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**/EVALUATION OF LAND USE IMPACTS ON  
ENVIRONMENTAL QUALITY IN URBAN AND  
SEMI-RURAL STREAMS TRIBUTARY TO  
GREAT SOUTH BAY, LONG ISLAND, NEW YORK /**

**Appendix**

**Stream Environmental Quality Data Report**

March 1990

**Long Island Regional Planning Board  
H. Lee Dennison Office Building  
Veterans Memorial Highway  
Hauppauge, New York 11788-5401**

in cooperation with the

**New York Coastal Program  
Division of Coastal Resources and  
Waterfront Revitalization  
New York Department of State**

This report was prepared for the New York State Department of State, Division of Coastal Resources and Waterfront Revitalization, with financial assistance from the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, provided under the Coastal Zone Management Act of 1972, as amended (Grant-in-Aid Award No. NA-82-AA-D-CZ068; New York State Comptroller's Contract Numbers C005567, C005568, C005569).

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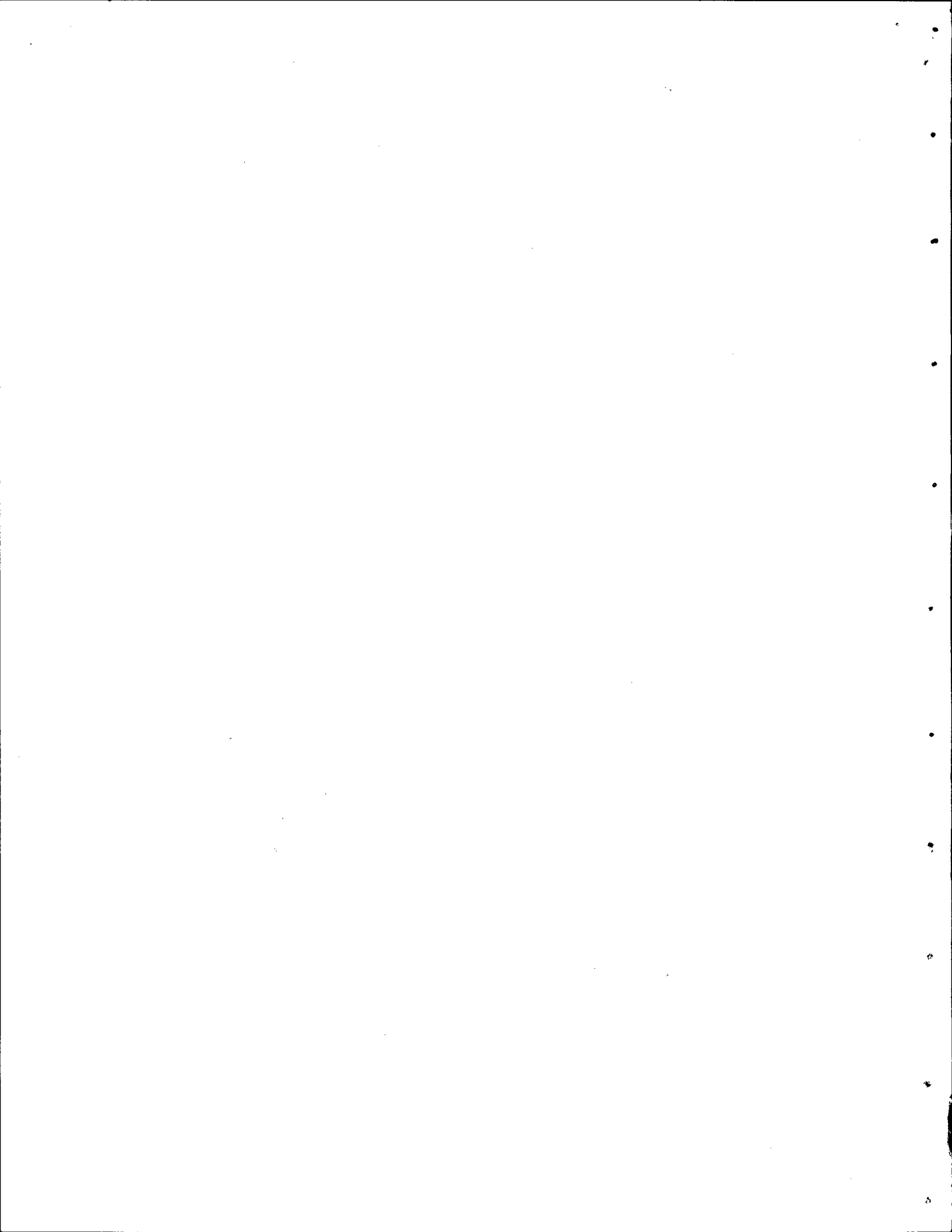


