



DREDGED MATERIAL RESEARCH PROGRAM



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TECHNICAL REPORT D-77-6

AQUATIC DISPOSAL FIELD INVESTIGATIONS EATONS NECK DISPOSAL SITE LONG ISLAND SOUND

APPENDIX F: PREDISPOSAL BASELINE CONDITIONS OF PHYTOPLANKTON ASSEMBLAGES

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> September 1977 Final Report

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Prepared for Office, Chief of Engineers, U. S. Army Washington, D. C. 20314

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U. S. Army Engineer Waterways Experiment Station P. O. Bex 631, Vicksburg, Miss. 39180



AQUATIC DISPOSAL FIELD INVESTIGATIONS EATONS NECK DISPOSAL SITE LONG ISLAND SOUND

Appendix A: Hydraulic Regime and Physical Characteristics of Bottom Sediment

Appendix B: Water-Quality Parameters and Physicochemical Sediment Parameters

Appendix C: Baseline Studies of Plankton, Nekton, and Benthic Invertebrate Populations

Appendix D: Predisposal Baseline Conditions of Demorsal Fish Assemblages

Appendix E: Predisposal Baseline Conditions of Zooplankton Assemblages

Appendix F: Predisposal Baseline Conditions of Phytoplankton Assemblages

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DEPARTMENT OF THE ARMY WATERWAYS EXPERIMENT STATION, CORPS OF ENGINEERS

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2 September 1977

SUBJECT: Transmittal of Technical Report D-77-6 (Appendix F)

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TO: All Report Recipients

- 1. The technical report transmitted herewith represents the results of one of several research efforts (Work Units) undertaken as part of Task 1A, Aquatic Disposal Field Investigations of the Corps of Engineers' Dredged Material Research Program. Task 1A is a part of the Environmental Impacts and Criteria Development Project (EICDP), which has a general objective determination of the magnitude and extent of effects of disposal sites on organisms and the quality of surrounding water, and the rate, diversity, and extent such sites are recolonized by benthic flora and fauna. The study reported on herein was an integral part of a series of research contracts jointly developed to achieve the EICDP general objective at the Eatons Neck Disposal Site, one of five sites located in several geographical regions of the United States. Consequently, this report presents results and interpretations of but one of several closely interrelated efforts and should be used only in conjunction with and consideration of the other related reports for this site.
- 2. This report, Appendix F: Predisposal Baseline Conditions of Phytoplankton Assemblages, is one of the six contractor-prepared reports that are appended to the Waterways Experiment Station Technical Report D-77-6 entitled: Aquatic Disposal Field Investigations, Eatons Neck Disposal Site, Long Island Sound. The titles of the contractor-prepared appendices of this series are listed on the inside front cover of this report. The technical report provides additional results, interpretations, and conclusions not found in the individual contractor reports and provides a comprehensive summary and synthesis overview of the entire project.
- 3. The purpose of this report, conducted as Work Unit IAO6C, was to collect baseline data concerning the phytoplankton populations at the Eatons Neck disposal site for future comparisons with similar data from other areas. The report included a determination of the distribution, abundance and type of phytoplankton in the Eatons Neck disposal area and a reference site. Also included is a primary productivity study comparing the disposal area and reference site.

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4. The conclusion of the report, based on the evidence presented, was that there was little difference in the composition and abundance of the phytoplankton found at the three stations sampled, of which two were in the disposal area and one was the reference site. The results of this study have shown that field sampling for the effects of a disposal site on phytoplankton can draw very few conclusions. Studies of this type in the future should probably be confined to laboratory tests.

5. The baseline evaluations of all the EICDP field sites were developed to determine the base or ambient physical, chemical, and biological conditions at the respective sites from which to determine impacts due to the subsequent disposal operations. Where the dump sites had historical usage, the long-term impacts of dumping at these sites could also be ascertained. Controlled disposal operations at the Eatons Neck site, however, did not occur due to local opposition to research activities and even though the Eatons Neck project was terminated after completion of the baseline, this information will be useful in evaluating the impacts of past disposal at this site. The results of this study are particularly important in determining placement of dredged material for open-water disposal. Reference studies, as well as the ones summarized in this report, will aid in determining the optimum disposal conditions and site selection in relation to the phytoplankton assemblages of the dump site and surrounding areas.

JOHN L. CANNON
Colonel, Corps of Engineers
Commander and Director

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20. ABSTRACT (Continued).

Neck in order to evaluate cause and effect relationships associated with the impacts of open-water disposal.

This volume presents the results of an investigation to determine the baseline conditions of the phytoplankton population at the disposal site for future comparison with similar data collected after the disposal of dredged material. The ultimate objective is to determine the effects of the openwater disposal of dredged material on the phytoplankton population located within the area of the Eatons Neck disposal site.

