

COMPARISON OF S9 AND S9A

S9 - JULY 1989	Flow (cfs)	Bod5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	Ch-a	TSS
NET FLUX - CYCLE 1												
07/26/89 09:30-22:30	-141448	104.4	-48.1	152.71	-35.72	364.1	481.09	-108.9	-496601	49.92	-21231	4454
Net Mass (lbs/cycle)												
NET FLUX - CYCLE 2												
07/26/89 22:31 -	62274	-10.8	32.7	-0.08	29.22	-353.7	-324.56	175.7	22831	-23.78	5367	5042
07/27/89 10:00												
Net Mass (lbs/cycle)												

S9A - JULY 1989	Flow (cfs)	Bod5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	Ch-a	TSS
NET FLUX - CYCLE 1												
07/26/89 09:30-22:30	-221739	86.9	19.27	-11.82	-19.24	532.98	501.92	-19.33	-219413	-19.07	-3315	-10.2
Net Mass (lbs/cycle)												
NET FLUX - CYCLE 2												
07/26 22:30-07/27 10:00	-352586	-64	-65.64	17.05	-41.84	-27.12	-51.91	66.63	-108794	-13.97	-558	-132.2
Net Mass (lbs/cycle)												

NET DIFFERENCE IN MASS - S9 AND S9A - JULY 1989	Flow (cfs)	Bod5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	Ch-a	TSS
CYCLE 1	80291	17.5	-67.37	164.53	-16.48	-168.88	-20.83	-89.57	-277188	68.99	-17916	4464.2
	-56.8%	16.8%	140.1%	107.7%	46.1%	-46.4%	-4.3%	82.2%	55.8%	138.2%	84.4%	100.2%
CYCLE 2	414860	53.2	98.34	-17.13	71.06	-326.58	-272.65	109.07	131625	-9.81	5925	5174.2
	666.2%	-492.6%	300.7%	21412.5%	243.2%	92.3%	84.0%	62.1%	576.5%	41.3%	110.4%	102.6%
NET	495151	70.7	30.97	147.4	54.58	-495.46	-293.48	19.5	-145563	59.18	-11991	9638.4

AUGUST 1989 DATA

STATION S9	Flow (cfs)	Bod5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	Ch-a	TSS
NET FLUX - CYCLE 1 08/08/89 07:00-19:30 Net Mass (lbs/cycle)	-75493	101.6	114.6	-15.75	5.2	1201.8	1191.25	-230.7	-551638	42.32	312	3812
NET FLUX - CYCLE 2 08/08/89 19:31 - 08/09/89 07:30 Net Mass (lbs/cycle)	-461747	553.5	-47.8	-41.14	-23.9	-29.5	-94.54	51.2	-166163	-20.83	2213	544
STATION S9A	Flow (cfs)	Bod5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	Ch-a	TSS
NET FLUX - CYCLE 1 08/08/89 07:00-19:30 Net Mass (lbs/cycle)	-276951	-92.7	-31.77	-30.79	-17.03	-26.03	-73.85	-150.03	-172587	23.24	-160	-603.6
NET FLUX - CYCLE 2 11/07/88 13:42-01:46 Net Mass (lbs/cycle)	-308475	-69.1	-40.81	-71.32	-17.33	-83.56	-172.21	-107.61	-61065	-46.97	-43	-306.6
NET DIFFERENCE IN MASS - S9 AND S9A - AUGUST MARSH IMPACT												
CYCLE 1	201458	194.3	146.37	15.04	22.23	1227.83	1265.1	-80.67	-379051	19.08	472	4415.6
CYCLE 2	-153272	622.6	-6.99	30.18	-6.57	54.06	77.67	158.81	-105098	26.14	2256	850.6
NET	48186	816.9	139.38	45.22	15.66	1281.89	1342.77	78.14	-484149	45.22	2728	5266.2

Appendix A-2-1

Table 6: Summary of Mass Transport Between Station S9 and S9A

NET FLUX - CYCLE 1
08/08/89 07:52-20:54
Net Mass (lbs/cycle)
% Change in Mass
not including STP

-329961 -111.4 -38.23 -41.65 -19.07 -36.02 -96.74 -166.83 -183318 17.09 -194 -742.4
-19.9% -28.2% -12.6% -27.6% -29.0% -7.1% -13.4% -56.9% -40.7% 9.4% -23.9% -20.5%