TABLE A-1  
Station Locations

*Neguntatogue Creek*

- N1 culvert at intersection of Lake Ave. & Garden Place
- N2 culvert at Newark Street
- N3 small pond at Fireman's Memorial Park
- N4 culvert near corner of Gates & Pennsylvania Avenues
- N5 Lincoln Avenue Park
- N6 mid-stream, approx. 500' south of Montauk Highway
- N7 mid-stream, approx. 1000' south of Montauk Highway
- N7.5 mid-stream, just south of open beach on east bank
- N8 mid-stream, oppsite entrance to marina
- N9 open bay, near Red Bell "B" buoy

*Beaverdam Creek*

- B1 approx. 300 yards north of Montauk Highway
- B2 culvert at Trout Ponds Court
- B3 park, intersection of So. Country & Fireplace Rds.
- B4 north end of pond at Beaverdam Road bridge
- B5 mid-stream, off marina 500' south of Beaverdam Rd.
- B6 mid-stream, off marina on east bank
- B7 mid-stream, 250' inside creek mouth
- B8 head of canal off Shelldrake Canal
- B9 open Bay, near Red Nun "4" buoy

TABLE A-2  
SALINITY (PPT), NEGUNTATOGUE & BEAVERDAM CREEKS

Station	04/07/89		05/26/89		06/25/89		07/27/89		08/29/89	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
N6	25.51		13.75	21.62	17.76	20.16	5.00	24.62	3.44	25.09
N7	26.97		7.69	22.73	17.99	21.74	15.88	25.01	8.62	24.70
N7.5	26.06		14.76	26.38	16.63	25.07	26.19	26.43	19.30	25.62
N8	26.78		20.96	22.52	19.40	22.45	21.01	25.67	23.73	26.53
N9	25.66		21.71	23.06	20.96	22.79	24.41	25.43	25.28	26.63
B5	20.03		10.04	7.62	11.96	17.93	3.73	15.65	1.36	13.55
B6	24.23		6.34	21.59	9.74	17.14	6.05	16.64	7.13	10.53
B7	23.95		11.09	20.05	11.01	16.29	7.16	18.02	12.15	12.18
B8	24.09		14.24	19.35	11.45	16.90	12.44	16.70	10.72	13.72
B9	24.92		20.60	23.56	19.69	23.24	19.12	18.80	16.46	18.00

TABLE A-3  
Temperature, Neguntatogue & Beaverdam Creeks

Station	04/07/89		05/26/89		06/25/89		07/27/89		08/29/89	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
N1	12.30		14.71		17.10		14.43		17.00	
N2			15.05		16.22		17.60		17.78	
N3	11.17		17.91		18.83		24.73		21.88	
N4	13.07		16.00		16.55		19.62		18.22	
N5	12.88		15.42		15.90		18.71		17.59	
N6	9.26		16.27	19.87	22.70	24.70	21.26	25.93	18.75	24.00
N7	9.37		18.46	19.27	23.26	24.22	26.25	26.52	22.40	23.80
N7.5	9.50		19.99	16.35	24.37	18.87	27.36	27.28	23.66	23.71
N8	8.80		21.21	19.76	24.30	24.34	27.29	26.75	23.85	23.28
N9	9.20		20.91	20.09	24.46	24.36	27.52	27.54	23.60	23.23
B1	12.08		11.30		12.10		14.83		14.75	
B2	11.27		11.10		11.94		14.13		14.38	
B3	12.70		11.30		12.03		13.90		14.03	
B4	13.00		12.80		13.40		16.02		14.71	
B5	9.94		13.13	18.10	21.20	17.62	16.69	24.76	16.30	17.70
B6	10.07		17.63	19.86	20.73	24.69	23.21	25.63	21.30	19.85
B7	9.25		19.17	19.29	22.52	24.47	24.87	26.84	22.54	22.56
B8	9.91		18.32	19.11	21.38	23.97	24.74	26.31	22.70	22.70
B9	9.38		19.90	19.46	25.60	24.42	26.95	26.83	23.25	23.00