By using the Shannon-Weaver and the Simpson indexes it was determined that little variation existed in the diversity of the phytoplankton population at each station (EN1, EN2, and EN3) and depth measured. The exception to this occurred in the October and June sampling periods when stations EN1 and EN2 showed distinctly different diversities for the surface, middepth, and near-bottom samples. The diversity of the populations at Station EN3 was approximately equal for each depth.

The study concludes that, although it is difficult to draw any conclusions prior to a more thorough statistical analysis, it appears that there is little difference in the composition and abundance of the phytoplankton found at the three stations.

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Preface

This report presents the results of an investigation to determine the baseline conditions of the phytoplankton population at the Eatons Neck Disposal Site, Long Island Sound, New York.

The study was prepared for the Office, Chief of Engineers, and supported by the U. S. Army Engineer Waterways Experiment Station (WES), Environmental Effects Laboratory (EEL), Vicksburg, Mississippi, under Contract No. DACW51-75-C-0016 to the New York Ocean Science Laboratory, Montauk, New York. The report forms part of the EEL Dredged Material Research Program (DMRP). Contracting was handled by the New York District (NYD); COL Thomas C. Hunter, CE, NYD, was Contracting Officer.

The report was written by Robert Nuzzi of the New York Ocean Science Laboratory. The following New York Ocean Science Laboratory personnel assisted in the collecting, sorting, and identification of the samples: Grant Matheke and Carl Zimmermann.

The study was conducted under the direction of the following EEL personnel: Dr. R. M. Engler, Environmental Impacts and Criteria Development Project, Project Manager, and J. R. Reese, Site Manager. The study was under the general supervision of Dr. John Harrison, Chief, EEL.

Commanders and Directors of WES during the study and preparation of this report were COL G. H. Hilt, CE, and COL J. L. Cannon, CE. Technical Director was Mr. F. R. Brown.

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Introduction

- 1. This study is part of the Dredged Material Research Program of the U. S. Army Corps of Engineers and was performed in conjunction with other biological, chemical, and physical investigations of the study area. The primary purpose of the present study was to collect baseline data concerning the phytoplankton population in the area for future comparison with similar data collected after the disposal of dredged material. The ultimate objective was to determine the effects of the open-water disposal of dredged material on the phytoplankton population located within the area of the Eatons Neck disposal site (Figure F1).
- 2. Prior studies of phytoplankton within Long Island Sound include those of Nuzzi^{1,2} in the areas of Shoreham and Jamesport, Riley and Conover³ in the entire Sound, and Conover⁴ in the central portion of the Sound. There have been no detailed investigations within the present area of concern.

Methods and Materials

Population studies

3. Water samples were collected from three depths (2-3 ft below the surface, middepth, and 2-3 ft above the bottom) at three stations in the study area for the analysis of the phytoplankton population. Stations EN1 and EN2 were located within the disposal site while station EN3,

located outside the perimeter of the site, was to serve as a control station (Figure F1).

- 4. Samples were collected in 5-1 Niskin bottles 12 times over a 9-month period (October 1974-June 1975). The phytoplankton in 1 1 of water were concentrated with a continuous plankton centrifuge immediately after collection. A portion of the concentrated sample, was preserved with neutral buffered formalin (final concentration 3 percent) and a portion was left unpreserved and viewed microscopically in the field in an attempt to identify and enumerate those organisms that may have been damaged by fixation. The preserved samples were returned to the laboratory for detailed examination.
- 5. Microscopic analysis of both fixed and unfixed samples consisted of placing an 0.1-ml aliquot of the concentrated sample in a nannoplankton counting chamber⁵ upon which various types of counts, depending upon cell size and number, were performed under 100X and 400X magnification. At least 10 field counts (a wide field being delineated by the microscope field and a narrow field by a Whipple disc placed in one eyepiece) and three survey counts (a scan of the entire counting chamber) were performed. The average of the counts was multiplied by the appropriate factors to yield results as cells per liter.
- 6. Data collected previously from the Shoreham area of Long Island Sound¹ did not indicate a need for replicate sampling. During that

study the range of duplicate samples was slightly greater than the mean only 3 times in 66 cases.

Productivity studies

7. Primary production, as carbon fixed per unit area (or volume) per unit time was estimated in December, February, and April at one station within the disposal site (station EN2) and at one control station (station EN3) by determining the uptake of radioactive carbon⁶. Light and dark bottles were filled in duplicate with water from three depths corresponding to 100 percent (surface), 10 percent, and 1 percent of the incident surface radiation as measured with a submarine photometer (G. M. Mfg.). After the addition of carbon-14 the bottles were resuspended in situ at the collection depths for incubation. At the end of the incubation period (2-6 hr) the samples were collected, fixed, filtered, and delivered to Dr. E. Powers of the State University of New York at Stony Brook for final analysis, using a liquid scintillation spectrometer.