Net Mass (lbs/cycle)
% Change in Mass
including STP

-109746 -14.589 21.2927 119.39 11.9173 79.379 210.6863 -86.456 -175657 67.77 -166.46 -365.39
-6.6% -3.7% 7.0% 79.2% 18.1% 15.7% 29.2% -29.5% -39.0% 37.5% -20.5% -10.1%

Net Ch. In Conc mg/l
% Change in Conc

-0.264 0.179 -0.094 -0.048 0.521 0.379 -0.874 -0.755 0.429 -0.258 -0.163
-6.9% 6.1% -6.4% -7.6% 10.7% 5.4% -30.8% -17.3% 24.5% -3.3% -0.5%

CYCLE 2

FLOODING TIDE

08/08/89 19:31 -

08/09/89 01:59

Total Mass (lbs)

Flow Av. Conc. mg/l

FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
753687	222.5 4.729	88.94 1.890	115.84 2.462	29.51 0.627	180.79 3.843	326.14 6.932	42.8 0.910	179119 3.807	90.35 1.920	352 7.482	1390.4 29.554

EBBING TIDE

08/09/89 02:00-07:30

Total Mass (lbs)

Flow Av. Conc. mg/l

-1019279	-279.1 4.387	-122.51 1.925	-178.67 2.808	-44.65 0.702	-254.87 4.006	-478.19 7.516	-137.07 2.154	-229389 3.605	-133.16 2.093	-367 5.768	-1607.9 25.271
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INFLOW FROM SECAUCUS

08/09/89 02:00-07:30

Total Mass (lbs)

Flow Av. Conc. mg/l

198277	101.613 8.210	66.3997 5.365	157.05 12.689	34.5945 2.795	108.475 8.764	300.1195 24.248	77.0558 6.226	7326.6 591.960	25.4406 2.056	26.4011 2.133	255.781 20.666
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NET FLUX - CYCLE 2

08/08/89 19:31 -

08/09/89 07:30

Net Mass (lbs/cycle)

% Change in Mass

not including STP

-265592 -35.2%	-56.6 -25.4%	-33.57 -37.7%	-62.83 -54.2%	-15.14 -51.3%	-74.08 -41.0%	-152.05 -46.6%	-94.27 -220.3%	-50270 -28.1%	-42.81 -47.4%	-15 -4.3%	-217.5 -15.6%
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Net Mass (lbs/cycle)

% Change in Mass

including STP

-67315 -8.9%	45.013 20.2%	32.8297 36.9%	94.22 81.3%	19.4545 65.9%	34.395 19.0%	148.0695 45.4%	-17.214 -40.2%	-42943 -24.0%	-17.369 -19.2%	11.4011 3.2%	38.281 2.8%
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Net Ch. In Conc mg/l

% Change in Conc

0.343 7.2%	-0.035 -1.9%	-0.346 -14.0%	-0.075 -11.9%	-0.163 -4.2%	-0.583 -8.4%	-1.245 -136.8%	0.202 5.3%	-0.172 -9.0%	1.714 22.9%	4.282 14.5%
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NET FOR AUGUST 1989 AT STATION S9A

	FLOW (cfs)	CBOD5	NH3	NO3	NO2	TKN NO2,3,TKN	Total N	DO	SAL (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE	2409582	617.4	392.16	266.66	95.25	685.65	1047.56	336.2	629505	271.3	1165	5015
EBBING TIDE	-3005135	-785.4	-463.96	-371.14	-129.46	-795.75	-1296.35	-597.3	-863093	-297.02	-1374	-5974.9
NET MASS	-595553	-168	-71.8	-104.48	-34.21	-110.1	-248.79	-261.1	-233588	-25.72	-209	-959.9
%Transport	-24.7%	-27.2%	-18.3%	-39.2%	-35.9%	-16.1%	-23.7%	-77.7%	-37.1%	-9.5%	-17.9%	-19.1%
NET SECAUCUS STP	418492	198.424	125.922	318.09	65.5818	223.874	607.5458	157.429	14987.6	76.1206	53.9389	632.789
NET MASS W/STP	-177061	30.424	54.1224	213.61	31.3718	113.774	358.7558	-103.67	-218600	50.4006	-155.06	-327.11
%Transport	-7.3%	4.9%	13.8%	80.1%	32.9%	16.6%	34.2%	-30.8%	-34.7%	18.6%	-13.3%	-6.5%
FLOOD FLOW AVE CONC		8.5498	4.8240	3.9214	1.2633	8.7271	13.9117	3.7482	8.1645	3.6710	15.3473	64.6199
EBB FLOW AVE CONC		8.4710	4.6800	4.3608	1.3859	8.3691	14.1158	5.8670	8.7174	3.4147	13.8917	60.5002
NET CHANGE CONC		0.0789	0.1440	-0.4395	-0.1227	0.3580	-0.2042	-2.1188	-0.5529	0.2563	1.4557	4.1198
%		0.9%	3.0%	-11.2%	-9.7%	4.1%	-1.5%	-56.5%	-6.8%	7.0%	9.5%	6.4%