**TABLE A-4**  
**Dissolved Oxygen (mg/l), Neguntatogue & Beaverdam Creeks**

Station	04/07/89		05/26/89		06/25/89		07/27/89		08/29/89	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
N1	3.30		3.10		4.20		3.25		2.30	
N2			4.74		4.50		4.72		2.50	
N3	6.20		5.44		6.60		5.82		4.50	
N4	7.05		8.11		6.55		6.52		5.02	
N5	8.37		8.77		7.01		6.31		5.70	
N6	6.31	1.73	4.05	0.90	7.76	7.28	2.11	0.32	4.17	0.14
N7	9.10	8.40	4.42	2.20	5.90	1.69	3.02	0.15	6.20	0.20
N7.5	10.00	9.80	6.11	2.10	7.05	0.43	8.52	8.74	7.80	1.40
N8	7.20	5.20	7.70	5.56	7.21	5.30	8.58	1.94	7.90	5.30
N9	7.90	7.70	7.32	5.73	8.59	5.54	8.85	6.56	7.40	5.60
B1	6.90		9.80		5.96		4.70		4.20	
B2	9.34		7.10		6.20		5.57		4.81	
B3	9.40		5.50		6.30		7.40		4.52	
B4	9.40		5.40		5.70		7.52		5.51	
B5	7.94	3.46	3.35	1.57	4.15	0.65	3.90	0.50	0.69	4.21
B6	8.76	3.83	7.50	4.67	7.57	2.45	11.85	2.83	11.41	6.10
B7	9.57	9.40	7.42	6.05	10.94	2.55	11.41	3.60	9.75	3.90
B8	7.40	6.40	7.22	4.37	4.64	2.54	10.60	0.82	13.20	2.53
B9	9.01	8.30	7.75	6.21	7.20	7.48	6.38	6.33	7.15	5.14

**TABLE A-5**  
**Alkalinity (mg Caco3/l), Neguntatogue & Beaverdam Creeks**

Station	04/07/89		05/26/89		06/25/89		07/27/89		08/29/89	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
N1	10.20		85.00		85.00		85.00		76.50	
N2	0.00		85.00		85.00		72.00		51.00	
N3	85.00		85.00		85.00		72.00		68.00	
N4	68.00		85.00		85.00		72.00		68.00	
N5	68.00		68.00		51.00		72.00		68.00	
B1	25.50		34.00		136.00		136.00		136.00	
B2	34.00		34.00		85.00		85.00		102.00	
B3	34.00		34.00		51.00		51.00		68.00	
B4	17.00		17.00		17.00		34.00		34.00	

TABLE A-6  
 ph, Neguntatogue & Beaverdam Creeks

Station	04/07/89		05/26/89		06/25/89		07/27/89		08/29/89	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
N1	6.79		5.43		6.47		6.15		7.36	
N2			6.02		6.54		7.40		7.28	
N3	6.92		6.84		7.36		8.02		8.60	
N4	6.60		6.62		7.02		7.67		8.31	
N5	6.67		6.64		6.77		7.04		8.70	
N6	7.90		5.43	5.43	6.93	6.95	4.05	4.04	6.12	6.21
N7	8.52		5.45	5.45	6.82	6.99	4.05	4.09	6.28	6.32
N7.5	8.19		5.49	5.34	7.40	7.09	4.10	4.08	6.32	6.40
N8	8.60		5.54	5.54	7.13	7.09	4.09	1.07	6.33	6.42
N9	8.70		5.62	5.60	7.05	7.07	4.10	4.10	6.32	6.30
B1	5.82		7.15		5.17		5.10		8.41	
B2	6.38		6.45		5.45		5.35		8.51	
B3	7.25		6.50		5.51		6.57		8.62	
B4	7.66		6.61		5.64		5.62		8.75	
B5	7.76		5.43	5.54	6.99	6.97	3.75	3.76	6.40	6.53
B6	8.09		6.07	6.10	7.05	7.05	3.97	4.20	6.46	6.56
B7	8.38		5.95	5.94	7.04	7.02	3.99	4.00	6.49	6.64
B8	8.12		5.98	6.07	7.10	7.00	3.98	4.01	6.48	6.60
B9	8.46		5.86	5.85	7.02	6.95	3.99	3.99	6.51	6.70

TABLE A-7  
 Water Column Nutrients, Neguntatogue & Beaverdam Creeks

Station	04/07/89			06/25/89			08/29/89		
	Ammonium	Nitrate & Nitrite	Phosphate	Ammonium	Nitrate & Nitrite	Phosphate	Ammonium	Nitrate & Nitrite	Phosphate
N3	71.7	83.4	0.1	67.4	85.9	0.3	57.2	85.9	0.2
N6	21.0	2.2	0.7	59.7	62.3	1.0	62.8	70.3	0.4
N9	1.4	0.3	0.5	2.8	1.0	1.2	7.8	3.2	1.3
B3	3.9	11.0	0.5						
B6	13.8	9.0	0.4	35.1	21.1	2.2			
B9	1.0	0.4	0.3	3.1	1.2	0.3	3.0	1.3	0.5



