	26.7	25.0	7.20	1.84	30.2		

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CROSS eq/l	CR0020 eq/l	NH3 eq/l	NO2 eq/l	NO3 eq/l	TKN eq/l	TP04 eq/l	OP04 eq/l	ORGANIC P04 eq/l	CHLORO-a eq/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI (MPN) org/100ml
1724	72388	1105	M9	M	8	16	3.55		0.56	0.20	0.20	1.38	<0.10	0.08	<0.10	110.6	26.0	7.90	1.66	28.9	
1758	72388	1355	M9	M	8.2	8.5	4.10		0.18	0.19	0.24	1.30	0.12	<0.05	0.12	12.6	27.0	10.2	1.48	24.5	14,000
1750	72388	1645	M9	M	9.0	18	6.60		0.31	0.16	0.27	2.25	0.15	0.11	0.04	*	26.0	12.9	1.30	23.6	
1764	72388	1900	M9	M	8.9	18	4.25		0.15	0.16	0.27	1.90	0.14	0.17	<0.10	31.5	26.0	11.8	1.48	43.1	
1777	72388	2230	M9	M	8.6	14	4.85		0.09	0.17	0.30	1.83	0.15	0.14	0.01	*	23.0	10.8	1.66	27.4	
1801	72488	125	M9	M	8.6	14	2.95		0.15	0.19	0.30	2.01	<0.10	0.06	<0.10	73.6	24.0	9.20	1.66	27	
1840	72488	425	M9	M	8.3	17.0	2.75		0.29	0.17	0.29	1.93	<0.10	0.05	<0.10	55.3	23.0	7.90	1.48	31.35	
1866	72488	830	M9	M	7.5	17.0	3.30		0.31	0.15	0.26	1.361	<0.10	0.17	<0.10	152.7	24.0	7.30	1.30	26.8	
1893	72488	1105	M9	M	7.5	15.0	4.68		4.74	0.26	0.18	2.76	<0.10	0.17	<0.10	44.9	25.0	8.80	1.48	25.7	
1902	72488	1400	M9	M	8.3	15.0	6.25		0.27	0.16	0.27	1.13	<0.10	*	*	*	9.40	1.48	1.48	30.7	9000
1923	72488	1610	M9	M	8.6	15.0	4.73		0.10	0.16	0.16	0.77	0.41	0.13	0.18	152.6	26.5	11.0	1.48	36.2	
1933	72488	1930	M9	M	8.6	14.0	<2.0		0.22	0.17	0.18	0.79	*	0.11	*	57.3	27.0	11.6	1.48	33.9	
1961	72488	2300	M9	M	8.6	13.0			<0.05	0.17	0.21	0.91	0.34	<0.05	0.34	51.6	24.0	11.3	1.30	15.6	
1957	72588	110	M9	M	8.7	13.0	6.05		0.15	0.19	0.29	0.60	0.28	0.17	0.11	*	25.0	9.60	1.30	24.3	
1980	72588	410	M9	M	8.5	13.0	4.15		0.43	0.05	0.46	0.68	0.25	0.18	0.07	*	24.0	9.31	1.12	26.8	
1993	72588	835	M9	M	7.9	16.0	3.15		0.16	<0.05	0.92	0.75	0.14	0.10	0.04	<1.08	23.0	3.40	<0.22	47.6	
2025	72588	1105	M9	M	7.9	7.0	2.1										23.0	6.7	<0.22	20.8	

NOTES: * - Insufficient sample for repeat analysis

++ - Matrix interference

++ - Zero (0) eq/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Inte not reliable

++ - Estimated

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NO3 mg/l	NO2 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC PD4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	(MPN)
5	7/11/88	1600	M10	M	7.10	10	3.18		0.94	0.07	0.54	1.86	<0.01	<0.05	0.01	8.72	28.0	7.45	0.42	9.2	15,500
24	7/11/88	1835	M10	M	6.70	14	4.75		0.96	0.09	1.19	1.93	<0.05	<0.05	0.70	4.31	28.0	5.70	0.41	20.0	
37	7/11/88	2125	M10	M	10.20	14.2	5.85	7.5	1.03	0.08	0.32	2.23	<0.10	<0.05	<0.10	3.55	25.0	4.00	0.40	18.6	
56	7/11/88	2420	M10	M	7.20	12	<2		1.06	0.07	0.19	1.94	<0.10	<0.05	<0.10	2.61	24.0	4.40	0.42	9.6	
187	7/12/88	110	M10	M	6.80	13.0	10.1		1.63	0.15	1.10	4.29	0.32	<0.05	0.32	17.00	27.0	3.00	2.07	20.0	
86	7/12/88	750	M10	M	6.40	17	16.0		1.07	0.12	1.79	2.92	<0.05	<0.05	0.24	5.59	23.0	5.45	0.27	27.0	
160	7/12/88	1010	M10	M	7.30	18.0	16.4		1.63	0.32	1.95	4.11	0.15	<0.05	0.15	<1.87	23.0	4.40	0.38	26.5	
192	7/12/88	1520	M10	M	6.60	9.1	9.75		1.14	0.16	1.07	2.16	0.16	<0.05	0.16	4.34	24.0	4.20	0.35	14.0	160,000
211	7/12/88	1820	M10	M	6.50	10.0	4.66				3.80	0.44				3.98	25.0	4.40	0.34	19.1	
233	7/12/88	2105	M10	M	6.90	6.3	4.73	15.15	1.03	0.12	0.50	1.97	<0.10	<0.05	<0.10	45.79	24.0	4.30	3.51	15.0	
238	7/12/88	2355	M10	M	7.00	9.8	7.60		1.00	0.06	0.25	2.63	0.12	<0.05	0.12	10.46	24.0	1.60	0.54	25.0	
257	7/13/88	235	M10	M	7.20	4.8	5.00		0.97	0.09	0.45	1.75	<0.10	<0.05	<0.10	1.42	23.0	2.40	0.40	12.7	
278	7/13/88	540	M10	M	7.00		5.10		1.10	0.07	0.38	1.69	<0.10	<0.05	<0.10	4.96	22.0	3.50	0.40	15.3	
298	7/13/88	915	M10	M	7.50	7.5	2.80		1.00	0.05	0.32	1.72	<0.10	<0.05	<0.10	4.46	22.0	4.30	7.44	8.86	
310	7/13/88	1200	M10	M	7.30	8.1	3.20		1.06	0.05	0.50	1.85	0.08	<0.05	0.08	<1.83	24.0	3.10	0.54	12.0	22,000
323	7/13/88	1430	M10	M	7.10	10.0	3.20		1.12	0.07	0.30	1.63	<0.10	<0.05	<0.10	38.50	26.0	6.30	0.42	17.8	
336	7/13/88	1715	M10	M	7.30	7.5	5.1	8.85	1.11	0.06	0.27	1.67	<0.10	<0.05	<0.10	<2.09	26.0	5.80	0.44	13.2	
355	7/13/88	2000	M10	M	7.30	8.6	4.88		1.10	0.07	0.23	1.54	<0.10	<0.05	<0.10	2.26	25.0	4.20	0.48	12.1	
368	7/13/88	2255	M10	M	7.00	8.5	3.38		1.03	0.05	0.21	1.46	<0.10	<0.05	<0.10	2.56	24.0	4.60	0.42	25.5	
395	7/14/88	245	M10	M	6.90	12.0	3.72		1.02	0.18	0.55	1.28	<0.10	<0.05	<0.10	40.30	22.0	4.40	0.42	25.5	
409	7/14/88	545	M10	T	7.16	15.0	<2		1.01	0.05	0.42	2.74	<0.10	<0.05	<0.10	<1.93	21.0	4.00	0.45	19.3	
419	7/14/88	830	M10	M	6.80	15.0	3.30		1.43	0.05	0.39	2.61	<0.10	<0.05	<0.10	<1.93	25.0	5.80	0.47	12.0	
438	7/14/88	1140	M10	M	7.10	14.0	2.25		1.04	0.06	0.55	2.98	1.71	<0.05	1.71	<1.69	28.0	6.60	0.45	3.48	
450	7/14/88	1430	M10	M	7.40	11.0	6.40		0.90	0.05	0.35	1.99	0.12	<0.05	0.12	15.9	28.0	6.90	0.44	42.2	
464	7/14/88	1446	M10	M	7.20	18.0	5.46	7.73	0.93	0.05	0.15	1.58	<0.10	<0.05	<0.10	*	25.0	5.70	0.41	11.2	
485	7/14/88	1940	M10	M	7.10	14.0	<2		1.03	0.05	0.17	1.34	<0.10	<0.05	<0.10	<2.28	25.0	4.70	0.47	54.8	
508	7/14/88	2350	M10	M	7.00	14.0	4.05		1.04	0.05	0.20	1.60	1.02	<0.05	1.02	4.32	25.0	2.30	0.45	7.60	
521	7/15/88	230	M10	M	7.00	14.0	<2		1.04	0.05	0.23	1.32	<0.10	<0.05	<0.10	*	25.0	3.40	0.40	40.0	
526	7/15/88	515	M10	M	6.90	15.0	<2		1.15	0.05	0.38	1.82	<0.10	<0.05	<0.10	<1.21	24.0	4.80	0.44	35.0	
545	7/15/88	740	M10	M	7.00	13.0	2.10		1.03	0.05	0.46	1.59	<0.10	<0.05	<0.10	<1.93	26.0	4.90	0.43	10.8	
560	7/15/88	1138	M10	M	7.40	14.0	<2		1.03	0.05	0.00	1.50	<0.10	<0.05	<0.10	5.95	27.0	6.30	0.41	13.2	
593	7/15/88	1540	M10	M	7.20	14.0	3.90		1.01	0.06	0.00	1.36	<0.10	<0.05	<0.10	5.95	27.0	6.7	4.56	21.4	
609	7/15/88	1805	M10	M	7.00	11.0	17.25	35.2	0.94	0.44	<0.05	1.08	<0.10	<0.05	<0.10	<1.60	27.0	4.40	0.42	12.8	
630	7/15/88	2045	M10	M	6.80	14.0	<2		0.90	0.06	0.27	1.08	<0.10	<0.05	<0.10	<2.02	28.0	5.20	0.40	13.2	
644	7/15/88	2320	M10	M	7.00	9.9	2.80		0.86	0.06	0.19	1.03	<0.10	<0.05	<0.10	<2.29	24.0	5.30	0.41	12.6	
679	7/16/88	335	M10	M	7.00	15.0	2.05		0.81	0.51	0.16	1.85	0.74	0.18	0.56	<2.99	24.0	5.30	0.41	12.4	
703	7/16/88	915	M10	M	6.80	120	2.20		1.09	0.05	0.17	1.57	<0.10	<0.05	<0.10	<1.84	23.0	**	0.41	10.4	
715	7/16/88	1220	M10	M	7.00	8.5	2.70		1.01	0.05	0.15	1.71	<0.10	<0.05	<0.10	10.8	24.0	**	0.43	10.4	
730	7/16/88	1455	M10	M	7.30	9.9	8.4		1.42	0.09	0.17	2.92	<0.10	<0.05	<0.10	4.72	28.0	**	0.40	13.2	
746	7/16/88	1730	M10	M	7.10	15.0	3.00		1.03	0.05	0.17	1.84	<0.10	<0.05	<0.10	3.34	28.0	**	0.30	28.4	
767	7/16/88	2025	M10	M	7.10	15.0	12.0		1.10	0.07	0.17	1.96	<0.10	<0.05	<0.10	26.0	31.0	**	0.40	9.71	16,000
780	7/16/88	135	M10	M	6.50	18.0	7.15		1.10	0.06	0.24	2.30	1.02	<0.05	1.02	<1.77	26.0	**	0.40	44.4	300
798	7/17/88	140	M10	M	7.10	7.5	7.13		0.86	0.06	1.22	1.54	<0.10	<0.05	<0.10	5.63	24.0	**	0.24	27.1	
829	7/17/88	640	M10	M	6.80	13.0	4.0		1.16	0.08	0.78	2.11	0.20	<0.05	0.20	5.20	24.0	**	0.23	28.6	
843	7/17/88	840	M10	M	6.50	11.0	5.4		1.31	0.09	0.52	2.32	0.25	<0.05	0.25	14.5	25.0	**	0.29	18.3	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PD4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI (NPN) org/100ml
652	7/1788	1053	M10	M	6.60	12.0	9.98	20.7	0.79	0.07	0.80	1.70	<0.10	<0.05	<0.10	<1.54	25.0	++	0.24	11.8	
668	7/1788	1320	M10	M	6.70	10.0	4.4		0.75	0.08	0.67	1.42	<0.10	<0.015	<0.10	<2.02	24.0	++	0.27	17.0	
681	7/1788	1740	M10	M	6.80	7.3	3.5		0.97	0.06	0.39	0.86	<0.10		0.00	<2.56	27.0	++	0.36	5.2	
945	7/1788	2305	M10	M	6.80	130	3.67		0.91	0.06	0.95	1.83	<0.10	<0.05	<0.10	<1.65	25.0	++	0.26	28.4	
958	7/1888	208	M10	M	7.20	7.8	3.5		0.95	0.06	0.61	1.57	<0.10	<0.05	<0.10	5.56	25.0	2.50	0.28	19.0	
971	7/1888	408	M10	M	7.00	6.9	5.45		0.91	0.05	<0.05	2.03	<0.10	<0.09	<0.10	<1.28	24.5	3.30	0.34	16.3	
999	7/1888	853	M10	M	7.30	15.0	3.9	6.15	0.93	0.06	0.49	1.88	<0.10	<0.05	<0.10	6.09	20.0	4.50	0.32	13.4	
1009	7/1888	1145	M10	M	7.00	13.0	1.10		0.99	<0.05	0.82	<0.20++	0.12	<0.05	0.12	20.7	23.0	4.40	0.40	14.5	
1023	7/1888	1420	M10	M	7.20	7.3	3.50		0.78	<0.05	0.23	1.64	<0.10	<0.19	<0.10	16.3	29.0	5.50	0.40	20.6	2150
1042	7/1888	1640	M10	M	7.20	5.4	<2.0		0.83	0.06	0.37	1.63	<0.10	0.09	<0.10	<2.01	28.0	6.70	0.32	11.0	
1055	7/1888	1930	M10	M	7.40	6.4	1.60		0.93	0.05	0.26	1.13	<0.10	0.08	<0.10	4.03	26.0	4.40	0.38	10.4	2400
1070	7/1888	2100	M10	M	6.60	7.9	5.25		0.84	<0.05	0.22	0.64	<0.10	<0.05	0.56	*	26.0	14.8	0.40	13.3	
1091	7/1988	100	M10	M	6.80	7.8	1.45		0.94	<0.05	0.26	1.35	<0.10	<0.05	0.15	<1.18	26.0	3.30	0.35	14.6	
1116	7/1988	545	M10	M	6.80	13.0			0.96	<0.05	0.25	1.50	<0.10	<0.05	<0.10	<1.63	24.0	3.20	1.86	22.5	
1121	7/1988	830	M10	M	6.90	9.6	2.60		1.04	<0.05	0.20	1.47	<0.10	0.37	<0.10	<1.95	25.0	4.40	13.5	13.3	
1140	7/1988	1120	M10	M	6.90	9.3	2.25	6.68	1.09	<0.05	0.19	2.50	<0.10	<0.05	<0.10	4.00	26.0	4.80	0.39	15.6	
1153	7/1988	1345	M10	M	6.80	8.8	1.55		1.11	0.05	0.16	1.95	<0.10	0.14	1.65	3.81	26.0	5.80	0.46	8.6	
1172	7/1988	1655	M10	M	6.90	11.0	5.86		1.11	0.05	0.17	2.56	<0.10	<0.05	<0.10	2.95	25.0	5.80	0.41	7.75	
1186	7/1988	1930	M10	M	6.80	16.0	3.25		0.96	0.06	0.15	1.03	<0.10	<0.05	7.57	4.40	27.0	4.80	0.38	38.8	
1200	7/1988	2150	M10	M	7.50	13.0	1.65		1.05	0.06	0.15	0.96	<0.10	<0.05	3.63	<2.89	27.0	4.20	0.40	14.0	
1226	7/2088	140	M10	M	7.40	36.0	7.05		0.69	<0.05	0.67	2.54	<0.10	0.13	0.21	*	28.0	4.80	0.27	256	24,000
1278	7/2088	555	M10	M	7.40	19.0	4.00		0.32	<0.05	0.91	1.75	<0.10	0.10	0.05	<1.27	24.0	5.00	<0.22	76.8	
1285	7/2088	900	M10	M	6.80	17.0	3.40		0.51	<0.05	0.63	1.60	<0.10	0.13	<0.10	*	25.0	4.80	<0.22	25.8	
1304	7/2088	1110	M10	M	6.80	13.0	2.60		0.42	<0.05	0.63	2.65	<0.10++	0.49	++	<2.12	25.0	5.00	0.24	28.4	
1343	7/2088	1640	M10	M	6.70	15.0	3.40	4.13	0.36	<0.05	0.71	1.06	1.27	<0.05	1.27	*	28.0	5.00	0.23	25.3	30,000
1391	7/2188	125	M10	M	6.50	6.7	3.15		0.42	<0.05	0.78	1.56	0.61	<0.05	0.61	<2.56	26.0	4.50	<0.22	14.8	
1410	7/2188	430	M10	M	6.70	5.5	2.90		0.19	<0.05	1.10	2.14	<0.10	<0.05	<0.10	2.96	24.0	4.90	<0.22	18.9	1290
1423	7/2188	705	M10	M	6.40	6.3	1.80		0.37	<0.05	0.69	0.82	<0.10	<0.05	<0.10	6.09	24.0	4.30	<0.22	16.4	
1436	7/2188	1035	M10	M	6.40	5.5	1.50	4.50	0.32	<0.05	0.67	0.99	<0.10	<0.05	<0.10	3.14	25.0	5.70	<0.22	17.2	
1453	7/2188	1425	M10	M	6.60	7.3	3.45		0.17	<0.05	0.64	2.65	<0.10	<0.05	<0.10	5.29	24.0	4.90	<0.22	32.8	
1477	7/2188	1700	M10	M	6.90	8.1	3.75		0.47	<0.05	0.44	2.65	0.42	*	*	5.01	26.0	4.40	<0.22	16.0	1300
1491	7/2188	1940	M10	M	6.80	7.0	5.70		0.44	<0.05	0.57	1.59	<0.10	<0.05	<0.10	7.85	26.0	0.00	<0.22	12.8	
1504	7/2188	2300	M10	M	6.30	15.0	2.50		0.60	<0.05	0.46	1.23	<0.10	<0.05	<0.10	32.8	25.0	5.00	<0.22	26.8	>1,600,000
1538A	7/2288	210	M10	M	6.50	10.0	5.33	9.23	0.21	<0.05	0.70	2.08	1.38	0.04	1.34	*	23.0	4.90	<0.22	86.8	
1571	7/2288	455	M10	M	6.80	15.0	1.10		0.33	<0.05	0.43	1.02	<0.10	<0.05	1.13	<1.35		6.40	<0.22	47.2	50,000
1576	7/2288	730	M10	M	6.80	15.0	<2.00		0.33	<0.05	0.43	2.18	<0.10	<0.05	<0.10	<1.46	25.0	5.10	<0.22	20	
1600	7/2288	1140	M10	M	6.50	13.0	2.00		0.37	<0.05	0.38	0.87	<0.10	<0.05	0.10	5.17	24.0	5.10	<0.22	14.8	
1587	7/2288	1140	M10	M	6.50	14.0	3.0	3.83	0.32	<0.05	0.39	1.12	*	<0.05	*	2.32	24.0	4.90	<0.22	34.7	
1628	7/2288	1800	M10	M	6.80	9.7	2.35		0.42	<0.05	0.33	0.97	0.11	<0.05	0.11	<1.54	25.0	4.30	<0.22	10.0	90,000
1641	7/2288	2030	M10	M	7.00	2.30			0.42	<0.05	0.33	2.36	*	<0.05	*	<1.05	24.0	57.0	<0.22	7.33	
1652	7/2288	2315	M10	M	6.70	4.5	4.90		0.51	<0.05	0.33	2.36	*	<0.05	*	*	24.0	5.40	<0.22	29.1	28,000
1665	7/2288	220	M10	M	7.00	6.3	1.50		0.57	<0.05	0.32	1.15	0.11	<0.05	0.11	<1.78	23.0	5.50	2.38	8.0	
1684	7/2288	458	M10	M	8.00	6.3	1.60		0.47	<0.05	0.20	0.77	<0.10	<0.05	<0.10	<2.05	23.0	2.70	<0.22	9.4	
1697	7/2288	845	M10	M	7.10	11	3.10		0.49	<0.05	0.18	1.45	<0.10	<0.05	<0.10	8.67	23.0	3.30	<0.22	25.2	
1725	7/2288	1130	M10	M	7.50	11	2.20		0.59	<0.05	0.23	1.02	<0.10	<0.05	<0.10	3.30	25.0	5.20	<0.22	9.2	

ANALYTICAL DATA FOR RIVER AND TRIBUTARIES
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKM mg/l	TP04 mg/l	DPO4 mg/l	ORGANIC				TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
															P04 mg/l	CHLORO-a mg/l	CHLORO-a mg/l	P04 mg/l					
1739	72388	1410	W10	M	7.10	6.0	<2.00		0.61	<0.05	0.21	1.75	<0.10	<0.05	<0.10	1.14	25.0	4.70	<0.22	6.8	13,000		
1751	72388	1710	W10	M	7.00	6.1	1.40		0.65	<0.05	0.14	1.57	<0.10	<0.05	<0.10	6.22	25.0	4.30	<0.22	11.4			
1765	72388	1910	W10	M	7.10	7.2	<2.00		0.80	<0.05	0.21	1.88	<0.10	0.06	<0.10	*	24.0	5.00	<0.22	7.6			
1778	72388	2250	W10	M	7.50	26	2.45		0.13	<0.05	0.38	0.98	<0.10	<0.05	<0.10	4.01	25.0	7.70	<0.22	102			
1802	72488	140	W10	M	7.50	12			0.15	<0.05	0.41	0.42	<0.10	<0.05	<0.10	4.98	23.0	6.70	<0.22	23.8			
1841	72488	440	W10	M	7.10	8.5	<2.00		0.13	<0.05	0.36	0.314	<0.10	<0.05	<0.10	6.85	23.0	6.40	<0.22	25			
1867	72488	845	W10	M	7.20	6.6	1.90				0.18	0.76	<0.10	*	*	<2.82	24.0	5.00	<0.22	15.6			
1894	72488	1135	W10	M	6.80	6.2	1.65		4.24	0.31	0.04	5.31	0.78	<0.05	0.78	51.8	24.0	5.30	<0.22	13.6			
1903	72488	1420	W10	M	7.10	6.2	7.38		0.28	<0.05	0.24	1.09	<0.10++	0.91	++	<2.64	24.0	5.50	<0.22	11.6	16,200		
1924	72488	1630	W10	M	6.90	5.6	2.2		0.33	<0.05	0.33	0.96	0.12	<0.05	0.12	2.62	6.9	5.60	<0.22	9.7			
1934	72488	1950	W10	M	6.90	5.7	2.8		0.40	<0.05	0.26	0.76	0.13	<0.05	0.13	4.40	25.0	4.90	<0.22	11.6			
1963	72488	2320	W10	M	7.20	11.0	3.85										24.0	2.60	<0.22	23.5			
1958	72588	125	W10	M	7.00	5.4	3.35		0.52	<0.05			0.13	0.10	0.03	8.89	23.0	5.90	<0.22	9.47			
1981	72588	430	W10	M	7.30	5.75	3.2		0.47	<0.05	0.65	1.31	0.11	<0.05	0.11	2.86	23.0	5.60	<0.22	18.5			
1994	72588	855	W10	M	7.90	5.7	1.6		0.46	<0.05	0.46	0.38	<0.10	<0.05	<0.10	<0.93	24.0	5.60	<0.22	98.2			
2026	72588	1145	W10	M	7.60	8.1	2.5		0.17	<0.05	0.55	1.08	0.12	0.04	0.08	3.03	25.0	1.8	<0.22	15.7			

NOTES: * - Insufficient sample for repeat analysis

++ - Matrix Interference

++ - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

++ - Estimated

- W1 - Hackensack River at Route 1 & 9 Bridge
- W2 - Hackensack River at Erie Lackawanna RR Bridge
- W3 - Hackensack River at Conrail RR Bridge
- W4 - Hackensack River at Bellman Cr. Confluence
- W5 - Hackensack River at Route 46 Bridge
- W6 - Hackensack River at Old Bridge Road Bridge
- W7 - Hackensack River at Oradell Avenue Bridge
- W8 - Coles Brook at Main Street
- W9 - Overpeck Creek at Bergen Turnpike Bridge
- W10 - Berry's Creek at Industrial Avenue Bridge

SECTION 6

ANALYTICAL DATA

CSO AND STORM SEWER LOCATIONS

JULY DRY AND WET EVENTS

JULY 11-25, 1988

JULY DRY & WET EVENTS - JULY 11-25, 1988

86642

ANALYTICAL DATA FOR CSD AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	PH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC		D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
														P04 mg/l	P04 mg/l					
1507	7/23/88	2315	C1		5.1	<6.00		0.08	<0.05	0.57	1.71	<0.10	<0.05	<0.10	<0.10	8.30	<0.22	8	110,000	--
1508	7/23/88	2330	C1		7.5	<2.00		0.10	<0.05	0.28	1.65	1.14	<0.05	1.14	8.8	<0.22	75.6	220,000	3.77	
1509	7/23/88	2335	C1		7.5	3.60		0.15	<0.05	0.31	1.00	<0.10	<0.50	<0.10	8.20	<0.22	7.7	110,000	8.33	
1522	7/23/88	2345	C1		5.0	<2.00		0.08	<0.05	0.34	0.35	<0.10	<0.05	<0.10	8.30	<0.22	18.0	50,000	10.46	
1790	7/23/88	2215	C1	6.50	11	<6.00				0.47	1.11	<0.10		0.00	7.10	<0.22	89.0	50,000	42.10	
1791	7/23/88	2245	C1	2.20	5.6	<6.00		0.10	<0.05	0.23	0.77	<0.10	0.06	<0.10	7.40	<0.22	106	50,000	33.68	
1792	7/23/88	2315	C1	6.40	4.4	<6.00		0.12	<0.05	0.34	1.07	<0.10	0.10	<0.10	7.70	<0.22	22.0	50,000	3.26	
1793	7/23/88	2345	C1	6.50	4.2	<6.00		0.12	<0.05	1.06	0.72	<0.10	0.09	<0.10	8.50	<0.22	72.0	170,000	1.76	
1523	7/24/88	30	C1																42.10	
1524	7/24/88	15	C1		3.4	<2.00		0.10	<0.05	0.42	3.56	<0.10	<0.05	<0.10	5.80	<0.22	141	130,000	7.17	
18288	7/24/88	45	C1		3.3	<2.00		--	<0.05	0.50	0.25	<0.10	<0.05	<0.10	5.50	<0.22	38.7	300,000	3.75	
1831	7/24/88	100	C1		22	<6.00				0.00				0.00	5.60	<0.22	81.0	700,000	17.08	
1829	7/24/88	130	C1		6.3	18.0		7.23	0.42	0.40	9.29	0.82	0.38	0.44	6.30	<0.22	49.0	2,200,000	2.83	
1829	7/24/88	200	C1		29	2.40		0.07	<0.05	0.20	0.91	<0.10	<0.05	<0.10	5.60	<0.22	309	140,000	25.12	
1830	7/24/88	215	C1																6.90	
1830	7/24/88	230	C1																5.98	
1830	7/24/88	245	C1																5.35	
1830	7/24/88	300	C1																5.35	
1830	7/24/88	315	C1		4.1	2.10		0.08	<0.05	0.29	0.75	<0.10	<0.05	<0.10	6.00	1.08	38.6	16,000,000	4.08	
72488	7/24/88	330	C1																3.59	
72488	7/24/88	345	C1																2.49	
103	7/12/88	420	C2	6.50	45	>252		5.37	0.24	<0.05	19.1	1.16	0.50	0.66	1.00	<0.22	910	4,000,000	9.34	
104	7/12/88	435	C2	6.50	18	38.7		3.07	0.14	1.97	7.36	0.68	0.14	0.54	3.20	0.29	148.5	12,000,000	4.02	
105	7/12/88	450	C2	6.50	40	105		5.37	0.29	1.06	14.1	0.95	0.22	0.73	0.40	0.26	298	335,000,000	3.38	
106	7/12/88	505	C2	6.50	38	138		4.06	0.10	1.70	12.0	0.83	0.20	0.63	1.00	<0.22	574	2,000,000	1.76	
95	7/12/88	535	C2	6.30	23	37.8		3.88	0.58	1.30	13.0	1.26	0.29	0.97	1.50	<0.22	56.5	7,000,000	2.12	
96	7/12/88	550	C2	6.50	20	33.9		4.17	0.54	2.26	12.0	1.17	0.26	0.91	2.40	<0.22	36.7	23,000,000	4.45	
97	7/12/88	605	C2	6.50	10.4	32.3		4.01	0.77	1.19	9.48	1.02	0.28	0.74	2.30	0.23	26.8	7,000,000	5.79	
98	7/12/88	620	C2	6.50	28	124		5.11	0.14	1.12	17.9	0.83	0.36	0.47	2.50	0.28	286	350,000,000	8.67	
99	7/12/88	635	C2	6.30	35	85.8		4.84	0.54	1.34	15.7	0.82	0.37	0.45	2.80	<0.22	367	*	6.53	
100	7/12/88	650	C2	6.30	20	52.5		4.53	0.14	1.92	13.0	0.90	0.27	0.63	2.60	<0.22	87.3	26,000,000	3.16	
101	7/12/88	705	C2	6.30	18	67.5		4.70	0.21	1.93	9.37	1.25	0.28	0.97	2.60	<0.22	61.0	7,000,000	2.62	
94	7/12/88	720	C2	6.20	7.6	198		4.03	0.19	2.93	3.54	0.49	0.13	0.36	3.50	<0.22	23.2	<2,000,000	2.27	
790	7/16/88	2200	C2	7.20	31.0	70.2		4.55	<0.05	1.89	9.70	1.32	0.23	1.09	2.20	<0.22	110	30,000,000	0.20	
789	7/16/88	2230	C2	7.20	55.0	165.0		8.21	<0.05	0.05	8.28	1.40	0.38	1.02	0.40	0.25	186	6,250,000	0.00	
788	7/16/88	2300	C2	7.10	34.0	129.0		17.15	<0.05	0.36	20.80	3.13	1.76	1.37	0.00	0.55	62.7	90,000,000	0.00	
787	7/16/88	2330	C2	7.20	30.0	159.0		15.56	<0.05	<0.05	2.69**	2.18	1.42	0.76	0.00	0.49	50.7	13,000,000	12.89	
786	7/17/88	0	C2	7.30	30.0	152.0		15.97	<0.05	<0.05	<0.20**	1.42	1.63	0.31	0.00	0.66	41.8	4,000,000	2.35	
785	7/17/88	30	C2	7.30	21.0	111.0		16.35	<0.05	<0.05	19.83	1.75	1.44	1.01	0.60	0.62	32.0	30,000,000	3.0 E	
890	7/17/88	1830	C2	6.80	30.0	116.8		12.09	<0.05	<0.05	26.02	2.36	1.35	1.01	0.60	0.62	173	13,000,000	6.10	
891	7/17/88	1845	C2	6.50	55.0	147		12.09	<0.05	<0.05	20.71	2.08	0.12	1.96	0.60	0.50	109	10,800,000	6.42	
892	7/17/88	1900	C2	6.60	50.0	113.3		7.84	<0.05	0.82	12.32	1.74	0.09	1.65	1.00	0.30	89.0	30,000,000	5.54	
893	7/17/88	1915	C2	6.60	58.0	103.2		8.72	<0.05	0.59	16.14	1.88	0.11	1.77	1.50	0.27	77.0	15,000,000	4.05	
894	7/17/88	1930	C2	6.90	64.0	88.9		7.19	<0.05	0.96	10.26	1.86	0.15	1.71	0.40	0.26	77.0	15,000,000	4.05	
895	7/17/88	2000	C2	6.80	28.0	83.4		6.68	<0.05	1.02	25.07	1.48	0.11	1.37	1.20	0.27	56.7	7,000,000	2.62	
896	7/17/88	2030	C2	6.80	29.0	54.6		6.96	<0.05	0.22	21.97	1.11	0.10	1.01	1.50	0.28	54.0	7,000,000	2.62	