Results

Population studies

8. Seasonal variations. Table F1 summarizes the species found during each sampling date at the Eatons Neck site (summary of all stations and depth). The cell counts and the percent composition of each species at each station, depth, and sampling date are given in Tables F2 and F3. These data are summarized in Tables F4a and F4b.

- 9. Figure F2 presents the seasonal variation of the phytoplankton population of the entire site (average of stations EN1, EN2, and EN3, surface, middepth, and near bottom). Cell numbers were lowest (ca 2 x 10⁴) in October and increased slightly in November and December with a small decline in January. Cell numbers remained low until late March when a dramatic increase occurred. The population reached its highest point (>2 x 10⁶ cells per liter) in March after which it decreased to about 10⁵ cells per liter by May 1975.
- 10. A number of factors are probably involved in the decline of the population including zooplankton grazing, and self-inhibition due to shading. The results of a study by Purdin also suggest these factors. Purdin noted that the decline of the March 1973 phytoplankton bloom in Long Island Sound, near Shoreham, coincided with a dramatic increase of the copepods Acartia clausii and Temora longicarnis. Purdin observed a second increase in the phytoplankton population in May; this was followed closely by an increase in the standing crop of A. clausii, A., tonsa, Temora, and Labidocera.
- 11. The October phytoplankton was dominated by Prorocentrum redfieldii, Thalassionema nitzschiodes, Skeletonema costatum, and Thalassiosira spp. at stations EN1 and EN3. At station EN2, Chrysocromulina sp. and P. redfieldii were codominant, although T. nitzschioides, S. costatum, and Thalassiosira spp. were present in numbers comparable to stations EN1 and EN3. From November through February, T. nitzschioides was dominant. Melosira sulcata and Thalassiosira spp. were also common during this period.

- 12. During March and April, Thalassiosira nordenskioldii and Skeletonema costatum assumed dominance, with Bacteriosira fragilis, Asterionella japonica, and Melosira sulcata also being abundant.
- 13. The dominant species in May were Ebria tripartita and Thalassionema nitzschioides, followed in June by the dominance of unidentified flagellates.
- 14. Horizontal and vertical variations. As indicated in Figures F3-F5, there was little variation in the phytoplankton population between stations EN1, EN2, and EN3, and little variation between surface, middepth, and near-bottom populations, although the surface population was generally the largest. This was particularly evident during the October and June sampling.
- 15. <u>Diurnal variations</u>. In an effort to determine the significance of seasonal variations, samples were collected five times over a 12-hr period to determine the extent of population variation over a complete tidal cycle. This was performed on four separate occasions (November, January, and twice in April). The results (Figure F6) indicate only minor fluctuations over the 12-hr period and, while no statistical analysis was performed, there does not appear to be any correlation of cell numbers with tidal current.
- 16. Species diversity. The index of diversity can yield indications of the effects of environmental conditions on a community and

information concerning the environmental conditions to which the community is exposed. In general, the diversity index will be lowered as the environment becomes stressed by physical, chemical, or biological factors⁸.

- 17. Two of the commonly used indexes of diversity have been applied in the present study: the Shannon-Weaver index 9 and the Simpson index 10. The formula and a description of each index is given by Pieloull. Both indexes were calculated as log to the base 10.
- 18. There was little variation in the diversity of the phytoplankton population at each station and depth (Figures F7-F9) with the exception of the October and June sampling periods when stations EN1 and EN2 showed distinctly different diversities for the surface, middepth, and near-bottom samples. The diversity of the populations at station EN3 was approximately equal for each depth. The greater vertical homogeneity of the water column at station EN3 may be due to increased vertical mixing caused by the proximity of the station to a reef area.
- 19. The diversity at the site was greatest in October after which it decreased through the winter months. The diversity increased at the onset of the winter-spring flowering and remained fairly constant from February through April, at which point a decrease was again noted. Minor fluctuations in diversity may be due to diurnal fluctuations as indicated in Figures F10 and F11. These figures reveal 0.2 as the maximum variation obtained during diurnal sampling periods.

Productivity Studies

- 20. Table F5 presents the results of the productivity studies performed at stations EN2 and EN3. Maximum values at both stations occurred in December. Minimum values were found in April at station EN2 and in February at station EN3.
- 21. Station EN3 had higher productivity values at the depth of 10 percent incident radiation during February and April while productivity values at station EN2 were always highest at the surface.
- 22. The small number of data points makes it difficult to present a meaningful discussion of primary productivity at the Eatons Neck site.