Summary of Mass Loading Information At S9A
Conversion of lbs/ft3 to mg/l: 16020

JULY 1989 DATA

Summary of Mass Loading Information At S9A
Conversion of lbs/ft3 to mg/l: 16020

CYCLE 1	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN NO2+3+TKN	Total N	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/26/89 09:39-15:43												
Total Mass (lbs)	2704613	1153.6	375.68	110.63	182.4	1103.19	1396.22	182.4	624490	111.75	8446	5459.6
Flow Av. Conc. mg/l		6.833	2.225	0.655	1.080	6.534	8.270	1.080	3.699	0.662	50.027	32.338
EBBING TIDE												
07/26/89 15:43-22:29												
Total Mass (lbs)	-2925326	-1066.7	-356.4	-122.45	-210.64	-570.2	-903.29	-850.47	-843904	-130.81	-11761	-5469.8
Flow Ave. Conc. mg/l		5.842	1.952	0.671	1.154	3.123	4.947	4.657	4.621	0.716	64.407	29.954
INFLOW FROM SECAUCUS												
07/26/89 15:30-22:30												
Total Mass (lbs.)	200380	102.133	55.8331	137.438	25.7494	114.627	277.8144	77.2395	12662.2	33.864	26.464	403.442
Flow Ave. Conc. mg/l		8.165	4.464	10.988	2.059	9.164	22.211	6.1751012	319	2.707	2.116	32.254
NET FLUX - CYCLE 1												
07/26/89 09:39-22:29												
Net Mass (lbs/cycle)	-220713	86.9	19.28	-11.82	-28.24	532.99	492.93	-668.07	-219414	-19.06	-3315	-10.2
% Change in Mass not including STP	-8.2%	7.5%	5.1%	-10.7%	-15.5%	48.3%	35.3%	-366.3%	-35.1%	-17.1%	-39.2%	-0.2%
Net Mass (lbs/cycle)												
% Change in Mass including STP	-20333	189.033	75.1131	125.618	-2.4906	647.617	770.7444	-590.83	-206752	14.804	-3288.5	393.242
	-0.8%	16.4%	20.0%	113.5%	-1.4%	58.7%	55.2%	-323.9%	-33.1%	13.2%	-38.9%	7.2%
Net Ch. In Conc mg/l												
% Change in Conc		0.991	0.273	-0.015	-0.073	3.412	3.323	-3.577	-0.922	-0.054	-14.379	2.384
		14.5%	12.3%	-2.3%	-6.8%	52.2%	40.2%	-331.1%	-24.9%	-8.2%	-28.7%	7.4%

CYCLE 2	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN NO2+3+TKN	Total N	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/26/89 22:29 - 07/27/89 04:11												
Total Mass (lbs)	1355084	391.800	168.320	94.670	81.140	235.570	411.38	218.310	294461	80.10	3776	1977.30
Flow Av. Conc. mg/l		4.632	1.990	1.119	0.959	2.785	4.863	2.581	3.481	0.947	44.640	23.38
EBBING TIDE												
07/27/89 04:12-10:24												
Total Mass (lbs)	-1714886	-458.500	-234.67	-78.48	-123.25	-264.06	-465.79	-152.53	-404246	-94.69	-4369	-2120.8
Flow Av. Conc. mg/l		4.283	2.192	0.733	1.151	2.467	4.351	1.425	3.776	0.885	40.814	19.812
INFLOW FROM SECAUCUS												
07/27/89 04:12-10:24												
Total Mass (lbs.)	185826	153.885	48.501	121.841	21.3292	88.034	231.2042	68.2398	11180.5	34.1117	23.3805	351.671
Flow Ave. Conc. mg/l		13.266	4.181	10.504	1.839	7.589	19.932	5.883	963.867	2.941	2.016	30.317