ANALYTICAL DATA FOR CSO AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CR005 mg/l	CR0020 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
1057	71888	1950	C2		50.0	133.7	193.67	10.74	<0.05	0.10	6.00++	1.78	0.24	1.78	0.60	0.44	59.5	13,000,000	--
1202	71988	2245	C2		33.0	54.2	129	2.35	<0.05	1.69	*	4.51	<0.05	4.51	4.10	<0.22	123	2,300,000	10.55
1201	71988	2315	C2		30.0	62.3	166	2.21	0.06	1.29	*	3.48	0.08	3.40	3.90	0.34	181	3,000,000	9.69
	71988	2350	C2																1.76
1236	72088	210	C2		40.0	127		0.93	<0.05	0.52	3.74	0.32	0.14	0.18	6.60	<0.22	351	1,100,000	46.50
1237	72088	245	C2		34.0	89.2		0.69	<0.05	0.92	0.76	0.26	0.14	0.12	6.90	<0.22	79.6	<200,000	33.37
1238	72088	310	C2		11.0	38.9		0.76	<0.05	0.73	1.35	<0.10	0.14	<0.10	7.50	<0.22	30.0	1,700,000	22.87
1239	72088	400	C2		18.0	64.3		0.71	<0.05	0.77	1.79	0.15	0.14	0.01	6.30	<0.22	65.0	200,000	19.44
1279	72088	550	C2		7.8	22.3		1.72	<0.05	1.08	1.18++	0.26++	0.45	**	5.60	<0.22	6.67	1,700,000	7.49
1378	72088	2115	C2		17.0	30.7		1.43	<0.05	1.05	9.60	0.89	0.13	0.76	5.70	<0.22	130.4	1,440,000	67.47
1386	72088	2205	C2		7.5	6.60		0.33	<0.05	1.19	2.95	0.98	0.13	0.85	7.30	<0.22	42.0	228,000	3.28
1365	72088	2245	C2		7.0	12.0		0.39	<0.05	1.13	2.95	0.56	0.08	0.48	0.00	<0.22	26.4	200,000	19.42
1385	72088	2330	C2		8.6	6.00		0.62	<0.05	1.06	3.98	<0.10	0.17	<0.10	6.60	<0.22	4.0	160,000,000	4.84
	72188	2130	C2																61.50
1495	72188	2215	C2	6.40	8.6	17.6		0.42	<0.05	0.38	1.81	0.36	<0.05	0.36	7.10	<0.22	90.6	170,000	57.99
	72188	2245	C2																56.25
1498	72188	2315	C2		11.0	16.1		0.33	<0.05	0.45	1.70	<0.10	<0.05	<0.10	7.40	<0.22	36.0	70,000	29.34
	72188	2345	C2																23.50
1520	72288	30	C2		7.3	62.00		0.75	<0.05	0.44	2.48	0.11	<0.05	0.11	7.80	<0.22	14.4	147,000	13.50
1510	72288	2345	C2		9.3	62.00		0.14	<0.05	0.33	1.01	0.10	<0.05	0.10	7.80	<0.22	24.0	35,000	23.50
1780	72388	2235	C2	6.50	28	5.90		1.26	<0.05	0.39	5.10	<0.10	0.18	<0.10	5.50	<0.22	286	1,300,000	92.42
1781	72388	2300	C2	6.40	20.5	20.5		0.27	<0.05	0.29	1.81	<0.10	0.05	<0.10	8.00	<0.22	136	5,000,000	88.40
1784	72388	2335	C2	6.30	20	15.9		0.69	<0.05	0.34	1.81	<0.10	0.10	<0.10	7.00	<0.22	61	350,000	32.21
1795	72488	110	C2	6.70	13	4.80		0.83	<0.05	2.14	0.64	<0.10	0.10	<0.10	6.80	<0.22	24.6	170,000	32.00
1797	72488	145	C2	6.50	12	4.20		0.63	<0.05	0.37	1.74	<0.10	0.09	<0.10	6.80	<0.22	22	50,000	61.85
1823	72488	230	C2		13	1.50		0.36	<0.05	0.36	1.23	<0.10	<0.05	<0.10	7.40	<0.22	38.4	50,000	46.39
1825	72488	330	C2			1.50		0.38	<0.05	0.47	1.19	<0.10	<0.05	<0.10	7.60	<0.22	15.2	50,000	5.15
	72488	2150	C2																50.34
	72488	2215	C2																9.10
900	71788	1915	C3	6.70	29.0	48.2	98.7	3.77	<0.05	0.47	8.77	0.81	0.09	0.72	0.60	<0.22	164	5,000,000	5.78
901	71788	1945	C3	6.70	30.0	54.6		3.28	<0.05	1.17	6.33	1.06	0.08	0.98	0.05	<0.22	114	1,700,000	9.06
902	71788	2015	C3	6.80	25.0	132	225	3.61	<0.05	0.92	5.79	0.45	0.19	0.26	0.20	<0.22	79.3	3,000,000	5.09
1377	71988	2230	C3		143.0	23.2		0.95	<0.05	0.98	6.50	1.00	0.13	0.87	6.40	<0.22	134.4	4,000,000	44.31
1213	71988	2315	C3		36.0	84.7		3.23	0.06	1.56	*	1.61	0.19	1.42	1.80	<0.22	150	5,000,000	10.69
1212	71988	2330	C3		45.0	43.2		3.00	0.07	1.54	3.65	2.01	0.20	1.81	1.80	<0.22	63.0	5,000,000	2.84
1233	72088	210	C3			37.4		0.59	<0.05	0.89	1.75	2.16	0.11	2.05	6.00	<0.22	85.0	<200,000	41.05
1234	72088	300	C3		21.0	41.2		0.57	<0.05	0.70	1.70	*	0.13	*	6.50	<0.22	89.0	200,000	30.71
1235	72088	415	C3		35.0	97.4		0.92	<0.05	0.71	4.81	0.54	0.13	0.41	5.60	<0.22	137	200,000	22.40
1280	72088	545	C3		17.0	51.2		1.13	<0.05	1.16	4.59	0.20	0.11	0.09	4.70	<0.22	85.0	7,000,000	9.97
1366	72088	2210	C3		10.3	18.9		0.43	<0.05	1.16	2.98	0.37	<0.05	0.37	6.60	<0.22	29.6	50,000,000	24.50
1516	72188	2120	C3		10.0	2.00		0.26	<0.05	0.82	2.32	0.57	<0.05	0.57	8.00	<0.22	75.3	1,100,000	21.00
1492	72188	2145	C3		16.0	18.0		0.56	<0.05	0.38	2.34	0.18	<0.05	0.18	6.00	<0.22	218	*	36.75
1494	72188	2230	C3		12.5	16.4		0.38	<0.05	0.40	1.70	0.16	<0.05	0.16	6.90	<0.22	55.3	1,600,000	63.28
1497	72188	2300	C3		25.0	18.5		0.56	<0.05	0.34	2.29	<0.10	<0.05	<0.10	7.60	<0.22	100	140,000	67.38
1499	72188	2330	C3		10.0	15.4		0.35	<0.05	0.38	3.38	0.45	<0.05	0.45	7.50	<0.22	49.6	300,000	53.10
1511	72188	2400	C3		13.0	5.40		0.86	<0.05	0.67	1.70	0.11	<0.05	0.11	7.00	<0.22	19.2	300,000	45.20

ANALYTICAL DATA FOR CSD AND STORM SEWER LOCATIONS HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PD4 mg/l	B.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	FLOW RATE lcs
1512	72288	45	C3		17.0	29.6		1.54	<0.05	0.35	7.13	3.71	<0.05	3.71	4.90	<0.22	512	>1,600,000	39.66
1521	72288	100	C3		15	<2.00		<0.05	<0.05	1.95	0.40	<0.10	<0.05	<0.10	7.30	<0.22	30.8	1,600,000	
1782	72388	2225	C3	6.60	12	153		9.82	<0.05	0.27	14.48	0.61++	<0.05	++	1.30	<0.22	247	16,000,000	54.37
1779	72388	2245	C3	6.20	39	23.6		1.08	<0.05	0.37	3.84	<0.10	0.05	<0.10	6.10	<0.22	239	500,000	58.80
1783	72388	2300	C3	6.70	42	8.10		0.42	<0.05	0.29	1.39	<0.10	0.06	<0.10	7.40	<0.22	99	500,000	54.85
1785	72488	5	C3	6.40	25	16.1		03.56	<0.05	0.47	2.29	<0.10	0.05	<0.10	6.69	<0.22	71	1,340,000	46.24
1794	72488	50	C3	6.40	16	9.30		1.81	0.05	0.58	2.64	<0.10	0.11	<0.10	5.80	<0.22	25.4	170,000	33.6
1796	72488	135	C3	6.60	17	4.20		0.69	<0.05	0.42	1.72	<0.10	0.05	<0.10	6.80	<0.22	30	170,000	37.8
1824	72488	215	C3		19	1.20		0.26	<0.05	0.26	0.99	<0.10	<0.05	<0.10	8.10	<0.22	31.6	90,000	44.33
1826	72488	315	C3			1.20		0.44	<0.05	0.46	1.42	<0.10	<0.05	<0.10	7.70	<0.22	13.8	500,000	7.70
791	71788	17	C4	7.30	4.1	26.4		4.98	0.13	1.33	7.62	1.12	0.17	0.95	6.50	<0.22	5.4	4,000,000	1.06
792	71788	30	C4	7.30	6.9	22.5		5.10	0.26	1.25	8.16	0.96	0.11	0.85	5.60	<0.22	15.4	4,000,000	0.46
793	71788	48	C4	7.10	5.9	19.2		8.21	<0.05	1.33	10.87	1.19	2.00		5.30	<0.22	20.6	<2,000,000	0.46
898	71788	1837	C4	6.80	30.0	55.0	96.2	4.57	0.14	1.83	6.84	0.40	0.05	0.35	5.30	<0.22	156	900,000	3.34
897	71788	1900	C4	6.70	59.30	68.7		4.03	<0.05	1.72	7.37	<0.10	0.08	<0.10	3.80	<0.22	427	50,000,000	3.34
899	71788	1916	C4	6.80	28.0	79.6	117.1	6.65	<0.05	1.63	8.32	0.98	<0.05	0.98	5.60	<0.22	47.3	1,700,000	1.53
1379	71988	2250	C4			24.23	83.1								7.00	<0.22	27.2	200,000	4.38
1227	72088	200	C4		15.0	7.2	46.2	0.55	<0.05	0.51	1.07	1.75	0.14	1.61	7.50	<0.22	35.6	1,400,000	4.38
1228	72088	230	C4		6.4	37.2		0.83	<0.05	0.57	1.96	2.80	0.19	2.61	7.50	<0.22	48.1	160,000,000	3.01
1229	72088	330	C4		25.4	25.4		1.23	0.06	1.05	2.72	3.11	0.20	2.91	7.10	<0.22	27.8	400,000	0.46
1513	72188	2215	C4		15.0	4.73	6.53	0.25	<0.05	0.29	1.81	0.46	0.06	0.40	7.90	<0.22	99.0	110,000	<0.16
1517	72188	2325	C4		8.9	<2.00		0.32	<0.05	1.57	3.59	0.14	<0.05	0.14	8.50	<0.22	32.0	90,000	<0.16
1526	72288	2200	C4		6.5	7.20		1.09	<0.05	1.32	5.97	6.75	<0.05	6.75	7.50	<0.22	16.4	300,000	<0.16
1787	72388	2255	C4	6.30		13.2		1.65	<0.05	0.47	2.85	<0.10	0.09	<0.10	7.70	<0.22	31	500,000	2.39
1836	72488	108	C4		5.6	6.30		2.93	0.06	1.18	4.60	0.47	0.12	0.35	7.60	<0.22	9.9	130,000	0.64
1834	72488	237	C4		11	3.30													3.34
1834	72488	345	C4							0.42	1.46	<0.10		0.00	7.90	<0.22	165	170,000	1.55
152	71288	632	C6	6.80	44.0	87.3		9.60	0.38	0.07	21.0		0.54	*	4.20	0.30	282		0.00
153	71288	643	C6	6.70	45.0	111		8.02	0.30	0.76	16.70	1.53	0.44	1.09	4.50	0.25	212	<2,000,000	0.12
154	71288	701	C6	6.90	55.0	91.5		8.34	0.20	0.77	16.1	1.63	0.52	1.11	3.80	0.23	204	30,000,000	0.15
155	71288	713	C6	6.80	65.0	159		12.02	0.51	0.54	22.8		0.76	*	2.50	0.26	679	255,000,000	<0.10
903	71788	1840	C6	6.90	40.0	72.6		2.68	0.10	2.17	4.32	<0.10	<0.05	<0.10	5.80	<0.22	446	1,300,000	0.36
904	71788	1855	C6	6.60	25.0	36.5		1.57	0.06	1.53	2.68	0.43	<0.05	0.43	6.90	<0.22	160	400,000	1.67
905	71788	1910	C6	6.50	28.0	26.0		1.92	0.09	1.55	5.00	0.69	<0.05	0.69	6.70	<0.22	91.3	283,000	0.64
906	71788	1925	C6	6.60	24.0	39.4		2.16	0.09	1.80	3.10	0.62	<0.05	0.62	6.30	<0.22	92.7	3,000,000	1.56
907	71788	1940	C6	6.80	17.0	41.8		2.05	0.16	<0.05	2.66	0.83	<0.05	0.83	6.00	<0.22	104	3,000,000	0.15
1376	71988	2210	C6		83.0	14.7	19.3	0.85	<0.05	0.92	3.99	0.19	0.15	0.04	7.80	<0.22	97.6	1,700,000	<0.10
1260	72088	240	C6		9.2	47.2		1.89	<0.05	1.45	3.88	0.21	0.21	0.00	8.00	<0.22	33.0	1,300,000	0.45
1515	72188	2145	C6		12.0	10.05	17.00	0.36	<0.05	0.71	2.81	0.22	<0.05	0.22	7.80	<0.22	83.3	270,000	<0.10
1519	72188	2310	C6		8.0	6.30		0.56	<0.05	0.55	2.37	0.26	<0.05	0.26	7.70	<0.22	38.0	130,000	<0.10
1525	72288	120	C6		7.0	10.2				2.10	0.80	0.14	<0.05	0.14	8.30	<0.22	26.0	130,000	<0.10
1788	72388	2156	C6	6.60	27			4.70	<0.05	0.82	11.21	0.97	0.55	0.42	5.30	<0.22	156	3,500,000	0.28
72388		2203	C6																2.89
1789	72388	2334	C6	6.50	11	7.20		2.27	0.05	0.77	3.35	0.10	0.17	<0.10	7.60	<0.22	26.5	170,000	0.79
1833	72488	150	C6		23	4.20		0.39	<0.05	0.21	1.39	<0.10	0.05	<0.10	8.40	<0.22	51.9	800,000	9.48
1832	72488	313	C6		16	10.9		1.79	0.07	0.36	1.97	<0.10	<0.05	<0.10	7.60	<0.22	38	2,400,000	3.62

ANALYTICAL DATA FOR CSD AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	ORGANIC										FEC. COLI org/100ml	FLOW RATE (cfs)
								NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PO4 mg/l	D.B. mg/l	SALINITY ppt	TSS mg/l		
136	7/1288	705	C7	6.50	25	62.7	2.59	0.15	1.95	13.6	1.33	0.39	0.94	6.50	<0.22	70.0	4,000,000	3.09	
137	7/1288	720	C7	6.70	20	64.8	4.11	0.15	1.63	17.3	1.64	0.70	0.94	6.40	<0.22	43.3	<2,000,000	2.26	
138	7/1288	735	C7	6.70	23	7.95	4.19	0.14	1.48	18.1	1.35	0.60	0.75	5.60	<0.22	40.3	2,000,000	2.26	
139	7/1288	750	C7	6.80	24	87.3	7.35	0.15	1.16	23.9	5.12	0.77	4.35	5.40	<0.22	55.3	21,000,000	1.81	
148	7/1288	805	C7	6.90	30	74.1	9.16	0.13	0.89	17.4	0.96	1.07	<0.10	4.70	<0.22	48.8	<2,000,000	1.86	
149	7/1288	835	C7	6.70	35	101	9.04	0.18	1.13	10.6	0.97	0.62	0.97	5.40	<0.22	63.3	2,000,000	6.53	
150	7/1288	850	C7	6.70	38	95.4	4.80	0.17	1.26	8.60	1.66	0.52	1.04	6.00	<0.22	123	4,000,000	5.22	
151	7/1288	905	C7	6.70	34.0	67.5	3.71	0.17	1.26	8.60	1.20	0.52	0.68	5.60	<0.22	72.5	160,000,000	2.70	
	7/1788	1800	C7															9.42	
1261	7/2088	320	C7	7.9	7.9	24.8	0.83	<0.05	0.85	4.02	0.10	0.13	<0.10	7.90	<0.22	13.5	400,000	4.20	
1562	7/2188	1945	C7	26.0	26.0	24.3	0.22	<0.05	0.72	3.61	9.53	<0.05	9.53	7.60	<0.22	218	>1,600,000	>13.0	
1554	7/2188	2130	C7	13.0	13.0	5.40	0.55	<0.05	0.41	1.80	14.20	<0.05	14.20	7.3	<0.22	69	>1,600,000	>13.0	
1555	7/2188	2215	C7	7.7	7.7	3.60	0.16	<0.05	0.39	1.71	11.90	<0.05	11.90	8.60	<0.22	47	1,600,000	>13.0	
121	7/1288	615	C8	6.70	104	51.6	1.62	0.09	3.99	8.89	0.48	0.06	0.42	4.80	0.62	134	<2,000,000	0.25	
122	7/1288	630	C8	6.60	48	530	1.25	0.11	3.34	6.35	1.18	0.07	1.11	5.00	0.39	96.0	<2,000,000	5.25	
123	7/1288	645	C8	6.60	75	49.2	1.22	0.10	2.38	5.25	1.40	0.05	1.35	4.60	0.40	126.5	<2,000,000	6.75	
124	7/1288	700	C8	6.50	74	22.6	1.89	0.09	1.61	4.04	4.45	<0.05	0.45	4.70	0.62	106	<2,000,000	0.50	
125	7/1288	715	C8	6.70	78	19.4	2.94	0.08	1.19	5.57	<0.10	<0.05	<0.10	4.10	0.86	108	2,000,000	0.44	
126	7/1288	730	C8	6.70	55	21.6	2.78	0.10	1.68	7.05	0.14	<0.05	0.14	4.40	0.75	55	<2,000,000	0.19	
	7/1788	745	C8															0.00	
810	7/1788	30	C8	7.40	19.0	11.1	1.43	0.08	1.24	2.46	4.35	<0.05	4.35	4.70	0.33	57.3	<200,000	0.72	
908	7/1788	1830	C8	6.30	58.0	32.8	2.12	<0.05	0.00	<0.20++	<0.10	<0.05	<0.10	5.70	<0.22	303	<200,000	7.0	
909	7/1788	1845	C8	6.90	82.0	17.6	1.20	<0.05	1.06	2.28	0.94	<0.05	0.94	5.60	<0.22	352	<200,000	6.47	
910	7/1788	1900	C8	7.10	122.0	16.7	0.69	0.05	1.39	1.47	<0.10	<0.05	<0.10	5.00	<0.22	865	<200,000	8.65	
911	7/1788	1915	C8	7.10	120.0	15.5	0.77	<0.05	0.00	1.26	<0.10	<0.05	<0.10	6.30	<0.22	425	<200,000	4.29	
912	7/1788	1930	C8	7.20	76.0	13.2	1.23	<0.05	0.00	2.46	<0.10	<0.05	<0.10	5.50	0.27	199	<200,000	1.29	
913	7/1788	1945	C8	7.20	118.0	11.25	1.34	0.05	<0.05	2.63	<0.10	0.06	<0.10	5.40	0.27	277	<200,000	0.36	
914	7/1788	2000	C8	7.20	119.0	10.8	1.84	0.05	<0.05	1.93	<0.10	0.07	<0.10	5.60	0.30	243	800,000	0.00	
1210	7/1988	2045	C8	68.0	147	147	1.49	0.05	2.25	4.62	2.09	<0.05	2.09	0.00	0.31	286	<200,000	0.32	
1211	7/1988	2100	C8	5.1	78.2	78.2	2.07	<0.05	1.76	2.00	2.09	<0.05	2.09	0.00	1.52	90.0	200,000	1.07	
1373	7/2088	2130	C8	66.0	23.7	23.7	0.53	0.06	1.20	2.22	1.50	0.05	1.45	0.00	0.54	555	35,000,000	2.49	
1244	7/2088	2200	C8	32.0	49.6	55.8	2.92	0.08	1.43	4.34	0.35	0.16	0.19	0.00	0.54	80.4	400,000	0.00	
1546	7/2188	1930	C8	34.0	19.3	28.57	2.86	<0.05	0.78	3.99	7.35	0.21	7.14	0.00	0.54	180	50,000	1.30	
	7/2188	2200																5.16	
	7/2188	2250																7.91	
	7/2188	2250																10.63	
	7/2188	2315																22.42	
1551	7/2188	2345	C8	27.0	8.10	8.10	2.90	0.09	<0.05	4.36	18.60	1.18	17.42			379	230,000	21.6	
1552	7/2288	15	C8	42.0	4.80	4.80	15.06	<0.05	0.30	10.72++	*	0.19	*			212	170,000	13.0	
1553	7/2288	45	C8	42.0	6.60	6.60	<0.05	12.78	3.36	5.01	1.45	3.56				119	130,000	8.76	
1547	7/2288	2200	C8	89.0	8.40	8.40	2.87	<0.05	0.42	3.80	++	0.49	++	*		308	170,000	5.16	
1548	7/2288	2230	C8	39.0	4.80	4.80	1.22	<0.05	0.37	2.34	++	0.38	++	*		164	110,000	7.91	
1549	7/2288	2250	C8	47.0	5.40	5.40	0.36	<0.05	0.42	3.15	0.92	0.92	0.92	*		205	240,000	10.6	
1550	7/2288	2315	C8	30.0	7.80	7.80	0.07	<0.05	0.27	2.44	0.38	0.08	0.30	*		901	50,000	22.4	
1813	7/2388		C8		1.50	1.50	0.07	<0.05	0.50	1.86	<0.10	<0.05	<0.10	8.20	<0.22	252	300,000	4.02	
1814	7/2388	2215	C8		<2.00	<2.00	0.19	<0.05	0.45	1.36	<0.10	<0.05	<0.10	7.60		738	500,000	4.42	

ANALYTICAL DATA FOR CSD AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	MH3 mg/l	MH2 mg/l	MH3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
1815	72388	2245	C8			20.8		0.11	0.05	0.56	0.87	<0.10	<0.05	<0.10	7.70		346	170,000	4.42
1817	72388	2315	C8		48	5.40		5.72	0.06	0.58	5.42	<0.10	0.37	<0.10	6.70		142	4	2.93
1816	72388	2345	C8		70	5.40		4.09	0.06	0.62	3.66	<0.10	0.37	<0.10	6.90		57	500,000	0.79
1852	72488	130	C8		36.0	<2.0		0.19	<0.05	0.17	1.06	<0.10	0.07	<0.10	7.90	<0.22	154	80,000	1.71
1827	72488	200	C8		40	9.90		0.87	<0.05	0.51	4.21	<0.10	<0.05	<0.10	7.00	<0.22	125	16,000,000	3.90
1850	72488	330	C8		56.0	<2.0		0.12	<0.05	0.29	0.73	<0.10	0.08	<0.10	8.30	<0.22	99.6	4000	21.35
1849	72488	400	C8		43.0	<2.0		0.09	<0.05	0.31	0.58	<0.10	<0.05	<0.10	8.30	<0.22	98.2	7000	6.28
140	71288	500	C9	6.40	45	153		6.71	0.06	0.19	18.0	8.35	0.92	7.43	5.60	0.45	68.0	13,000,000	5.04
141	71288	551	C9	6.70	15	34.0		7.17	<0.05	0.93	13.0	1.66	0.89	0.97	3.80	0.26	25.5	4,000,000	5.04
142	71288	623	C9	6.60	75	156		3.16	0.17	<0.05	17.7	1.54	0.59	0.93	3.70	<0.22	290	17,000,000	4.04
143	71288	646	C9	6.60	34	80.4		1.72	0.13	1.88	8.96	<0.10	0.43	<0.10	5.60	<0.22	109	12,000,000	4.04
144	71288	707	C9	6.60	20	84.9		3.20	0.12	1.68	9.21	1.55	0.63	0.92	6.00	<0.22	93.5	2,000,000	2.04
145	71288	731	C9	6.70	24	83.0		15.8	0.14	<0.05	14.6	1.03	1.10	<0.10	4.80	<0.22	62.3	2,000,000	2.04
146	71288	804	C9	6.90	33	76.8		7.03	0.10	0.91	17.4	5.23	1.18	4.05	4.60	0.24	61.2	2,000,000	1.04
147	71288	833	C9	6.90	33	84.9		5.93	0.13	0.97	12.8	0.65	0.96		5.30	<0.22	80.5	2,000,000	1.04
71488		1008	C9																1.36
71688		2345	C9																7.36
807	71788	15	C9	6.50	72.0	96.0		5.02	<0.05	<0.05	11.84	1.89	0.49	1.40	3.00	<0.22	185	280,000,000	8.96
808	71788	40	C9	6.60	25.0	3.33		3.18	<0.05	<0.05	5.83	6.28	0.09	6.19	5.80	<0.22	83.3	1,100,000	2.31
809	71788	110	C9	6.80	18.0	25.2		3.46	<0.05	0.14	4.63	6.12	0.11	6.01	5.30	<0.22	18.8	700,000	2.30
925	71788	1945	C9	6.30	49.0	44.2		1.24	0.06	<0.05	3.71	0.59	<0.05	0.59	0.00	<0.22	17.3	400,000	97.2
926	71788	1952	C9	6.40	53.0	45.9		1.10	0.06	<0.05	4.91	<0.10	<0.05	<0.10	0.00	<0.22	29.7	1,700,000	123.1
927	71788	2006	C9	6.40	440	71.4		1.37	0.30	<0.05	3.80	0.34	<0.05	0.34	0.00	<0.22	132	1,100,000	72.2
928	71788	2022	C9	6.40	33.0	40.8		1.22	0.27	<0.05	4.59	0.48	<0.05	0.48	0.00	<0.22	84.4	1,700,000	24.0
929	71788	2035	C9	6.50	25.0	37.2		2.22	0.60	1.09	2.63	0.58	<0.05	0.58	0.00	<0.22	64.0	400,000	15.3
930	71788	2048	C9	6.50	24.0	52.8		2.00	0.53	1.17	3.83	0.64	<0.05	0.64	0.00	<0.22	72.7	5,000,000	10.2
1245	72088	16	C9		25.0	45.2	88.3	1.23	0.06	0.61	5.60	3.14	0.18	2.96	5.10	<0.22	176	1,400,000	45.1
1246	72088	31	C9		18.0	162		0.70	<0.05	0.67	2.54	0.26	0.17	0.09	6.80	<0.22	64.4	1,300,000	61.2
1247	72088	45	C9		18.0	88.7		0.88	<0.05	0.80	2.03	<0.10	0.22	<0.10	6.60	<0.22	54.8	800,000	28.0
1248	72088	58	C9		25.0	99.3		0.50	<0.05	0.63	1.67	2.64	0.19	2.45	6.80	<0.22	108	200,000	100.0
1249	72088	117	C9		15.0	81.4		<0.05	<0.05	0.50	1.03	<0.10	0.19	<0.10	7.50	<0.22	53.0	<200,000	81.8
1250	72088	133	C9		16.0	77.4		0.52	<0.05	0.56	0.87	0.24	0.10	0.14	7.00	<0.22	45.5	400,000	77.8
1251	72088	156	C9		8.0	48.9		0.52	<0.05	0.72	1.48	<0.10	0.16	<0.10	7.00	<0.22	19.5	200,000	11.7
1252	72088	225	C9		6.6	52.4		0.60	<0.05	0.64	1.50	0.35	0.16	0.19	7.60	<0.22	145	400,000	36.1
1253	72088	245	C9		6.9	84.3		<0.05	<0.05	0.58	1.86	<0.10	0.17	<0.10	NS	<0.22	40.0	1,100,000	20.0
1374	72088	2215	C9		10.0	21.4		0.07	<0.05	0.86	2.79	<0.10	0.09	<0.10	0.00	<0.22	31.38	<200,000	13.3
1381	72088	2305	C9		5.3	6.75		0.19	<0.05	0.93	1.76	<0.10	0.05	<0.10	7.80	<0.22			6.21
72188		2015	C9																50.29
72188		2130	C9																42.9
1539	72188	2230	C9		11.0	7.80		0.55	<0.05	1.75	1.33	0.21	<0.05	0.21	6.90	<0.22	23.2	240,000	56.0
1541	72188	2305	C9		10.0	6.60		0.49	<0.05	0.39	1.82	0.33	<0.05	0.33	6.90	<0.22	30.0	900,000	102.6
1542	72188	2330	C9		16.0	<6.00		0.30	<0.05	0.50	1.62	<0.10	0.06	<0.10	7.80	<0.22	84.0	>1,600,000	55.5
1543	72188	2350	C9		13.0	10.8		0.55	<0.05	0.70	1.80	0.20	0.08	0.12	7.00	<0.22	44.0	170,000	33.21
1544	72188	15	C9		12.5	<6.00		0.54	<0.05	0.76	1.90	0.12	0.07	0.05	7.50	<0.22	25.3	300,000	18.43
1545	72288	35	C9		12.0	<6.00		0.54	<0.05	0.94	2.19	0.20	0.07	0.13	LOST	<0.22	19.0	>160,000	0.00
1558	72288	100	C9		14.0	14.6		0.96	<0.05	0.74	4.78	10.90	<0.05	10.90	7.00	<0.22	35.7	13,000,000	

ANALYTICAL DATA FOR CSO AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	PH	TURBIDITY ntu	ORGANIC										FEC. COLI org/100ml	FLOW RATE (cfs)		
						CM005 mg/l	CM0020 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PO4 mg/l	D.O. mg/l			SALINITY ppt	TSS mg/l
1848	7/24/88	250	C10		11.0	<2.0		0.10	<0.05	0.22	0.46	<0.10	0.12	<0.10	8.50	<0.22	22	90,000	46.2 **
1845	7/24/88	320	C10		6.2	4.5		0.23	<0.05	0.50	0.82	<0.10	0.18	<0.10	7.50	<0.22	25.8	220,000	97.0 **
1843	7/24/88	350	C10		4.1	<2.0		0.16	<0.05	0.36	1.06	<0.10	<0.05	<0.10	8.10	<0.22	18.3	130,000	85.8 **
1842	7/24/88	420	C10		3.5	<2.00		0.19	<0.05	0.37	0.82	<0.10	<0.05	<0.10	7.70	<0.22	11.7	300,000	10.2 **

NOTES:

A = Upstream of regulator

** = Only larger (100" DIA) of outfall pipes at Clendenny Total (including 60" DIA.) estimated double this value

30 = 30 Hour Baseline Study/ All C11 except 81056

C1 = New Milford Storm Sewer

C2 = Anderson St. CSO

C3 = Court St. CSO

C3-A = Court St. / Land Use

C4 = Paulson St. CSO

C5-A = Ele St. CSO - Upstream of Regulator

C6 = North Bergen CSO (Reuther)