Discussion

- 23. The phytoplankton population at Eatons Neck generally follows the pattern described by Conover⁴ and Riley¹² for Long Island Sound. These authors reported maximum cell numbers in early March 1953 and mid-February 1954. The maximum population found during the present study occurred in March 1975.
- 24. The major species found at Eatons Neck, and their time of occurrence, also agree with the data of $Conover^4$ and $Riley^{12}$. Of the 71 taxa noted during this study (Table F1), 21 were found to comprise at least 5 percent of the total population during any one sampling period with 10 species comprising more than 50 percent of the population at one time or another (Table F6). Riley¹² indicates 34 of 150 species as comprising

at least 5 percent of the total population in Long Island Sound over an 8-yr period with six species comprising at least 50 percent of the population at certain times. Of the 13 species that Riley considered to be particularly significant in the area, six were found at the same level in the present study (Melosira sulcata, Skeletonema costatum, Thalassionema nitzschioides, Thalassiosira decipiens, Thalassiosira nordenskioldii, and Prorocentrum scutellum, Table F6). In addition, three species identified by Riley¹² as being major constituents of the population were found during the summer period not covered by this study.

25. There is also the possibility that, of the remaining organisms, some or all may have been identified differently. For instance, Detonula, Schröderella, and Bacteriosira are difficult to distinguish at times, as are various species of Thalassiosira.

Conclusions

- 26. Although it is difficult to draw any conclusions prior to a more thorough statistical analysis and because of the cursory nature of the investigation, it appears that there is little difference in the composition and abundance of the phytoplankton found at the three stations.
- 27. Due to the cancellation of the disposal experiment it was, of course, impossible to make the originally planned comparison between pre- and postdisposal conditions.

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Table Fl
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Table F2a