**TABLE A-8**  
**Chlorophyll A (ug/l), Neguntatogue & Beaverdam Creeks**

<i>Station</i>	<i>04/07/89</i>	<i>05/26/89</i>	<i>06/25/89</i>	<i>07/27/89</i>	<i>08/29/89</i>
N1	0.04	0.11	0.48	0.65	2.58
N2		0.49	0.55	1.11	4.12
N3	0.05	0.87	16.57	11.78	153.33
N4	0.05	2.13	5.02	4.01	12.95
N5	0.04	3.60	2.44	1.66	9.03
N6	1.04	0.90		1.87	15.78
N7	0.03	1.58	23.57	33.60	18.32
N7.5	0.01	15.87	38.62	52.84	51.93
N8	0.01	22.87	62.87	64.23	71.98
N9	0.03	20.53	44.64	38.50	24.03
B1	0.00	0.34	0.84	0.15	0.81
B2	0.00	0.82	0.10	0.30	0.17
B3	0.00	0.84	0.52	0.35	0.53
B4	0.01	6.57	3.83	7.94	16.80
B5	0.00	3.37	12.75	368.67	8.49
B6	0.00	4.41	123.00	91.21	373.33
B7	0.00	12.30	315.78	55.03	114.80
B8	0.00	7.91	415.33	289.33	278.44
B9	0.02	8.45	11.30	12.93	18.90

TABLE A-9A  
Phytoplankton (cells/ml), April 1989

<i>Species</i>	<i>N3</i>	<i>N6</i>	<i>N9</i>	<i>B3</i>	<i>B6</i>	<i>B9</i>
<b>DIATOMS</b>						
Asterionella glacialis		8	10			
Centric spp.					3	4
Chaetoceros socialis		556	2657			
Cyclotella spp.	8	127	597		10	113
Guinardia flaccida			650			500
Leptocylindrus minimus			72			165
Melosira sp.			21			20
Minutocellus sp.	4			12		
Nitzschia spp.					500	500
Pennate spp.				4		30
Phaeodactylum tricornutum	49	103	62	74	14	
Skeletonema costatum					3	52
Rhizosolenia delicatula		143	515			
R. fragilissima		49	1215			494
R. setigera		21	1885		429	2204
Thalassiosira spp.		4	31		3	
Tropidoneis sp.		4	62			10
Thalassionema nitzsch						10
<b>CHLOROPHYTES</b>						
Tetraselmis	4					
Dunaliella				52		
Green flagellates				232		
Scenedesmus spp.	8					
<b>EUGLENOID FLAGELLATES</b>						
Eutreptia sp.				8		
Euglenoid forms	21					
<b>CHRYSOPHYTES</b>						
Mallomonas sp.	41					
Chrysophycean flagell.				4	93	
Olisthodiscus luteus					7	
<b>DINOFLAGELLATES</b>						
Gymnodinium spp.					7	
Katodinium rotundatum			1210			
Dinoflagellate spp.		10				20
Scrippsiella trochoidea	8					

**TABLE A-9B**  
**Phytoplankton (cells/ml), June 1989**

<i>Species</i>	<i>N3</i>	<i>N6</i>	<i>N9</i>	<i>B3</i>	<i>B6</i>	<i>B9</i>
<b>DIATOMS</b>						
Centric spp.				3		8
Chaetoceros spp.						12
Cyclotella spp.	6	20			25	
Cylindrotheca fusiformis					5	4
Mastogloia spp.				7		
Melosira sp.					5	
Minutocellus sp.		66660	434440		5555	1111
Nitzschia spp.	21	20		24		
Pennate spp.					50	
Skeletonema costatum						37
Rhizosolenia delicatula					51	
Tabularia spp.	21			27		
<b>CHLOROPHYTES</b>						
Closterium	6					
Desmid spp.		20				
Green flagellates	151				3814	
Scenedesmus spp.	27					
Tetraselmis						21
<b>EUGLENOID FLAGELLATES</b>						
Euglenoid forms	21			3		
<b>CHRYSOPHYTES</b>						
Mallomonas sp.	515	272				
Chrysophycean flagell.						33
Olisthodiscus luteus						
<b>DINOFLLAGELLATES</b>						
Dinoflagellate spp.				82		193
cf. Gymnodinium sanguineum				62	3340	
Gymnodinium spp.	371					168
Katodinium rotundatum						8
Prorocentrum minimus						16
Prorocentrum scutellum						8
Scrippsiella trochoidea						29
<b>CRYPTOMONADS</b>						
Cryptomonas spp.		10				280
Cryptomonads	1194		103			

TABLE A-9C  
Phytoplankton (cells/ml), August 1989

<i>Species</i>	N3	N6	N9	B3	B6	B9
<b>DIATOMS</b>						
Chaetoceros spp.			267			
Cyclotella spp.		27	1442			20000
Leptocyindrus minimus			82			
Minutocellus sp.			7777			6666
Nitzschia spp.				21		
Nitzschia coseterium						57
Pennate spp.		27			21	
Phaeodactylum tricorn.			41			
Pleurosigma spp.						21
Skeletonema costatum			1062			
Rhizosolenia eriensis	8888	322				
Thalassionema						10
<b>CHLOROPHYTES</b>						
Green flagellates				54		
Scenedesmus spp.	41	69				
<b>CHRYSOPHYTES</b>						
Chloromonads	31					
Chrysophycean flagell.	61111			4		
cf.Synura sp.	124					
<b>DINOFLAGELLATES</b>						
Dinoflagellate spp.			30			
cf.Gymnodinium sanguineum		192			13333	
<b>CRYPTOMONADS</b>						
Cryptomonas spp.		13				
<b>OTHERS</b>						
cf.Microcystis spp.	855	268				
unid. flagellates		117	41			
coccoid nanoplank.	55555	12222	51111	26666	168887	651104
micro-flagellates	64444	6666	46662	13333	93332	64444