C7 = Manhattan Ave. CSO

C8 = Kearny Storm Sewer

C9 = SIP Ave. CSO

C9-A = SIP Ave. / Land Use

C10 = Clendenny Ave. CSO

C10-A = Clendenny Ave. / Land Use

C11 = North Bergen Discharge to Crookskill Creek

* = Insufficient sample for repeat analysis

++ = Matrix Interference

++ = Estimated

ANALYTICAL DATA FOR CSO AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CONDOS ug/l	COND20 ug/l	NH3 ug/l	NO2 ug/l	NO3 ug/l	TKN ug/l	TP04 ug/l	DP04 ug/l	ORGANIC P04 ug/l	B.O. ug/l	SALINITY ppt	TSS ug/l	(NPN) FEC. COLI or/g/100ml	FLOW RATE (cfs)
1818	72388	2115	C9		34	15.4		0.24	<0.05	0.17	1.77	<0.10	<0.05	<0.10	7.70	<0.22	81	16,000,000	49.4
1819	72388	2215	C9		24	13.8		0.51	<0.05	0.29	1.45	<0.10	<0.05	<0.10	7.50	<0.22	62.2	>16,000,000	73.6
1820	72388	2245	C9		17	17.2		0.77	<0.05	2.16	0.74	<0.10	<0.05	<0.10	6.70	<0.22	60.8	230,000	41.6
1822	72388	2310	C9		20	14.4		1.62	0.08	0.38	3.61	<0.10	<0.05	<0.10	5.70	<0.22	34.8	800,000	18.0
1821	72388	2325	C9		17	17.6		0.56	<0.05	0.52	2.37	<0.10	<0.05	<0.10	6.90	<0.22	30.4	2,400,000	12.0
1821	72388	2340	C9																
1853	72488	115	C9		15.0	5.1		1.14	<0.05	0.32	2.58	<0.10	<0.05	<0.10	7.60	<0.22	59.7	500,000	9.8
1854	72488	130	C9		18.0	<2.0		0.24	<0.05	0.13	0.68	<0.10	<0.05	<0.10	8.10	<0.22	59.2	300,000	60.9
1855	72488	149	C9		17.0	<2.0		0.18	<0.05	0.17	0.71	<0.10	<0.05	<0.10	8.30	<0.22	73.5	300,000	102.9
1856	72488	207	C9		12.0	<2.0		0.20	<0.05	0.28	1.02	<0.10	<0.09	<0.10	7.90	<0.22	42.8	300,000	98.8
1857	72488	223	C9		13.0	4.2		0.35	<0.05	0.39	1.18	<0.10	<0.05	<0.10	7.40	<0.22	46.6	1,100,000	70.4
1858	72488	245	C9		13.0	<2.0		0.49	<0.05	0.70	1.64	<0.10	<0.08	<0.10	6.90	<0.22	25.6	800,000	20.4
1859	72488	310	C9		13.0	5.4		0.83	<0.05	0.84	1.68	<0.10	<0.05	<0.10	7.50	<0.22	64.8	300,000	16.1
1860	72488	330	C9		14.0	<2.0		0.17	0.08	0.13	0.55	<0.10	0.32	<0.10	8.70	<0.22	62.8	122,000	32.2
72488		345	C9																79.2
72488		405	C9																39.6
71788		200	C10																10.5
71788		230	C10																10.71 **
71788		300	C10																6.89 **
915	71788	1900	C10	6.60	56.0	53.4		1.85	0.22	1.47	4.64	0.29	<0.50	0.29	5.90	<0.22	238	700,000	12.7 **
916	71788	1930	C10	6.40	35.0	27.8		1.48	0.05	1.61	3.40	0.31	<0.50	0.31	6.30	<0.22	116	400,000	4.59 **
917	71788	1945	C10	6.30	33.0	27.6		1.60	0.08	1.52	3.89	0.31	<0.50	0.31	6.30	<0.22	87.0	1,300,000	1.43 **
918	71788	2000	C10	6.20	31.0	27.0		2.12	0.05	1.51	<0.20**	0.38	<0.50	0.38	5.40	<0.22	70.0	5,000,000	0.00 **
1259	71988	300	C10		6.6	22.1		0.55	0.05	0.79	2.52	<0.10	0.14	<0.10	7.70	<0.22	11.3	400,000	0.00 **
1380	71988	2330	C10		6.6	26.0		0.88	0.05	1.03	9.60	0.64	0.25	0.39	6.30	<0.22	24.8	1,700,000	0.00 **
1375	71988	2345	C10		16.0	11.7		0.07	<0.05	0.92	1.61	0.78	0.08	0.70	0.00	<0.22	17.2	<200,000	0.00 **
1254	72088	15	C10		29.0	73.9	138.13	5.90	<0.05	0.88	10.1	2.39	0.28	2.11	0.40	1.42	86.5	<200,000	2.50 **
1255	72088	35	C10		28.0	13.4		2.16	0.32	0.27	5.54	0.49	0.19	0.30	4.10	0.45	80.0	2,200,000	9.7 **
72088		100	C10																52.00 **
1256	72088	130	C10		21.0	77.2		0.53	0.05	0.64	1.99	0.40	0.15	0.25	7.10	<0.22	118	1,300,000	46.0 **
1257	72088	200	C10		9.4	43.2		<0.05	<0.05	0.67	2.39	0.10	0.15	<0.10	7.60	<0.22	24.4	<200,000	23.0 **
1258	72088	230	C10		7.1	33.1		<0.05	<0.05	0.71	2.79	0.30	0.13	0.17	7.90	<0.22	13.5	400,000	0.00 **
72088		2145	C10																17.0 **
72088		2245	C10																4.0 **
1557	72188	2115	C10		18.0	5.70		0.54	<0.05	0.39	2.74	11.70	<0.05	11.70	7.10	<0.22	140	1,300,000	44.0 **
15388	72188	2210	C10			3.75													20.9 **
1540	72188	2245	C10		6.6	4.50		0.31	<0.05	0.42	2.34	<0.10	<0.05	<0.10	7.50	<0.22	50.8	>1,600,000	41.4 **
1560	72188	2330	C10		7.8	<6.00		0.15	<0.05	0.36	1.05	11.70	<0.05	11.70	7.50	<0.22	136.5	1,100,000	33.8 **
1559	72188	2400	C10		12.0	<6.00		0.10	<0.05	0.38	3.49	11.60	<0.05	11.60	7.80	<0.22	50.5	2,100,000	27.6 **
1561	72288	30	C10		9.3	<6.00		0.16	<0.05	0.68	2.72	11.70	<0.05	11.70	7.50	<0.22	22.4	110,000	15.3 **
1556	72288	100	C10		6.8	3.00		0.26	<0.05	0.69	1.50	17.10	0.05	17.05	7.60	<0.22	15.6	900,000	8.4 **
18284	72388	2215	C10		22	<6.00		0.49	<0.05	0.33	1.92	<0.10	<0.10	<0.10	8.10	<0.22	28.8	93,400	42.0 **
1851	72388	2240	C10		38.0	<2.0		0.49	<0.05	0.22	1.08	<0.10	0.15	<0.10	8.20	<0.22	156	27,000	30.8 **
1846	72488	120	C10		16.0	16.2		4.49	<0.05	5.52		0.26	<0.05	0.26	5.40	<0.22	47.2	2,200,000	20.7 **
1844	72488	150	C10		18.0	<2.0		0.13	<0.05	0.11	0.49	<0.10	<0.05	<0.10	8.50	<0.22	82.3	500,000	37.5 **
1847	72488	220	C10		15.0	<2.0		0.14	<0.05	0.19	0.89	<0.10	<0.05	<0.10	8.40	<0.22	39.6	500,000	17.6 **

SECTION 7

ANALYTICAL DATA

SEWAGE TREATMENT PLANTS

JULY DRY AND WET EVENTS

JULY 11-25, 1988

ANALYTICAL DATA FOR SEWAGE TREATMENT PLANTS
HACKENSACK RIVER STUDY

JULY WET & DRY EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NH2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PO4 mg/l	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (MGD)
1018	71888	1345	STP1	COMP		9.65	18.75	4.89	0.38		42.0	1.25	0.76	0.49		0.52	20.0	<2000	4.345
13276	72088	1342	STP1	GRAB											7.10	<0.22			
1327C	72088	1342	STP1	COMP		50.1	114.8	6.14	<0.05	0.17	8.53	2.51	0.23	2.28	10.2	<0.22	29.6	400	6.492
5748	71588	1356	STP2	COMP		42.5		0.28	NS		29.9		NS	0.00		0.66	25.6	NA	NA
1328C	72088	1300	STP2	COMP		11.1	25.2	24.82	0.16	0.27	22.37	0.62	0.58	0.04	2.70	<0.22	26.4	3000	NA
13286	72088	1300	STP2	GRAB											3.00	<0.22			
1468C	72188	1340	STP2	COMP		14.4	21.9	17.3	0.13	0.41	17.34	2.62	0.57	2.05	6.50	<0.22	28.4	<200	NA
14686	72188	1340	STP2	GRAB											5.00	<0.22			
575	71588	1225	STP3	COMP		100	171.5	17.92	<0.05	0.07	28.04		1.10			0.636	45.6	>1,600,000	1.422
1329C	72088	1223	STP3	COMP		76.0	132.3	20.44	<0.05	<0.05	24.00	0.81	0.12	0.69	2.70	<0.22	52.3	>1,600,000	1.496
13296	72088	1223	STP3	GRAB											1.70	<0.22			
1469C	72188	1300	STP3	COMP		78.0	87.6	11.1	<0.05	<0.05	14.04	2.94	<0.05	2.94	1.70	<0.22	54.0	>160,000	2.200
14696	72188	1300	STP3	GRAB											2.40	<0.22			
576	71588	1059	STP4	COMP		47.1	78.8	22.50	0.08	<0.05	24.53		1.59			0.61	18.4	>1,600,000	56.8
13306	72088	1116	STP4	GRAB											5.10	<0.22			
1330C	72088	1116	STP4	COMP		18.0	36.15	15.32	0.10	0.63	23.41	0.71	0.50	0.21	9.00	<0.22	17.2	1300	78.5
14706	72188	1157	STP4	GRAB											6.10	<0.22			
1470C	72188	1157	STP4	COMP		12.6	27.9	11.5	0.18	0.03	12.77	1.60	<0.05	1.60	9.00	<0.22	30.0	>1,600,000	73.8
577	71588		STP5	COMP		65.7	139.6	10.61	<0.05	0.07	15.0	1.99	0.40	1.59		0.65	73.8	>1,600,000	17.3
1331C	72088	1429	STP5	COMP		88.5	164.25	3.41	<0.05	<0.05	15.98	0.68	<0.05	0.68	0.70	<0.22	2.71	>1,600,000	16.05
13316	72088	1429	STP5	GRAB											3.30	<0.22			
1471C	72188	1450	STP5	COMP		37.6	59.7	7.08	<0.05	0.08	8.12	0.94++	2.24	**	1.10	<0.22	31.6	>1,600,000	15.73
14716	72188	1450	STP5	GRAB											3.70	<0.22			
578	71588	1120	STP6	COMP		14.2	74.2	18.24	0.16		22.1		1.69			0.42	50.0	<200	0.620
1332C	72088	1143	STP6	COMP		30.0	53.4	16.76	0.25	0.44	17.14	0.63	0.32	0.31	1.80	<0.22	340	>1,600,000	0.724
13326	72088	1143	STP6	GRAB											2.40	<0.22			
1472C	72188	1226	STP6	COMP		29.1	48.75	16.8	<0.05	0.96	19.36	4.49	0.07	4.42	1.80	<0.22	24.4	>1,600,000	0.752
14726	72188	1226	STP6	GRAB											2.50	<0.22			

NOTES: TIMES REPRESENT ENDING TIME OF 6 HOUR COMPOSITE COLLECTED BY PLANT PERSONNEL

STP #1 = North Bergen

STP #2 = Secaucus

STP #3 = N. Arlington

STP #4 = BCUA

STP #5 = Jersey City West

STP #6 = Woodbridge

STP #7 = Kearny

* = Insufficient sample for repeat analysis

** = Matrix Interference

*** = Estimated

SECTION 8

ANALYTICAL DATA

PSE & G CHANNEL

JULY DRY AND WET EVENT

JULY 11-25, 1988

ANALYTICAL DATA FOR PSE & B (P-15) CHANNEL
HACKENSACK RIVER STUDY

JULY WET & DRY EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC		CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
														PO4 mg/l	PD4 mg/l						
293	71388	717	P15	M	7.17	14.0	3.25	4.85	1.07	<0.05	6.20	1.32	0.89	0.43		12.91	36.0		3.47		
459	71488	1420	P15	M	7.20	5.4	3.20	5.59	0.47	0.28	7.87	1.44	*		*	3.33	38.0		9.14	14.0	<20
493	71498	1950	P15	M	7.03	6.1	3.40	5.95	0.41	0.05	<0.20	1.39	0.99	0.40	0.39	39.0	38.0	2.20	8.85	31.2	500
604	71588	1648	P15	M	7.12	5.6	4.28	5.80	0.54	0.16	5.39	1.47	0.84	0.63	0.63	71.2	28.0	3.00	8.59	33.2	40
698	71688	725	P15	M	7.20	16.0	3.82	4.20	1.44	<0.05	4.35	1.23	0.42	0.81	0.81	395.1	32.0	2.10	8.45	52.4	
986	71888	800	P15	M	7.40	14.0	2.05	3.53	1.78		6.00	1.24	0.24	1.00	1.00	187.1	29.0	0.60	7.33	51.2	3000
1181	71988	1620	P15	M	6.80	6.5	4.82	5.69	0.54	0.11	10.41	4.44	0.42	4.02	4.02	6.76	40.0	2.80	8.30	16.4	700
1195	71988	1900	P15	M	6.80	8.4	3.85	5.84	0.51	0.08	4.37++	3.70	0.42	3.28	3.28	44.1	39.0	1.80	8.75	27.8	1300
1326	72088	745	P15	M	7.40	6.2	4.40	5.46	0.57	0.11	5.08	2.68	0.92	1.76	1.76	15.3		1.80		12.5	
1360	72088	1900	P15	M	6.66	4.5	2.50	5.02	0.49	0.14	7.67	1.27	0.38	0.89	0.89	15.5	38.0	2.80		14.8	
1486	72188	1648	P15	M	7.20	5.2	2.20	4.72	0.46	0.11	4.99	1.14	0.72	0.42	*	*	37.0	3.50		15.2	24,000
1615	72288	1650	P15	M	7.20	4.7	2.50	3.77	0.50	0.08	5.43	12.80	0.68	12.12	12.12	88.6	36.0	4.10		15.2	3500
1706	72388	800	P15	M	7.20	11	2.70	4.79	0.35	0.10	5.87	1.06	0.55	0.51	*	*	31.0	1.60		18.4	2920
1760	72388	1630	P15	M	7.36	6.8	2.45	4.42	0.37	0.05	6.25	0.88	0.90	<0.10	<0.10	5.89	33.0	2.50		17	390
2003	72588	645	P15	M	7.90	7.0	2.35		0.37	0.06	*	*	0.97	*	*	27.9	35.0	4.20		24.7	

NOTES: * - Insufficient sample for repeat analysis

++ - Matrix Interference

*** - Zero (0) mg/l concentration found; suspect contamination of DO Fixing Reagents

E - Velocities from in-line Flo-Tote not reliable

*** - Estimated

SECTION 9

ANALYTICAL DATA

LAND USE STATIONS

JULY DRY AND WET EVENTS

JULY 11-25, 1988

ANALYTICAL DATA FOR LAND USE STATIONS
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC		D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml	FLOW RATE (cfs)
														P04 mg/l	SEC. COLI org/100ml					
65	7/12/88	350	C3-A	6.70	20	14.0	4.13	0.07	0.69	9.38	1.18	0.33	0.85	2.40	0.34	42.0	7,000,000	7.74		
66	7/12/88	405	C3-A	6.10	45	16.2	7.23	<0.05	0.46	31.2	1.05	0.65	0.40	0.00	0.35	7.44	5,000,000	11.02		
67	7/12/88	420	C3-A	6.20	62	23.7	8.27	<0.05	2.61	9.56	1.33	0.20	1.13	1.10	0.22	1130	5,000,000	14.54		
68	7/12/88	435	C3-A	6.30	55	159	3.64	0.36	1.55	12.8	1.37	0.35	1.02	0.00	0.22	492	11,000,000	6.88		
69	7/12/88	450	C3-A	6.40	50	118	5.00	0.62	1.39	12.8	0.69	0.31	0.38	0.2	0.22	428	35,000,000	10.12		
70	7/12/88	505	C3-A	6.30	55	36.6	4.21	0.37	1.61	31.5	1.28	0.31	0.97	0.00	<0.22	552	1,700,000	9.68		
71	7/12/88	520	C3-A	6.20	56	34.2	4.4	0.30	1.44	17.9	1.50	0.42	0.88	0.10	0.39	236	17,000,000	7.68		
78	7/12/88	535	C3-A	6.00	73	177	5.89	<0.05	1.83	16.5	1.83	1.23	0.60	0.20	0.34	964	#	6.40		
79	7/12/88	605	C3-A	6.20	56	81.0	4.33	<0.05	2.00	26.5	0.95	0.55	0.40	0.40	0.22	120	24,000,000	8.60		
80	7/12/88	620	C3-A	6.30	43	192	3.84	<0.05	2.10	17.6	1.46	0.48	0.98	0.40	0.22	221	3,000,000	15.68		
81	7/12/88	635	C3-A	6.20	31	63.3	3.70	<0.05	2.04	10.5	1.43	0.33	1.10	0.60	<0.22	85	3,000,000	16.27		
116	7/12/88	650	C3-A	6.40	27	25.2	4.43	0.11	1.84	8.86	0.70	0.21	0.49	2.80	<0.22	11.3	9,000,000	12.25		
117	7/12/88	720	C3-A	6.40	22	25.2	4.62	0.12	1.89	9.73	0.92	0.28	0.64	3.00	<0.22	41.0	8,000,000	6.49		
118	7/12/88	750	C3-A	6.30	20	54.0	4.38	0.12	1.83	10.6	1.46	0.38	1.08	4.20	<0.22	39.8	11,000,000	5.77		
119	7/12/88	820	C3-A	6.30	19	38.7	5.42	0.13	1.75	9.61	1.81	0.09	1.72	3.50	<0.22	39.2	170,000,000	3.16		
120	7/12/88	850	C3-A	7.10	18	49.2	6.61	0.14	1.62	14.3	<0.10	0.06	<0.10	3.70	0.24	32.8	2,000,000	6.56		
1230	7/20/88	215	C5-A			236	1.49	<0.05	<0.05	15.90	5.29	0.71	4.58	5.20	<0.22	2170	5,000,000	8.44		
1231	7/20/88	250	C5-A			57.8	1.01	<0.05	0.47	2.10	2.42	0.18	2.24	7.00	<0.22	40.0	400,000	3.6		
1232	7/20/88	335	C5-A			22.7	1.37	<0.05	0.68	1.95	2.72	0.21	2.51	7.00	0.22	12.0	<200,000	2.56		
1514	7/21/88	2205	C5-A		8.4	9.90	0.46	<0.05	0.40	2.33	0.36	0.07	0.29	7.90	<0.22	40.0	1,300,000	<1.0		
1518	7/21/88	2310	C5-A		7.25	3.60								8.30	<0.22	40.4	500,000	<1.0		
1527	7/22/88	100	C5-A		6.2	9.30	0.52	<0.05	0.62	2.05	0.30	<0.05	0.30	7.80	<0.22	16.8	170,000	<1.0		
1786	7/23/88	237	C5-A	5.90	27	10.8	0.399	0.11	0.38	3.10	<0.10	0.14	<0.10	7.80	<0.22	100	2,400,000	5.42		
1835	7/24/88	220	C5-A		5.2	3.30	0.39	<0.05	1.36	1.18	<0.10	0.13	<0.10	8.30	<0.22	13	130,000	24.2		
115	7/11/88	1936	C10-A	6.50	55	147	12.36	<0.05	<0.05	22.5	0.66++	1.10	++	2.50	0.34	73.3	30,000,000	E		
127	7/12/88	545	C10-A	6.80	13	25.3	12.7	0.48	0.11	13.3	1.37	0.57	0.80	2.50	0.28	20.8	2,000,000	E		
128	7/12/88	603	C10-A	6.80	35	43.8	16.6	<0.05	0.74	22.6	6.13	0.83	5.30	1.20	0.25	57.2	50,000,000	E		
129	7/12/88	620	C10-A	6.30	55	225	9.49	0.60		21.6	4.27	0.77	3.50	0.40	<0.22	151	90,000,000	E		
130	7/12/88	650	C10-A	6.30	40	87.3	6.18	0.16	0.11	12.8	1.26	0.39	0.87	3.00	<0.22	95.0	2,000,000	E		
131	7/12/88	705	C10-A	6.30	28	66.9	5.90	0.14	0.36	9.64	0.87	0.34	0.53	4.80	<0.22	70.0	4,000,000	E		
132	7/12/88	720	C10-A	6.30	25	39.6	6.13	0.11	0.20	11.8	1.00	0.32	0.68	4.40	<0.22	68.0	22,000,000	E		
133	7/12/88	735	C10-A	6.30	34	63.6				16.5	1.47		1.47	1.47	<0.22	90.7	25,300,000	E		
134	7/12/88	750	C10-A	6.40	30	7.98				17.3	1.53		1.53	3.50	<0.22	85.0	14,000,000	E		
135	7/12/88	805	C10-A	6.50	24	71.7	5.17	0.13	1.46	17.7	1.25	0.46	0.79	3.80	<0.22	50.6	30,000,000	E		

NOTES: LAND USE STATIONS REFERS TO LOCATIONS UPSTREAM OF CSO AND OVERFLOW REGULATOR

C3-A = Court St. Land Use Station

C5-A = Elm St. Land Use Station

C10-A = Clendenny Ave. Land Use Station

SECTION 10

ANALYTICAL DATA

30-HOUR BASEFLOW STUDY OF C2 AND C11

JULY DRY AND WET EVENTS

JULY 11-25, 1988

ANALYTICAL DATA FOR 30 HOUR BASEFLOW STUDY OF C2 & C11
HACKENSACK RIVER STUDY

JULY DRY & WET EVENTS - JULY 11-25, 1988

SAMPLE #	DATE	TIME	SITE	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/h	NH3 mg/l	NH2 mg/l	NH3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PO4 mg/l	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml	FLOW RATE (cfs)
580	71588	1400	C2	7.70	4.8	98.6	200.8	14.62	<0.05	0.07	19.8	4.42	0.49	3.93	0.00	0.47	56.0	>1,600,000	<0.50
594	71588	1630	C2	7.20	45.0	141.0	165.8	11.78	<0.05	0.34	13.72	3.7	0.30	3.40	0.60	0.46	38.6	17,000,000	2.84
616	71588	2000	C2	7.90	46.0	164.0	223.5	13.60	<0.05	0.06	14.61	0.40	0.40	0.00	0.40	0.68	27.8	35,000,000	<0.50
651A	71688	145	C2	7.50	35.0	122	195.0	13.17	<0.05	0.06	6.8++	2.06	0.58	1.48	0.00	0.58	445	5,000,000	5.79
740	71688	163	C2		66.0	240	432	15.93	<0.05	0.06	18.52	6.18	1.42	4.76	0.00	0.45	60.7	30,000,000	2.75
673	71688	400	C2		45.0	209	318	15.81	<0.05	<0.05	19.99	2.02	1.82	0.20	0.00	0.43	61.0	17,000,000	1.14
681	71688	616	C2		15.0	50.8	106	11.31	<0.05	<0.05	13.12	1.88	1.18	0.70	0.00	0.43	30.8	17,000,000	--
689	71688	810	C2		15.0	117	171	19.05	<0.05	0.16	19.29	2.02	1.65	0.37	0.00	0.45	31.2	3,000,000	2.36
724	71688	1230	C2	7.30	70.0	169	355	25.51	<0.05	<0.05	24.21	6.58	2.74	3.84	0.00	0.50	38.4	8,000,000	3.63
762	71688	1830	C2	6.90	40.0	292	516	15.20	<0.05	<0.05	20.30	0.53++	1.71	++	0.00	0.43	41.3	5,000,000	2.55
554	71588	755	C11	6.70	35.0	85.4	120.6	24.29	<0.05	0.06	30.6	*	1.06	*	0.00	0.49	57.0	160,000,000	--
555	71588	930	C11	6.60	36.0	95.4	140.6	18.84	<0.05	0.07	23.7	*	0.92	*	0.00	0.46	76.6	280,000,000	1.74
579	71588	1130	C11	7.30	38.0	56.6	152.4	15.19	<0.05	<0.05	18.0	1.33	0.13	1.20	0.00	0.44	61.2	>16,000,000	1.87
595	71588	1400	C11	6.60	35.0	177.8	220.5	13.70	<0.05	0.17	15.70	2.71	0.34	2.37	0.00	0.43	39.6	2,300,000	1.29
617	71588	1900	C11	7.70	42.0	123	186.0	13.21	<0.05	0.09	15.29	2.68	0.32	2.36	0.00	0.44	44.7	50,000,000	2.51
631	71588	2235	C11	7.80	55.0	149.3	250.5	1.35	0.23	<0.05	16.83	*	1.52	*	0.00	0.41	41.2	13,000,000	1.11
674	71688	300	C11		31.0	132	193	13.67	<0.05	<0.05	18.37	2.33	1.93	0.40	0.00	0.44	50.8	50,000,000	1.48
680	71688	510	C11		19.0	87.4	108	12.49	<0.05	0.19	13.24	1.86	1.30	0.56	0.00	0.40	33.2	9,000,000	2.22
688	71688	720	C11		13.0	56.3	116.8	12.29	<0.05	<0.05	11.93	1.88	1.38	0.50	0.00	0.69	31.2	9,000,000	2.42
704	71688	930	C11		28.0	159.8	255.8	26.38	<0.05	<0.05	28.62	3.72	0.78	2.94	0.00	0.47	57.5	13,000,000	2.71
725	71688	1200	C11	7.20	48.0	189.0	470	19.63	<0.05	<0.05	22.94	6.49	*	*	0.00	0.48	56.7	24,000,000	2.18
739	71688	1500	C11		38.0	182.0	310.0	14.48	<0.05	<0.05	15.00	5.70	1.77	3.93	0.00	0.75	47.2	8,000,000	1.76
761	71688	1600	C11	6.80	48.0	114.0		12.44	<0.05	<0.05	13.62	5.08	1.37	3.71	0.00	0.43	54.0	5,000,000	2.36
1056	71888	1800	C11		36.0	117.4	187.67	12.94	<0.05	0.05	10.2++	*	0.29	*	0.00	0.47	31.8	80,000,000	--

NOTES:

C2 = Anderson St. C50

C11 = North Bergen Discharge to Chrookill Creek

* = Insufficient sample for repeat analysis

++ = Matrix Interference

++ = Estimated

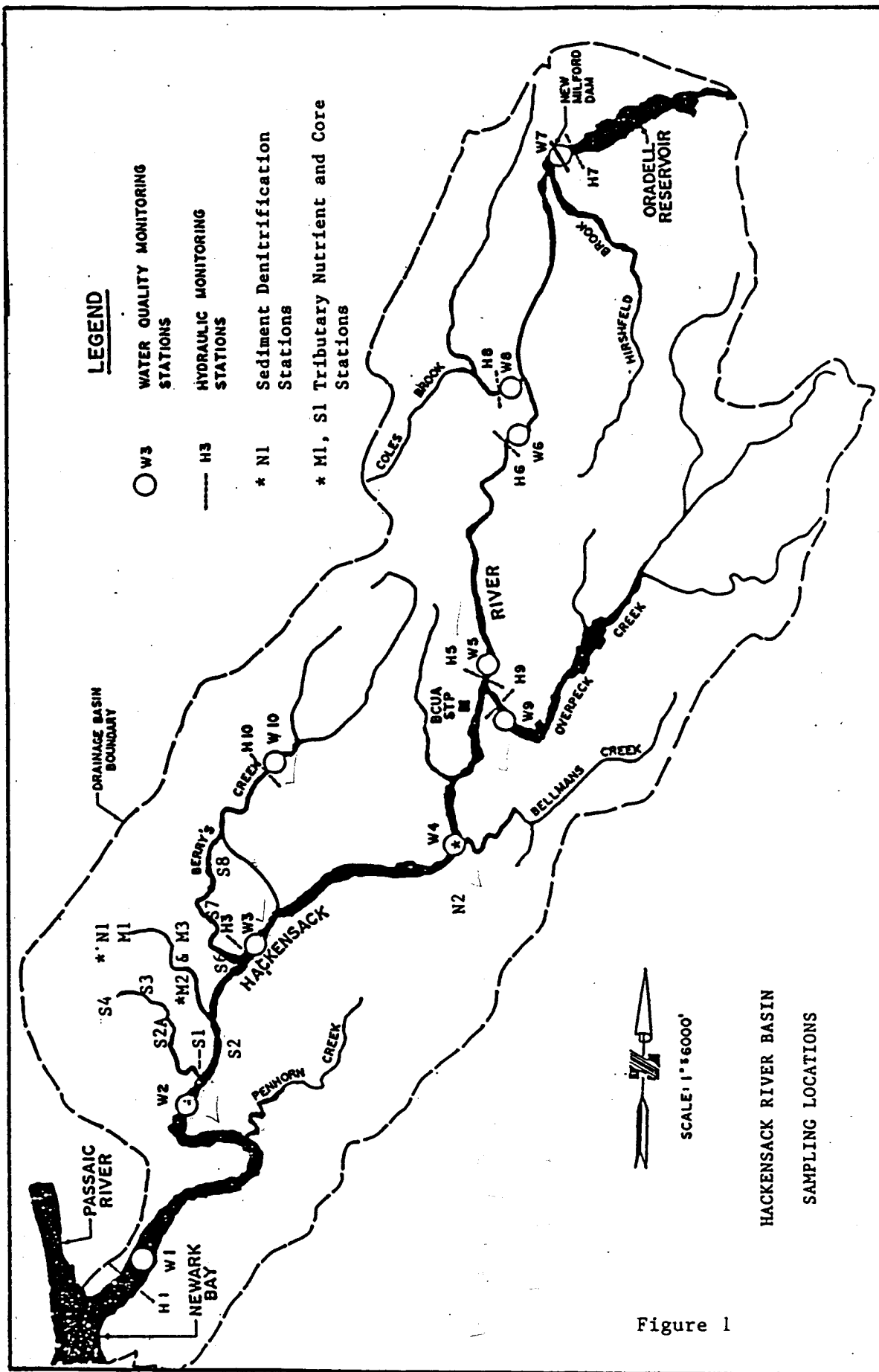
SECTION 11

ANALYTICAL DATA

RIVER AND TRIBUTARY LOCATIONS

AUGUST WET EVENT

AUGUST 23-29, 1988



INTRODUCTION

A field sampling program was undertaken in the Hackensack River (Figure 1) to support the data requirements of a time-variable nitrogen cycle model. The purpose of this report is to describe the patterns revealed by those data both as an aid to the modelling effort, and also an overview of the Hackensack River which is independent from the model output. This report presents and interprets some of the nutrient data which were collected by General Testing Corporation. Because not all of the field data are included here, and because the concentration patterns are a snapshot in time, this report can only infer the dynamics of the system. The time variable model is needed to more closely investigate the Hackensack River estuary's dynamics and to calculate the most likely outcomes of management actions.

The data discussed here are:

Nutrient concentrations measured along the axis of the Hackensack River.

Sediment Oxygen Demand (SOD) and nutrient exchanges between the sediments and the overlying water in the Hackensack River and selected tributaries.

Denitrification rates measured in sediments taken from the River and an adjacent marsh in December 1988 and September 1989.