NET FLUX - CYCLE 2
7/26 22:29-7/27 10:24
Net Mass (lbs/cycle)
% Change in Mass
not including STP

-359802 -66.7 -66.35 16.19 -42.11 -28.49 -54.41 65.78 -109785 -14.59 -593 -143.5
-26.6% -17.0% -39.4% 17.1% -51.9% -12.1% -13.2% 30.1% -37.3% -18.2% -15.7% -7.3%

Net Mass (lbs/cycle)
% Change in Mass
including STP

-173976 87.185 -17.849 138.031 -20.781 59.544 176.7942 134.02 -98605 19.5217 -569.62 208.171
-12.8% 22.3% -10.6% 145.8% -25.6% 25.3% 43.0% 61.4% -33.5% 24.4% -15.1% 10.5%

Net Ch. In Conc mg/l
% Change in Conc

0.349 -0.202 0.386 -0.192 0.318 0.512 1.156 -0.295 0.062 3.826 3.564
7.5% -10.2% 34.5% -20.0% 11.4% 10.5% 44.8% -8.5% 6.6% 8.6% 15.2%

NET FOR JULY 1989 AT STATION S-9A

	FLOW (cfs)	CBOD5	NH3	NO3	NO2	TKN	Total N NO2+3,TKN	DO	SAL (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
EBBING TIDE												
	4059697	1545.4	544	205.3	263.54	1338.76	1807.6	400.71	918951	191.85	12222	7436.9
	-4640212	-1525.2	-591.07	-200.93	-333.89	-834.26	-1369.08	-1003.1	-1.2E+06	-225.5	-16130	-7590.6
NET MASS												
%Transport	-580515	20.2	-47.07	4.37	-70.35	504.5	438.52	-602.29	-329199	-33.65	-3908	-153.7
	-14.3%	1.3%	-8.7%	2.1%	-26.7%	37.7%	24.3%	-150.3%	-35.8%	-17.5%	-32.0%	-2.1%
NET SECAUCUS STP												
NET MASS W/STP	386206	256.018	104.334	259.279	47.0786	202.661	509.0186	145.479	23842.7	67.9757	49.8445	755.113
%Transport	-194309	276.218	57.2641	263.649	-23.271	707.161	947.5386	-456.81	-305356	34.3257	-3858.2	601.413
	-4.8%	17.9%	10.5%	128.4%	-8.8%	52.8%	52.4%	-114.0%	-33.2%	17.9%	-31.6%	8.1%
FLOOD FLOW AVE CONC												
EBB FLOW AVE CONC												
	11.4649	4.2151	1.7745	2.0396	9.3194	13.1335	3.6613	7.1801	1.6089	94.6679	55.7143	
	10.1248	4.1440	1.4037	2.3049	5.5894	9.2980	6.0823	8.3978	1.6009105	2209	49.7663	
NET CHANGE CONC												
%	1.3402	0.0712	0.3708	-0.2653	3.7300	3.8355	-2.4210	-1.2177	0.0079	-10.5530	5.9480	
	11.7%	1.7%	20.9%	-13.0%	40.0%	29.2%	-66.1%	-17.0%	0.5%	-11.1%	10.7%	

AUGUST 1989 DATA
Summary of Mass Loading Information At S9A
Conversion of lbs/ft3 to mg/l: 16020