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Chaetoceros debilis		AGY	STY	0.1				ATTEN Y		-	-	AL.	1	-	-	-	-	-		-	-
Chaetoceros decipiens		-	-		-			— <u>:</u> —	0.2	-	0.3	-	-	-	-	-	-	-	-	-	-
Chaetoceros aecipiens Chaetoceros spp.	0.1	0.1		0.2	MLY	0.1	0.3	0.1	-	-	-	_	-	-	- 7	-	-	-	-	-	-
Chaetoceros spp. (Spore)	0.1	-	-	-	0.1	-	-	0.1	-	-	-	4-1	_	-	-	-	-	-	-	-	-
Cocconeis sp.		-	-	AU V	-	-	-		-	-	-	-	-	-	-	-	0.1	-	-	-	-
Corethron hystrix	-	1	-	0.1	-	-	-		-	-	-	-	-	-	-	-	12	-	-	-	-
Coscinodiscus centralis	-	-	-	-	-	M-17		-	-	-	-	0.1	-	-	-	-	-	0.1	-	-	-
Coscinodiscus lineatus	-	-	-		-	-	0.3	0.1	-	-	0.1	0.1	10-17	-	0.1	-	-	-	-	-	-
Coscinodiscus radiatus	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-	-	-	-	-	-	-
Cyclotella striata	-	-	-	-	-	4-17	-	1.0	0.7	1.8	1.3	0.6	0.7	0.1	0.1	1.8	1.0	0.7	-	-	-
Cyclotella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Detonula confervacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	1.0	-	-	-
Diploneis sp.	-	-	-	-	-	-	-	0.1	-	- 17	-	-	-	-	-	-	-	-	-	-	-
Ditylum brightwellii	-	-	0.1	- 1	-	-	101-17	- V	- 17	-	-	- 9	- /	-	-	-	-	-	-	-	-
Eucampia zoodiacus	-	-	-	0.5	0.2	0.3		-	-	-	-	-	-	- /	-	-	-	-	-	-	-
Grammatophora angulosa	0.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grammatophora marina	-	0.1		0.1	-	1-17	-	0.1	-	-	-	-	-	-	-	-	-	0.1	-	-	-
Gyro-Pleurosigma sp.	0.2	2 -	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hemiaulus sinensis	-	-	-	-	-	-	1	-	-	17 - U	-	-	-	-	-	0.1	-	-	-	-	-
Licmophora sp.	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptocylindrus danicus	-	0.1	-	-	-		-		-		-			-	-	-	-	-		-	-
Mastogloia sp.	-	-	-	0.1	-	AL V	-	-	-		-	- /	-	-	-	-	-	-	-	-	-
Melosira italica	-	-	-	-	-	-	-	-	-	0.2	-	-	-	1 - V	-	-	-	-	-	-	-
Melosira moniliformis	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
Melosira sulcata		3 0.3		4.2	6.7	4.6					19.0		18.9	23.2	24.8	13.5	9.7	9.1	-	3.4	
Navicula spp.		7 0.2	1.0	-	-	-	0.2		0.2	0.1	-	0.1	-	-	-	1.8	1.8	1.2	-	6.8	
Nitzschia closterium	0.5	, -	-	0.1	0.2	-	0.1	0.1	-	-	-	-	-	-	-	-	-	-	3.4		-
Nitzschia longissima	-	-	-	-	-	- 7	-	-	-	-	-				-	0.1	-	-	-	3.4	
Nitzschia sp.	-	-	-	-	-	-	0.1	-	-	000	- /	-	0.6	0.6	0.8	2.1	1.8	2.1	-	10.2	
Rhizosolenia delicatula	-	-	-	-	-	-	-	37.7	-	1	1	-	-	-		-	-		-	-	
Rhizosolenia hebetata	-		-	101-		-	-	-	-	-	-			-	-		-	-			
Rhizosolenia shrubsolei	-	-	-		-		-		-	- 1	- 1	- 2	2.1	2.2	2.1		1.0	1 2			
Skeletonema costatum	1.7	7 0.5	1.2	0.1	0.2	0.1	1.10	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	1.5	1.8	1.2	585.0	619.0	135
Thalassionema				0					0	0		21 2	2	-0 6	.7 9	F2 9	.7 6	50 8	20 6	224 0	17
nitzschioides	. 109701750	5 0.2			15.1			49.2			36.6			58.6			47.6		98.0	204.0	17
Thalassiosira spp.		7 0.6	1.8	4.5	3.9		4.6	5.0		4.0			3.4				15.4			-	AND
Thalassiosira decipiens	0.6	5 -					_=			0.2			0.8	0.7	0.3	4.8	6.4	3.6			-
Thalassiosira gravida	-	-	-		A CONTRACTOR	ALTO	-		-	ENGY	0.1	ASSES	ALTER	ALC: Y	RESTRICT			-6.00	-	100	4
Thalassiosira			Aug	MARKET	AND	ALLEY	ATTES	A STATE OF	ALLEY	AND Y	0.1	ALESSY	ALLEY	ACCES	ATTE		0.2	0.1	200 7	205 7	7/
nordenskioldii	-			ALLY		ANGEL			-	AMEN	0.1	AST	ATTENT	A BEN		185	0.2	0.1	988.7	785.7	74
Inidentified diatoms	-	-	-	OF THE PARTY	-	ALC: Y		ALC: Y	-	STATE	ALC: Y	ALC: U	ALTERNY.	A LINE	ALC: Y						A
Chlorophyceae Chlorophyceae en (af)		AND	ALC:	ATTES	A STATE OF THE PARTY OF THE PAR	ALLEY	ALC: Y	Alley	ALC: Y	ARREST !	AND	AND	ALCON !		0.1						
Chlamydomonas sp. (cf)		-	_=_						-		-	-		-	0.1						
Chrysophyta Chrysophyta	1	AND	D. W	1 7	0.7	0.1	2 2	1 2	0.8	0.4	0.3	0.5	ALC: Y	1	_	0.5	_	_			
Chrysochromulina sp. (cf)	Alley	ALT.	Min	1.7	0.7	0.1	2.3			0.4	0.5	0.5	A. P. W.		0.1	0.5			10.2		A
Distephanus speculum Ebria tripartita	BOY	A ST		2.2	0.2	0.1	2.3	0.1	0.1	0.1		A SERVICE OF THE PARTY OF THE P	A COLUMN	AND	0.1	0.1	0.6	0.3	10.2	10.2	4
Euglenophyta	ALT.	ALTO	ALL	0.2	0.2	0.1	0.3	ALTEN VIEW	0.1	0.1	AL I	ARTH	LEWIS .	ALLEY	ALL Y	0.2	0.0	0.5		10.2	
Euglena sp.		-		0.2			0.1	0.1		-						0.2	-			6.8	-
	ALT	ALC: Y		0.2	HIT	AHEY	0.1	0.1	AL DE	ALL W	Ally	ALC: Y	ALLES	AND	ATTEN	0.2		THE PERSON NAMED IN	A STATE OF	0	
Pyrrophyta Dinophysis acuminata	AND	AND	0.2	ALC: Y		ALC: Y	0.1	ALC: Y			-	-	300	A STATE			-		-		
Glenodinium lenticula	AND	AND	0.2	ART		A STATE OF	0.1	ALC: Y		AREA T	AR T	AND	1	AL ST	CALLY.						
Gymnodinium variabile	0.3	3 -	ALEY	ALC: Y		0.1	_		ARELY			AND	ARREST .	0.1	1000				-		A.
Oxytoxum diploconus(cf)		-			-	0.1	-				-	-	-	-	-		-	-	-	3.4	
Peridinium trochoideum			AND Y	AND		ANDY	ALLEY	AREN	ANDY		ALL Y	ANDY	ALC: Y	ASSES	-	-	-	-		-	
Peridinium sp.				ARTI			ALC: Y	MALEY	ATT		MAN	ASILY	ALLE	1	4007	1			-	-	
Prorocentrum redfieldii	5.1	0.6	6 1.5	1.1	-	0.1	0.1	AND	0.1	AVELY		ARREV	(E)	MO	48-17	0.1	-		-		
Prorocentrum reafielaii Prorocentrum scutellum	3.4	, 0.0	0.3							ALC:	0.2	AND				-		-			
Prorocentrum scutettum		-	0.5	0.2	0.1	0.1	0.1	0.1			0.2								-		4
triangulatum						ALLEY	ALC: U	-			-			1	1	_	-	-	-		A
Unidentified flagellates	AND		ALC:	ALL Y	AND		Add	ALC: Y	ALL T		ABOV	ATLY	ARREY	1	-	-		-	-	170.0	11
ourdenering trageriates	AFFER	ANY	ALLEY	ARREY	AND	ATTE	ALTERNA	ANN	ARRIV	ANNE	ARTE	ATRIST	ANNE	Mily	ANIT					1,0.0	

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom.