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST MEET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
43	82588	2330	M1	T	7.27	6.0	1.05	1.12	0.99	0.71	0.05	0.20	0.49	0.09	0.40	1.45	24	2.5	18.5	35.3	
44	82588	2330	M1	B	4.92	6.3	1.1	0.97	0.24	0.24	0.29	0.48	0.44	0.09	0.35	12.0	23	2.9	18.3	21.6	800
45	82488	130	M1	T	7.30	5.2	1.0	0.87	0.36	0.36	0.18	0.68	0.44	0.08	0.36	4.22	22.5	2.6	18.1	15.6	1,100
46	82488	130	M1	B	7.28	4.0	0.9	1.025	0.24	0.24	0.32	0.85	0.41	0.08	0.33	5.23	22	2.6	18.9	18.4	
47	82488	330	M1	M	7.50	6.8	1.3	0.80	0.17	0.17	0.30	0.52	0.34	0.06	0.28	1.78	23	5.6	20.1	50.8	
48	82488	330	M1	M	7.58	2.5	1.2	0.85	0.18	0.18	0.33	0.63	0.36	0.06	0.30	4.41	22.3	5.4	19.3	30.4	
49	82488	600	M1	M	7.51	4.0	0.4	0.76	0.13	0.13	0.29	1.06	0.31	0.05	0.26	2.28	23.5	5.0	22.5	38.0	
50	82488	600	M1	M	7.40	6.0	2.4	0.65	0.13	0.13	0.27	0.80	0.36	0.05	0.31	2.42	23.0	4.2	22.0	31.6	5,000
118	82488	800	M1	T	7.51	7.3	2.53	0.95	0.15	0.15	0.05	0.78	0.21	0.21	0.21	6.51	23	2.6	20.6	31.7	3,000
119	82488	800	M1	B	7.50	6.9	1.15	0.51	0.51	0.51	0.51	0.51	0.25	0.25	0.25	2.73	22	2.1	20.1	33.7	
120	82488	1000	M1	T	7.52	5.5	0.8	0.736	0.14	0.14	0.37	0.57	0.25	0.20	0.05	2.13	23	2.4	20.2	34.3	
121	82488	1000	M1	B	7.48	3.2	0.5	0.80	0.14	0.14	0.38	1.63	0.25	0.21	0.04	1.97	22.5	3.3	20.4	16.0	
122	82488	1200	M1	T	7.50	5.1	0.95	0.84	0.25	0.25	0.43	1.65	0.36	0.29	0.07	3.06	23.0	1.7	0.33	33.0	
123	82488	1200	M1	B	7.50	9.1	1.2	1.00	0.23	0.23	0.44	1.17	0.33	0.29	0.04	3.47	22.0	1.5	18.6	55.0	
152	82488	1415	M1	T	4.35	8.4	1.1	1.13	0.24	0.24	0.39	0.64	0.40	0.30	0.10	9.88	24	3.3	18.0	34.4	9000
153	82488	1415	M1	B	7.40	13	1.1	0.65	0.23	0.23	0.42	0.70	0.40	0.29	0.11	3.12	23	3.8	18.0	20.4	230
154	82488	1600	M1	T	7.45	14	1.0	0.63	0.16	0.16	0.37	0.70	0.31	0.22	0.09	3.52	23	4.8	15.9	24.6	
155	82488	1600	M1	B	7.40	12	0.9	0.67	0.16	0.16	0.36	0.97	0.31	0.22	0.09	1.91	23	5.6	18.2	34.2	
156	82488	1800	M1	T	7.40	5.0	0.9	0.38	0.13	0.13	0.32	0.20	0.23	0.19	0.04	2.99	22	5.1	19.6	19.2	
157	82488	1800	M1	B	7.35	3.9	0.5	0.69	0.13	0.13	0.30	1.00	0.24	0.20	0.04	2.05	22	4.8	19.7	23.2	
200	82488	2020	M1	T	7.35	4.9	0.5	0.70	0.13	0.13	0.30	0.93	0.23	0.19	0.04	2.43	21	5.5	20.4	13.8	
201	82488	2020	M1	B	7.30	3.4	0.1	0.73	0.11	0.11	0.36	0.98	0.22	0.18	0.04	0.18	21	5.0	21.0	10.8	
202	82488	2200	M1	T	7.05	6.2	0.5	0.83	0.14	0.14	0.45	1.24	0.25	0.20	0.05	0.18	22	2.8	19.2	26.0	
203	82488	2200	M1	B	7.20	3.6	0.8	0.66	0.14	0.14	0.43	0.96	0.25	0.21	0.04	0.21	22	3.5	19.2	27.6	
204	82588	100	M1	T	7.41	3.9	0.6	1.40	0.27	0.27	0.49	1.69	0.41	0.33	0.08	5.95	23	3.3	15.9	23.6	5,000
205	82588	100	M1	B	4.50	8.8	0.9	1.42	0.28	0.28	0.47	1.55	0.42	0.35	0.07	51.5	22	3.0	13.8	24.0	24,000
229	82588	300	M1	T	7.48	3.3	1.90	1.11	0.95	0.95	0.51	0.73	0.32	0.25	0.07	5.31	22	2.9	9.08	20.0	
230	82588	300	M1	B	7.32	2.5	1.5	1.36	0.18	0.18	0.49	0.97	0.30	0.25	0.05	1.69	22	3.2	16.8	53.7	
231	82588	500	M1	T	7.25	2.9	0.6	1.136	0.25	0.25	0.46	1.38	0.34	0.30	0.04	6.59	23	3.5	16.9	28.8	
232	82588	500	M1	B	7.30	4.0	1.0	1.37	0.26	0.26	0.50	1.52	0.37	0.30	0.07	4.69	22.5	3.5	17.6	26.0	
259	82588	700	M1	T	7.10	4.5	1.50	0.80	0.12	0.12	0.58	0.20	0.37	0.19	0.18	1.90	22	3.2	18.9	15.0	
260	82588	700	M1	B	7.30	5.5	1.30	0.76	0.12	0.12	0.32	0.45	0.37	0.21	0.16	3.77	21	3.1	19.1	25.3	
261	82588	900	M1	T	7.32	3.5	1.60	0.78	0.13	0.13	0.34	0.20	0.37	0.19	0.18	0.18	22	3.9	19.1	16.8	
262	82588	900	M1	B	7.10	4.0	1.60	0.80	0.11	0.11	0.43	0.88	0.38	0.20	0.18	2.47	22	5.5	18.9	24.6	5,000
263	82588	1100	M1	T	7.22	3.2	1.30	0.91	0.16	0.16	0.60	1.08	0.39	0.24	0.15	3.34	23	3.0	18.0	26.8	11,000
264	82588	1100	M1	B	7.30	2.6	1.30	1.06	0.16	0.16	0.60	1.10	0.40	0.22	0.18	1.95	23	3.0	18.3	33.6	2,400
296	82588	1300	M1	T	7.28	7.5	1.45	1.36	0.26	0.26	0.35	1.4	0.54	0.31	0.23	118.2	26	2.9	16.6	24.8	8,000
297	82588	1300	M1	B	7.35	5.2	2.00	1.38	0.27	0.27	0.33	2.79	0.54	0.32	0.22	5.73	26	3.2	15.9	14.4	
298	82588	1500	M1	T	7.38	4	1.25	1.42	0.27	0.27	0.36	1.49	0.56	0.31	0.25	2.61	25	3.2	15.9	19.2	
299	82588	1500	M1	B	7.32	8.9	1.25	1.22	0.23	0.23	0.36	1.15	0.51	0.28	0.23	2.07	25	3.9	17.0	31.4	
300	82588	1700	M1	T	7.38	7.2	1.25	1.22	0.16	0.16	0.44	0.92	0.40	0.20	0.20	2.47	24	4.2	19.0	25.1	
301	82588	1700	M1	B	7.45	2.5	1.50	0.87	0.15	0.15	0.37	0.99	0.31	0.05	0.31	0.18	24	4.8	19.4	37.1	
329	82588	1900	M1	T	7.30	5.2	1.20	0.73	0.12	0.12	0.37	1.19	0.35	0.18	0.17	1.06	23	3.7	20.6	26.0	5,000
330	82588	1900	M1	B	7.28	5.3	1.20	0.72	0.11	0.11	0.32	0.77	0.55	0.18	0.37	2.40	23	4.2	21.4	4.4	13,000
331	82588	2100	M1	T	7.35	3.9	1.10	0.74	0.11	0.11	0.33	0.73	0.37	0.19	0.18	1.72	23	4.2	21.8	11.2	
332	82588	2100	M1	B	7.30	3.5	1.00	0.70	0.10	0.10	0.31	0.78	0.34	0.16	0.18	1.71	23	4.6	22.0	22.8	

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(NPN) FEC. COL. org/100ml
333	82588	2300	M1	T	7.32	5.9	1.20		0.81	0.13	0.45	0.76	0.39	0.18	0.21	2.46	23	4.1	20.0	28.0	
334	82588	2300	M1	B	7.28	6.8	1.40		0.85	0.14	0.44	1.08	0.43	0.19	0.24	2.56	23	4.7	20.5	51.8	
348	82688	100	M1	T	7.40	10	2.140		1.23	0.20	0.51	2.56	0.33	0.24	0.09	<1.19	23	2.8	15.7	46.0	
349	82688	100	M1	B	7.25	22	1.45		0.48	0.20	0.51	2.05	0.36	0.23	0.13	<2.16	23	1.9	17.0	61.0	
350	82688	300	M1	T	7.30	8.9	2.00		0.48	0.16	0.79	3.72	0.42	0.52	<0.10	<2.03	23	4.6	15.8	36.4	
351	82688	300	M1	B	7.32	9.2	1.50		1.35	0.27	0.54	2.91	0.40	0.33	0.07	<1.60	23	4.6	15.0	37.6	
373	82688	500	M1	T	7.52	6.6	2.20		1.12	0.23	0.35	1.40	0.52	0.28	0.24	6.57	22	1.8	16.3	37.6	
374	82688	500	M1	B	7.30	16	2.00		0.97	0.21	0.45	2.19	0.53	0.23	0.30	3.66	23	0.0	16.8	82.8	
375	82688	700	M1	T	7.30	6.9	1.75		0.77	0.15	0.43	<0.20++	0.39	0.14	0.25	<3.04	22	3.3	17.5	43.8	
376	82688	700	M1	B	7.31	15	1.45		0.75	0.15	0.40	<0.20++	0.41	0.23	0.18	5.11	22	2.6	18.8	46.8	
412	82688	900	M1	T	7.30	4.2	0.90	1.70	0.70	0.12	0.32	1.55	1.08	0.17	0.91	<2.81	22	3.1	20.2	27.6	
413	82688	900	M1	B	7.86	4.3	0.85	1.48	0.80	0.14	0.36	1.45	1.33	0.17	0.90	5.00	22	3.2	20.6	29.3	13,000
414	82688	1100	M1	T	7.40	6.7	1.45		0.72	0.13	0.39	1.47	1.07	0.17	0.90	3.47	24	2.2	19.4	26.2	
415	82688	1100	M1	B	7.96	5.3	1.55		1.01	0.19	0.45	1.65	1.33	0.23	1.10	11.8	23	2.2	17.5	28.0	
416	82688	1300	M1	T	7.31	14	0.70		1.04	0.20	0.44	1.63	1.28	0.21	1.07	4.72	23	1.9	17.5	30.6	3,000
417	82688	1300	M1	B	7.35	14	1.45		1.58	0.26	0.51	1.95	1.37	0.27	1.10	11.8	23	2.4	13.8	21.1	3,000
453	82688	1500	M1	T	7.30	5.2	1.25		1.49	0.28	0.50	2.49	1.21	0.30	0.91	<3.85	23	4.7	15.7	22.5	
454	82688	1500	M1	B	7.35	5.6	1.35		1.23	0.25	0.51	1.66	++	0.27	++	5.10	22	2.6	16.9	13.3	
455	82688	1700	M1	T	7.25	4.6	1.40		1.39	0.24	0.53	1.64	1.04	0.24	0.80	4.94	22	3.1	16.8	20.4	
456	82688	1700	M1	B	7.30	4.9	1.30		0.78	0.13	0.51	0.88	1.06	0.15	0.91	5.28	23.5	4.1	19.6	35.2	1,400
457	82688	1900	M1	T	7.32	7.0	1.20		0.81	0.13	0.49	0.78	1.14	0.15	0.99	4.99	23	4.1	19.7	37.5	2,400
458	82688	1900	M1	B	7.35	9.1	0.85		0.70	0.13	0.43	1.05	0.90	0.14	0.76	3.04	23	2.8	19.6	26.3	
459	82688	2100	M1	T	7.35	5.7	1.00		0.72	0.11	0.42	1.02	0.90	0.14	1.00	<2.19	24	3.0	21.1	16.8	
460	82688	2100	M1	B	7.4	6.7	0.95		0.69	0.14	0.42	1.03	1.17	0.17	1.00	<2.19	24	3.5	20.5	18.0	
484	82688	2300	M1	T	7.22	3.2	0.70		0.86	0.13	0.42	1.21	0.96	0.15	0.81	<1.68	23.5	2.9	18.4	63.0	800
485	82688	2300	M1	B	7.24	9.6	1.10		0.87	0.17	0.53	1.25	0.68	0.17	0.51	<1.68	23	2.8	18.6	23.8	2,200
486	82788	100	M1	T	7.12	9.7	0.70		0.85	0.17	0.52	1.37	<0.10	0.17	<0.10	7.79	23	2.4	19.1	57.8	
487	82788	100	M1	B	7.22	8.3	1.60		1.049	0.28	0.52	2.05	0.43	0.25	0.18	<1.80	24	2.4	15.8	45.6	
488	82788	300	M1	T	7.16	16	0.95		1.44	0.29	0.50	2.02	0.40	0.25	0.15	12.5	24	2.5	16.2	62.0	
489	82788	300	M1	B	7.18	5.0	1.85		1.63	0.28	0.83	2.12	0.36	0.26	0.10	1.50	23.5	1.3	16.6	16.6	
530	82788	500	M1	T	7.20	5.2	1.65		1.93	0.28	0.66	2.25	0.35	0.25	0.10	1.50	24	2.5	16.2	62.0	
531	82788	500	M1	B	7.12	5.1	1.50		++	0.15	0.66	1.24	0.27	0.16	0.11	1.08	22.5	1.7	17.4	24.0	
532	82788	700	M1	T	7.22	4.6	1.00		0.53	0.16	0.65	1.15	0.30	0.15	0.15	<1.83	21.3	1.8	15.2	20.8	13,000
533	82788	700	M1	B	7.54	5.3	1.05		1.19	0.13	0.54	1.24	0.12	0.19	<0.10	<1.24	24.5	2.3	19.6	22.2	2,400
534	82788	900	M1	T	7.40	6.4	1.50		1.24	0.14	0.53	1.55	0.17	0.13	0.04	2.23	25.5	2.3	19.3	28.5	
535	82788	900	M1	B	7.23	4.6	0.78	1.48	0.77	0.13	0.49	2.51	0.82	0.50	0.32	<1.58	24	2.3	21.8	23.3	
545	82788	1100	M1	T	7.23	5.0	0.68	1.30	0.29	0.12	0.63	3.42	0.46	0.18	0.28	5.85	24	2.2	22.3	18.3	
566	82788	1100	M1	B	7.25	9.0	1.05		1.44	0.16	0.64	2.67	0.28	0.17	0.11	<1.73	23.5	2.4	19.8	32.4	5,000
567	82788	1300	M1	T	7.3	8.4	<2.00		1.47	0.16	0.57	2.73	0.46	0.23	0.23	7.44	27	2.1	20.3	33.4	2,200
568	82788	1300	M1	B	7.32	15	1.00		1.62	0.26	0.65	4.57	1.05	0.28	0.77	<1.76	24	1.7	17.6	47.6	
569	82788	1500	M1	T	7.30	16	0.45		1.71	0.23	0.65	4.94	1.10	0.26	0.84	<2.43	24	1.8	17.7	55.5	
570	82788	1500	M1	B	7.23	6.7	1.45		1.80	0.29	0.60	4.94	1.05	0.28	0.77	92.5	24	1.8	14.8	21.0	
604	82788	1700	M1	T	7.30	6.1	1.55		1.85	0.29	0.62	4.92	1.17	0.30	0.87	3.42	24	2.8	15.6	21.8	
605	82788	1700	M1	B	7.50	21	1.25		0.97	0.15	0.64	4.73	0.55	0.17	0.38	8.13	24	3.7	20.8	50.0	5,000
606	82788	1900	M1	T	7.38	12	1.25		1.66	0.15	0.66	6.92	0.65	0.18	0.47	8.40	24	3.2	20.3	61.7	2,400
607	82788	1900	M1	B	7.38	12	1.25		1.66	0.15	0.66	6.92	0.65	0.18	0.47	8.40	24	3.2	20.3	61.7	

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST MET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PD4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
608	82788	2100	M1		7.40	6.4	0.90		1.97	0.12	0.57	2.78	0.74	0.13	0.61	3.05	24	2.6	19.7	34.7	
609	82788	2100	M1	B	7.35	6.9	1.15		1.54	0.12	0.54	4.75	0.85	0.16	0.69	B	24	6.1	22.7	47.2	
631	82788	2300	M1		7.48	4.5	0.75		0.73	0.11	0.39	0.68	0.15	0.14	0.01	(1.55)	23	1.3	22.7	11.6	
632	82788	1100	M1	B	7.35	3.7	0.85		0.64	0.10	0.37	0.79	0.50	0.14	0.36	(2.35)	23	3.0	23.4	18.2	
633	82888	100	M1		7.40	3.4	0.80		0.73	0.11	0.40	<0.20++	0.14	0.15	<0.10	(2.23)	23	1.3	20.4	15.0	
634	82888	100	M1	B	7.32	4.1	0.85		0.66	0.11	0.33	<0.20++	0.18	0.14	0.04	(1.31)	22	1.5	22.2	38.7	
635	82888	300	M1		7.45	18	1.00		1.16	0.21	0.74	1.50	<0.10	0.21	<0.10	7.12	23	1.9	18.3	50.5	
636	82888	300	M1	B	7.38	18	0.95		1.04	0.22	0.46	0.67	0.11	0.22	<0.10	4.86	23	2.5	17.3	27.0	
637	82888	500	M1		7.30	15	1.30		1.40	0.27	0.47	<0.20++	0.21	0.26	<0.10	4.79	23	1.6	15.0	55.5	
638	82888	500	M1	B	7.35	18	1.30		1.42	0.14	0.58	<0.20++	<0.10	0.10	<0.10	8.46	23	2.5	17.2	71.2	
686	82888	700	M1		7.16	4.0	0.60		1.06	0.19	0.54	1.15	0.12	0.22	<0.10	(1.56)	23.5	2.3	15.8	23.4	
687	82888	700	M1	B	7.22	6.1	0.80		1.07	0.20	0.52	1.46	<0.10	0.20	<0.10	3.70	24	2.3	16.6	25.6	
688	82888	900	M1		7.36	8.2	0.85		0.78	0.12	0.42	1.30	<0.10	0.14	<0.10	3.56	24	3.35	22.1	36.4	
689	82888	900	M1	B	7.30	8.3	1.45		0.75	0.12	0.42	1.30	<0.10	0.14	<0.10	3.56	24	2.75	19.3	42.8	
690	82888	1130	M1		7.36	3.1	1.00		0.76	0.12	0.42	1.27	0.13	0.16	<0.10	(1.81)	25	2.20	21.9	22.4	
691	82888	1130	M1	B	7.40	3.0	0.81		0.80	0.11	0.41	1.28	<0.10	0.13	<0.10	(2.67)	26	2.40	18.5	15.4	
725	82888	1330	M1		7.48	17	0.98	2.25	1.35	0.15	0.45	2.49	0.64	0.15	0.49	3.39	27.5	2.6	21.7	77.6	
726	82888	1330	M1	B	7.38	20	1.22	1.83	0.92	0.14	0.47	1.97	0.33	0.13	0.20	(2.06)	27	3.2	22.2	84.8	
727	82888	1330	M1		7.44	16	0.80		0.66	0.24	0.49	2.93	0.38	0.23	0.15	(1.01)	27.5	4.1	19.2	46.4	
728	82888	1330	M1	B	7.36	18	0.20		0.60	0.23	0.45	2.69	0.40	0.21	0.19	8.90	27	2.05	19.2	56.4	
734	82888	1700	M1		7.44	5.4	0.35		1.81	0.27	0.51	5.46	0.24	0.27	<0.10	(1.19)	27	2.8	17.5	38.4	
735	82888	1700	M1	B	7.34	5.5	0.75		1.39	0.26	0.49	4.53	0.42	0.23	0.19	6.18	26.5	2.6	17.5	36.4	
736	82888	1930	M1		7.24	7.6	0.70		1.42	0.16	0.54	3.77	0.32	0.17	0.15	76.7	24.5	3.7	20.4	37.2	
737	82888	1930	M1	B	7.22	8.0	0.45		1.27	0.16	0.52	3.79	0.30	0.16	0.14	3.12	24.5	3.2	20.2	43.2	
768	82888	2100	M1		7.30	7.1	(2.00)		0.82	0.11	0.40	1.29	0.64	0.12	0.52	(1.03)	24.5	3.3	22.9	43.6	
769	82888	2100	M1	B	7.31	7.6	1.05		0.91	0.10	0.42	1.49	0.33	0.13	0.20	(1.72)	24	3.1	23.5	54.4	
770	82888	2300	M1		7.25	5.1	1.30		0.25	0.10	0.44	1.65	++	0.12	++	(2.03)	24	3.0	22.3	34.4	
771	82888	2300	M1	B	7.28	6.3	1.05		0.96	0.10	0.40	1.87	++	0.12	++	(1.97)	24	3.1	22.9	40.0	
772	82888	100	M1		7.30	4.5	1.30		0.67	0.31	0.20	2.20	<0.10	0.12	<0.10	(2.06)	24	3.6	22.9	55.2	
773	82888	100	M1	B	7.30	4.0	8.55		0.71	0.11	0.40	1.19	0.28	0.14	0.28	B	24	3.3	22.7	28.8	
774	82888	300	M1		7.30	8.6	3.50		0.97	0.18	0.51	2.02	0.12	0.16	<0.10	4.79	24	2.0	20.0	58.0	
775	82888	300	M1	B	7.30	18	4.10		0.95	0.17	0.52	1.95	0.28	0.18	<0.10	(2.54)	24	2.5	19.6	69.2	
805	82888	500	M1		7.24	3.3	3.12		1.51	0.28	0.75	2.35	0.37	0.28	0.09	B	24.5	1.3	16.9	32.0	
806	82888	500	M1	B	7.42	4.7	3.38		1.51	0.28	0.46	2.00	0.30	0.26	0.04	7.43	24.5	1.5	17.4	31.6	
807	82888	700	M1		7.38	3.4	3.90		1.40	0.26	0.49	1.63	0.34	0.28	0.06	(2.61)	25	1.5	15.9	20.8	
808	82888	700	M1	B	7.46	3.2	2.65		1.28	0.23	0.49	1.70	0.48	0.23	0.25	4.25	24.5	1.4	18.3	24.6	
809	82888	930	M1		7.30	8.0	1.80		0.74	0.11	0.39	1.51	0.16	0.18	<0.10	(1.65)	24.5	2.2	23.6	36.4	
810	82888	930	M1	B	7.24	9.5	2.30		0.75	0.12	0.39	1.41	0.17	0.13	0.04	(1.10)	23.5	2.4	22.9	75.6	
811	82888	1100	M1		7.22	5.2	2.10		0.69	0.10	0.37	1.21	<0.10	0.15	<0.10	(2.26)	24	1.7	24.5	81.8	
812	82888	1100	M1	B	7.28	5.7	1.95		0.68	0.10	0.37	1.24	0.18	0.12	0.06	(2.58)	23.5	2.1	24.7	75.8	

NOTE: * = Retesting necessary but insufficient sample available

++ = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NH2 mg/l	NH3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PD4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
10	82488	315	W2	T	7.0	6.6	1.25	2.25	0.90	0.34	0.34	1.40	0.62	0.17	0.45	11.29	24	2.4	15.8	23.0	
11	82488	315	W2	B	7.0	6.7	2.40	3.98	1.11	0.34	0.36	1.32	0.59	0.02	0.58	10.7	22	2.4	14.9	22.9	1,700
103	82488	705	W2	T	6.8	2.8	0.50		0.82	0.20	0.45	0.22	0.34	0.27	0.07	11.99	23	2.9	18.6	22.0	1,700
104	82488	705	W2	B	6.9	2.9	0.60		0.93	0.21	0.45	1.48	0.35	0.41	0.10	4.11	23.5	2.7	17.6	23.7	
124	82488	1045	W2	T	7.10	4.4	1.45	4.28	1.75	0.35	0.38	2.36	0.58	0.47	0.11	3.13	22.5	2.3	13.6	21.0	
125	82488	1045	W2	B	7.1	7.0	1.20	3.53	0.83	0.34	0.26	0.35	0.60	0.45	0.15	8.41	22	2.6	14.1	27.5	
139	82488	1400	W2	T	7.2	3.9	1.3		2.24	0.35	0.33	0.20++	0.59	0.49	0.10	11.3	24	3.2	13.0	14.8	
140	82488	1400	W2	B	7.2	5.4	2.5		1.41	0.33	0.30	0.20++	0.41	0.43	0.18	8.25	24	4.7	13.4	15.0	
158	82488	1737	W2	T	7.1	9.6	1.1		1.01	0.25	0.39	0.82	0.40	0.31	0.09	8.28	22	3.2	15.2	40.0	
159	82488	1737	W2	B	7.1	14	1.1		0.92	0.19	0.56	1.47	0.38	0.45	0.10	2.24	21	3.3	11.5	33.8	
172	82588	120	W2	T	7.98	3.8	0.8		0.86	0.22	0.39	0.20++	0.10	0.27	0.10	2.52	24	6.0	13.7	22.3	
173	82588	120	W2	B	7.99	2.9	2.15		0.77	0.22	0.37	0.20++	0.31	0.27	0.04	6.77	23	3.7	15.3	12.0	
221	82588	205	W2	T	7.38	3.3	1.3		2.76	0.34	0.00	2.24	0.64	0.51	0.13	8.95	22	4.3	12.6	25.2	
222	82588	205	W2	B	7.88	3.5	1.4		2.56	0.33	0.39	2.54	0.56	0.46	0.10	4.93	21	4.5	12.3	32.8	
238	82588	500	W2	T	7.71	5.2	1.1		1.89	0.33	0.47	0.20++	0.48	0.42	0.06	1.95	21	3.8	13.9	41.6	
251	82588	800	W2	T	6.85	3.2	1.63		1.94	0.37	0.42	0.43++	0.50	0.43	0.07	9.76	20	3.5	14.2	41.2	
252	82588	800	W2	B	6.85	4.7	2.20	2.65	5.14	0.24	0.40	6.00	0.34	0.33	0.01	1.65	21	3.9	16.8	24.2	
270	82588	1048	W2	T	6.8	3.8	1.8	3.25	3.43	0.24	0.52	3.30	0.33	0.30	0.03	2.27	21	3.5	16.9	28.0	
271	82588	1048	W2	B	6.9	5.5	1.5		1.84	0.30	0.71	1.89	0.65	0.41	0.24	1.74	24	2.4	12.7	16.0	
282	82588	1323	W2	B	7.2	9.05	4.03		1.87	0.31	NS	1.75	0.65	0.40	0.25	1.79	24	2.1	14.8	24.3	
283	82588	1418	W2	T	7.05	5.4	1.65		2.31	0.66	0.15	2.44	0.75	0.34	0.41	46.1	25	2.05	4.95	27.2	
284	82588	1418	W2	B	7.05	5.9	2.28		2.81	0.35	0.25	2.30	0.82	0.53	0.29	15.3	24	2.65	11.7	15.0	
302	82588	1645	W2	T	7.40	4	1.90		2.88	0.34	0.25	2.39	0.81	0.53	0.28	0.96	24	2.25	11.9	15.3	
303	82588	1645	W2	B	7.10	4	1.75		0.95	0.38	0.13	1.67	0.50	0.44	0.06	10.3	25	2.85	13.4	29.3	
315	82588	1845	W2	T	7.1	8.45	1.28		1.90	0.33	0.30	1.53	0.56	0.41	0.15	6.02	25	3.6	14.1	33.6	
316	82588	1845	W2	T	7.1	8.45	1.55		1.20	0.22	0.43	1.16	0.38	0.30	0.08	7.81	24	2.2	15.8	32.2	
335	82588	2138	W2	T	7.19	4.25	1.65		1.06	0.23	0.51	1.46	0.39	0.31	0.08	7.07	24	2.3	15.7	34.0	
336	82588	2138	W2	B	7.19	3.50	2.00		1.11	0.21	0.47	1.19	0.49	0.29	0.20	3.52	24	3.2	17.3	15.4	
352	82688	100	W2	T	7.15	12.15	2.05		1.10	0.21	0.45	0.20	0.67	0.44	0.17	2.23	24	3.0	17.6	18.4	
353	82688	100	W2	B	7.25	19.5	2.61		0.46	0.33	0.35	0.20	0.67	0.44	0.23	8.57	22	2.8	13.6	36.8	
365	82688	410	W2	T	7.15	4.65	3.48		2.01	0.31	0.37	1.21	0.45	0.43	0.02	15.9	21	3.1	13.5	84.4	
366	82688	410	W2	B	6.95	9.6	2.80		1.46	0.33	0.30	5.98	0.60	0.52	0.08	35.60	23	3.4	12.1	47.2	
382	82688	709	W2	T	7.10	15	1.72		2.68	0.26	0.42	2.67	0.51	0.50	0.07	10.5	22	3.35	12.6	48.0	
383	82688	709	W2	B	7.1	12	1.85		1.38	0.28	0.39	1.88	0.51	0.38	0.16	6.30	23	2.05	16.8	53.4	
395	82688	1046	W2	T	7.0	5.2	0.88		1.26	0.26	0.46	1.10	0.52	0.32	0.13	3.02	23	2.15	16.4	44.8	
396	82688	1046	W2	B	7.0	4.2	0.68		0.74	0.25	0.46	1.10	0.52	0.32	0.20	7.68	26	2.60	15.0	26.3	
423	82688	1425	W2	T	7.2	5.1	1.70		1.37	0.03	0.63	1.61	0.53	0.32	0.21	40.6	25	1.9	15.0	28.4	
424	82688	1425	W2	B	7.2	4.6	1.90		1.25	0.33	0.19	2.15	0.53	0.44	0.21	4.33	26	6.5	13.0	39.0	
440	82688	1711	W2	T	6.75	8.2	1.2		2.71	0.31	0.34	2.77	1.59	0.42	1.17	10.1	25	3.9	13.0	35.4	
441	82688	1711	W2	B	6.85	8.5	1.9		2.27	0.36	0.44	1.86	0.38	0.35	0.03	7.36	26	3.6	12.9	40.6	
461	82688	1958	W2	T	6.8	8.4	0.90		2.27	0.36	0.48	1.66	1.59	0.40	1.19	5.04	26	2.1	14.5	43.1	
462	82688	1958	W2	B	7.0	9.0	0.85		1.05	0.19	0.53	1.06	1.03	0.22	0.81	7.24	24	1.8	17.1	13.0	
476	82688	2230	W2	T	6.5	4.9	1.05		0.94	0.18	0.51	1.87	1.01	0.22	0.79	3.19	24	2.5	17.3	56.3	
477	82688	2230	W2	B	6.9	5.0	0.90		0.85	0.16	0.52	1.50	0.27	0.20	0.27	3.74	24	1.6	17.6	21.2	
490	82788	50	W2	T	7.07	16	1.75		1.56	0.33	0.40	2.27	0.90	0.33	0.07	8	24	2.0	18.0	22.2	
491	82788	50	W2	B	7.37	17	2.05		1.20	0.33	0.37	2.70	0.85	0.34	0.51	15.7	24	2.9	15.0	54.6	