**TABLE A-10**  
**Grain Size and Loss on Ignition, Neguntatogue & Beaverdam Creeks**

<i>Station</i>	<i>% loss on Ignition</i>	<i>% Gravel</i>	<i>% Sand</i>	<i>% Silt</i>	<i>% Clay</i>
B1	0.53	2.08	97.92	0	0
B2	0.17	0.22	98.16	0	1.83
B3	0.33	0.28	98.30	1.39	0
B4	49.11	21.18	59.73	9.54	9.54
B5	52.67	1.65	29.41	45.96	22.98
B6	18.33	1.89	27.07	47.36	23.68
B7	18.72	0.54	79.02	13.62	6.81
B8	15.61	2.19	65.03	16.39	16.39
B9	7.35	1.58	79.18	12.83	6.41
N1	0.79	17.47	81.29	1.24	0
N2	1.08	5.81	92.25	1.94	0
N3	0.54	8.55	89.75	0	1.7
N4	0.64	6.59	91.50	1.91	0
N5	0.32	0.48	98.09	0	1.43
N6	20.98	0.72	63.31	23.98	11.99
N7	14.39	0.55	63.82	27.71	7.92
N7.5	19.66	0.07	68.10	21.22	10.61
N8	36.30	1.50	64.30	23.94	10.26
N9	7.08	0.43	75.89	16.58	7.11

Table A-11A. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks.

5-26-89 Macrofauna of Beaverdam Creek (#/sq.m.)

SPECIES	BF-1	BF-2	BF-3	BF-4	BS-5	BS-6	BS-7	BS-8	BS-9
<b>CNIDARIA</b>									
Hydrozoa									
Unid. hydroid spp.									
<b>ANNELIDA</b>									
Oligochaete									
Unid. oligochaete spp.				833					
Tubificidae									
Unidentified spp.	35	104	174	104	33	17	17	100	50
Polychaete									
Unid. polychaete spp.									116
Ampharetidae									
Unidentified spp.									
Capitellidae									
Capitella capitata							498	199	
Cirratulidae									
Tharyx acutus									
Glyceridae									
Glycera sp.									
Lumbrineridae									
Lumbrineris tenuis									
Maldanidae									
Clymanella torquata									
Nephtyidae									
Nephtys incisa									33
Nereidae									
Nereis arenaceodonta									
Nereis virens									
Orbiniidae									
Scoloplos acutus									83
Paranoidae									
Paraonis sp.									
Pectinariidae									
Pectinaria gouldii									33
Phyllodocidae									
Phyllodoce arenae									
Spionidae									
Polydora ligni									33
Strebiospio benedicti						17			
Terebellidae									
Unidentified spp.									
<b>MOLLUSCA</b>									
Bivalvia									
Macridae									
Spisula solidissima									199
Mytilidae									

Table A-11A. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 2 of 4).

Mytilus edulis									
Solenidae									
Ensis directus									
Veneridae									
Gemma gemma									
ARTHROPODA									
Crustacea									
Amphipoda									
Amphipodidae									
Amphipoda abdita					33				17
Amphipoda vadorum									
Amphipoda sp.									50
Gammaridae									
Gammarus mucronatus									
Gammarus sp.	382			33	33	17		17	
Lilljeborgiidae									
Listriella barnardi									
Lysianassidae									
Lysianopsis alba									
Phoxocephalidae									
Paraphoxus spinosus									
Isopoda									
Anthuridae									
Cyathura polita									
Idoteidae									
Erichsonella sp.									
OSTRACODA									
Unidentified sp.			35						
Decapoda									
Xanthidae									
Neopanopeus taxana									
Insecta									
Dragonfly larvae									
Mosquito larvae									
SPECIES RICHNESS	1.00	1.00	3.00	2.00	2.00	4.00	3.00	4.00	8.00
SPECIES DIVERSITY	0.00	0.00	0.35	0.15	0.30	0.58	0.12	0.46	0.79
TOTAL NUMBERS	35.00	104.00	591.00	937.00	66.00	100.00	532.00	349.00	581.00
LOG(TOTAL NUMBERS+1)	1.56	2.02	2.77	2.97	1.83	2.00	2.73	2.54	2.76
marine station:	CP 16.6								
freshwater station:		CP 34.7							

Table A-11A. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 3 of 4).