	FLOW (cfs)	CBOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	SAL (ppt)	TPO4	CHL-a	TSS
CYCLE 1												
FLOODING TIDE												
08/08/89 07:52-13:37												
Total Mass (lbs)	1655895	394.9	303.22	150.82	65.74	504.86	721.42	293.4	450386	180.95	813	3624.6
Flow Av. Conc. mg/l		3.820	2.934	1.459	0.636	4.884	6.979	2.839	4.357	1.751	7.865	35.066
EBBING TIDE												
08/08/89 13:37-20:54												
Total Mass (lbs)	-1985856	-506.3	-341.45	-192.47	-84.81	-540.88	-818.16	-460.23	-633704	-163.86	-1007	-4367
Flow Av. Conc. mg/l		4.084	2.754	1.553	0.684	4.363	6.600	3.713	5.112	1.322	8.124	35.229
INFLOW FROM SECAUCUS												
08/08/89 13:31-19:30												
Total Mass (lbs)	220215	96.811	59.5227	161.04	30.9873	115.399	307.4263	80.3735	7661	50.68	27.5378	377.008
Flow Av. Conc. mg/l		7.043	4.330	11.715	2.254	8.395	22.364	5.847	557.315	3.687	2.003	27.426

Appendix A-2-1

Table 9: Summary of Mass Transport Between Stations S14 and S15

CYCLE 2	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
08/07/89 19:08-00:45												
Total Mass (lbs)	4063596	819.90	214.06	158.98	97.32	570.90	827.20	978.00	2037496	150.28	11433	18208
Flow Av. Conc. mg/l		3.23	0.84	0.63	0.38	2.25	3.26	3.86	8.03	0.59	45.07	71.78
EBBING TIDE												
08/08/89 00:45-7:05												
Total Mass (lbs)	-4451496	-661.20	-342.08	-257.51	-78.41	-570.30	-906.22	-552.30	-2253255	-178.55	-9918	-7565
Flow Av. Conc. mg/l		2.38	1.23	0.93	0.28	2.05	3.26	1.99	8.11	0.64	35.69	27.22
Inundated Area (ft3)	-											
NET FLUX - CYCLE 2												
08/08/89 19:08-07:05												
Net Mass (lbs/cycle)	-387900	158.70	-128.02	-98.53	18.91	0.60	-79.02	425.70	-215759	-28.27	1515.00	10643.00
% Change in Mass	-9.5%	19.4%	-59.8%	-62.0%	19.4%	0.1%	-9.6%	43.5%	-10.6%	-18.8%	13.3%	58.5%
Net Mass/unit area (lbs/ft3/cycle)		-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		0.85	-0.39	-0.30	0.10	0.20	-0.00	1.87	-0.08	-0.05	9.38	44.56
% Change in Conc		26.4%	-45.9%	-47.9%	26.5%	8.8%	-0.0%	48.4%	-1.0%	-8.5%	20.8%	62.1%

NET FOR AUGUST 1989 AT STATION S15

	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE	9976046	2093	537	499	246	1423	2168	2261	5570282	481	20925	33222
EBBING TIDE	-9965462	-1710	-614	-552	-230	-1561	-2343	-2213	-5386912	-375	-22368	-27272
NET MASS	10584	383	-77	-53	16	-138	-175	48	183370	106	-1443	5950
% Transport	0.1%	18.3%	-14.3%	-10.7%	6.4%	-9.7%	-8.1%	2.1%	3.3%	22.1%	-6.9%	17.9%
FLOOD FLOW AVE CONC	6.6824	1.7194	1.5469	0.7856	0.7856	4.5606	6.8931	7.3311	17.6047	1.4891	70.7915	112.4628
EBB FLOW AVE CONC	5.4264	2.0204	1.7824	0.7227	0.7227	4.9310	7.4361	6.8117	17.2134	1.2135	71.8644	84.4806
NET FLOW AVE CONC	1.2560	-0.3010	-0.2355	0.0630	0.0630	-0.3705	-0.5430	0.5195	0.3913	0.2756	-1.0729	27.9822
% Change	18.8%	-17.5%	-15.2%	8.0%	8.0%	-8.1%	-7.9%	7.1%	2.2%	18.5%	-1.5%	24.9%

Summary Of Mass Loading Information At SL15
Conversion of lbs/ft3 to mg/l 16020

Station SL15 - Berry's Creek
Import (+)/ Export (-)