2,400
5,000
13,000

1,300
3,000

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PM4 mg/l	CHLOR-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
504	82788	320	W2	T	7.91	4.9	1.60		2.77	0.35	0.36	2.90	0.59	0.40	0.19	3.53	24	1.6	13.2	27.2	
505	82788	320	W2	B	6.85	3.6	2.20		2.81	0.35	0.35	2.86	0.74	0.41	0.33	13.1	24	2.5	12.10	34.2	
517	82788	600	W2	T	7.10	9.0	1.05		1.97	0.36	0.40	2.74	0.47	0.36	0.11	2.33	23	2.9	13.9	41.6	
518	82788	600	W2	B	7.03	16	1.90		1.90	0.34	0.40	2.76	0.30	0.34	<0.10	1.88	24		12.3	54.6	
544	82788	1002	W2	T	7.80	7.3	0.70		1.27	0.18	0.68	1.71	0.24	0.19	0.05	8	25	2.1	19.4	24.2	
545	82788	1002	W2	B	7.71	3.5	1.00		1.78	0.19	0.68	1.64	0.70	0.78	<0.10	11.44	24	4.6	18.5	35.2	
557	82788	1312	W2	T	6.8	6.1	1.45	2.68	0.72	0.56	0.30	2.39	0.99	0.41	0.58	19.1	24	2.2	14.4	44.8	
558	82788	1312	W2	B	6.9	27	1.65	3.35	1.21	0.35	0.53	1.71	0.38	0.32	0.06	7.43	25	2.1	14.1	105.0	
579	82788	1633	W2	T	6.8	5.4	1.90		*	0.36	*	*	1.00	0.56	0.44	4.51	25	1.7	13.0	24.0	1,700
580	82788	1633	W2	B	6.8	7.1	2.30		*	*	*	*	*	*	*	6.18	25	2.0	12.3	43.6	9,000
596	82788	1847	W2	T	6.96	12	1.3		2.07	0.32	0.70	4.67	0.69	0.33	0.36	2.75	25	2.4	14.5	44.5	
597	82788	1842	W2	B	7.05	13	1.15		2.06	0.33	0.65	2.82	0.80	0.34	0.46	5.28	25	2.3	15.4	37.2	
615	82788	2145	W2	T	7.05	14	0.65		0.45	0.18	0.71	1.18	0.88	0.20	0.68	14.7	23	3.7	19.90	33.5	
616	82788	2145	W2	B	6.93	12	0.75		0.33	0.16	0.77	1.95	0.28	0.18	0.10	5.59	23	3.7	19.90	44.0	
623	82888	11	W2	T	6.92	4.1	1.45		1.72	0.21	0.62	1.69	0.33	0.21	0.12	6.20	24	3.4	17.9	14.4	
624	82888	11	W2	B	6.96	4.0	0.60		1.74	0.20	0.64	2.37	0.30	0.23	0.07	2.98	24	4.7	18.9	19.0	
649	82888	303	W2	T	6.70	6.6	1.40		<0.05	0.32	*	0.54	0.45	0.35	0.10	6.60	24	1.7	14.4	17.0	
650	82888	303	W2	B	6.72	6.4	1.25		2.39	0.33	0.38	2.62	0.41	0.36	0.05	6.76	24	1.6	14.6	18.2	
662	82888	755	W2	T	6.95	16	0.8		1.71	0.32	0.44	1.90	0.30	0.34	<0.10	9.22	24	1.5	14.9	73.0	
663	82888	755	W2	B	6.80	15	0.9		1.78	0.31	0.46	2.49	0.29	0.31	<0.10	10.7	25	1.4	15.3	50.4	
675	82888	1030	W2	T	7.09	9.4	1.15		0.98	0.17	0.50	1.21	<0.10	0.20	<0.10	3.92	25	1.2	16.0	44.4	3,740
676	82888	1030	W2	B	7.10	14	1.35		1.02	0.18	0.51	1.10	0.17	0.20	<0.10	4.38	25	1.4	18.5	50.2	3,000
698	82888	1305	W2	T	7.19	9.8	2.20		1.67	0.26	0.48	5.09	0.77	0.27	0.50	6.39	26	2.4	7.02	21.6	
699	82888	1305	W2	B	7.27	9.8	0.75		1.45	0.26	0.47	4.09	0.53	0.30	0.23	8	25	4.5	13.7	46.6	
717	82888	1606	W2	T	7.1	8.5	2.30	3.57	1.90	0.32	0.27	2.85	0.56	0.37	0.19	2.02	26	3.7	15.1	37.1	
718	82888	1606	W2	B	7.3	12	2.25	4.95	1.66	0.32	0.21	2.66	0.55	0.35	0.20	18.4	26	4.4	15.6	46.4	
738	82888	1944	W2	T	7.10	9.3	0.65		1.89	0.30	0.42	4.50	0.49	0.30	0.19	8	26	2.3	16.5	52.4	
739	82888	1944	W2	B	7.10	5.6	1.15		1.87	0.32	0.46	4.88	0.51	0.32	0.19	6.54	26	2.6	16.1	58.0	
755	82888	2349	W2	T	6.9	2.9	1.70		1.54	0.16	0.52	2.35	<0.10	0.18	<0.10	9.22	24	2.9	18.9	24.8	
756	82888	2349	W2	B	7.1	3.0	1.60		1.24	0.15	0.52	2.87	0.30	0.17	0.13	4.22	24	3.0	18.4	36.8	

NOTE: * = Retesting necessary but insufficient sample available

++ = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

11.09
11.09
11.09

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HICKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	MH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
12	82488	347	M3	T	7.1	8.7	1.6	1.50	1.50	0.37	0.05	3.20	0.88	0.41	0.31	6.14	22	2.1	13.0	30.8	
13	82488	347	M3	B	7.0	14	1.45	1.46	1.46	0.37	0.39	7.80	0.72	0.41	0.31	16.4	22	2.3	13.2	21.6	
105	82488	733	M3	T	6.8	2.6	1.00	1.86	1.86	0.33	0.39	0.20++	0.10	0.37	0.10	8	24	2.5	13.5	16.0	5,000
106	82488	733	M3	B	6.8	4.3	0.75	1.40	1.40	0.32	0.41	1.70	0.35	0.61	0.10	9.77	23	2.5	14.7	15.7	
126	82488	1115	M3	T	7.0	5.4	2.55	8.70	1.07	0.38	0.25	4.06	0.76	0.61	0.15	10.8	24	1.6	11.8	16.8	
127	82488	1115	M3	B	7.0	5.3	2.25	10.08	0.86	0.38	0.16	2.47	1.04	0.59	0.45	6.19	24	2.3	12.1	14.8	
141	82488	1430	M3	T	7.1	5.0	1.5	2.74	2.74	0.37	0.29	2.85	0.81	0.66	0.15	5.93	24	2.9	11.4	10.4	
142	82488	1430	M3	B	7.1	6.9	1.7	1.48	1.48	0.37	0.27	2.65	0.56	0.44	0.12	8.17	24	2.3	10.1	12.6	
160	82488	1758	M3	T	6.7	10.0	1.6	1.15	1.15	0.34	0.33	2.44	0.54	0.44	0.10	3.41	23	3.0	12.90	25.3	
161	82488	1758	M3	B	6.8	7.1	1.5	1.02	1.02	0.35	0.30	2.44	0.54	0.44	0.10	3.41	23	3.0	12.90	25.3	
174	82588	120	M3	T	8.06	3.2	2.0	0.39	0.39	0.35	0.29	0.20++	0.54	0.47	0.07	8.72	23	3.0	11.9	17.6	
175	82588	120	M3	B	7.93	4.4	1.6	0.49	0.49	0.32	0.37	0.68	0.58	0.40	0.18	8.41	23	3.2	13.3	12.8	
223	82588	235	M3	T	7.95	3.3	1.4	3.15	3.15	0.36	0.39	2.94	0.94	0.65	0.29	12.1	22	3.9	9.66	11.8	
224	82588	235	M3	B	6.44	6	1.7	3.90	3.90	0.37	0.35	3.44	0.83	0.69	0.14	6.58	21	3.4	9.66	17.7	
240	82588	540	M3	T	8.10	9.0	2.1	2.70	2.70	0.35	0.39	2.10	0.51	0.50	0.01	3.13	22	4.0	12.1	91.2	
241	82588	540	M3	B	7.82	9.2	2.75	2.25	2.25	0.34	0.41	2.30	0.47	0.46	0.01	3.08	21	4.2	12.5	102	
253	82588	830	M3	T	6.9	4.5	1.98	3.6	2.14	0.34	0.41	4.20	0.56	0.48	0.08	9.19	23	3.4	13.3	18.4	
254	82588	830	M3	B	6.95	3.6	1.88	3.4	1.94	0.33	0.24	4.00	0.88	0.43	0.45	9.74	22	3.4	14.0	13.6	3,000
272	82588	1122	M3	T	6.9	6.5	1.8	3.00	3.00	0.35	0.39	2.73	0.89	0.53	0.34	11.25	25	1.7	11.1	18.0	1,400
273	82588	1122	M3	B	6.9	6.0	1.8	2.93	2.93	0.34	0.39	2.48	0.86	0.53	0.33	4.47	24	1.8	11.7	22.3	
285	82588	1459	M3	T	7.10	4.2	2.55	3.78	3.78	0.39	0.19	5.81	0.66	0.42	0.14	23.6	24	1.4	9.66	10.6	
286	82588	1459	M3	B	7.10	5.5	2.20	3.62	3.62	0.35	0.27	2.21++	0.92	0.59	0.33	11.46	24	1.6	10.80	10.4	
304	82588	1700	M3	T	7.20	8.3	2.25	2.75	2.75	0.32	0.27	1.99	0.57	0.47	0.10	9.34	24	2.7	14.1	27.2	
305	82588	1700	M3	B	7.2	7.0	2.25	2.85	2.85	0.35	0.26	1.95	0.63	0.52	0.11	18.7	24	2.6	13.8	15.6	
317	82588	1908	M3	T	7.2	7.03	1.85	1.90	1.90	0.31	0.39	1.91	0.56	0.40	0.14	4.89	24	1.8	14.1	20.0	
318	82588	1908	M3	B	7.2	6.6	1.90	2.27	2.27	0.33	0.34	2.22	0.56	0.42	0.14	4.34	24	1.0	13.2	36.4	
337	82588	2138	M3	T	7.19	3.8	1.80	1.96	1.96	0.30	0.41	1.80	0.68	0.39	0.29	8	23	2.0	14.5	18.8	
338	82588	2210	M3	B	7.2	3.4	2.15	1.92	1.92	0.31	0.39	1.75	1.19	0.41	0.78	3.69	23	1.7	14.8	12.8	
354	82688	200	M3	T	6.90	6.5	2.45	3.27	3.27	0.35	0.29	2.26++	0.90	0.62	0.28	10.7	23	3.1	10.7	21.6	
355	82688	200	M3	B	4.90	5.7	2.45	3.23	3.23	0.36	0.28	2.25	0.83	0.63	0.20	5.05	22	3.2	11.0	23.6	
367	82688	445	M3	T	7.0	6.7	1.15	3.06	3.06	0.34	0.14	2.25	0.92	0.62	0.30	12.8	22	3.4	10.9	38.4	
368	82688	445	M3	B	7.10	5.5	2.00	3.29	3.29	0.35	0.31	2.20	0.89	1.25	0.10	11.5	22	3.1	10.9	36.4	
384	82688	753	M3	T	7.1	6.4	1.10	3.81	3.81	0.33	0.36	2.77	0.64	0.47	0.17	6.85	24	1.7	14.6	39.6	
385	82688	753	M3	B	7.1	5.9	1.20	1.77	1.77	0.32	0.39	1.95	0.65	0.45	0.20	3.27	24	1.7	14.6	39.6	
397	82688	1108	M3	T	7.0	8.0	1.75	0.62	0.62	0.32	0.38	5.81	0.79	0.45	0.34	6.97	26	1.75	12.9	16.8	
398	82688	1108	M3	B	7.0	7.6	1.55	0.11	0.11	0.32	0.41	2.36	0.67	0.43	0.24	3.69	26	1.9	12.8	17.4	
425	82688	1446	M3	T	7.0	4.0	2.05	3.53	3.53	0.34	0.27	2.98	0.77	0.59	0.19	8	25	1.6	10.7	17.4	
426	82688	1446	M3	B	7.0	4.2	1.65	3.22	3.22	0.37	0.21	3.64	1.55	0.67	0.88	6.77	25	1.3	10.4	12.6	1,100
442	82688	1735	M3	T	6.9	8	2.3	3.03	3.03	0.33	0.34	3.63	1.61	0.48	0.13	7.36	25	1.8	11.5	49.7	800
443	82688	1735	M3	B	6.9	6	1.85	3.01	3.01	0.34	0.35	3.48	1.46	0.49	0.97	7.36	25	1.7	12.9	44.0	
463	82688	2021	M3	T	6.93	7.5	1.15	1.57	1.57	0.29	0.46	1.80	1.94	0.33	1.61	8.58	24	2.3	14.8	38.6	
464	82688	2021	M3	B	6.97	3.5	1.50	1.66	1.66	0.31	0.44	1.65	4.76	0.36	4.40	4.62	24	1.6	15.0	36.0	
478	82688	2246	M3	T	6.97	4.5	0.85	2.13	2.13	0.32	0.43	2.79	1.24	0.38	0.86	5.28	24	1.7	14.0	17.0	
479	82688	2246	M3	B	6.96	4.5	0.85	1.77	1.77	0.30	0.45	2.04	1.40	0.32	1.08	2.91	25	1.6	14.8	14.2	
492	82788	120	M3	T	7.10	9.0	1.80	2.64	2.64	0.35	0.36	2.95	1.12	0.46	0.66	4.39	24	3.7	12.3	33.1	
493	82788	120	M3	B	7.00	7.7	2.35	2.74	2.74	0.35	0.36	3.24	0.62	0.42	0.20	2.09	24	2.1	12.3	37.2	
506	82788	335	M3	T	6.80	3.9	2.00	5.56	5.56	0.39	0.27	4.20++	0.74	0.60	0.14	3.86	24	1.1	10.7	16.6	

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PD4 mg/l	CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(NPN) FEC. COLI org/100ml
507	82788	335	M3	B	6.95	4.6	2.50		3.79	0.39	0.27	3.55	0.91	0.56	0.35	10.7	23	2.1	11.1	21.2	
519	82788	615	M3	T	7.13	13	1.35		2.94	0.38	0.44	3.82	0.44	0.45	0.10	6.45	23	2.1	11.9	53.6	
520	82788	615	M3	B	6.97	15	1.15		3.00	0.36	0.44	4.00	0.36	0.44	0.10	6.45	23	1.6	12.6	50.3	
546	82788	1037	M3	T	6.9	4.1	2.05		1.19	0.31	0.54	2.97	0.31	0.33	0.60	B	25	1.1	13.3	19.4	
547	82788	1037	M3	B	7.0	5.4	1.25		B	0.33	0.57	2.43	0.97	0.59	0.38	B	25	1.7	12.6	20.6	
559	82788	1328	M3	T	6.7	11	1.25	3.38	3.40	0.37	0.45	2.26++	1.12	0.45	0.67	13.2	25	1.5	12.4	39.7	
560	82788	1328	M3	B	6.8	13	1.65	3.15	0.42	0.36	0.45	3.37	0.80	0.41	0.39	6.27	25	1.4	13.7	45.0	
581	82788	1645	M3	T	6.8	3.9	2.05		B	0.40	B	B	1.33	0.72	0.61	5.95	26	1.3	10.5	51.2	8,000
582	82788	1645	M3	B	6.8	5.1	1.90		3.65	0.38	0.40	10.82	1.27	1.14	0.13	5.66	25	1.5	10.3	27.0	8,000
598	82788	1912	M3	T	7.06	14	1.9		2.57	0.34	0.54	5.59	0.87	0.67	0.20	10.3	25	3.2	14.4	53.6	
599	82788	1912	M3	B	7.05	14	1.75		2.49	0.34	0.61	2.94	0.72	0.36	0.36	B	25	2.2	14.6	50.4	
617	82788	2206	M3	T	6.90	5.8	1.10		0.41	0.28	0.76	2.68	0.43	0.29	0.14	B	24	3.0	16.60	15.8	
618	82788	2206	M3	B	6.95	5.3	1.05		0.40	0.29	0.76	1.70	0.34	0.31	0.03	12.1	24	3.2	16.4	23.6	
625	82888	30	M3	T	6.90	4.1	1.05		2.20	0.20	0.67	3.53	0.42	0.23	0.19	11.63	24	2.6	14.80	15.8	
626	82888	30	M3	B	7.00	4.9	1.05		2.21	0.32	0.57	3.44	0.53	0.35	0.18	4.10	24	2.7	15.80	18.6	
651	82888	323	M3	T	6.90	5.8	1.65		3.42	0.36	0.27	4.08	0.72	0.49	0.23	3.37	24	1.2	11.6	15.1	
652	82888	323	M3	B	6.86	5.9	1.55		3.38	0.38	0.26	4.07	0.61	0.52	0.09	4.29	24	1.10	11.9	17.0	
664	82888	820	M3	T	6.95	14	0.95		2.45	0.34	0.37	3.61	0.35	0.36	0.10	5.27	24	0.5	14.3	50.0	
665	82888	820	M3	B	7.02	14	0.9		2.37	0.32	0.35	3.64	0.34	0.32	0.10	7.20	25	0.6	9.15	64.8	
677	82888	1050	M3	T	7.06	5.9	1.40		1.72	0.29	0.45	1.80	0.24	0.32	0.10	3.52	25	1.3	15.5	30.3	1,300
678	82888	1050	M3	B	7.10	5.3	1.70		1.60	0.27	0.50	2.09	0.23	0.29	0.10	5.21	26	1.6	16.3	18.8	5,000
700	82888	1330	M3	T	7.19	5.7	0.60		2.48	0.33	0.39	6.92	0.60	0.38	0.22	4.26	26	1.8	12.7	30.8	
701	82888	1330	M3	B	7.29	7.0	2.00		2.37	0.32	0.38	8.29	0.57	0.37	0.20	7.93	25	1.6	12.3	35.4	
719	82888	1620	M3	T	7.1	6.0	1.90	3.63	3.14	0.34	0.24	3.89	0.73	0.48	0.25	11.2	26	2.2	12.9	41.6	
720	82888	1620	M3	B	7.2	6.3	1.72	3.52	2.97	0.35	0.24	4.29	0.69	0.47	0.22	12.3	26	2.25	13.1	38.0	
740	82888	2004	M3	T	7.20	8.6	3.25		2.32	0.33	0.38	3.64	0.56	0.35	0.21	14.8	26	2.7	14.8	30.8	
741	82888	2004	M3	B	7.10	8.1	5.20		2.33	0.32	0.33	5.85	0.58	0.33	0.25	5.01	26	3.4	15.1	58.4	
757	82988	6	M3	T	7.1	3.6	2.70		1.76	0.29	0.48	1.75	0.27	0.30	0.10	3.39	26	3.1	15.2	25.2	
758	82988	6	M3	B	7.2	4.5	2.75		1.68	0.27	0.50	1.70	0.44	0.27	0.17	6.23	25	3.1	14.9	26.0	

NOTE: + = Retesting necessary but insufficient sample available

++ = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/d3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPH) FEC. COLI org/100ml
14	82488	414	M4	1	7.1	5.2	3.30		3.66	0.45	**	2.46**	1.16	0.43	0.73	7.04	21	0.8	9.30	12.6	
15	82488	414	M4	8	7.0	29	3.4		3.15	0.44	0.13	2.71	1.08	0.38	0.70	30.0	21	0.9	9.10	143	
107	82488	800	M4	1	7.0	6.9	1.2		2.98	0.39	0.27	1.36	0.93	0.62	0.31	5.23	23.5	1.2	10.6	26.3	1,700
108	82488	800	M4	8	7.0	4.3	0.5		1.24	0.38	0.30	4.17	0.93	0.87	0.06	14.6	24	1.6	9.73	15.0	5,000
128	82488	1135	M4	1	7.1	3.5	5.22	14.73	1.03	0.52	0.04	4.79	1.16	0.96	0.20	5.56	25	1.4	8.20	9.2	
129	82488	1135	M4	8	7.1	4.6	4.75	11.78	4.36	0.51	0.16	5.42	1.15	0.97	0.18	7.90	25	0.8	8.75	9.43	
143	82488	1515	M4	1	6.9	5.3	2.9		4.03	0.47	0.07	5.38	1.19	0.91	0.28	5.31	24	0.7	8.06	9.2	
144	82488	350	M4	8	6.8	4.8	2.9		<0.05	0.46	0.37	0.99	1.16	0.89	0.27	6.05	24.5	0.9	7.50	11.8	
162	82488	1828	M4	1	8.04	5.5	1.7		0.39	0.39	0.21	4.21	0.91	0.69	0.22	27.3	24	2.9	10.5	16.3	
163	82488	1828	M4	8	7.98	6.4	2.0		2.67	0.38	0.23	4.24	0.87	0.68	0.19	8.72	23	1.9	9.97	20.0	
176	82588	120	M4	1	7.97	4.9	3.4		3.44	0.43	0.16	3.50	1.10	0.88	0.22	10.9	23	1.7	7.98	13.2	
177	82588	120	M4	8	8.10	5.7	2.0		1.51	0.37	<0.05	4.00	0.90	0.72	0.18	6.21	23	1.6	9.14	15.6	
225	82588	300	M4	1	6.70	3.8	2.45		5.05	0.51	0.22	3.89	1.17	0.85	0.32	5.69	22	2.6	7.54	16.7	
226	82588	300	M4	8	6.6	3.3	2.55		4.40	0.46	0.68	4.26	1.10	0.81	0.29	3.63	21	2.4	8.37	15.3	
242	82588	600	M4	1	8.14	7.0	3.77		*	0.69	0.09	4.30	0.97	0.72	0.25	11.9	21	2.4	9.07	25.4	
243	82588	600	M4	8	8.68	4.5	2.75		6.26	0.40	0.73	13.4	0.95	0.77	0.18	11.9	21	1.8	9.33	21.0	
255	82588	900	M4	1	7.00	4.8	2.98		3.52	0.39	<0.05	6.30	0.49	0.69	<0.10	14.9	22	2.3	8.12	11.7	
256	82588	900	M4	8	7.15	6.0	3.58	4.63	3.52	0.37	0.31	8.10	0.92	0.64	0.28	8.85	22	2.4	9.07	25.4	
274	82588	1146	M4	1	7.2	6.5	3.15	6.58	4.61	0.53	*	3.79	1.28	0.83	0.45	5.51	26	0.3	7.08		5,000
275	82588	1146	M4	8	7.2	3.8	2.35		4.29	0.43	*	3.66**	1.20	0.74	0.46	10.0	26	0.3	7.66	11.2	3,000
287	82588	1520	M4	1	7.10	4.2	3.45		4.90	0.56	0.08	4.02**	1.30	0.86	0.44	20.4	27	0.4	7.47	9.7	
288	82588	1520	M4	8	7.10	3.7	2.55		4.62	0.48	0.12	3.55**	1.25	0.82	0.43	20.4	25	0.2	8.06	7.4	
306	82588	1720	M4	1	7.1	*	3.05		*	0.47	0.16	2.75	1.05	0.77	0.28	3.35	24	1.0	10.1	7.6	
307	82588	1720	M4	8	7.1	*	3.20		*	0.42	0.20	3.00	1.01	0.77	0.24	<0.98	24	0.8	10.1	12.8	
319	82588	1926	M4	1	7.2	4.1	2.40		4.48	0.39	0.25	3.34**	0.89	0.68	0.21	7.10	24	1.3	9.85	12.0	
320	82588	1926	M4	8	7.2	5.8	2.35		3.64	0.38	0.25	3.24	0.89	0.66	0.23	8	24	1.4	9.95	18.4	
339	82588	2230	M4	1	7.1	3.7	2.90		4.40	0.41	0.23	3.63	0.68	0.66	0.20	15.2	23	1.1	9.77	12.8	
340	82588	2230	M4	8	7.1	3.9	2.50		<0.05	0.45	0.20	4.65	1.00	0.80	0.20	8.84	23	1.0	9.33	12.8	
356	82688	220	M4	1	7.00	7.6	3.55		4.88	0.54	0.09	5.76	1.14	0.87	0.27	8.44	23	2.5	7.68	17.6	
357	82688	220	M4	8	7.00	7.1	3.25		4.71	0.36	0.31	7.46	1.23	0.61	0.56	14.7	23	1.9	7.75	32.4	
369	82688	510	M4	1	7.15	4.6	2.00		4.69	0.49	0.14	4.58	1.23	0.79	0.44	13.3	23	2.4	8.02	20.8	
370	82688	510	M4	8	6.95	21	2.55		4.13	0.41	0.13	4.30	1.28	1.41	<0.10	19.3	22	2.4	8.88	58.6	
386	82688	815	M4	1	7.0	7.2	1.80		*	0.37	0.26	4.37	0.96	0.69	0.27	8	23	0.8	10.5	32.8	
387	82688	815	M4	8	7.0	5.5	1.70		*	0.35	0.25	2.06	0.96	0.37	0.59	3.67	23	0.55	10.6	22.4	
399	82688	1134	M4	1	7.0	4.9	3.58	6.10	1.52	0.40	0.28	5.44	1.20	0.73	0.47	7.68	--	0.55	8.19	17.3	
400	82688	1134	M4	8	7.0	4.3	2.10	4.00	3.85	0.35	0.28	4.43	1.01	0.64	0.37	10.8	--	0.55	9.45	21.7	
427	82688	1509	M4	1	7.0	4.4	3.15		5.02	0.50	0.14	5.52	1.87	0.81	1.06	9.81	26	1.3	7.69	17.2	
428	82688	1509	M4	8	7.0	4.5	3.40		5.13	0.55	0.07	6.08	2.35	0.86	1.49	22.8	27	0.7	7.50	11.0	
444	82688	1758	M4	1	6.9	4.9	2.35		4.52	0.44	0.16	4.31	1.89	0.77	1.12	13.9	25	0.6	8.93	14.3	
445	82688	1758	M4	8	6.9	4.7	2.8		4.46	0.44	0.18	4.3	2.05	0.77	1.28	6.44	25	0.6	8.72	21.0	
465	82688	2039	M4	1	6.85	4.0	1.35		3.35	0.37	0.31	3.23	0.74	0.59	0.59	6.51	24	1.1	10.4	17.8	
466	82688	2039	M4	8	6.88	4.5	1.60		3.60	0.36	0.27	2.99	1.18	0.59	0.15	4.41	24	1.2	10.2	15.0	
480	82688	2312	M4	1	6.66	4.5	2.00		3.90	0.38	0.27	4.12	1.57	0.61	0.96	<1.84	24	0.5	10.0	12.8	
481	82688	2312	M4	8	8.10	4.5	1.70		*	0.38	0.53	4.22	1.60	0.61	0.99	<1.89	24	0.7	9.80	10.4	
494	82788	140	M4	1	6.85	5.2	2.40		*	0.48	0.17	4.92	1.09	0.71	0.38	4.46	25	2.6	8.88	18.2	
495	82788	140	M4	8	6.85	5.2	3.40		4.36	0.52	0.12	4.75	1.00	0.77	0.23	21.9	25	1.8	9.49	18.2	
508	82788	350	M4	1	6.90	4.7	2.85		5.27	0.61	0.05	4.99	1.46	0.83	0.63	8	25	2.5	7.84	16.7	

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS HICKENSACK RIVER STUDY

AUGUST MET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC PD4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
509	82788	350	M4	B	6.75	6.7	2.75		5.00	0.60	0.08	5.15	1.18	0.80	0.38	12.9	24	2.7	7.67	21.3	
521	82788	630	M4	T	6.97	6.2	1.70										23	1.3	8.95	22.0	
522	82788	630	M4	B	6.90	11.53	2.35		3.39	0.40	0.39	4.24	1.37	1.41	0.10	10.0	23	2.0	8.48	57.6	
548	82788	1110	M4	T	7.86	4.1	1.65		3.50	0.39	0.39	4.79	1.32	0.75	0.57	2.21	26	0.5	10.9	14.8	
549	82788	1110	M4	B	7.60	4.8	1.60		1.56	0.51	0.25	9.73	1.53	0.87	0.66	7.12	26	0.5	11.2	20.4	
561	82788	1346	M4	T	6.8	6.0	2.48	4.73	0.67	0.48	0.30	9.85	1.52	0.68	0.84	18.3	26	0.7	9.18	16.8	
562	82788	1346	M4	B	6.5	5.1	1.95	3.67	5.06	0.59	0.16	8.03	1.18	0.76	0.42	15.3	25	0.2	9.59	22.0	
583	82788	1705	M4	T	6.8	4.7	2.95		4.94	0.53	0.24	7.92	1.64	0.78	0.86	11.8	27	1.1	7.33	18.0	3,000
584	82788	1705	M4	B	6.8	4.5	2.65		3.96	0.41	0.40	5.66	1.32	0.61	0.71	7.64	26	0.6	7.92	19.7	5,000
600	82788	1942	M4	T	6.89	7.1	2.1		3.78	0.39	0.47	3.37	1.18	0.56	0.62	18.3	25	1.7	10.7	21.4	
601	82788	1942	M4	B	6.88	6.5	1.80		0.20	0.37	0.39	4.30	0.62	0.83	0.10	2.33	24	2.2	11.8	15.6	
619	82788	2225	M4	T	6.80	4.9	1.35		4.85	0.43	0.33	4.67	1.11	0.77	0.34	9.58	25	2.3	11.5	17.36	
620	82788	2225	M4	B	6.82	4.9	1.50		4.78	0.41	0.33	5.35	0.99	0.72	0.19	12.3	24	1.4	9.35	15.4	
627	82888	51	M4	T	6.90	5.0	2.50		4.84	0.54	0.09	5.15	0.91	0.72	0.23	11.63	25	0.80	8.56	20.6	
628	82788	51	M4	B	6.93	5.1	2.55		4.93	0.54	0.09	4.89	0.95	0.72	0.23	11.63	25	1.00	8.62	26.6	
653	82888	345	M4	T	6.77	5.6	2.05		3.91	0.40	0.21	3.98	0.54	0.59	0.10	7.71	24	0.2	8.72	19.0	
654	82888	345	M4	B	6.73	7.9	2.25		0.60	0.38	0.23	4.71	0.59	0.53	0.06	7.84	25	0.3	10.4	53.7	
666	82888	840	M4	T	6.78	5.8	1.6		3.12	0.35	0.30	2.39	0.33	0.36	0.10	6.72	26	1.05	12.9	19.3	
667	82888	840	M4	B	6.88	17	1.55		3.69	0.37	0.30	6.92	0.44	0.54	0.10	6.72	25	2.2	9.60	9.2	
679	82888	1130	M4	T	7.10	3.9	2.00		4.32	0.43	0.17	12.77	1.00	0.65	0.35	6.53	27	0.5	7.41	16.4	
680	82888	1130	M4	B	7.20	3.6	1.75		4.31	0.39	0.20	11.58	0.96	0.62	0.34	5.34	25	0.7	7.94	28.2	
702	82888	1405	M4	T	7.05	3.1	1.90		4.35	0.49	0.12	6.71	1.03	0.65	0.38	9.40	26	3.9	9.45	18.8	
703	82888	1405	M4	B	7.15	6.6	1.45		4.52	0.50	0.12	7.59	0.96	0.65	0.31	4.95	26	1.9	9.26	28.8	
721	82888	1653	M4	T	6.9	6.1	2.05	4.8	3.77	0.41	0.26	11.53	0.85	0.58	0.27	14.1	25	1.7	10.9	21.2	
722	82888	1653	M4	B	6.9	4.5	2.12	4.78	3.60	0.41	0.25	5.69	0.87	0.56	0.31	8	26	1.2	11.2	28.8	
742	82888	2027	M4	T	7.10	4.6	3.25		2.99	0.34	0.31	3.34	0.41	0.45	0.10	4.29	25	2.4	11.4	34.0	
743	82888	2027	M4	B	7.10	7.5	1.9		3.02	0.34	0.30	2.54	0.66	0.44	0.22	8	25	2.6	11.4	22.8	
759	82988	28	M4	T	7.0	3.9	5.18														
760	82988	28	M4	B	6.9	4.7	2.40														