Table F2a

L Count of Each Species by Depth* at Station EN1 Within Proposed Disposal Site

							mpling	Date a	and Dept															
75	21	Jan			Feb			Mar 7			Apr 75			Apr 75			Apr 7			ay 75	D .	S	Jun 7	<u>B</u>
B		M	<u>B</u>		M	В	<u>s</u>	<u>M</u>	В	<u>s</u>	_ <u>m</u> _	В	<u>s</u>	M	<u>B</u>	<u>s</u>	<u>M</u>	<u>B</u>	<u>s</u>	<u>M</u>	<u>B</u>		<u>M</u>	
											100 0		71 0	70.0	15 /	7/ 1	05 /	ea 6			0 0	0.9		
-	-	-		-	-	-	47.6	37.4	61.2	129.2	108.8		71.0	70.0	15.4	74.1	2.0	58.6	-		0.9	- 0.9	_	
	-		10	0.1		0.1	285.7	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	1.0	3.1	-		1.9	-			-
-	-	-	-	-	-	-	-	-		-	-	5		-		-	-	-	-	_			17 0	
	-			-							-	-	-	-		-	_	_	_	-	-	_	17.8	-
-	-	_	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-		-	-
0.1	-	-		-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.1	-	-	0.1	-	-	-	-		_	-	-		_	-	-	_	-		-	-	-	-	_	-
0.6	0.7	0.1	0.1	1.8	1.0	0.7		_	_		-		_	-	_	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	_	-	-	-	_	-		-	-	-	-	-	-	1307.9	967.7	73.5
-	-	-	-	-	1.5	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-			-				-	-	-	-	-	_	
	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	-	-
-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	0.9	-	-	5.6	-	-
-	-	-	-	0.1	-	-	-	-	-	_	-	-	1	-	-			-	-		-	-	-	_
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-				-	-	-		-	-	17 6	24.0	-	- 0 2	22.0	17 5	20 1	10 5	10.3	15.0	7.5	_	21.5	235.3
0 16.4	18.9	23.2	24.8	13.5	9.7	9.1	-	3.4 6.8	6.8	6.8		34.0 13.6	6.2		32.9	17.5	39.1	3.1	2.8	-	-	2.8		14.7
0.1		-	-	-		-	3.4	-	-	3.4	-	-	1.0		-	-	6.2	-	-	-	-	-	-	-
-	-	-	-	0.1	-	-	-	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.6	0.6	0.8	2.1	1.8	2.1	-	10.2	6.8	-	3.4	6.8	2.0	1.0	-	1.0	1.0	-	1.9	-	-	2.1		-
~	-	-	-	-	-		-	-	-	3.4	-	1	2.0	2.0	1.0	1.0	3.1	5.1	-	-	-	- 2.1	4.7	-
	 -	<u> </u>	<u> </u>		-	-	<u> </u>					-		-	-	-	-	-	-	-	-	-	0.9	-
1 0.2	0.1	0.2	0.1	1.5	1.8	1.2	585.0	619.0	1333.3	149.6	221.1	282.3	220.2	379.6	122.4	67.9	180.0	191.4	~	-	7.5	-	-	-
																			20.	10.0	27 /	10.0		14.7
6 34.2				21.3			98.6	204.0	176.9	129.2	193.9	207.5	135.8	150.2	137.8	334.4	301.4	295.3	20.6	12.2	37.4	12.2		73.5
8 2.8			0.3				-	-	_	-	-	-	_	_	_	-	-	_	-	-	_	-	-	-
1 -	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 -	-	-	-	-	0.2	0.1	988.7	785.7	741.5		506.8	1016.9	223.2	142.0	93.6	95.7	116.3	112.1	-	-			-	-
-	-	-	-							3.4														
-	_	-	0.1	-	_	-	-	-	_	-	-	_					-	-	-	-	-	-	-	-
							411700		2007											21111				
3 0.5	-	-	-	0.5	-	-	10.0	-	-		-	-	- 0 2	2.0	-	10.3	5.1	2.0	2.8	0.0	0.9	-	-	-
-	-	-	0.1	0.1	0.6	0.3	10.2	10.2	3.4	6.8	3.4	-	8.2			9.2	8.2		113.1			1.9	-	-
-	-			0.2	0.0	0.5		10.2	3.4	3.4	3.4													
-	-	-	-	0.2	-	-	-	6.8	-	13.4	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-
																								No.
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-		-	2.8	-	-
	-	0.1	-		-	-	-		_		-	3.4	-		_	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7	-	-
-	-	-	-	-	-	-	-	-	-	-	-	3.4		-	-	1.0	-	-	-	-	-		0.9	-
2 -		-	-	0.1	-	-	-	-			-	3.4	1.0	1.0	-			-	-		-	_	-	-
-				_												Desired Br								
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-	-
-	-	-	-	-	-	-	-	170.0	115.6	-	-	-	-	-	-	-	-	-	-	-	-	564.5	-	
W.																								

bottom.