CYCLE 1	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/25/89 21:11-02:53												
Total Mass (lbs)	5584247	1048.60	342.03	98.77	292.22	790.40	1181.39	1235.60	2269001	172.09	10382	16747
Flow Av. Conc. mg/l		3.01	0.98	0.28	0.84	2.27	3.39	3.54	6.51	0.49	29.78	48.04
EBBING TIDE												
07/26/89 02:53-09:15												
Total Mass (lbs)	-5925221	-1244.50	-352.19	-73.87	-266.30	-1020.80	-1360.97	-844.30	-2406765	-226.95	-12761	-37022
Flow Av. Conc. mg/l		3.36	0.95	0.20	0.72	2.76	3.68	2.28	6.51	0.61	34.50	100.10
Inundated Area (ft3)	-											
NET FLUX - CYCLE 1												
07/26/89 21:11-09:15												
Net Mass (lbs/cycle)	-340974	-195.90	-10.16	24.90	25.92	-230.40	-179.58	391.30	-137764	-54.86	-2379.00	-20275
% Change in Mass	-6.1%	-18.7%	-3.0%	25.2%	8.9%	-29.1%	-15.2%	31.7%	-6.1%	-31.9%	-22.9%	-121.1%
Net Mass/unit area (lbs/ft3/cycle)	-	-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		-0.36	0.03	0.08	0.12	-0.49	-0.29	1.26	0.00	-0.12	-4.72	-52.05
% Change in Conc		-11.9%	3.0%	29.5%	14.1%	-21.7%	-8.6%	35.6%	0.0%	-24.3%	-15.8%	-108.3%

CYCLE 2	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/26/89 09:15-15:34												
Total Mass (lbs)	7051194	1795.50	469.40	130.48	334.45	1488.80	1953.73	1493.10	2882818	260.23	18916	30170
Flow Av. Conc. mg/l		4.08	1.07	0.30	0.76	3.38	4.44	3.39	6.55	0.59	42.98	68.54
EBBING TIDE												
07/26/89 15:34-22:14												
Total Mass (lbs)	-6716330	-1697.00	-506.21	-122.29	-309.57	-955.20	-1387.06	-2048.00	-2931001	-240.62	-14444	-40015
Flow Av. Conc. mg/l		4.05	1.21	0.29	0.74	2.28	3.31	4.88	6.99	0.57	34.45	95.45
Inundated Area (ft3)	-											
NET FLUX - CYCLE 2												
07/26/89 09:15-22:14												
Net Mass (lbs/cycle)	334864	98.50	-36.81	8.19	24.88	533.60	566.67	-554.90	-48183	19.61	4472-9845.00	
% Change in Mass	4.7%	5.5%	-7.8%	6.3%	7.4%	35.8%	29.0%	-37.2%	-1.7%	7.5%	23.6%	-32.6%
Net Mass/unit area (lbs/ft3/cycle)	-	-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		0.03	-0.14	0.00	0.02	1.10	1.13	-1.49	-0.44	0.02	8.52	-26.90
% Change in Conc		0.8%	-13.2%	1.6%	2.8%	32.6%	25.5%	-44.0%	-6.7%	2.9%	19.8%	-39.2%

NET FOR JULY 1989 AT STATION S15

	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE	12635441	2844	811	229	627	2279	3135	2729	5151819	432	29298	46917
EBBING TIDE	-12641551	-2942	-858	-196	-576	-1976	-2748	-2892	-5337766	-468	-27205	-77037
NET MASS	-6110	-97	-47	33	51	303	387	-164	-185947	-35	2093	-30120
% Transport	-0.0%	-3.4%	-5.8%	14.4%	8.1%	13.3%	12.3%	-6.0%	-3.6%	-8.2%	7.1%	-64.2%
FLOOD FLOW AVE CONC	7.0875	2.0477	0.5798	1.5982	1.5982	5.6500	7.8279	6.9369	13.0589	1.0849	72.7600116	5884
EBB FLOW AVE CONC	7.4125	2.1596	0.4914	1.4584	1.4584	5.0383	6.9881	7.1677	13.4983	1.1875	68.9542195	5413
NET FLOW AVE CONC	-0.3250	-0.1120	0.0884	0.1398	0.1398	0.6117	0.8398	-0.2308	-0.4394	-0.1026	3.8059-78	9529
% Change	-4.6%	-5.5%	15.2%	8.7%	8.7%	10.8%	10.7%	-3.3%	-3.4%	-9.5%	5.2%	-67.7%

AUGUST 1989 DATA

Station S15 - Berry's Creek
Import (+)/ Export (-)