NOTE: * = Retesting necessary but insufficient sample available

** = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

Handwritten notes:
 10 - 907
 Temp = 5.92
 Temp = 11.00
 289.97
 7.24
 76

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST MET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/e3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(NPN) FEC. COLI org/100ml
16	82488	437	M5	1	7.0	4.4	3.0	2.85	2.85	0.59	0.07	4.18	1.45	0.60	0.85	9.67	22	1.3	7.73	17.3	
17	82488	437	M5	8	7.0	5.0	2.5	3.10	3.10	0.59	0.07	4.98	1.31	0.55	0.76	10.9	23	0.9	7.81	20	
109	82488	830	M5	1	7.0	6.0	2.1	1.29	1.29	0.55	0.16	2.91	1.35	0.14	1.21	7.04	24	0.9	7.48	15.0	2,400
110	82488	830	M5	8	7.0	11	2.15	1.68	1.68	0.56	0.12	3.34	1.34	0.97	0.37	8.95	24	0.5	7.35	34.0	1,100
130	82488	1137	M5	1	7.1	14	9.20	20.687	1.98	1.89	0.05	3.00	0.47	0.35	0.12	52.9	24	1.6	5.52	29.8	
131	82488	1157	M5	8	7.1	17	3.45	10.28	1.24	1.39	0.44	4.10	0.46	0.32	0.14	29.8	25	1.7	5.25	32.0	
145	82488	350	M5	1	6.7	6.0	3.05	5.77	5.77	0.74	0.12	6.11	1.14	0.78	0.36	12.5	26	1.4	7.29	12.0	
146	82488	350	M5	8	6.7	7.9	3.35	4.47	4.47	0.76	0.09	5.45	1.15	0.79	0.36	13.2	25	1.1	7.22	16.0	
164	82488	1900	M5	1	6.9	4.7	3.55	4.37	4.37	0.54	0.11	6.21	1.18	0.91	0.27	16.9	25	1.0	8.08	18.3	
165	82488	1900	M5	8	6.9	6.1	3.40	4.15	4.15	0.5	0.10	5.39	1.19	0.92	0.27	6.17	24	7.7	8.28	21.3	
178	82588	120	M5	1	7.93	7.7	3.05	3.45	3.45	0.75	0.03	3.66	1.16	0.23	0.93	2.78	24	0.5	6.78	18.5	
179	82588	120	M5	8	7.96	7.0	2.85	1.66	1.66	0.60	0.69	4.21	1.17	0.83	0.34	2.67	24	0.5	7.16	19.7	
227	82588	340	M5	1	6.5	5.5	3.05	1.77	1.77	1.66	0.18	2.04	0.70	0.36	0.34	28.1	22	2.6	5.09	35.0	
228	82588	340	M5	8	6.58	5.1	3.63	2.82	2.82	1.51	0.24	2.01	0.80	0.44	0.36	8.52	20	2.6	5.65	38.3	
244	82588	648	M5	1	8.18	6.5	2.25	4.84	4.84	0.57	0.25	4.00	1.28	0.89	0.39	11.0	22	2.7	7.12	19.6	
245	82588	648	M5	8	7.85	4.6	3.4	4.85	4.85	0.56	0.24	4.40	1.28	0.86	0.42	10.7	22	1.7	7.32	19.3	
257	82588	915	M5	1	6.95	5.5	2.22	4.79	4.79	0.62	0.14	5.80	1.22	0.84	0.38	7.31	23	2.0	10.3	9.3	
258	82588	915	M5	8	7.00	4.7	3.95	5.33	5.33	0.54	0.10	5.00	1.22	0.88	0.34	6.42	23	1.1	7.50	14.3	11,000
281	82588	1323	M5	1	7.1	7.8	3.75	1.87	1.87	1.09	0.74	2.43	0.84	0.21	0.63	41.6	25	2.05	4.73	17.4	
308	82588	1740	M5	1	7.1	6.6	4.85	5.01	4.88	0.62	0.10	4.58	1.19	0.82	0.37	7.84	24	0.9	8.00	13.6	
309	82588	1740	M5	8	7.1	9.2	4.52	4.88	4.88	0.66	0.04	4.75	1.26	0.86	0.40	13.9	25	1.5	7.87	27.6	
321	82588	1951	M5	1	7.0	5.6	4.32	5.06	5.06	0.56	0.15	4.95	1.18	0.87	0.31	12.8	25	0.2	7.39	14.0	
322	82588	1951	M5	8	7.0	5.2	3.72	4.86	4.86	0.53	0.13	4.75	1.18	0.84	0.34	3.83	25	0.7	7.32	14.0	
341	82588	2255	M5	1	7.12	5.3	4.02	5.06	5.06	0.64	0.08	6.51	1.32	0.87	0.45	15.0	24	0.2	7.63	12.8	
342	82588	2255	M5	8	7.16	4.7	4.08	5.14	5.14	0.63	0.08	4.89	1.32	0.87	0.45	25.2	24	0.2	7.63	11.2	
358	82688	250	M5	1	7.00	11	4.40	2.28	2.28	1.61	0.05	4.64	0.64	0.38	0.26	66.6	23	1.2	4.99	40.0	
359	82688	250	M5	8	7.00	16	5.00	2.68	2.68	1.57	0.05	10.91	0.71	0.50	0.21	61.4	22	2.6	4.99	47.6	
371	82688	540	M5	1	7.00	12	3.65	5.05	5.05	0.72	0.03	5.05	1.40	0.87	0.53	27.0	23	2.3	6.61	41.6	
372	82688	540	M5	8	7.00	12	4.18	5.13	5.13	0.75	0.03	5.01	1.37	0.93	1.03	41.9	22	2.1	6.41	52.4	
388	82688	830	M5	1	7.0	5.2	2.75	5.04	5.04	0.52	0.08	4.39	1.29	0.93	0.36	11.00	25	0.3	7.54	25.6	
389	82688	8930	M5	8	7.0	5.5	2.95	4.97	4.97	0.52	0.13	4.26	1.29	1.25	0.04	13.40	25	0.2	7.54	23.2	
401	82688	1200	M5	1	7.0	6.7	3.38	4.78	4.78	0.70	0.11	7.76	1.93	0.75	1.18	4.27	--	1.5	6.58	18.2	
402	82688	1200	M5	8	7.0	7.4	2.80	5.00	5.00	0.73	0.04	3.38++	1.90	0.74	1.16	20.5	--	1.0	6.44	21.7	
429	82688	1543	M5	1	7.1	10.3	4.55	2.00	2.00	1.52	0.07	3.91	1.39	0.29	1.10	22.5	26	3.0	4.74	29.3	2,400
446	82688	1543	M5	8	7.1	15	4.65	2.15	2.15	1.47	0.02	3.31	1.94	0.32	1.62	26.8	25	2.5	4.95	40.0	1,300
447	82688	1826	M5	1	6.9	6.2	3.2	5.06	5.06	0.62	0.09	2.68++	2.04	0.80	1.24	14.4	26	2.2	7.17	21.0	
467	82688	2105	M5	8	6.85	7.2	3.65	5.30	5.30	0.68	0.03	3.82++	1.24	0.85	0.31	14.2	26	2.1	6.29	32.0	
468	82688	2105	M5	1	6.92	4.6	2.55	4.95	4.95	0.56	0.06	2.60++	1.17	0.86	0.31	8.86	26	0.5	7.54	11.2	
482	82688	2327	M5	8	6.94	5.0	2.00	4.91	4.91	0.55	0.05	11.05	0.99	0.79	1.05	11.5	25	0.4	7.78	17.0	
483	82688	2327	M5	1	6.85	4.0	2.60	5.26	5.26	0.54	0.03	5.17	1.84	0.79	1.05	8.86	26	0.7	7.30	14.4	
496	82788	210	M5	8	6.92	5.1	3.30	5.02	5.02	0.58	0.05	6.52	1.85	0.80	1.05	4.94	25	0.4	7.32	15.8	
497	82788	210	M5	1	6.92	10.0	3.70	4.53	4.53	0.98	0.05	4.97	1.47	0.89	0.78	20.0	26	1.4	6.04	42.6	
510	82788	420	M5	8	6.96	9.6	3.68	4.56	4.56	0.99	0.05	5.89	1.00	0.74	0.26	16.4	26	1.4	6.71	48.6	
511	82788	420	M5	1	6.96	18	3.90	1.82	1.82	1.57	0.05	2.03	0.74	0.30	0.44	45.1	23	3.1	5.07	43.0	
523	82788	700	M5	8	6.94	13	2.65	1.81	1.81	1.58	0.05	2.31	0.79	0.29	0.50	26.1	23	2.6	5.07	44.7	
524	82788	700	M5	1	6.82	18.6	3.12	5.38	5.38	0.77	0.08	6.90	0.93	0.78	0.15	31.8	25	1.9	6.98	31.0	
				8				5.03		0.77	0.06	6.76	0.77	0.78	<0.10	19.4	24	1.15	7.05	64.4	

24.7 15

6.72 13.7

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CB005 mg/l	CB0020 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPH) FEC. COLT org/100ml
550	82788	1131	W5	1	6.7	4.95	2.80		4.98	0.67	0.10	6.40	1.50	0.78	0.72	9.71	26	0.5	7.43	19.6	
551	82788	1131	W5	8	6.8	4.8	3.60		5.03	0.50	0.24	5.01	1.43	0.71	0.72	10.1	27	0.9	8.42	15.4	
563	82788	1407	W5	1	6.8	9.9	2.68	6.22	4.49	0.87	0.06	8.35	1.24	0.62	0.62	26.4	27	1.2	6.56	41.7	
564	82788	1407	W5	8	6.9	13.5	3.85	8.00	4.60	0.89	0.10	4.66	1.33	0.63	0.70	11.74	26	1.2	7.00	35.0	
585	82788	1735	W5	1	6.9	7.45	3.88		3.04	1.24	0.26	14.16	0.86	0.63	0.23	13.5	26	3.4	5.36	39.6	5,000
586	82788	1735	W5	8	6.9	19.5	4.15		3.29	1.23	0.06	4.80	0.74	0.81	0.10	40.0	25	2.2	5.90	63.3	2,260
602	82788	2010	W5	1	6.94	8.05	2.78		5.05	0.65	0.20	15.57	1.40	0.70	0.70	38.8	26	1.45	7.68	25.5	
603	82788	2010	W5	8	6.94	11.5	2.60		5.14	0.60	0.25	6.03	1.40	0.71	0.69	30.9	26	1.35	7.28	31.4	
621	82788	2245	W5	1	6.70	5.2	2.72		0.40	0.54	0.57	6.11	1.00	0.72	0.28	8.36	25	1.5	7.57	15.7	
622	82788	2245	W5	8	6.70	5.25	3.10		0.38	0.55	0.56	4.46	1.08	0.75	0.33	9.22	25	1.1	7.74	15.9	
629	82888	110	W5	1	6.94	7.55	2.72		5.15	0.6	0.23	4.41	0.98	0.70	0.28	24.6	26	1.05	7.00	20.8	
630	82888	110	W5	8	6.95	7.35	2.65		5.15	0.61	0.09	6.09	1.07	0.69	0.38	17.0	26	1.15	7.54	21.7	
655	82888	407	W5	1	6.70	13	3.05		2.86	1.21	0.38	7.93	0.36	0.37	0.10	46.3	25	0.80	5.97	49.4	
656	82888	407	W5	8	6.74	15.5	2.98		3.18	1.24	0.04	3.55	0.89	0.35	0.54	30.1	25	0.80	4.81	60.4	
668	82888	900	W5	1	6.88	7.1	2.45		5.00	0.59	0.06	4.18	0.76	0.67	0.09	5.11	26	0.2	7.68	24.0	
669	82888	900	W5	8	6.88	10	2.5		4.85	0.57	0.05	4.21	0.74	0.67	0.07	7.22	25	0.2	7.08	37.7	
681	82888	1155	W5	1	7.14	5.1	1.85		4.78	0.50	0.15	6.64	0.73	0.70	0.03	10.0	26	0.3	8.17	12.4	2,800
682	82888	1155	W5	8	7.18	5.4	1.70		4.74	0.46	0.15	6.45	0.67	0.70	0.10	4.90	26	0.35	7.47	16.6	4,270
704	82888	1430	W5	1	7.19	13	2.60		4.96	0.68	0.07	12.13	1.16	0.62	0.54	17.1	27	1.7	5.93	38.2	
705	82888	1430	W5	8	7.10	15	2.75		4.88	0.69	0.02	8.93	1.14	0.62	0.52	12.8	26	0.9	6.70	47.6	
723	82888	1716	W5	1	7.3	17	3.38	9.48	2.84	1.28	0.05	5.96	0.81	0.32	0.49	74.4	26	3.1	6.06	44.0	
724	82888	1716	W5	8	7.2	17	4.38	10.0	2.94	1.27	0.05	6.84	0.67	0.33	0.34	8	26	2.6	5.97	37.2	
744	82888	2057	W5	1	7.0	13	2.25		4.84	0.56	0.11	11.01	0.99	0.51	0.48	27.7	27	1.3	10.7	44	
745	82888	2057	W5	8	7.3	27	2.9		4.76	0.58	0.09	13.66	1.03	0.49	0.54	29.8	27	0.7	8.15	69.2	
761	82988	48	W5	1	7.0	5.2	3.25		4.60	0.53	0.13	4.34	0.70	0.44	0.06	16.5	27	1.5	8.29	32.0	
762	82988	48	W5	8	7.0	4.9	3.22		4.52	0.53	0.11	5.66	0.92	0.58	0.34	7.79	26	1.2	8.36	21.2	

NOTE: * = Retesting necessary but insufficient sample available

** = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

pH = 6.68
 Turbidity = 10.5
 Temp = 26.02
 DO = 1.2
 Turbidity = 12.1
 pH = 6.7
 Temp = 25.5
 DO = 1.4

186.82
 500.66
 13.665 = 6.95
 v15.

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	PO4 mg/l	CHLORO-a mg/a3	TEMP C	B.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml	(MPN)
1	82488	1300	M6	M	7.80	17	7.65	13.70	0.60	0.14	0.97	1.87	0.13	<0.05	0.13	9.79	20	6.1	0.35	24.4		
22	82488	415	M6	M	7.54	26	4.5		0.37	<0.05	1.00	1.04	0.07	<0.05	0.07	3.13	19	8.4	<0.22	261		
76	82488	800	M6	M	6.98	21	4.18		0.42	<0.05	1.05	0.94	0.10	0.14	<0.10	22.6	25	8.0	<0.22	230		38,700
113	82488	1015	M6	M	7.05	13	6.85		0.13	<0.05	0.88	3.94	<0.10	<0.05	<0.10	8.77	20	6.0	<0.22			
132	82488	1340	M6	M	7.1	34	7.43	17.18	0.28	0.18	0.60	1.48	0.23	<0.05	0.23	111.1	20	6.8	0.64	127.0		
147	82488	1650	M6	M	7.1	27.5	7.76		0.21	0.78	0.50	1.75	0.46	<0.05	0.46	90.4	22	8.4	1.89	30.0		
167	82488	1855	M6	M	7.0	10.7	9.3		0.74	1.83	0.03	1.94	0.50	0.13	0.37	91.8	22	6.9	3.67	18.6		
215	82588	255	M6	M	7.74	15	6.41		0.52	0.15	0.71	0.85	0.37	<0.05	0.37	<1.38	19	6.2	0.47	132		
216	82588	255	M6	M	7.75	9.2	6.35		<0.05	0.15	*	0.27	0.31	<0.05	0.31	23.4	19	6.4	0.48	112		
233	82588	531	M6	M	7.9	7.5	6.05		0.35	0.60	1.19	0.98	0.34	0.05	0.29	59.1	19	5.1	1.52	80.0		
246	82588	730	M6	M	7.8	3.4	2.4		*	0.05	*	0.82	<0.10	<0.05	<0.10	<1.46	21	6.5	<0.22	11.7		
265	82588	1010	M6	M	7.30	4.0	3.50	5.73	0.17	<0.05	1.36	0.51	<0.10	<0.05	<0.10	3.92	20	4.5	<0.22	9.2		160,000
276	82588	1305	M6	M	7.4	3.5	2.80		0.07	<0.05	1.26	0.46	<0.10	<0.05	<0.10	<2.33	21	7.0	<0.22	6.8		
290	82588	1620	M6	M	7.60	9.8	7.30		0.16	0.321	0.58	0.81	0.41	<0.05	0.41	8	24	7.9	0.99	85.3		
313	82588	1915	M6	M	7.0	7.4	5.30		1.03	0.21	0.27	1.44	0.39	0.18	0.21	114.6	25	11.3	2.21	27.6		
324	82588	2215	M6	M	7.77	13	3.45		1.02	1.51	0.41	1.69	0.70	0.16	0.54	111.8	22	4.1	3.63	27.6		
343	82688	35	M6	M	7.97	18	7.62		1.34	0.82	0.42	2.16	0.29	0.07	0.22	119.9	21	5.7	2.03	56.0		
360	82688	340	M6	M	7.77	44	4.50		0.24	0.24	0.59	0.36	0.35	0.20	0.15	47.4	21	5.4	0.57	159.0		
377	82688	730	M6	M	7.20	16	5.10	10.53	0.62	1.20	0.22	1.60	0.57	0.15	0.42	8	21	3.5	2.78	48.8		2,400
390	82688	1050	M6	M	7.1	9.7	4.55		0.61	1.13	0.45	1.43	0.54	0.14	0.40	8	24	5.80	2.86	56.7		
418	82688	1345	M6	M	7.5	22	6.88		0.16	0.52	0.51	1.43	0.87	<0.05	0.87	48.9	25	7.4	1.45	48.3		
432	82688	1630	M6	M	7.1	22	6.12		0.11	0.26	0.68	0.97	0.81	<0.05	0.81	291.1	23	7.0	0.66	69.7		
448	82688	1900	M6	M	7.1	25	5.82		0.39	1.03	0.41	1.06	1.18	<0.05	1.18	38.0	23	5.6	2.70	82.8		
471	82688	2200	M6	M	7.2	9.4	4.05		1.28	*	*	2.84	0.56	*	*	11.3	23	2.4	4.44	32.0		
498	82788	205	M6	M	7.10	15	4.62		0.25	0.81	0.48	1.03	0.23	<0.05	0.23	8.26	24	4.4	2.21	109.0		
503	82788	205	M6	M	7.40	5.1	2.15		0.73	<0.05	*	1.57	<0.10	0.09	<0.10	7.26	23	3.1	0.36	8.3		
512	82788	530	M6	M	7.40	35	6.20		0.61	0.40	0.39	2.73	<0.10	<0.05	<0.10	60.3	23	3.4	1.05	134.0		2,400
525	82788	800	M6	M	7.10	16	4.58		0.90	1.24	0.36	2.00	0.26	0.19	0.07	74.6	22.5	2.7	3.05	44.4		
536	82788	1035	M6	M	6.85	8.1	4.32	12.9	1.75	1.43	0.37	3.21	0.42	0.24	0.18	54.5	24	2.9	4.38	24.6		
552	82788	1345	M6	M	7.2	23	5.15		0.88	0.93	0.59	1.67	0.42	0.05	0.37	86.6	26	6.9	2.59	60.0		5,740
571	82788	1612	M6	M	7.20	44	5.63		*	0.35	*	*	0.31	<0.05	0.31	92.5	25	6.7	1.57	195.0		
588	82788	1840	M6	M	7.2	50	5.48		0.40	0.69	0.55	1.35	0.14	0.20	<0.10	156.7	25	6.7	2.12	167.0		1,700
610	82788	2130	M6	M	7.0	16	5.03		1.048	1.32	0.44	2.88	0.98	0.18	0.80	8	25	3.5	4.30	50.0		
639	82888	130	M6	M	7.50	19	5.32		0.76	1.27	0.18	1.28	0.19	0.10	0.09	53.3	25	4.0	3.59	56.0		
644	82888	500	M6	M	7.00	53	5.60		0.39	0.55	0.39	1.48	<0.10	<0.05	<0.10	113.8	24	3.5	1.54	262.0		
657	82888	755	M6	M	7.3	21	4.58		0.38	0.93	0.26	1.70	0.14	0.04	0.10	29.9	24	7.5	2.46	61.5		
670	82888	1020	M6	M	7.6	13	3.8		1.92	1.38	0.05	2.88	0.50	0.26	0.24	33.0	25	2.5	4.06	42.0		
692	82888	1320	M6	M	7.40	16	4.92	14.75	1.04	1.24	0.25	3.31	0.12	0.01	0.11	100.6	25	4.80	2.87	42.0		
709	82888	1600	M6	M	7.00	32	6.68		0.50	0.86	0.26	2.65	0.62	<0.05	0.62	156.5	25	6.0	2.47	102.5		
729	82888	1830	M6	M	7.00	24	6.20		0.60	0.49	0.46	4.34	0.61	<0.05	0.61	316.6	25	5.8	1.46	90.8		
750	82888	2230	M6	M	7.2	17	4.75		1.96	1.34	0.08	4.19	0.67	0.21	0.46	75.3	26.5	2.5	5.27	43.2		
763	82888	130	M6	M	7.1	17	4.38		1.66	1.33	0.20	2.97	0.93	0.16	0.77	60.6	26	4.1	4.48	44.4		
776	82988	430	M6	M	7.0	30	6.68		0.56	0.81	0.47	1.51	0.12	<0.05	0.12	65.1	25.5	4.4	2.81	102.0		
781	82988	740	M6	M	7.0	37	6.28		0.55	0.72	0.45	1.67	0.34	<0.05	0.34	72.2	24	3.4	2.27	196.0		
786	82988	1025	M6	M	6.7	15	4.10		1.51	1.36	0.22	3.13	0.86	0.17	0.69	19.4	25	3.0	4.74	44.8		

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CB005 ug/l	CB0020 ug/l	NH3 ug/l	NO2 ug/l	NO3 ug/l	TKN ug/l	TP04 ug/l	OP04 ug/l	PD4 ug/l	CHLORO-a ug/s3	TEMP C	D.O. ug/l	SALINITY ppt	TSS ug/l	(MPN) FEC. COLI org/100ml
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NOTE: * = Retesting necessary but insufficient sample available

** = Matrix Interference

B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/a3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
2	82488	1215	W7	M	7.48	4.5	2.10	3.08	0.15	<0.05	0.13	0.66	<0.10	<0.05	<0.10	9.32		8.7	<0.22	12.8	
23	82488	330	W7	M	7.75		4.2		0.40	<0.05	1.11	0.98	0.15	<0.05	0.15	27.8	24	8.2	<0.22	148	90,000
77	82488	700	W7	M	6.99	26	4.88		0.14	<0.05	1.03	1.01	0.07	<0.05	0.07	15.9	22	8.0	<0.22	158	
114	82488	930	W7	M	6.95	6.8	6.00		0.30	<0.05	0.69	0.84	0.09	<0.05	0.09	<1.70	20	6.0	<0.22	29.0	
133	82488	1240	W7	M	7.0	3.3	1.98	3.83	0.88	*	*	7.09	0.22	*	*	4.38	22	7.6	<0.22	12.2	
148	82488	1605	W7	M	7.1	3.5	1.9		0.10	<0.05	0.10	*	<0.10	<0.05	<0.10	7.56	22	7.8	<0.22	10.9	
168	82488	1715	W7	M	6.8	3.8	1.9		<0.05	<0.05	0.09	0.44	<0.10	<0.05	<0.10	7.72	21	8.6	<0.02	11.6	
217	82588	200	W7	M	7.47	3.5	1.7		<0.05	<0.05	0.09	0.96	<0.10	<0.05	<0.10	2.94	21	8.3	<0.22	8.3	
234	82588	445	W7	M	7.25	3.0	1.50		0.10	<0.05	0.09	0.40	<0.10	<0.05	<0.10	3.41	20	8.2	<0.22	10.4	
247	82588	600	W7	M	7.0	3.7	2.5		0.08	<0.05	1.52	0.44	<0.10	<0.05	<0.10	<1.92	23	6.7	<0.22	9.6	
266	82588	920	W7	M	7.2	4.0	3.85	6.55	0.16	<0.05	1.45	0.68	<0.10	<0.05	<0.10	4.90	20	6.8	<0.22	18.0	
277	82588	1220	W7	M	7.40	3.0	3.25		<0.05	<0.05	1.21	0.41	<0.10	<0.05	<0.10	6.28	24	8.5	<0.22	6.8	>160,000
291	82588	1540	W7	M	7.2	3.6	2.15		<0.05	<0.05	0.09	0.35	<0.10	<0.05	<0.10	4.07	24	8.6	<0.22	11.6	
312	82588	1830	W7	M	7.41	3.4	2.70		0.08	<0.05	1.31	0.34	0.02	<0.05	0.02	8.3	21	8.3	<0.22	8.2	
325	82588	2130	W7	M	7.65	20	5.85		1.27	<0.05	0.09	0.31	<0.10	<0.05	<0.10	30.5	21	5.9	<0.22	33.0	
344	82688	0	W7	M	7.63	4.0	2.80		<0.05	<0.05	0.06	0.66	<0.10	<0.05	<0.10	16.2	21	6.4	<0.22	11.6	
361	82688	305	W7	M	6.45	3.9	1.30		<0.05	<0.05	*	0.73	0.09	<0.05	0.09	11.8	21	7.8	<0.22	10.8	
378	82688	645	W7	M	7.2	3.4	1.22	2.33	<0.05	<0.05	<0.05	<0.20	0.66	<0.05	0.06	4.21	23	8.20	<0.22	9.72	
391	82688	1000	W7	M	7.3	3.6	1.45		<0.05	<0.05	0.07	0.48	0.65	<0.05	0.65	14.18	24	8.0	<0.22	6.84	891
419	82688	1300	W7	M	7.2	4.4	4.12		<0.05	<0.05	0.07	0.43	1.86	<0.05	1.86	3.72	23	8.7	<0.22	9.0	
433	82688	1545	W7	M	7.2	4.6	2		<0.05	<0.05	0.10	0.38	0.62	<0.05	0.62	10.7	32	8.5	<0.22	42.5	
449	82688	1830	W7	M	6.8	10			<0.05	<0.05	0.05	0.52	<0.10	<0.05	<0.10	8	23	8.5	0.23	16.3	
472	82688	2115	W7	M	7.2	4.5	2.10		<0.05	<0.05	0.08	0.44	<0.10	<0.05	<0.10	24.7	23	7.4	0.29	15.2	
499	82788	105	W7	M	7.50	4.7	1.20		<0.05	<0.05	0.05	0.56	<0.10	<0.05	<0.10	2.25	23	7.7	0.34	10.7	
513	82788	430	W7	M	7.35	5.3	1.50		<0.05	<0.05	0.07	0.81	0.27	0.06	0.21	6.35	21.5	7.5	0.27	12.0	
526	82788	730	W7	M	7.30	4.8	1.40		0.41	<0.05	0.14	0.98	<0.10	0.07	<0.10	10.8	23	7.4	0.35	9.8	500
537	82788	1000	W7	M	6.80	4.5	2.35		0.47	<0.05	0.12	1.15	<0.10	<0.05	0.44	<1.99	26	4.5	0.27	10.8	800
553	82788	1245	W7	M	7.1	6.6	1.60	3.90	0.60	<0.05	0.02	2.53	0.27	0.07	0.20	<2.63	25	8.3	0.32	11.4	
572	82788	1535	W7	M	7.3	5.4	1.75		<0.05	<0.05	0.10	0.63	0.84	<0.05	0.84	15.0	25	9.8	0.40	11.4	
589	82788	1805	W7	M	7.0	5.3	1.60		0.98	<0.05	0.17	0.76	<0.10	<0.05	<0.10	3.80	24	9.0	0.42	9.4	
611	82788	2100	W7	M	6.80	4.3	1.75		<0.05	<0.05	0.07	0.58	<0.10	<0.05	<0.10	1.85	24	8.4	0.37	9.4	
640	82888	30	W7	M	7.20	4.0	1.40		<0.05	<0.05	0.06	0.53	<0.10	<0.05	<0.10	3.34	23	4.80	0.26	13.1	
645	82888	335	W7	M	7.4	5.1	1.45		0.06	<0.05	0.07	0.40	<0.10	<0.05	<0.10	2.34	24	7.4	0.33	9.5	
658	82888	705	W7	M	7.3	3.2	0.9		<0.05	<0.05	0.06	1.61	<0.10	<0.05	<0.10	8.31	25	7.9	0.29	14.2	
671	82888	940	W7	M	7.2	2.4	0.75		0.11	<0.05	0.06	1.25	<0.10	<0.05	<0.10	5.27	25	7.4	0.31	15.2	
693	82888	1240	W7	M	6.4	2.7	1.22	1.88	0.22	<0.05	0.08	1.13	<0.10	<0.05	<0.10	<0.91	25	7.2	0.34	12.3	
710	82888	1525	W7	M	6.7	3.7	1.75		0.64	<0.05	0.10	0.86	<0.10	<0.05	<0.10	6.18	24.5	6.8	0.28	10.1	
730	82888	1800	W7	M	6.9	6.8	1.75		0.68	<0.05	0.10	0.94	<0.10	<0.05	<0.10	2.96	24	7.1	0.27	11.6	
751	82888	2115	W7	M	6.9	3.8	5.25		0.26	<0.05	0.07	0.97	<0.10	<0.05	<0.10	<2.56	23.5	6.4	0.28	10.4	
764	82888	30	W7	M	6.9	2.9	2.20		0.28	<0.05	0.07	0.72	<0.10	<0.05	<0.10	8	24	6.1	0.26	10.4	
777	82988	335	W7	M	6.4	2.3	1.60		0.25	<0.05	0.08	0.49	<0.10	<0.05	<0.10	3.84	24	6.5	0.26	8.8	
782	82988	650	W7	M	6.5	2.9	1.05			<0.05											
787	82988	940	W7	M	6.5	2.9	1.05			<0.05											

NOTE: * = Retesting necessary but insufficient sample available
++ = Matrix Interference

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST MET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PO4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
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B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PD4 mg/l	ORGANIC			CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
																TP04 mg/l	OP04 mg/l	PD4 mg/l						
3	82488	1235	W8	M	7.50	4.9	2.92	4.25	0.13	<0.05	0.14	0.28	<0.10	<0.05	<0.10	<0.10	<0.10	9.92	20	8.9	<0.22	14.8	270,000	
24	82488	357	W8	M	7.65	28	4.5		0.46	<0.05	1.00	0.78	0.09	<0.05	0.09	0.09	26.8	20	8.2	<0.22	187			
78	82488	720	W8	M	6.93	13	4.48		0.10	<0.05	0.76	0.58	0.08	<0.05	0.08	0.08	4.26	22	7.5	<0.22	68	30,000		
115	82488	100	W8	M	6.78	10	5.40		0.22	<0.05	0.76	0.71	<0.10	<0.05	<0.10	<0.10	<2.01	21	5.8	<0.22	39.0			
134	82488	1315	W8	M	6.6	6.4	2.52	5.68	0.16	<0.05	0.82	0.94	<0.10	0.09	<0.10	<0.10	19.4	19	6.9	<0.22	17.3			
149	82488	1635	W8	M	6.3	6.0	3.3		0.17	<0.05	0.91	*	<0.10	<0.05	<0.10	<0.10	<1.21	19.0	8.1	0.22	14.7			
169	82488	1735	W8	M	6.5	4.9	2.85		0.06	<0.05	0.97	1.01	<0.10	0.08	<0.10	<0.10	<2.72	19	7.8	<0.02	6.8			
218	82588	225	W8	M	6.24	4.0	4.65		0.24	0.2	0.95	0.067	0.23	<0.05	0.23	0.23	8	18	7.6	<0.22	20.5			
235	82588	510	W8	M	7.30	4.5	2.4		0.20	<0.50	1.28	1.02	0.37	<0.05	0.37	0.37	<2.28	18	7.5	<0.22	14.4			
248	82588	710	W8	M	7.2	3.3	2.45		0.20	<0.05	1.51	<0.20	<0.10	<0.05	<0.10	<0.10	<1.88	20	6.9	<0.22	13.0			
267	82588	9840	W8	M	7.40	4.3	3.48	6.08	0.19	<0.05	1.33	0.541	<0.10	<0.05	<0.10	<0.10	<2.47	20	6.9	<0.22	8.0			
278	82588	1240	W8	M	7.4	3.7	2.60		0.06	<0.05	1.30	0.53	<0.10	<0.05	<0.10	<0.10	<2.01	23	6.8	<0.22	7.6	50,000		
292	82588	1605	W8	M	6.9	3.1	3.10		<0.05	<0.05	1.26	0.51	0.55	<0.05	0.55	0.55	4.57	21	7.0	<0.22	5.4			
311	82588	1855	W8	M	7.1	3.5	1.85		<0.05	0.07	<0.05	0.27	<0.10	<0.05	<0.10	<0.10	7.49	22	8.6	0.23	9.6			
326	82588	2145	W8	M	7.33	3.1	4.35		0.06	<0.05	1.34	0.42	0.15	<0.05	0.15	0.15	3.71	21	8.5	<0.22	2.4			
345	82688	15	W8	M	7.57	2.8	4.58		1.19	<0.05	1.13	1.34	<0.10	<0.05	<0.10	<0.10	<2.02	20	5.5	<0.22	6.0			
362	82688	320	W8	M	7.41	2.8	2.55		<0.05	<0.05	1.00	0.51	*	0.17	*	*	2.54	21	7.1	<0.22	10.0			
379	82688	710	W8	M	6.8	2.8	1.25		<0.05	<0.05	*	0.43	0.09	<0.05	0.09	0.09	<2.42	21	5.4	<0.22	6.0			
392	82688	1030	W8	M	7.1	2.7	1.22	2.75	<0.05	<0.05	0.96	0.80	0.11	<0.05	0.11	0.11	2.10	23	5.80	<0.22	7.30	13,000		
420	82688	1325	W8	M	7.0	2.5	1.65		<0.05	<0.05	1.08	0.59	0.83	<0.05	0.83	0.83	2.02	23	6.0	<0.22	9.42			
434	82688	1615	W8	M	6.8	1.9	0.85		<0.05	<0.05	1.11	0.48	1.20	<0.05	1.20	1.20	2.23	23	6.2	0.22	3.6			
450	82688	1845	W8	M	6.9	2	1.45		0.60	<0.05	1.06	0.38	1.14	<0.05	1.14	1.14	<2.40	23	5.7	<0.22	4.0			
473	82688	2145	W8	M	7.6	1.9	<2.00		<0.05	<0.05	0.96	0.46	0.14	<0.05	0.14	0.14	<2.20	23	5.5	0.23	3.2			
500	82788	135	W8	M	7.10	2.4	1.20		<0.05	<0.05	0.99	0.46	0.22	<0.05	0.22	0.22	<2.34	23	5.1	0.31	5.15			
514	82788	510	W8	M	7.10	2.5	0.75		0.80	<0.05	0.21	0.42	0.19	<0.05	0.19	0.19	<2.19	22.5	5.8	0.33	5.66			
527	82788	705	W8	M	7.80	2.5	0.75		0.39	<0.05	1.02	1.05	<0.10	<0.05	<0.10	<0.10	<1.28	24	4.5	0.27	5.0	700		
538	82788	1025	W8	M	6.80	2.6	1.00		0.41	<0.05	1.09	0.59	<0.10	<0.05	<0.10	<0.10	<2.07	25.5	4.0	0.36	4.0			
554	82788	1315	W8	M	7.2	2.4	1.42	2.25	0.63	<0.05	1.15	1.26	0.54	<0.05	0.54	0.54	<2.20	24	7.8	0.31	3.71	5,000		
573	82788	1545	W8	M	6.8	2.5	0.40		0.40	<0.05	*	1.00	0.39	<0.05	0.39	0.39	44.8	23	4.9	0.43	32.8			
590	82788	1820	W8	M	7.2	2.4	0.85		0.14	<0.05	1.14	0.58	0.86	*	*	*	<1.77	24	5.2	0.36	2.4			
612	82788	2120	W8	M	7.1	3.0	1.30		1.20	<0.05	1.13	1.44	0.74	<0.05	0.74	0.74	2.25	24	5.9	0.42	6.2			
641	82888	100	W8	M	7.3	2.6	0.80		<0.05	<0.05	0.88	0.63	<0.10	<0.05	<0.10	<0.10	<1.65	23	5.9	0.48	3.2			
646	82888	400	W8	M	7.00	2.7	0.95		<0.05	<0.05	0.90	0.33	<0.10	<0.05	<0.10	<0.10	<1.94	23	6.0	0.39	5.2			
659	82888	725	W8	M	7.1	2.0	0.65		<0.05	<0.05	0.87	0.41	<0.10	<0.05	<0.10	<0.10	<1.93	23	7.2	0.31	4.8			
672	82888	1000	W8	M	7.4	1.9	0.7		<0.05	<0.05	0.84	0.57	<0.10	<0.05	<0.10	<0.10	<1.51	24	4.9	0.36	4.2	3,460		
694	82888	1300	W8	M	7.0	1.95	1.52	2.10	<0.05	<0.05	0.83	1.82	<0.10	<0.05	<0.10	<0.10	<2.12	23	5.7	0.34	4.6			
711	82888	1545	W8	M	7.00	2.3	1.40		0.14	<0.05	0.56	1.83	<0.10	<0.05	<0.10	<0.10	<2.73	25	6.5	0.39	3.2			
731	82888	1815	W8	M	7.2	2.2	0.82		0.73	<0.05	0.67	1.59	<0.10	<0.05	<0.10	<0.10	<2.01	25	6.15	0.40	4.2			
752	82888	2145	W8	M	6.85	6.05	2.30		0.52	<0.05	0.77	1.06	<0.10	<0.05	<0.10	<0.10	<1.96	24.5	6.05	0.36	5.4			
765	82988	100	W8	M	7.20	2.3	1.65		0.44	<0.05	0.75	0.81	<0.10	<0.05	<0.10	<0.10	<1.90	24.5	5.7	0.36	3.8			
778	82988	400	W8	M	7.2	2.6	3.00		<0.05	<0.05	0.81	0.56	<0.10	<0.05	<0.10	<0.10	<2.55	24	5.7	0.37	6.8			
783	82988	715	W8	M	7.0	2.2	1.65		0.09	<0.05	0.78	0.42	<0.10	<0.05	<0.10	<0.10	<2.48	23	4.2	0.37	6.0			
788	82988	1005	W8	M	6.9	2.3	1.25		0.09	<0.05	0.83	0.44	0.09	<0.05	0.09	0.09	<2.15	24	4.5	0.38	6.4			

NOTE: * = Retesting necessary but insufficient sample available
** = Matrix Interference

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	CBOD5 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TPD4 mg/l	OPD4 mg/l	PO4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
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§ = No data because of breakage inherent with test (centrifuging, grinding, etc.)