5-26-89 Macrofauna of Neguntatogue Creek (#/sq.m.)

SPECIES	NF-1	NF-2	NF-3	NF-4	NF-5	NS-6	NS-7	NS-7.5	NS-8	NS-9
<b>CNIDARIA</b>										
Hydrozoa										
Unid. hydroid spp.										
<b>ANNELIDA</b>										
Oligochaete										
Unid. oligochaete spp.										
Tubificidae										
Unidentified spp.	69	42959	1249	1909	729				33	33
Polychaete										
Unid. polychaete spp.									133	349
Apharetidae										
Unidentified spp.									17	
Capitellidae										
Capitella capitata										166
Cirratulidae										
Tharyx acutus										
Glyceridae										
Glycera sp.										50
Lumbrineridae										
Lumbrineris tenuis										
Maldanidae										
Clymanella torquata										
Nephtyidae										
Nephtys incisa										17
Nereidae										
Nereis arenaceodonta										
Nereis virens										33
Orbinidae										
Scoloplos acutus									17	216
Paranoidae										
Paranais sp.									183	
Pectinariidae										
Pectinaria gouldii										
Phyllodoctidae										
Phyllodoce arenae										
Spionidae										
Polydora ligni									33	183
Streblospio benedicti									66	149
Terebellidae										
Unidentified spp.										299
<b>MOLLUSCA</b>										
Bivalvia										
Macridae										
Episula solidissima										
Mytilidae										



Table A-11A. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 4 of 4).

Mytilus edulis										
Solenidae										
Ensis directus										
Veneridae										
Gemma gemma										
ASTROGOMIDA										
Doleracea										
Ampeliscidae										
Ampeliscus polita									1375	
Ampeliscus sedgwicki									50	
Ampeliscus sp.										
Ampeliscus sp.										
Gammarus lawrensoni										
Gammarus mucronatus										
Gammarus sp.										
Lilljeborgiidae										
Listriella barnardi										
Lysianassidae										
Lysianopsis alba										
Phoxocephalidae										
Paraphoxus spinosus										17
Isopoda										
Anthuridae										
Cyathura polita										
Idoteidae										
Erichsonella sp.										
OSTRACODA										
Unidentified sp.										
Decapoda										
Xanthidae										
Neopanopeus taxana										
Insecta										
Dragonfly larvae										
Mosquito larvae										
SPECIES RICHNESS	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	7.00	14.00
SPECIES DIVERSITY	0.00	0.00	0.00	0.00	0.00				0.72	0.72
TOTAL NUMBERS	69.00	42959.00	1249.00	1909.00	713.00	0.00	0.00	0.00	532.00	3554.00
LOG(TOTAL NUMBERS+1)	1.85	4.63	3.10	3.28	2.86	0.00	0.00	0.00	2.73	3.55
marine station:	CF 16.6									
freshwater station:		CF 34.7								

Table A-11B. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks.

7-27-89 Macrofauna of Beaverdam Creek (#/sq.m.)

SPECIES	8F-1	8F-2	8F-3	8F-4	8S-5	8S-6	8S-7	8S-8	8S-9
CNIDARIA									
Hydrozoa									
Unid. hydroid spp.				35					
ANNELIDA									
Oligochaete									
Unid. oligochaete spp.				292					
Tubificidae									
Unidentified spp.	208	243	277	878	69		69		
Polychaete									
Unid. polychaete spp.						83			166
Ampharetidae									
Unidentified spp.						17			
Capitellidae									
Capitella capitata									
Cirratulidae									
Tharyx acutus						183			33
Glyceridae									
Glycera sp.									17
Lumbrineridae									
Lumbrineris tenuis									
Maldanidae									
Clymanella torquata									548
Nephtyidae									
Nephtys incisa						50			17
Nereidae									
Nereis arenaceodonta						117			
Nereis virens									50
Orbinidae									
Scoloplos acutus						33			
Paranoidae									
Paraonis sp.									
Pectineriidae									
Pectinaria goeudii									149
Phyllodoceidae									
Phyllodoce arenae									17
Spionidae									
Polydora ligni									
Streblospio benedicti									
Terebellidae									
Unidentified spp.						365			50
MOLLUSCA									
Bivalvia									
Macruridae									
Episura solidissima									33
Mytilidae									

Table A-11B. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 2 of 4).