CYCLE 1	Flow (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO3+TKN +NO2	DO	Sal (ppt)	TPO4	Ch-a	TSS
FLOODING TIDE												
08/07/89 06:26-13:03												
Total Mass (lbs)	5912450	1273.30	323.13	339.60	148.35	852.50	1340.45	1282.70	3532786	330.93	9492	15014
Flow Av. Conc. mg/l		3.45	0.88	0.92	0.40	2.31	3.63	3.48	9.57	0.90	25.72	40.68
EBBING TIDE												
08/07/89 13:03-19:08												
Total Mass (lbs)	-5513966	-1048.70	-271.69	-294.51	-151.61	-990.80	-1436.92	-1660.40	-3133657	-196.51	-12450	-19707
Flow Av. Conc. mg/l		3.05	0.79	0.86	0.44	2.88	4.17	4.82	9.10	0.57	36.17	57.26
Inundated Area (ft3)	-											
NET FLUX - CYCLE 1												
08/07/89 06:26-19:08												
Net Mass (lbs/cycle)	398484	224.60	51.44	45.09	-3.26	-138.30	-96.47	-377.70	399129	134.42	-2958.00	-4693
% Change in Mass	6.7%	17.6%	15.9%	13.3%	-2.2%	-16.2%	-7.2%	-29.4%	11.3%	40.6%	-31.2%	-31.3%
Net Mass/unit area (lbs/ft3/cycle)		-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		0.40	0.09	0.06	-0.04	-0.57	-0.54	-1.35	0.47	0.33	-10.45	-16.57
% Change in Conc		11.7%	9.8%	7.0%	-9.6%	-24.6%	-14.9%	-38.8%	4.9%	36.3%	-40.6%	-40.7%

Appendix A-2-1
Table 8: Summary of Mass Transport at Station S15

Summary Of Mass Loading Information At S14
Conversion of lbs/ft3 to mg/l 16020

Station S14 - Berry's Creek
Import (+)/ Export (-)

CYCLE 1	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/25/89 21:11-02:53												
Total Mass (lbs)	9545514	1352.70	502.62	528.70	516.75	996.40	2041.85	2124.40	4117636	294.49	25670	22089
Flow Av. Conc. mg/l		2.27	0.84	0.89	0.87	1.67	3.43	3.57	6.91	0.49	43.08	37.07
EBBING TIDE												
07/26/89 02:53-09:15												
Total Mass (lbs)	-10098348	-1845.10	-593.24	-232.61	-475.94	-1584.30	-2292.85	-1403.30	-4615218	-320.20	-12587	-35272
Flow Av. Conc. mg/l		2.93	0.94	0.37	0.76	2.51	3.64	2.23	7.32	0.51	19.97	55.96
Inundated Area (ft3)	-											
NET FLUX - CYCLE 1												
07/26/89 21:11-09:15												
Net Mass (lbs/cycle)	-552834	-492.40	-90.62	296.09	40.81	-587.90	-251.00	721.10	-497582	-25.71	13083.00	-13183
% Change in Mass	-5.8%	-36.4%	-18.0%	56.0%	7.9%	-59.0%	-12.3%	33.9%	-12.1%	-8.7%	51.0%	-59.7%
Net Mass/unit area (lbs/ft3/cycle)		-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		-0.66	-0.10	0.52	0.11	-0.84	-0.21	1.34	-0.41	-0.01	23.11	-18.88
% Change in Conc		-28.9%	-11.6%	58.4%	12.9%	-50.3%	-6.1%	37.6%	-5.9%	-2.8%	53.7%	-50.9%