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST MET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC		CHLORO-a mg/l	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
															PD4 mg/l	PD4 mg/l						
4	82488	1335	M9	M	6.90	19	8.40	15.43	0.61	0.13	0.94	1.65	0.15	*	*	*	3.45	23	6.2	0.34	45.2	90,000
25	82488	445	M9	M	7.60	29	6.25		0.30	<0.05	0.91	1.59	0.11	<0.05	0.11	0.11	33.0	21	8.1	<0.22	290	
79	82488	820	M9	M	7.02	17	4.35		0.10	<0.05	0.76	0.425	<0.10	<0.05	<0.10	<0.10	4.01	25	7.0	<0.22	37.7	
116	82488	1100	M9	M	6.74	7.9	5.70		0.45	<0.05	0.70	0.87	0.10	<0.05	0.10	0.10	3.56	24	5.8	<0.22	25.0	
135	82488	1415	M9	M	8.0	6.6	5.62	11.25	1.46	0.22	0.20	<0.20	0.47	0.36	0.11	0.11	74.8	22	7.5	2.92	18.7	50,000
150	82488	1725	M9	M	8.4	8.0	9.40		0.97	0.20	0.21	2.84	0.55	0.35	0.20	0.20	68.1	24.0	11.9	2.46	24.3	
170	82488	2030	M9	M	8.1	7.5	5.10		1.18	0.22	0.21	2.55	0.52	0.33	0.19	0.19	53.2	29	10.1	2.69	14.8	
219	82588	326	M9	M	7.98	5.2	5.60		1.16	<0.05	0.42	2.66	0.50	0.27	0.23	0.23	59.4	21	8.1	2.63	20.7	
236	82588	557	M9	M	7.82	5.2	4.25		1.45	0.17	*	1.61	<0.10	<0.05	<0.10	<0.10	56.0	21	7.9	2.17	12.8	50,000
249	82588	810	M9	M	7.9	5.2	3.55		0.47	<0.05	0.77	0.56	<0.10	<0.05	<0.10	<0.10	<1.91	22	5.5	<0.22	14.2	
268	82588	1040	M9	M	7.70	4.0	3.78	6.48	*	<0.05	1.35	0.61	0.19	<0.05	0.19	0.19	4.90	23	6.5	<0.22	9.4	
279	82588	1345	M9	M	7.8	3.9	2.95		0.07	<0.05	1.28	0.49	<0.10	<0.05	<0.10	<0.10	<1.22	24	7.0	<0.22	7.6	
310	82588	1645	M9	M	8.9	6.5	7.70		0.77	0.15	0.24	1.66	0.46	0.16	0.30	0.30	48.1	26	13.8	1.92	20.8	1,300
327	82588	2240	M9	M	7.17	6.9	7.00		1.56	0.26	0.27	2.26	0.58	0.24	0.34	0.34	105.6	22	6.4	2.69	10.5	
346	82688	115	M9	M	7.18	6.6	4.55		1.56	0.22	0.26	2.73	0.37	0.21	0.16	0.16	8	21	5.4	2.45	17.5	
363	82688	400	M9	M	7.24	5.5	4.02		0.90	0.17	0.22	1.54	0.30	<0.05	0.30	0.30	27.0	21	7.6	2.12	16.4	
380	82688	800	M9	M	7.6	7.0	4.42		0.98	0.20	0.21	2.40	0.50	0.22	0.28	0.28	49.8	23	6.7	2.30	19.6	500
393	82688	1120	M9	M	8.3	8.2	4.75	11.4	0.84	0.17	0.29	1.39	0.46	0.21	0.25	0.25	2.78	24	9.90	2.17	23.8	
421	82688	1415	M9	M	8.2	6.5	4.68	17.4	1.00	0.22	0.20	2.97	1.18	0.20	0.98	0.98	101.9	24	9.4	2.50	16.8	
435	82688	1705	M9	M	8.9	7.3	5.15		0.87	0.19	0.22	1.57	1.20	0.14	1.06	1.06	<5.85	24	6.7	2.36	27.6	
451	82688	1930	M9	M	8.9	6.0	4.90		*	0.17	*	1.90	1.25	0.10	1.15	1.15	22.5	24	12.1	1.83	25.3	800
474	82688	2245	M9	M	8.4	5.5	4.58		1.04	0.27	0.17	1.50	0.47	0.20	0.27	0.27	5.62	32	8.4	2.35	21.2	
501	82788	245	M9	M	6.5	6.7	4.85		1.23	0.30	0.18	3.25	0.53	0.23	0.30	0.30	<3.67	24.5	7.0	3.25	21.2	
515	82788	600	M9	M	8.30	6.6	3.85		0.44	0.19	0.25	1.51	1.74	0.14	1.60	1.60	44.1	23.5	10.5	2.39	19.6	
528	82788	830	M9	M	8.20	6.9	3.75		0.96	0.21	0.33	2.17	<0.10	0.14	<0.10	<0.10	28.8	23	6.9	2.46	19.3	500
539	82788	1100	M9	M	8.40	6.5	5.02		1.22	0.22	0.31	1.85	0.37	0.15	0.22	0.22	34.5	24	9.2	2.67	17.4	
555	82788	1405	M9	M	8.6	7.2	5.85		1.34	0.23	0.31	1.59	0.96	0.15	0.81	0.81	78.3	27	10.7	2.89	32.8	
574	82788	1635	M9	M	8.9	8.5	8.43		0.79	0.18	0.33	1.82	1.05	0.11	0.94	0.94	44.8	27	16.1	2.55	25.6	
591	82788	1910	M9	M	9.0	8.4	6.00		0.64	0.19	*	2.00	0.97	0.20	0.77	0.77	193.0	25	14.0	2.41	24.2	500
613	82788	2200	M9	M	8.4	8.6	5.8		1.78	0.22	0.37	2.45	1.00	0.14	0.86	0.86	72.3	24	12.6	2.83	23.0	
642	82888	200	M9	M	8.35	7.5	4.30		0.78	0.26	0.19	1.89	0.30	0.18	0.12	0.12	42.0	25	12.0	2.87	23.7	
647	82888	530	M9	M	8.30	7.5	4.20		<0.05	0.24	*	0.67	0.30	0.15	0.15	0.15	55.0	24.5	8.5	2.78	17.3	
660	82888	820	M9	M	8.0	8.0	4.1		0.37	0.22	0.15	0.32	0.14	0.15	<0.10	<0.10	58.5	25	3.8	2.50	21.2	500
673	82888	1045	M9	M	8.0	6.2	3.25		1.33	0.31	0.22	2.41	0.17	0.22	<0.10	<0.10	21.3	27	6.5	2.73	19.0	
695	82888	1350	M9	M	8.0	6.0	4.25		0.98	0.28	0.19	4.71	0.44	0.22	0.22	0.22	22.7	28	10.05	3.08	26.5	
712	82888	1630	M9	M	8	5.3	6.12	10.80	1.36	0.32	0.20	4.06	0.43	0.22	0.21	0.21	28.8	27	7.9	3.93	23.7	
732	82888	1845	M9	M	8.4	6.9	3.35		1.41	0.26	0.22	4.32	0.36	0.18	0.18	0.18	117.4	25	11.2	3.66	21.2	500
753	82888	2200	M9	M	7.9	9.0	7.80		1.42	0.25	0.26	2.36	0.45	0.19	0.26	0.26	21.4	26	9.0	3.46	19.6	
766	82988	200	M9	M	7.60	8.5	4.20		1.45	0.25	0.20	2.57	0.36	0.21	0.15	0.15	8	26	7.4	3.35	22.4	
779	82988	500	M9	M	7.6	6.2	4.76		1.13	0.24	0.21	2.93	0.40	0.21	0.19	0.19	17.1	25.5	6.95	3.27	15.6	
784	82988	805	M9	M	7.4	6.65	4.60		1.15	0.24	0.22	2.70	0.51	0.22	0.29	0.29	26.4	28	5.65	3.30	19.4	500
789	82988	1050	M9	M	7.2	6.6	3.25		1.84	0.38	0.16	3.47	0.49	0.28	0.21	0.21	22.6	27	4.3	4.08	18.4	

NOTE: * = Retesting necessary but insufficient sample available
** = Matrix interference

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORD-a mg/L	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
B = No data because of breakage inherent with test (centrifuging, grinding, etc.)																					

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
5	82488	1405	W10	M	7.44	21	11.2	23.42	0.66	0.13	1.25	2.63	0.32	0.14	0.18	13.3	21	5.6	0.32	62.4	
26	82488	530	W10	M	7.40	3.7	4.65		0.37	<0.05	0.87	0.91	0.14	<0.05	0.14	24.7	23	8.3	<0.22	258	
80	82488	845	W10	M	6.70	19	4.65		<0.05	<0.05	0.76	0.34	0.12	0.18	<0.10	6.47	25	*	<0.22	66.5	160,000
117	82488	1130	W10	M	7.10	7.1	2.25		0.29	<0.05	0.65	0.95	<0.10	<0.05	<0.10	<2.02	20	5.9	<0.22	29.7	
136	82488	1445	W10	M	7.1	6.5	18.4	33.00	0.23	<0.05	0.67	<0.20	<0.10	0.43	<0.10	7.01	20	5.3	<0.22	6.8	
151	82488	1755	W10	M	6.6	6.6	3.7		0.28	<0.05	0.70	0.58	<0.10	0.05	<0.10	5.73	22	7.0	<0.22	11.0	
171	82488	2105	W10	M	6.5	7.3	4.35		0.10	<0.05	0.67	1.42	<0.10	<0.05	<0.10	4.72	20	6.2	<0.26	30.8	
220	82588	345	W10	M	7.14	6.3	4.70		0.43	<0.05	0.75	1.56	<0.10	<0.05	<0.10	<1.63	19	5.7	<0.22	19.5	
237	82588	610	W10	M	7.21	6.9	3.7		0.50	0.05	0.76	0.94	<0.10	<0.05	<0.10	4.30	19	5.2	<0.22	18.8	
250	82588	840	W10	M	7.3	6.0	4.00		0.45	<0.05	0.76	0.60	0.17	<0.05	0.17	4.72	19	5.5	<0.22	14.0	
269	82588	1125	W10	M	7.50	4.2	9.22		0.18	<0.05	1.31	0.69	0.20	<0.05	0.20	4.10	22	6.9	<0.22	9.8	
280	82588	1410	W10	M	7.5	3.8	2.80	18.38	0.06	<0.05	1.28	0.52	<0.10	<0.05	<0.10	B	22	7.0	<0.22	10.0	160,000
294	82588	1715	W10	M	6.5	4.6	2.60		0.36	<0.05	0.56	1.39	<0.10	<0.05	<0.10	2.13	23	5.7	0.24	7.2	
314	82588	2005	W10	M	6.8	5.0	2.10		0.54	<0.05	0.49	0.83	<0.10	<0.05	<0.10	B	23	4.8	0.23	4.4	
328	82588	2255	W10	M	7.27	6.0	4.05		0.50	<0.05	0.55	0.91	0.12	<0.05	0.12	<1.65	21	5.6	0.28	12.4	
347	82688	125	W10	M	7.82	6.5	3.75		1.60	<0.05	0.39	1.85	<0.10	<0.05	<0.10	2.43	20	*	0.26	8.0	
364	82688	420	W10	M	7.99	5.0	3.00		0.38	0.05	0.22	0.97	<0.10	0.49	<0.10	3.24	19	4.1	<0.22	12.0	
381	82688	825	W10	M	6.9	3.7	2.00		0.28	0.12	0.28	1.48	0.09	0.12	<0.10	9.58	20	3.3	<0.22	7.2	
394	82688	*1145	W10	M	6.6	7.05	3.74	6	0.53	<0.05	0.40	1.71	0.12	<0.05	0.12	83.7	23	6.9	0.29	13.2	1,440
422	82688	1445	W10	M	6.9	4.4	3.15		0.23	<0.05	0.36	*	0.78	<0.05	0.78	12.7	23	6.3	0.25	7.5	
436	82688	1740	W10	M	7.2	4.15	1.90		0.52	<0.05	0.29	1.19	0.77	<0.05	0.77	<2.21	23	6.15	0.28	10.0	
452	82688	2000	W10	M	6.65	4.15	2.20		0.63	0.06	0.26	0.99	0.89	<0.05	0.89	13.2	23	4.7	0.24	5.55	
475	82688	2337	W10	M	7.2	5.0	0.75		0.44	<0.05	0.30	0.93	0.10	<0.05	0.10	<1.57	23	4.5	0.26	7.05	
502	82788	320	W10	M	7.30	6.4	1.70		0.58	<0.05	0.41	1.28	<0.10	0.09	<0.10	<1.90	23	3.5	0.36	6.45	
516	82788	630	W10	M	7.60	9.4	1.30		0.55	<0.05	0.40	1.23	<0.10	<0.05	<0.10	3.77	23	*	0.43	7.0	
529	82788	900	W10	M	9.00	5.9	2.40		0.86	0.06	0.14	1.60	0.36	<0.05	0.36	4.31	24	4.1	0.032	17.2	3,000
540	82788	1115	W10	M	6.90	5.2	1.80		1.20	0.05	0.21	1.65	<0.10	<0.05	<0.10	4.05		3.6	0.39	6.4	
556	82788	1435	W10	M	6.3	5.9	5.85	14.85	1.11	0.06	0.30	1.56	0.30	0.36	<0.10	8.63	25	5.4	0.36	11.4	
575	82788	1655	W10	M	6.9	8.5	2.20		1.84	<0.05	0.83	2.55	0.24	0.06	0.18	<1.91	25	5.7	0.51	7.6	3,000
592	82788	1930	W10	M	7.4	7.3	4.45		1.06	0.07	0.28	1.89	0.29	0.57	<0.10	4.74	24	4.0	0.34	8.0	
614	82788	2220	W10	M	7.0	15	5.12		1.51	<0.05	0.37	2.38	0.40	<0.05	0.40	<2.70	25	4.2	0.50	6.86	
643	82888	235	W10	M	6.70	12	1.90		0.60	<0.05	0.26	2.24	<0.10	<0.05	<0.10	4.08	24	5.4	0.54	9.2	
648	82888	600	W10	M	6.80	15	1.20		<0.05	<0.05	1.19	0.75	<0.10	<0.05	<0.10	3.44	23.5	5.9	0.52	6.8	
661	82888	835	W10	M	7.1	7.2	2.7		0.65	0.06	0.06	1.16	<0.10	<0.05	<0.10	<2.20	23	*	0.32	15.1	
674	82888	1110	W10	M	6.90	8.1	1.60		0.76	<0.05	0.18	1.31	<0.10	<0.05	<0.10	<1.54	24	5.5	0.36	9.7	500
696	82888	1410	W10	M	6.9	9.3	1.50		0.86	<0.05	0.22	2.39	<0.10	<0.05	<0.10	<1.15	24	6.8	0.40	6.0	
713	82888	1645	W10	M	6.8	6.6	6.52	12.68	0.51	0.05	0.14	1.94	<0.10	<0.05	<0.10	4.05	27	6.8	0.39	15.4	
733	82888	1900	W10	M	6.9	13	1.60		1.32	<0.05	0.26	2.67	<0.10	<0.05	<0.10	<1.98	25	5.5	0.51	12.8	
754	82888	2330	W10	M	6.6	8.5	5.25		1.14	<0.05	0.24	1.45	0.32	<0.05	0.32	<1.80	25.5	5.7	0.50	5.6	
767	82888	2330	W10	M	6.50	13	2.35		1.14	<0.05	0.26	1.37	<0.10	<0.05	<0.10	<1.84	25	5.6	0.46	8.0	
780	82988	530	W10	M	6.9	8.7	2.20		0.74	0.05	0.18	1.46	<0.10	<0.05	<0.10	<1.80	25	4.2	0.44	8.4	
785	82988	840	W10	M	6.5	13	1.80		0.82	<0.05	0.29	1.73	<0.10	<0.05	<0.10	7.93	23	4.5	0.44	12.8	
790	82988	1120	W10	M	6.5	9.7	1.50		0.83	<0.05	0.25	1.08	1.04	*	*	4.51	24	5.8	0.59	5.6	

NOTES: * - Retesting necessary but insufficient sample available
++ - Matrix Interference

ANALYTICAL DATA FOR RIVER AND TRIBUTARY LOCATIONS
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC PD4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI (MPN) org/100ml
B - No data because of breakage inherent with test (centrifuging, grinding, etc.)																					
M1			Hackensack River at Route 1 & 9 Bridge																		
M2			Hackensack River at Erie Lackawanna RR Bridge																		
M3			Hackensack River at Conrail RR Bridge																		
M4			Hackensack River at Bellean Cr. Confluence																		
M5			Hackensack River at Route 46 Bridge																		
M6			Hackensack River at Old Bridge Road Bridge																		
M7			Hackensack River at Oradell Avenue Bridge																		
M8			Coles Brook at Main Street																		
M9			Overpeck Creek at Bergen Turnpike Bridge																		
M10			Berry's Creek at Industrial Avenue Bridge																		

SECTION 12

ANALYTICAL DATA

SPECIAL TRIBUTARY STUDY

(BELLMANS, CHROMAKILL, AND SAWMILL CREEKS)

AUGUST WET EVENT

AUGUST 23-29, 1988

ANALYTICAL DATA FOR SPECIAL TRIBUTARY STUDY
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	EBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	FEC. COLI org/100ml
403	82688	937	T1	M	6.9	4.6	1.75		3.62	0.36	0.24	2.95	1.65	0.64	1.01	3.15	23	1.0	9.77	26.3	300
437	82688	1811	T1	M	6.9	5.5	2.50		4.57	0.44	<0.05	4.58	1.88	0.77	1.11	B	26	3.6	8.54	19.8	
541	82788	970	T1	M	6.6	5.7	1.60		3.61	0.38	0.44	4.61	0.66	0.62	0.04	<1.98	8	0.5	10.9	30.6	
576	82788	1527	T1	M	6.5	9.5	4.18		4.04	0.34	0.27	5.89	1.21	0.62	0.59	5.56	26	2.7	8.03	49.0	30,000
593	82788	1952	T1	M	6.95	9.4	1.7		3.92	0.43	0.42	5.16	1.11	0.65	0.46	B	25	1.5	9.71	46.6	
683	82888	1155	T1	M	6.99	3.5	1.75		3.28	0.36	0.31	3.26	0.36	0.50	<0.10	7.00	26	1.5	11.80	10.0	
706	82888	1400	T1	M	7.16	11	1.85		3.73	0.36	0.24	6.68	0.93	0.56	0.37	4.59	26.5	1.7	6.24	31.6	
714	82888	1525	T1	M	7.1	9.5	2.40		3.73	0.35	0.21	<0.20	0.96	0.56	0.40	10.8	24	2.7	9.79	44.3	
746	82888	1844	T1	M	7.1	11	5.6		4.39	0.50	0.16	*	1.09	0.58	0.51	9.47	26	2.6	8.88	36.4	
404	82688	1001	T2	M	7.0	4.4	1.85		3.66	0.37	0.24	3.44	1.78	0.64	1.14	18.1	24	1.5	9.77	33.4	800
438	82688	1755	T2	M	7.91	3.4	2.7		1.08	0.45	<0.05	4.5	1.38	0.79	0.59	8.51	24	3	7.83	19.0	
542	82788	950	T2	M	6.9	4.6	1.50		3.39	0.37	0.41	4.73	0.68	0.50	0.18	4.49	25	0.5	11.4	16.2	
577	82788	1540	T2	M	6.7	6.0	5.98		4.68	0.18	0.13	6.68	1.69	0.97	0.72	14.7	26	1.4	6.86	25.3	>160,000
594	82788	1931	T2	M	6.93	12	2.15		4.68	0.41	0.43	5.89	1.36	0.60	0.76	14.1	25	1.5	9.33	35.4	
684	82888	1115	T2	M	7.05	3.8	1.15		2.95	0.35	0.31	3.08	0.33	0.45	<0.10	8.90	25	1.35	10.50	12.4	
707	82888	1355	T2	M	7.19	8.1	2.60		4.05	0.35	0.18	6.52	0.95	0.59	0.36	4.45	26	1.9	9.22	31.0	
715	82888	1643	T2	M	7.1	5.3	4.80		4.37	0.21	0.06	4.88	1.10	0.76	0.34	54.9	26	2.0	8.48	22.0	
747	82888	1900	T2	M	7	8.2	2.7		4.31	0.47	0.15	7.49	1.01	0.64	0.37	11.1	26	0.9	9.42	23.2	
405	82688	1035	T3	M	7.0	4.7	1.65		1.57	0.29	0.35	0.71	1.57	0.35	1.22	<2.14	25	2.9	13.4	18.7	1,300
439	82688	1725	T3	M	7.0	9.9	1.3		2.32	0.34	0.45	1.85	1.88	0.40	1.48	7.88	24	3.5	15.0	47.7	
469	82688	2010	T3	M	7.0	6.4	3.10		4.50	0.72	0.07	4.12	1.57	0.61	0.96	5.34	24	3.0	6.21	18.8	
543	82788	1100	T3	M	7.93	6.7	0.95		1.72	0.26	0.70	2.29	0.26	0.13	0.13	6.87	26	1.9	17.4	23.4	8,000
578	82788	1620	T3	M	7.3	42	4.50		*	0.30	*	*	<0.10	0.22	<0.10	79.3	26	7.7	14.4	174.0	
595	82788	1900	T3	M	7.06	14	1.6		2.07	0.33	0.65	7.34	0.64	0.33	0.31	11.6	25	2.5	15.1	48.6	
685	82888	1025	T3	M	6.90	6.3	0.95		1.19	0.22	0.51	<0.20	0.17	0.24	<0.10	B	25	1.30	14.70	23.7	
708	82888	1300	T3	M	7.15	6.6	1.40		1.36	0.28	0.45	4.57	0.42	0.29	0.13	<2.80	27	1.4	17.0	29.4	
716	82888	1553	T3	M	7.6	73	3.50		1.72	0.30	0.21	3.16	0.51	0.26	0.25	7.93	26	6.7	16.2	110.3	
748	82888	1926	T3	M	7.1	18	2		0.76	0.34	0.36	3.65	0.68	0.31	0.37	50.8	26	3.0	15.0	168	

NOTE: T1 = BELLHANS CREEK
T2 = CHROMAKILL CREEK
T3 = SAWHILL CREEK
* = Retesting necessary but insufficient sample available
++ = Matrix Interference
B = No data because of breakage inherent with test (centrifuging, grinding, etc.)

SECTION 13

ANALYTICAL DATA

CSO AND STORM SEWER LOCATIONS

AUGUST WET EVENT

AUGUST 23-29, 1988

ANALYTICAL DATA FOR CSD AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PO4 mg/l	D.O. mg/l	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
18	8/24/88	304	C1	M	6.10	9.2	11.3	30.75	0.58	<0.05	1.53	1.84	0.36	0.09	0.27	0.0	22.8	170,000	3.85
19	8/24/88	320	C1	M	6.21	3.0	4.8		0.49	<0.05	1.47	0.86	0.36	0.10	0.26	8.0	140	<20,000	3.10
21	8/24/88	445	C1	M	6.89	5.0	3.6		0.53	0.12	0.76	0.65	0.16	0.05	0.11	8.6	11.6	<20,000	4.54
27	8/24/88	510	C1	M	7.21		4.5		0.32	<0.05	0.37	0.56	0.15	<0.05	0.15	9.0	59	<20,000	14.1
28	8/24/88	530	C1	M	6.89	10.20			0.26	<0.05	0.41	0.87	0.32	0.06	0.26	8.3	185	20,000	14.1
29	8/24/88	550	C1	M	6.50	7.80			0.31	<0.05	0.48	0.96	0.23	0.07	0.16	8.5	90.0	80,000	32.0
30	8/24/88	605	C1	M	6.50	3.6			0.30	<0.05	0.34	0.68	0.28	0.05	0.23	8.3	17.3	<20,000	18.84
31	8/24/88	640	C1	M	6.34	3.0			0.31	<0.05	0.34	0.49	0.18	0.05	0.13	8.3	14.5	<20,000	4.77
181	8/25/88	0	C1	M	6.61	9.6	12.75	28.9	0.22	<0.05	1.31	0.92	<0.10	<0.05	<0.10	4.4	57.3	90,000	1.69
182	8/25/88	15	C1	M	6.57	7.1	7.8		0.68	<0.05	1.34	2.41	0.24	<0.05	0.24	5.6	42.0	160,000	5.24
183	8/25/88	30	C1	M	6.43	5.0	6.3		0.23	<0.05	0.94	0.75	<0.10	<0.05	<0.10	8.6	22.0	90,000	2.61
184	8/25/88	45	C1	M	6.61	3.1	6.3		0.11	<0.05	0.90	0.82	<0.10	0.08	<0.10	8.7	9.6	24,000	1.00
7	8/24/88	250	C2	M	6.35	36	66.0	128.0	1.49	0.09	1.34	4.49	0.81	0.13	0.68	6.5	267	110,000	24.5
8	8/24/88	320	C2	M	6.19	22	15.0		1.68	0.06	1.34	2.38	0.76	0.12	0.64	7.2	65.0	270,000	5.22
9	8/24/88	350	C2	M	6.18	17	15.30		1.03	0.06	1.31	1.60	0.58	0.12	0.46	6.9	32.9	800,000	1.00
32	8/24/88	510	C2	M	6.90	11	20.70		2.12	0.07	1.16	3.11	0.66	0.08	0.58	6.9	55.0	170,000	31.03
33	8/24/88	540	C2	M	6.40	23	18.3		0.61	<0.05	0.45	1.34	0.18	0.06	0.12	9.2	172	40,000	42.12
34	8/24/88	610	C2	M	6.23	12	8.7		0.35	<0.05	0.36	1.05	0.30	0.05	0.25	8.1	56.0	20,000	52.59
35	8/24/88	640	C2	M	6.76	9.2	8.4		0.43	<0.05	0.27	1.00	0.23	0.06	0.17	7.6	32.0	40,000	15.17
36	8/24/88	710	C2	M	6.42	4.5	7.8		0.46	<0.05	0.32	1.80	0.32	0.07	0.25	7.5	21.2	80,000	2.56
112	8/24/88	1050	C2	M	7.47	16	22.5		1.92	0.11	0.52	5.88	1.57	0.55	1.02	5.3	15.0	2,200,000	--
82588		0	C2																40 EST
82588		100	C2																50 EST
82588		130	C2																20 EST
82588		200	C2																10 EST
6	8/24/88	310	C3	M	6.90	15	32.9	70.40	1.09	0.05	1.23	2.30	0.69	<0.05	0.69	6.2	165	170,000	24.8
37	8/24/88	515	C3	M	6.65	15	23.40		0.92	<0.05	0.06	2.07	0.42	0.06	0.36	6.8	162	2,000,000	72.84
38	8/24/88	545	C3	M	6.25	28	19.20		0.60	<0.05	0.43	1.09	0.26	<0.05	0.26	7.8	278	2,000,000	92.97
39	8/24/88	600	C3	M	6.05	29	11.40		0.42	<0.05	0.40	1.01	0.14	<0.05	0.14	8.0	168.5	<2,000,000	90.03
40	8/24/88	615	C3	M	6.25	24	8.10		0.42	<0.05	0.37	0.69	0.26	<0.05	0.26	8.2	111	230,000	56.69
41	8/24/88	645	C3	M	6.20	12	5.4		0.46	<0.05	0.37	1.28	0.22	0.04	0.22	7.8	38.0	133,000	51.08
42	8/24/88	715	C3	M	6.30	12	5.7		0.41	0.07	0.36	1.28	0.20	0.05	0.20	8.5	28.0	300,000	21.52
111	8/24/88	1030	C3	M	7.42	15	38.40		1.10	0.15	0.57	5.56	1.22	0.43	0.79	4.9	41.0	5,000,000	6.42
185	8/24/88	2345	C3	M	7.52	9.5	12.90		0.68	1.31	1.39	3.25	0.57	0.10	0.47	1.1	41.6	>160,000	55.53
186	8/25/88	15	C3	M	6.89	16	34.20		0.67	<0.05	0.96	3.83	0.30	0.08	0.22	6.9	274.0	160,000	63.47
187	8/25/88	30	C3	M	6.71	8	29.40	49.3	0.67	<0.05	0.92	2.91	0.18	0.06	0.12	6.7	237.0	160,000	59.51
188	8/25/88	45	C3	M	6.74	25	23.40		0.58	<0.05	0.90	1.99	0.16	<0.05	0.16	7.0	160.0	160,000	50.75
189	8/25/88	100	C3	M	6.84	27	19.20		0.26	<0.05	0.89	1.64	<0.10	0.07	<0.10	6.8	90.0	>160,000	27.12
190	8/25/88	130	C3	M	6.97	13	20.55		0.59	<0.05	0.91	1.98	0.29	0.06	0.23	6.2	70.0	>160,000	20.47
191	8/25/88	200	C3	M	7.17	11	22.00		1.01	<0.05	0.95	3.16	0.38	0.08	0.30	6.1	44.0	>160,000	12.60
65	8/24/88	415	C4	M	6.85	4.4	18.00		<0.05	0.08	1.72	2.74	0.65	0.19	0.46	8.0	18.8	130,000	1.27
66	8/24/88	445	C4	M	6.68	12	14.25		0.46	0.05	1.01	3.97	0.46	0.12	0.32	7.0	64.3	220,000	5.13
67	8/24/88	500	C4	M	6.58	32	23		0.07	<0.05	0.99	1.05	0.57	0.12	0.45	7.4	112	3,000,000	6.75
68	8/24/88	600	C4	M	6.76	8.5	15		0.25	<0.05	0.54	1.13	0.26	0.10	0.16	8.2	35.3	80,000	6.75
69	8/24/88	630	C4	M	6.80	6.9	13.05		0.42	<0.05	0.53	3.23	0.5	0.19	0.31	7.5	28.8	110,000	4.75