Mytilus edulis									
Solentidae									
Ensis directus									17
Veneridae									
Scapharca									
MUSCULOPODA									
Crustacea									
Amphipoda									
Amphileptidae									
Amphilepta									
Amphilepta									
Amphilepta									
Amphilepta									
Amphilepta									
Gammarus lawrencianus									35
Gammarus mucronatus									35
Gammarus sp.									35
Lilljeborgiidae									
Listriella barnardi									
Lysianassidae									
Lysianopsis alba									
Phoxocephalidae									
Paraphoxus spinosus									
Isopoda									
Anthuridae									
Cyathura polita									
Idoteidae									
Erichsonella sp.									35
OSTRACODA									
Unidentified sp.									
Decapoda									
Xanthidae									
Neopanopeus taxana									
Insecta									
Dragonfly larvae									35
Mosquito larvae									35
SPECIES RICHNESS	2.00	1.00	5.00	4.00	1.00	7.00	1.00	0.00	11.00
SPECIES DIVERSITY	0.06	0.00	0.24	0.13	0.00	0.68	0.00		0.72
TOTAL NUMBERS	243.00	243.00	417.00	1240.00	69.00	848.00	69.00	0.00	1097.00
LOG(TOTAL NUMBERS+1)	2.39	2.39	2.62	3.09	1.85	2.93	1.85	0.00	3.04
marine station:	CF 16.6								
freshwater station:		CF 34.7							

Table A-11B. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 3 of 4).

7-27-89 Macrofauna of Neguntatogue Creek (#/sq.m.)

SPECIES	NF-1	NF-2	NF-3	NF-4	NF-5	NS-6	NS-7	NS-7.5	NS-8	NS-9
CNIDARIA										
Hydrozoa										
Unid. hydroid spp.										
ANNELIDA										
Oligochaete										
Unid. oligochaete spp.										
Tubificidae										
Unidentified spp.	174	368	69	416	208					83
Polychaete										
Unid. polychaete spp.									83	598
Ampharetidae										
Unidentified spp.										50
Capitellidae										
Capitella capitata									17	83
Cirratulidae										
Tharyx acutus										
Glyceridae										
Glycera sp.									66	149
Lumbrineridae										
Lumbrineris tenuis										33
Maldanidae										
Clymanella torquata										
Nephtyidae										
Nephtys incisa										199
Nereidae										
Nereis arenaceoalba										133
Nereis virens										
Orbinidae										
Scoloplos acutus									17	133
Paranoidae										
Paraonis sp.										
Pectinariidae										
Pectinaria goeblia										
Phyllodoceidae										
Phyllodoce arenae										
Spionidae										
Polydora ligni									149	100
Streblospio benedicti									465	232
Terebellidae										
Unidentified spp.									17	
MOLLUSCA										
Bivalvia										
Macruridae										
Spisula solidissima										
Nytilidae										

Table A-11B. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 4 of 4).

Mytilus edulis										33
Pelecypoda										
Ensis directus										
Veneridae										
Corbicula gemma								17		66
ARTHROPODA										
Crustacea										
Amphipoda										
Amphipodidae										
Amphipoda acuta								33		3449
Amphipoda beverdam										192
Amphipoda sp.										
Elasmopus laevis										93
Gammarus lawrencianus										
Gammarus mucronatus										
Gammarus sp.										
Lilljeborgiidae										
Listriella barnardi										100
Lysianassidae										
Lysianopsis aiba										199
Phoxocephalidae										
Paraphoxus spinosus										
Isopoda										
Anthuridae										
Cyathura polita										116
Idoteidae										
Erichsonella sp.										35
OSTRACODA										
Unidentified sp.										
Decapoda										
Xanthidae										
Neopanopeus taxana										33
Insecta										
Dragonfly larvae										
Mosquito larvae										
SPECIES RICHNESS	1.00	1.00	1.00	1.00	3.00	0.00	0.00	0.00	9.00	20.00
SPECIES DIVERSITY	0.00	0.00	0.00	0.00	0.32				0.65	0.52
TOTAL NUMBERS	174.00	868.00	69.00	416.00	278.00	0.00	0.00	0.00	864.00	11154.00
LOG(TOTAL NUMBERS+1)	2.24	2.94	1.85	2.62	2.45	0.00	0.00	0.00	2.94	4.05
marine station:	CF 16.6									
freshwater station:		CF 34.7								

Table A-11C. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks

9-18-89 Macrofauna of Beaverdam Creek (#/sq.m.)

SPECIES	BF-1	BF-2	BF-3	BF-4	BS-5	BS-6	BS-7	BS-8	BS-9
CNIDARIA									
Hydrozoa									
Unid. hydroid spp.									
ANNELIDA									
Oligochaete									
Unid. oligochaete spp.	590								
Tubificidae									
Unidentified spp.		1249	486	1423	50	17			
Polychaete									
Unid. polychaete spp.								50	
Ampharetidae									
Unidentified spp.									
Capitellidae									
Capitella capitata									
Cirratulidae									
Tharyx acutus									
Glyceridae									
Slycera sp.									
Lumbrineridae									
Lumbrineris tenuis									
Maldanidae									
Clymanella torquata									
Nephtyidae									
Nephtys incisa									
Nereidae									
Nereis arenaceodonta					17				33
Nereis virens									
Orbinidae									
Scoloplos acutus									
Paranoidae									
Paranais sp.									
Pectinariidae									
Pectinaria gouldii									
Phyllodoceidae									
Phyllodoce arenae									
Spionidae									
Polydora ligni									
Streblospio benedicti									
Terebellidae									
Unidentified spp.									
MOLLUSCA									
Bivalvia									
Macruridae									
Spisula solidissima									
Mytilidae									

Table A-11C. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 2 of 4).