	20	Oct '	7/		19 Nov 7	7/4		20 Dec 7	74		3 Jan 75	-		1 Jan 7	15
Organism	S 25	M	B	S	M M	В	Om	3m	15m**	S	M M	B	S	M M)
Organism		-11							13						
Bacillariophyta															
Amorpha sp.	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Asterionella japonica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bacteriosira fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biddulphia aurita	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cerataulina bergonii	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	3.00
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chaetoceros decipiens	_	-	0.1	-	-	-	_	-	-	-	-	-	-	-	
Chaetoceros spp.	-	-	-	-	-	-	_	-	0.1	-	-	-	-	-	
Chaetoceros spp. (Spore)	-	-	-	-	0.1	-	_	-	-	-	-	-	-	-	
Corethron hystrix	-	-	-	-	-	0.1	-	_	-	-	-	-	-	0.1	78
Coscinodiscus lineatus	_	-	-	-	_	-	-	-	-	_	0.1	-	-	-	(
Coscinodiscus radiatus	_	-	_	_		-	_	_	_	_	0.1	-	-	_	
Cyclotella striata	-	_	-	-	_	_	0.3	0.5	1.3	0.5	1.2	0.5	0.5	0.6	(
Cyclotella sp.	_	_	_	_	_	_	-	_	-	_	-	-	-	-	
Diploneis sp.						0.1									-
Eucampia zoodiacus	_	_				-			_	-	-		_	-	
Grammatophora marina	0.1	_						_	Property of						(
	0.1	_		0.1	0.1	0.3	-								-
Gyro-Pleurosigma sp.				0.1	0.1	0.3	0.2			_	_				
Hemiaulus sinensis		-		— <u> </u>			- 0.2			<u> </u>	0.1			<u> </u>	-
Leptocylindrus danicus	-							10.6	15.1	12.2	22.2	15.3	14.5	19.4	23
Melosira sulcata		0.8	0.6	7.1	3.8	4.2	23.0	10.6	15.1						2.
Navicula spp.	-	0.1	0.2	-	-	-	0.2	-	-	0.1	0.2	-	0.2	0.1	
Nitzschia bilobata		-	-	-		-	-	-	-	-	-	-	-	-	
Nitzschia closterium		-			0.1	-	-				-	-		0.2	-
Nitzschia sp.	-	-	-	-	-	-	-	-	-	-	0.4	0.1	0.5	1.1	(
Rhizosolenia delicatula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rhizosolenia hebetata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rhizosolenia shrubsolei	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Skeletonema costatum	-		0.5	0.2	-	0.5	0.1		0.1		0.1	-	-	0.7	(
Thalassionema															18
nitzschioides	0.1	0.4	1.1	17.3	14.4	13.6	70.2	63.6	57.8	38.6	34.7	36.2	58.2	61.4	62
Thalassiosira spp.	1.0	0.5	1.1	2.9	1.5	3.2	4.6	1.8	2.2	2.7	6.7	1.4	3.8	3.5	
Thalassiosira decipiens	-	-	-	-	-	-	-	-	-	-	0.7	1.0	0.9	1.1	-
Thalassiosira															
nordenskioldii	-	-	-	-	-	-	0.4	0.1	-	-	-	-	0.1	-	
Unidentified diatoms		-	-	-	-	-	-	-			-		-	-	
Chrysophyta															
Chrysochromulina sp.(cf)	33.0	-	-	1.1	0.1	0.9	0.9	0.5	0.5	0.3	0.2	-	-	-	
Distephanus speculum	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	
Ebria tripartita	-	-	-	-	-	-	0.2	0.2	0.1	-	0.1	-	-	-	
Euglenophyta															
Euglena sp.	-	-	-	-	-	-	-	0.2	-	0.1	-	-	-	-	
Pyrrophyta															
Dinophysis acuminata	1.3	-	0.2	-	-	-	_	_	-	0.1	0.1	-	-	-	
Glenodinium lenticula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gymnodinium variabile	0.1	-	-	-	-	_	0.2	-	-	-	-	-	-	-	
Gymnodinium sp.	-	-	-				-			-	-	-	-	-	- 19
Gyrodinium grave	-	-	-	0.3	0.1	0.2	_	-	_	-	-	-	-	-	
Oxytoxum diploconus(cf)	-	_	_	-	_	-	-	-	_	-	-	-	-	-	
Peridinium pentagonum	-	_	_	_	-	-	0.1	-	_	_	_	-	-	-	28
Peridinium trochoideum	-	-	-				-		_	_	-	-	-	-	1
Peridinium sp.															108
Phalacroma rotundatum			0.1			-	-	-							310
Prorocentrum redfieldii	10.6	1.4			-	-		-			-				1
	10.0	1.4	1.2	0.2		-	-	-	1 To	-					177
Prorocentrum .scutellum	-	-	0.3	0.3	0.2	-	-	-	-		-	-	-	-	
Prorocentrum															1
triangulatum					-	-	-		-		-				
Unidentified flagellates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom unless stated in metres.