ANALYTICAL DATA FOR CSO AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC PO4 mg/l	D.O. mg/l	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
70	82488	645	C4	M	7.03	9.0	17.25		0.45	<0.05	0.67	2.62	<0.10++	0.28	<0.10++	7.0	25.4	170,000	1.81
71	82488	700	C4	M	7.32	18	37.2		1.88	0.07	0.80	10.13	1.83	0.78	1.05	6.9	35.3	8,000,000	1.27
72	82488	715	C4	M	7.30	29	58.8		2.11	0.08	0.82	9.76	2.29	0.70	1.59	6.7	44.8	1,300,000	0.46
73	82488	745	C4	M	7.46	26	59.10		3.85	0.10	0.86	18.53	2.91	1.22	1.69	6.1	20.8	1,300,000	0.64
74	82488	815	C4	M	7.67	36	111		11.29	0.11	0.81	19.81	2.91	1.27	1.64	6.6	47.2	800,000	0.46
75	82488	845	C4	M	7.95	38					0.70	21.31	3.79	1.80	1.99	5.9	159	80,000	0.30
192	82588	0	C4	M	6.76	12	30.60		1.08	0.06	0.98	4.08	0.93	0.20	0.73	8.0	90.0	>160,000	0.50
193	82588	15	C4	M	6.51	25	19.95		0.73	0.06	0.88	3.47	0.57	0.27	0.30	7.7	79.2	160,000	0.5
194	82588	30	C4	M	6.79	5.2	15.90		1.10	0.06	0.89	4.72	0.72	0.31	0.41	7.8	17.5	>160,000	0.4
195	82588	45	C4	M	7.18	7.6	12.00		1.04	0.06	0.89	3.95	0.63	0.32	0.31	7.9	17.0	>160,000	0.3
196	82588	115	C4	M	7.10	8.8	25.50		1.57	0.24	0.73	5.97	0.86	0.34	0.52	7.2	19.3	>160,000	0.3
197	82588	145	C4	M	7.00	4.2	12.60		1.55	0.08	1.08	3.89	0.45	0.24	0.21	7.6	9.6	>160,000	0.3
81	82488	530	C5	M	6.20	16	66.00		0.42	<0.05	0.85	1.59	0.32	0.17	0.15	8.2	146	1,100,000	7.23
90	82488	415	C6	M	6.63	20	174		0.30	0.06	0.89	0.97	0.42	0.10	0.32	7.7	97.0	1,100,000	2.98
91	82488	445	C6	M	6.43	32	21.90		0.17	<0.05	0.53	1.72	0.27	<0.05	0.27	8.2	143	300,000	16.28
92	82488	500	C6	M	6.95	17	10.80		0.12	<0.05	0.47	0.58	<0.10	0.11	<0.10	7.2	89.0	800,000	19.80
93	82488	515	C6	M	6.60	12	6.0	9.50	0.10	<0.05	0.53	1.17	0.12	0.12	0.10	8.0	52.0	130,000	16.82
94	82488	530	C6	M	6.55	10	3.9		++	<0.05	++	0.48	0.14	0.10	0.04	8.1	47.0	800,000	43.52
95	82488	545	C6	M	6.45	7.8	2.7		0.19	<0.05	<0.05	0.53	0.13	0.10	0.03	8.1	40.3	230,000	22.94
96	82488	600	C6	M	6.20	5.4	5.4		0.22	<0.05	0.57	0.95	0.12	0.12	0.00	8.4	19.9	130,000	9.66
97	82488	630	C6	M	6.95	9.2	10.80		0.43	<0.05	1.77	2.71	0.48	0.22	0.26	8.0	22.4	800,000	5.38
98	82488	700	C6	M	7.35	14	22.20		0.29	0.06	2.48	4.30	0.88	0.47	0.41	7.5	31.2	5,740,000	5.92
99	82488	730	C6	M	7.55	17	27.90		1.63	0.07	2.99	4.48	0.71	0.36	0.35	7.3	16.4	5,000,000	3.74
100	82488	800	C6	M	7.40	18	42.00		5.29	0.10	1.90	5.63	0.82	0.37	0.45	7.3	45.2	1,100,000	2.94
101	82488	830	C6	M	7.65	38	55.20		3.71	0.34	2.88	++	1.13	0.20	0.93	6.8	66.0	8,000,000	3.29
102	82488	900	C6	M	7.50	35	50.40		2.38	0.17	0.03	6.17	0.70	0.25	0.45	6.5	20.0	11,000,000	0.92
82	82488	700	C7																10.0
83	82488	730	C7	M	7.35	26	48.00		1.58	0.41	0.34	18.68	2.58	1.13	1.45	6.2	67.2	16,000,000	0.00
56	82488	805	C7	M	7.24	21	14.10		1.49	0.46	0.26	++	3.32	1.86	1.46	5.9	50.0	6,750,000	0.00
57	82488	415	C8	M	6.50	+	15.7	48.60	0.96	0.13	1.35	3.82	<0.10	<0.05	<0.10	7.0	221	<2,000,000	0.75
58	82488	425	C8	M	6.41	+	15.0		0.48	0.10	1.08	2.83	0.89	<0.05	0.69	7.0	556	<2,000,000	2.16
59	82488	440	C8	M	6.43	+	10.20		0.11	<0.05	0.82	1.67	0.13	<0.05	0.13	7.5	114	<2,000,000	0.86
60	82488	455	C8	M	6.43	+	6.6		<0.05	<0.05	0.53	0.63	<0.10	<0.05	<0.10	8.2	+	<2,000,000	2.38
61	82488	510	C8	M	6.21	+	7.8		<0.05	<0.05	0.56	0.42	<0.10	<0.05	<0.10	8.5	+	<2,000,000	0.81
62	82488	525	C8	M	5.10	+	10.35		<0.05	<0.05	0.53	0.49	<0.10	<0.05	<0.10	8.5	227	<2,000,000	1.11
208	82488	530	C8	M	6.04	69	4.5		<0.05	<0.05	0.36	<0.20	<0.10	<0.05	<0.10	8.8	61	<2,000,000	2.60
209	82488	2330	C8	M	7.34	14	15.30		2.99	0.07	0.81	3.37	<0.10	<0.05	<0.10	5.5	217.0	90,000	0.45
210	82588	2345	C8	M	7.29	38	13.20		1.69	0.07	1.03	2.94	<0.10	<0.05	<0.10	6.0	188.0	90,000	1.25
211	82588	0	C8	M	7.10	78	18.45		1.19	0.07	1.05	2.31	<0.10	<0.05	<0.10	5.5	291.0	50,000	0.88
212	82588	30	C8	M	7.66	65	7.8		3.23	0.07	1.12	3.79	<0.10	<0.05	<0.10	6.5	140.0	>160,000	0.75
213	82588	100	C8	M	7.39	46	5.7		0.81	0.07	1.23	1.58	<0.10	<0.05	<0.10	6.4	170.0	50,000	0.99
214	82588	130	C8	M	7.58	65	6.6		0.89	0.11	1.42	1.18	<0.10	<0.05	<0.10	6.5	199.0	50,000	0.88
214	82588	200	C8	M	7.74	50	9.9		1.19	0.08	1.49	2.15	<0.10	<0.05	<0.10	6.7	123.3	90,000	0.11

ANALYTICAL DATA FOR CSO AND STORM SEWER LOCATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC P04 mg/l	D.O. mg/l	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
51	82488	415	C9																0.0
52	82488	421	C9	M	NS	46	8.3		1.40	0.08	++	3.73	0.74	0.11	0.63	7.0	402	170,000	44.2
53	82488	445	C9	M	NS	14	8.0		0.33	++	++	1.49	0.38	++	++	7.9	280	270,000	109.2
54	82488	500	C9	M	NS	27	8.0		0.24	<0.05	0.21	0.93	0.26	0.01	0.25	8.5	261	800,000	154.0
55	82488	512	C9	M	NS	24	12.6		0.31	<0.05	0.44	0.68	0.32	0.06	0.26	8.2	55.5	80,000	69.2
63	82488	535	C9	M	NS	12	7.7		0.39	<0.05	0.38	1.08	0.20	0.06	0.14	8.5	103	130,000	103.8
64	82488	555	C9	M	6.33	10	22.5	45.8	0.53	<0.05	0.42	0.93	0.26	0.13	0.26	8.0	20.0	70,000	24.4
64	82488	620	C9	M	6.56	11	14.10		1.55	<0.05	0.48	2.49	0.41	0.14	0.27	7.9	20.0	230,000	5.2
84	82488	445	C12	M	6.50	24	5.0		0.20	<0.05	0.31	0.67	0.16	<0.05	0.16	7.8	247	110,000	2.0 EST
85	82488	515	C12	M	6.46	17	NS		0.14	<0.05	0.51	0.75	0.11	0.08	0.03	8.5	80.0	20,000	2.0 EST
86	82488	530	C12	M	6.32	17	8.7		0.14	<0.05	0.41	0.38	0.11	0.08	0.03	8.0	30.7	230,000	29.46
87	82488	545	C12	M	6.48	8.5	7.4		0.11	<0.05	0.46	0.69	0.13	0.10	0.03	9.0	39.0	170,000	27.62
88	82488	600	C12	M	6.46	7.8	10.0		0.18	<0.05	0.44	0.57	0.17	0.14	0.03	8.9	28.0	110,000	14.24
89	82488	630	C12	M	6.85	7.9	83		0.58	0.05	0.55	2.20	0.29	0.12	0.17	6.2	27.0	140,000	13.16
	82488	700	C12																0.0
206	82588	115	C12	M	7.30	15	44.40		4.96	0.34	0.61	4.00	1.16	0.32	0.84	2.2	43.3	>160,000	8.91
207	82588	145	C12	M	7.12	7.9	22.20		1.76	<0.05	0.95	3.30	0.58	0.15	0.43	4.8	23.3	>160,000	5.94

NOTE: C1 = NEW MILFORD STORM SEWER

C2 = ANDERSON STREET CSO

C3 = COURT STREET CSO

C4 = PAULSON CSO

C5 = ELM STREET CSO

C6 = NORTH BERGEN CSO (REUTHER)

C7 = MANHATTAN AVENUE CSO

C8 = KEARNY STORM SEWER

C9 = SIP AVENUE CSO

C12 = ST PAUL CSO

* = Retesting necessary but insufficient sample available

++ = Matrix Interference

SECTION 14

ANALYTICAL DATA

SEWAGE TREATMENT PLANTS

AUGUST 23-29, 1988

ANALYTICAL DATA FOR SEWAGE TREATMENT PLANTS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC PO4 mg/l	D.O. mg/l	SALINITY ppt	TSS mg/l	(NPN) FEC. COLI org/100ml
406	82588	1225	STP1		8.06	24	>15.4	8.86	<0.05	<0.05	12.92	2.71	1.03	1.68	4.43	0.50	16.8	8,000
407	82588	1205	STP2		8.14	19	13.1	25.1	0.09	0.15	31.11	6.20	3.50	2.70	4.53	0.89	10.2	<2,000
408	82588	1121	STP3		7.76	43	LOST	15.0	<0.05	0.05	23.13	5.73	1.34	4.39	1.2	0.62	13.4	16,000,000
409	82588	1006	STP4		8.07	11	>14.8	18.0	<0.05	<0.05	21.48	1.75	1.40	0.30	4.9	0.64	8.74	3,000,000
410	82588	1300	STP5		7.79	32	>15.6	11.7	0.08	1.37	15.3	3.55	0.77	2.78	4.3	0.89	14.8	9,000,000
411	82588	1034	STP6		7.85	16	>15.0	18.6	0.20	1.31	19.5	1.7	0.80	0.90	1.6	0.42	23.4	<2,000

NOTE: TIME GIVEN REPRESENTS ENDING TIME OF 6 HOUR COMPOSITE COLLECTED BY PLANT PERSONNEL

STP1 = NORTH BERGEN
STP2 = SEACAUUS
STP3 = NORTH ARLINGTON
STP4 = BCUA
STP5 = JERSEY CITY WEST
STP6 = WOODRIDGE

SECTION 15

ANALYTICAL DATA

PSE & G CHANNEL

AUGUST WET EVENT

AUGUST 23-29, 1988

ANALYTICAL DATA FOR PSE46 (P15) DISCHARGE CHANNEL
HACKENSACK RIVER STUDY

AUGUST NET EVENT - AUGUST 23-29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	PO4 mg/l	CHLORO-a mg/m3	TEMP C	D.O. mg/l	SALINITY ppt	TSS mg/l	(MPN) FEC. COLI org/100ml
137	82488	1530	P15	M	6.8	8.4	3.90	1.86	1.62	0.05	(0.20)	0.58	0.43	0.15	26.2	--	1.9	6.33	22.4	16,000
180	82588	1720	P15	M	6.70	5.5	2.90	1.70	0.72	0.09	4.26	1.10	0.87	0.23	11.0	25	1.7	6.71	9.6	
289	82588	1535	P15	M	7.10	7.0	6.25	3.38	1.14	0.07	2.79	1.06	0.54	0.52	17.4	28	4.4	5.96	21.1	2,810
323	82588	1940	P15	M	7.68	6.1	4.30	4.38	0.83	0.09	4.49	1.05	0.72	0.33	19.5	30	4.2	6.31	14.0	
431	82688	1533	P15	M	7.20	7.0	3.68	*	0.58	0.10	4.09	1.49	0.71	0.78	12.8	27	3.4	6.87	26.8	500
470	82688	2058	P15	M	6.92	7.6	1.00	1.10	0.20	0.53	1.50	0.09	0.24	(0.10)	10.7	29	3.7	15.2	46.4	
587	82788	2240	P15	M	6.8	18	3.15	*	0.82	0.16	18.08	1.40	0.85	0.55	8	30	2.9	6.83	81.0	5,000
697	82888	1425	P15	M	7.09	5.7	1.25	6.32	0.58	0.13	10.51	1.18	0.66	0.52	9.61	29	0.4	16.2	32.6	1,700
749	82888	2045	P15	M	7.1	20	3.2	4.74	0.74	0.07	6.97	1.01	0.47	0.54	27.6	29	1.8	7.58	48.4	

NOTE: * = Retesting necessary but insufficient sample available

** = Matrix Interference

B = No data due to breakage inherent with test (centrifuging, grinding, etc.)

SECTION 16

ANALYTICAL DATA

LAND USE STATIONS

AUGUST WET EVENT

AUGUST 29, 1988

HALKENSALK RIVER SUBD

ALBANI, ZY, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	PH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	P04 mg/l	ORGANIC		(MPN)		FLOW RATE (cfs)
																D.O. mg/l	TSS mg/l	FEC. COLI org/100ml		
816	82988	1535	C7-A	N		82	46.7		1.54	<0.05	0.54	++	0.51	0.21	0.30	3.8	516.0	5,000,000	11.28	
828	82988	1605	C7-A	N	7.32	74	42.1		0.99	0.07	0.62	4.08	<0.10	<0.05	<0.10	7.1	324.0	1,700,000	9.78	
829	82988	1620	C7-A	N	7.36	37	37.4		3.36	<0.05	0.49	22.2	0.31	0.18	0.13	5.9	64.0	5,000,000	10.59	
830	82988	1650	C7-A	N	7.42	56	43.0		3.68	0.12	0.40	++	0.31	0.33	<0.10	5.6	236.0	3,000,000	4.31	
831	82988	1720	C7-A	N	7.23	75	40.5		1.31	0.09	0.55	27.7	<0.10	0.10	<0.10	7.0	256.0	500,000	2.95	
82988	1518		C9																9.6	
82988	1552		C9																9.1	
82988	1607		C9																8.0	
82988	1622		C9																2.0 EST	
82988	1649		C9																2.0 EST	
82988	1710		C9																2.0 EST	
82988	1730		C9																2.0 EST	
82988	1750		C9																2.0 EST	
82988	1810		C9																2.0 EST	
839	82988	843	C9-A	N	7.92	74	62.8		14.0	<0.05	0.49	++	++	1.26	++	1.2	164.0	9,000,000	0.0	
840	82988	1425	C9-A	N	7.61	50	83.4		4.91	0.09	0.42	++	++	<0.05	++	1.9	106.0	3,000,000	1.88	
841	82988	1440	C9-A	N	7.52	46	57.8		5.17	<0.05	0.43	63.9	<0.10	0.21	<0.10	2.0	86.0	5,000,000	1.38	
842	82988	1455	C9-A	N	7.07	71	>189		5.09	<0.05	0.43	49.4	0.59	0.40	0.19	1.0	406.0	5,000,000	2.82	
843	82988	1510	C9-A	N	6.91	62	106		3.75	<0.05	0.41	44.0	<0.10	0.46	<0.10	3.5	306.0	1,400,000	3.58	
82988	1515		C9-A																7.81	
82988	1520		C9-A																11.85	
844	82988	1525	C9-A	N	73.09	60	53.0		1.65	<0.05	0.44	3.98	0.40	<0.05	0.40	4.9	146.0	800,000	5.06	
82988	1530		C9-A																15.38	
82988	1535		C9-A																15.07	
845	82988	1540	C9-A	N	6.89	36	50.0		1.26	<0.05	0.43	3.59	0.28	<0.05	0.28	5.4	120.0	5,000,000	13.08	
82988	1545		C9-A																13.98	
819	82988	1550	C9-A	N		34	48.3		1.22	<0.05	0.46	4.18	++	0.14	++	NS	61.0	9,000,000	15.67	
82988	1600		C9-A																9.06	
82988	1605		C9-A																7.98	
820	82988	1610	C9-A	N		26	46.9		1.58	0.06	0.48	3.88	1.50	0.98	0.52	5.0	57.0	3,000,000	12.91	
82988	1615		C9-A																5.62	
821	82988	1620	C9-A	N		21	43.4		++	<0.05	0.51	33.2	0.85	0.24	0.61	4.7	49.0	1,550,000	5.49	
82988	1625		C9-A																5.82	
822	82988	1630	C9-A	N		25	60.6		2.88	0.10	0.55	5.17	1.40	0.30	1.10	5.1	36.0	1,300,000	3.34	
82988	1640		C9-A																4.27	
82988	1645		C9-A																4.27	
823	82988	1650	C9-A	N		29	53.6		3.06	0.09	0.51	6.26	0.97	0.05	0.92	5.0	34.0	9,000,000	2.39	
82988	1655		C9-A																2.82	
824	82988	1703	C9-A	N		38	47.0		3.97	<0.05	0.63	++	0.81	<0.05	0.81	5.5	38.0	1,700,000	1.53	
82988	1710		C9-A																1.53	
825	82988	1725	C9-A	N		25	50.7		3.79	0.07	0.50	6.67	1.05	<0.05	1.05	4.6	38.0	9,000,000	3.69	
82988	1732		C9-A																5.32	
826	82988	1745	C9-A	N		36	57.2		3.02	0.18	0.39	7.73	0.70	0.51	0.19	5.3	64.0	1,600,000	4.99	
82988	1750		C9-A																3.29	

ANALYTICAL DATA FOR LAND USE STATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD5 mg/l	CBOD20 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	DP04 mg/l	ORGANIC		D.O. mg/l	TSS mg/l	(MPN)		
															PO4 mg/l	P04 mg/l			FEC. COLI org/100ml	FLOW RATE (cfs)	
82988	82988	1130	C3																	0.0	
82988	82988	1230	C3																	0.0	
82988	82988	1400	C3																	0.0	
82988	82988	1530	C3																	10.80	
82988	82988	1545	C3																	9.47	
82988	82988	1600	C3																	24.48	
82988	82988	1615	C3																	25.20	
82988	82988	1630	C3																	15.93	
82988	82988	1645	C3																	14.87	
82988	82988	1700	C3																	9.33	
82988	82988	1715	C3																	6.02	
82988	82988	1730	C3																	5.82	
82988	82988	1745	C3																	5.10	
82988	82988	1815	C3																	7.23	
82988	82988	1845	C3																	7.0	
794	82988	1100	C3-A	N	7.57	45	56.5		16.3	<0.05	0.19	22.01	2.20	1.68	0.51	0.49	0.0	54.0	5,000,000	--	
795	82988	1130	C3-A	N	7.52	37	67.6		15.0	<0.05	0.15	20.17	2.17	1.45	0.72	0.72	0.4	265.0	16,000,000	3.68	
796	82988	1140	C3-A	N	7.27	38	60.4		14.1	<0.05	0.19	18.84	5.50	1.54	3.96	0.43	0.0	43.0	5,000,000	2.43	
797	82988	1150	C3-A	N	7.50	48	62.9		14.1	<0.05	0.19	18.57	1.51	1.27	0.24	0.5	122.0	9,000,000	4.15		
798	82988	1200	C3-A	N	7.60	49	77.2		14.3	<0.05	0.16	14.84	2.15	1.66	0.49	0.3	248.0	9,000,000	2.75		
799	82988	1215	C3-A	N	7.43	54	78.6	142	10.8	<0.05	0.35	13.69	2.30	1.16	1.14	0.0	164.0	2,200,000	6.00		
800	82988	1230	C3-A	N																	
801	82988	1245	C3-A	N	7.44	37	61.5		12.1	<0.05	0.05	16.65	1.38	0.89	0.49	0.49	0.0	94.0	5,000,000	5.94	
802	82988	1315	C3-A	N	7.38	31	48.4		8.45	<0.05	0.46	17.26	1.74	0.80	0.94	0.94	0.0	51.0	16,000,000	2.43	
803	82988	1345	C3-A	N	7.44	45	50.9		10.1	<0.05	0.12	18.39	1.42	0.99	0.43	0.43	0.0	43.0	5,000,000	3.00	
804	82988	1445	C3-A	N	6.58	31	52.4		7.82	<0.05	0.35	13.31	1.89	0.72	1.17	1.17	1.2	44.0	3,000,000	3.20	
853	82988	1530	C3-A	N	7.38	66	112		11.1	<0.05	0.17	23.51	0.80	0.63	0.17	0.0	260.0	3,000,000	3.15		
854	82988	1545	C3-A	N	7.89	80	115		10.5	<0.05	0.26	23.30	1.40	1.08	0.32	0.32	0.6	212.0	2,400,000	3.50	
855	82988	1600	C3-A	N	7.76	64	108		8.02	<0.05	0.33	14.36	0.10	0.05	0.10	0.10	1.0	196.0	5,000,000	3.15	
856	82988	1615	C3-A	N	7.56	61	105		5.19	<0.05	0.45	12.15	0.50	0.05	0.50	0.50	1.7	194.0	>16,000,000	5.31	
857	82988	1630	C3-A	N	7.69	58	81.6		4.45	0.06	0.43	9.75	0.10	0.14	0.10	0.10	2.1	132.0	>16,000,000	--	
858	82988	1645	C3-A	N	7.64	42	75.3	127	3.38	<0.05	0.46	7.86	0.10	0.05	0.10	0.10	2.1	168.0	5,000,000	4.88	
859	82988	1700	C3-A	N	7.33	35	73.8		3.08	0.10	0.36	7.78	0.55	0.12	0.43	1.9	116.0	5,000,000	4.37		
860	82988	1715	C3-A	N	7.49	28	60.6		2.78	<0.05	0.44	7.53	0.10	0.23	0.10	3.0	75.0	1,300,000	3.93		
861	82988	1730	C3-A	N	7.43	26	16.2		3.41	0.17	0.28	7.72	0.10	0.09	0.10	6.6	361.0	900,000	0.0		
862	82988	1800	C3-A	N	7.43	35	72.9		3.21	0.10	0.33	9.01	0.10	0.05	0.10	2.7	58.0	16,000,000	4.06		
863	82988	1830	C3-A	N	7.34	23	65.6		3.21	<0.05	0.38	6.72	0.27	0.05	0.27	3.2	50.0	3,500,000	4.02		
864	82988	1900	C3-A	N	7.59	21	69.6		3.21	0.11	0.31	6.95	0.10	0.05	0.10	2.5	39.0	700,000	3.93		
827	82988	1600	C7	N	7.26	63	47.6		1.00	0.06	0.47	4.32	0.10	0.09	0.10	6.6	361.0	900,000	0.0		
791	82988	1215	C7-A	N	7.51	48	147.0		8.98	<0.05	0.39	19.4	0.10	0.84	0.10	3.7	474.0	3,000,000	6.52		
792	82988	1235	C7-A	N	7.74	80	210		6.37	<0.05	0.50	21.9	1.17	0.77	0.40	3.9	216.0	14,000,000	6.03		
793	82988	1247	C7-A	N	7.76	60	64.4		8.78	<0.05	0.40	30.1	1.77	1.05	0.72	2.9	358.0	18,200,000	6.52		
817	82988	1450	C7-A	N		95	58.3		0.68	0.21	0.43	6.42	0.10	0.13	0.10	7.2	452.0	3,000,000	8.08		
818	82988	1505	C7-A	N		71	42.8		++	<0.05	++	++	++	0.06	0.10	6.0	482.0	9,000,000	9.77		
813	82988	1505	C7-A	N		47	56.4	98.7	5.02	<0.05	0.37	10.9	++	0.72	++	3.8	285.0	9,000,000	10.34		
814	82988	1515	C7-A	N		81	54.9		++	<0.05	0.40	5.09	1.25	0.39	0.86	5.2	256.0	>16,000,000	10.91		
815	82988	1525	C7-A	N		66	75.2		++	0.09	0.37	19.4	0.10	0.35	0.10	4.7	324.0	5,000,000	10.90		

ANALYTICAL DATA FOR LAND USE STATIONS
HACKENSACK RIVER STUDY

AUGUST WET EVENT - AUGUST 29, 1988

SAMPLE #	DATE	TIME	SITE	DEPTH	pH	TURBIDITY ntu	CBOD20 mg/l	CBOD5 mg/l	NH3 mg/l	NO2 mg/l	NO3 mg/l	TKN mg/l	TP04 mg/l	OP04 mg/l	ORGANIC P04 mg/l	D.O. mg/l	TSS mg/l	FEC. COLI org/100ml	FLOW RATE (cfs)
865	82988	1810	C9-A	M	7.37	26	60.6		3.00	0.06	0.54	46.3	0.40	0.23	0.17	3.8	36.0	3,000,000	2.86
	82988	1825	C9-A																2.28
866	82988	1840	C9-A	M	7.43	35	51.3		4.87	<0.05	0.57	39.1	0.70	<0.05	0.70	3.0	44.0	1,100,000	1.90
	82988	1815	C12																9.88
	82988	1830	C12																7.53
	82988	1845	C12																1.41
	82988	1700	C12																0.81
	82988	1715	C12																0.51
	82988	1745	C12																0.45
	82988	1815	C12																0.33
	82988	1845	C12																0.15
833	82988	930	C12-A	M	7.65	62	65.2		16.3	<0.05	0.59	18.2	4.00	2.85	1.15	4.5	120.5	>16,000,000	0.41
	82988	1215	C12-A	M	6.33	40	59.7	99.4	10.1	<0.05	0.40	14.4	4.00	2.14	2.74	5.7	134.0	17,000	0.50
834	82988	1330	C12-A	M	7.66	42	51.3		9.79	<0.05	0.45	21.7	4.20	0.67	3.53	5.0	69.30	5,000,000	0.81
835	82988	1400	C12-A	M	8.76	50	65.6		9.34	<0.05	0.46	29.6	4.90	3.01	1.89	4.4	171.0		1.23
836	82988	1430	C12-A	M	8.38	55	42.4		7.98	0.08	0.38	14.8	4.50	1.35	3.15	5.2	248.0	>16,000,000	0.98
837	82988	1500	C12-A	M	10.73	70	59.0		6.88	0.09	0.48	26.1	4.40	1.84	2.56	5.8	892.0	<2,000	1.23
	82988	1510	C12-A																3.42
838	82988	1515	C12-A	M	7.59	90	70.9		5.31	<0.05	0.60	22.3	0.98	1.07	<0.10	3.1	510.0	2,400,000	4.70
846	82988	1530	C12-A	M	6.93	85	>183		0.09	<0.05	<0.05	<0.20	2.30	0.67	1.63	5.9	90.6	3,000,000	8.00
	82988	1540	C12-A																9.66
847	82988	1545	C12-A	M	7.81	45	62.1		1.57	0.12	0.41	++	2.20	0.40	1.80	6.3	173.0	1,700,000	9.93
	82988	1550	C12-A																10.76
848	82988	1555	C12-A	M	7.28	40	62.8		1.02	<0.05	0.50	++	0.33	0.40	<0.10	6.8	138.0	500,000	9.66
	82988	1600	C12-A																8.28
849	82988	1605	C12-A	M	7.85	43	37.2		1.18	0.06	0.44	++	<0.10	<0.05	<0.10	6.3	118.0	800,000	5.26
850	82988	1620	C12-A	M	7.19	40	35.0		1.40	0.06	0.46	33.5	4.00	3.13	0.87	6.6	108.0	50,000	4.72
851	82988	1645	C12-A	M	6.97	38	40.0		4.85	0.06	0.49	40.8	5.20	2.30	2.90	6.3	59.30	500,000	4.89
852	82988	1715	C12-A	M	7.56	35	46.2		7.15	<0.05	<0.05	32.5	<0.10++	0.36	++	6.1	28.0	800,000	2.02
867	82988	1745	C12-A	M	7.59	30	73.8		3.04	0.21	0.42	40.3	0.37	<0.05	0.37	#	53.0	1,300,000	2.02
868	82988	1815	C12-A	M	7.65	30	65.1		3.44	0.09	0.55	++	<0.10	<0.05	<0.10	#	44.0	>16,000,000	1.76
869	82988	1845	C12-A	M	7.59	32	76.5		3.68	0.25	0.35	48.0	<0.10	++	++	#	30.5	16,000,000	1.12

NOTE: C3 = COURT STREET CSO C3-A = COURT STREET LAND USE (UPSTREAM OF REGULATOR)
C7 = MANHATTAN AVENUE CSO C7-A = MANHATTAN AVENUE LAND USE (UPSTREAM OF REGULATOR)
C9 = SIP AVENUE CSO C9-A = SIP AVENUE LAND USE (UPSTREAM OF REGULATOR)
C12 = ST. PAUL CSO C12-A = ST. PAUL LAND USE (UPSTREAM OF REGULATOR)

= Retesting necessary but insufficient sample available
++ = Matrix Interference