Mytilus edulis									
Solenidae									
Ensis directus									
Veneridae									
Beema gamba									
ARTHROPODA									
Crustacea									
Amphipoda									
Ampheliscidae									
Ampheliscus acutus									
Ampheliscus macronus									
Ampheliscus sp.									
Gammaridae									
Gammarus mucronatus									
Gammarus sp.									
Lilljeborgiidae									
Listriella barnardi									
Lysianassidae									
Lysianopsis alba									
Phoxocephalidae									
Paraphoxus spinosus									
Isopoda									
Anthuridae									
Cyathura polita									
Idoteidae									
Erichsonella sp.									
GSTRACODA									
Unidentified sp.									
Decapoda									
Xanthidae									
Neopanopeus taxana									
Insecta									
Dragonfly larvae									
Mosquito larvae									
SPECIES RICHNESS	1.00	1.00	1.00	1.00	2.00	1.00	0.00	0.00	2.00
SPECIES DIVERSITY	0.00	0.00	0.00	0.00	0.25	0.00			0.29
TOTAL NUMBERS	590.00	1249.00	486.00	1423.00	67.00	17.00	0.00	0.00	83.00
LOG(TOTAL NUMBERS+1)	2.77	3.10	2.69	3.15	1.83	1.26	0.00	0.00	1.92
marine station:	CF 16.6				freshwater station:	CF 34.7			

Table A-11C. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 3 of 4).

9-18-89 Macrofauna of Neguntatogue Creek (#/sq.m.)

SPECIES	NF-1	NF-2	NF-3	NF-4	NF-5	NG-6	NS-7	NS-7.5	NS-8	NS-9
CNIDARIA										
Hydrozoa										
Unid. hydroid spp.										
ANNELIDA										
Oligochaete										
Unid. oligochaete spp.										
Tubificidae										
Unidentified spp.	832	23318	555	1284	1943					
Polychaete										66
Unid. polychaete spp.										
Ampharetidae										
Unidentified spp.										
Capitellidae										17
Capitella capitata										
Cirratulidae										
Tharyx acutus										
Glyceridae										
Glycera sp.										
Lumbrineridae										17
Lumbrineris tenuis										
Maldanidae										
Clymanella torquata										
Nephtyidae										
Nephtys incisa										
Nereidae										
Nereis araneoscuta										
Nereis virens										
Orbinidae										17
Scoloplos acutus										
Paranoidae										
Paranais sp.										
Pectinariidae										
Pectinaria gouldii										
Phyllodoceidae										
Phyllodoce arenae										
Spionidae										
Polydora ligni										
Streblospio benedicti										
Terebellidae										
unidentified spp.										
MOLLUSCA										
Bivalvia										
Nectridae										
Episula collusivana										
Mytilidae										



Table A-11C. Abundance of Benthic Macrofauna,  
Neguntatogue and Beaverdam Creeks (p. 4 of 4).

Mytilus edulis										
Solenoidea										
Ensis directus										
Veneridae										
Gemma gemma										
ARTHROPODA										
Crustacea										
Amphipoda										
Ampeliscoidea										
Ampelisca acicula										1792
Ampelisca heterochaeta										
Ampelisca sp.										
Bogertidae										
Gammarus										
Gammarus subtypicus										
Gammarus sp.										
Lilljeborgiidae										
Listriella barnardi										
Lysianassidae										
Lysianopsis alba										
Phoxocephalidae										
Paraphoxus spinosus										
Isopoda										
Anthuridae										
Cyathura polita										116
Idoteidae										
Erichsonella sp.										
OSTRACODA										
Unidentified sp.										
Decapoda										
Xanthidae										
Neopanopeus taxana										
Insecta										
Dragonfly larvae										
Mosquito larvae										
SPECIES RICHNESS	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	6.00
SPECIES DIVERSITY	0.00	0.00	0.00	0.00	0.00					0.22
TOTAL NUMBERS	832.00	23318.00	555.00	1284.00	1943.00	0.00	0.00	0.00	0.00	2025.00
LOG(TOTAL NUMBERS+1)	2.92	4.37	2.75	3.11	3.29	0.00	0.00	0.00	0.00	3.31
marine station:	CF 16.6									
freshwater station:		CF 34.7								