CYCLE 2	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE												
07/26/89 09:15-15:34												
Total Mass (lbs)	12114385	3100.10	815.32	273.74	620.33	1295.90	2189.97	1802.60	5777061	401.72	10677	30906
Flow Av. Conc. mg/l		4.10	1.08	0.36	0.82	1.71	2.90	2.38	7.64	0.53	14.12	40.87
EBBING TIDE												
07/26/89 15:34-22:14												
Total Mass (lbs)	-11583383	-2434.30	-768.94	-280.66	-582.64	-1277.40	-2140.70	-3434.60	-5636652	-371.53	-21098	-25094
Flow Av. Conc. mg/l		3.37	1.06	0.39	0.81	1.77	2.96	4.75	7.80	0.51	29.18	34.71
Inundated Area (ft3)	-											
NET FLUX - CYCLE 2												
07/26/89 09:15-22:14												
Net Mass (lbs/cycle)	531002	665.80	46.38	-6.92	37.69	18.50	49.27	-1632.00	140409	30.19	-10421	5812.00
% Change in Mass	4.4%	21.5%	5.7%	-2.5%	6.1%	1.4%	2.2%	-90.5%	2.4%	7.5%	-97.6%	18.8%
Net Mass/unit area (lbs/ft3/cycle)		-	-	-	-	-	-	-	-	-	-	-
Net Ch. In Conc mg/l		0.73	0.01	-0.03	0.01	-0.05	-0.06	-2.37	-0.16	0.02	-15.06	6.16
% Change in Conc		17.9%	1.4%	-7.2%	1.8%	-3.1%	-2.2%	-99.3%	-2.0%	3.3%	-106.7%	15.1%

NET FOR JULY 1989 AT STATION S14

	FLOW (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO2+3+TKN	DO	Sal (ppt)	TPO4	CHL-a	TSS
FLOODING TIDE	21659899	4453	1318	802	1137	2292	4232	3927	9894697	696	36347	52995
EBBING TIDE	-21681731	-4279	-1362	-513	-1059	-2862	-4434	-4838	-10251870	-692	-33685	-60366
NET MASS	-21832	173	-44	289	79	-569	-202	-911	-357173	4	2662	-7371
% Transport	-0.1%	3.9%	-3.4%	36.0%	6.9%	-24.8%	-4.8%	-23.2%	-3.6%	0.6%	7.3%	-13.9%
FLOOD FLOW AVE CONC	6.3698	1.9217	1.9217	1.2493	1.6876	3.3859	6.3228	5.9491	14.5501	1.0255	57.2005	77.9414
EBB FLOW AVE CONC	6.2937	2.0046	2.0046	0.7572	1.5608	4.2800	6.5980	6.9763	15.1172	1.0218	49.1469	90.6608
NET FLOW AVE CONC	0.0760	-0.0829	0.4921	0.4921	0.1267	-0.8941	-0.2752	-1.0272	-0.5671	0.0037	8.0537	-12.7195
% Change	1.2%	-4.3%	39.4%	39.4%	7.5%	-26.4%	-4.4%	-17.3%	-3.9%	0.4%	14.1%	-16.3%

AUGUST 1989 DATA

Station S14 - Berry's Creek
Import (+) / Export (-)

CYCLE 1	Flow (cfs)	BOD5	NH3	NO3	NO2	TKN	Total N NO3+TKN +NO2	DO	Sal (ppt)	TPO4	Ch-a	TSS
FLOODING TIDE	10188171	1958.70	572.10	716.37	297.18	1583.80	2597.35	2212.10	56005018	546.88	12214	16676
08/07/89 06:26-13:03		3.08	0.90	1.13	0.47	2.49	4.08	3.48	88.06	0.86	19.21	26.22
Total Mass (lbs)												
Flow Av. Conc. mg/l												
EBBING TIDE	-9483330	-1450.40	-487.01	-781.04	-253.04	-938.50	-1972.58	-2569.00	-6783415	-309.73	-12023	-28412
08/07/89 13:03-19:08		2.45	0.82	1.32	0.43	1.59	3.33	4.34	11.46	0.52	20.31	48.00
Total Mass (lbs)												
Flow Av. Conc. mg/l												
Inundated Area (ft3)	-											
NET FLUX - CYCLE 1												
08/07/89 06:26-19:08												
Net Mass (lbs/cycle)	704841	508.30	85.09	-64.67	44.14	645.30	624.77	-356.90	49221603	237.15	191.00	-11736
% Change in Mass	6.9%	26.0%	14.9%	-9.0%	14.9%	40.7%	24.1%	-16.1%	87.9%	43.4%	1.6%	-70.4%
Net Mass/unit area (lbs/ft3/cycle)												
Net Ch. In Conc mg/l		0.63	0.08	-0.19	0.04	0.90	0.75	-0.86	76.60	0.34	-1.10	-21.77
% Change in Conc		20.4%	8.5%	-17.1%	8.5%	36.3%	18.4%	-24.8%	87.0%	39.2%	-5.8%	-83.0%