** Sampling depths in metres correspond to 100%, 10%, and 1% of incident light intensity.

Table F2b y Depth* at Station EN2-1 Within Proposed Disposal Site

	20 Feb 7	75		24 Mar 7	5		0 1 -			22 1							
Om	4m	9m**	Om	3m	6m**		9 Apr 75			22 Apr 7	5		6 May 7	5		10 Jun 7	
Ou	411	711111	Our	3111	ОШАХ	<u></u>	M	В	S	<u>M</u>	В	S	_ <u>M</u> _	B	S	<u>M</u>	<u>B</u>
-	-	-		-	-	_	-	_	-	-	-	-	-	_	_	-	-
-	-	-	115.6	30.6	27.2	193.4	48.4	21.6	173.9	693.4	232.5	-	-	-	0.9	-	-
-	:	-	319.7 102.0	248.3	64.6	107.0	5.1	3.1	-	6.2	6.2	-	-	_	-	-	-
-	-	_	-						- -				<u>-</u> -				
-	-	-	-	-	-	-	-	_	1.0	10.3	4.1	-	_	-	-	_	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	_			-	-	-	-	-	-	-	-	3.7	-	-
-				 -		— <u>:</u> —				-							
-	-	-	-	-	-	-	-	_	-	-	-	_	_	_		-	_
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.0	0.1	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-			- -			<u></u> -			- -						1129.0	910.6	14.
-	-	-	_	_	-	-	-		_	_	_	_	Ī	<u> </u>	6.5		_
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-						11.3			<u> </u>	7.2	3.1		<u> </u>	 -			
8.1	8.0	5.4	159.9	_		6.2	77.2	39.1	81.2		21.6	3.7	9.4	30.9		7.5	58.8
0.8	1.1	0.3	-	6.8	3.4	-	-	3.1	-	2.0	-	-	-	-	-	0.9	-
-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4	1.6	0.7	3.4	6.8	3.4				<u></u>	1.0						-	
-	-	-		- 0.0	-		1	_	-	-		-	-	-	21.5	1.9	- [
-	-	-	3.4	-	-	13.4	1.0	1.0	5.1	6.2	1.0	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
0.9	0.3		2472.7	1173.4	261.9	419.8	473.2	220.2	142.0	292.2	85.4		-	14.0			-
7.5	43.2	39.7	204.1	170.0	197.3	156.4	114.2	136.8	379.6	167.7	213.0	23.4	52.4	134.6			
0.7	20.7	11.3	-	-	-	-	-	-	-	-	-	-	-	-	1.9	6.6	73.5
3.2	3.4	2.5	-	-	-	-	-	-	-	-	-	-	-	22.4	-	-	-
			1055 1	1001 (170 0											
0.4	-	-	1255.1	1081.6	462.5	173.9	139.9	121.4	112.1	227.4	75.1	-		-	-	-	-
0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	6.8	-	-		1.0	3.1	3.1	7.2	5.1	-	0.9	-	-	-	-
0.2	0.3	0.4	3.4	13.6	-	4.1	4.1	3.1	5.1	14.4	12.3	47.7	34.6	8.4	0.9	-	-
0.1	0.2	-	-	3.4	-	1.0	-	-	-	-	-	-	0.9	0.9	-	-	-
-	_	_	_	3.4	_	_	_	-	_	-	-	_	-		_	0.1	
-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	10.3	- 0.1	-
-		-	-	-			-	-	-	-	-	-	_	-	-		
-	-	-	-		-	-		-	-	-	-	-	-	-	2.8	0.9	-
-	-	-		3.4		_		Ξ	-	-	1	_	-	-	-		-
-	-	_	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_
-	-	-	-	-		-		2.0	-	-	-	-	-	-	-	-	-
-	-	-	-	6.8		-	-	-		-	-	-	-	-	-	-	-
_		-										-	-			-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-				-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	1.9	-
	-	-	47.6	40.8	51.0	-	-	-		-	-		-		645.2	-	

Table F2c Total Cell Count of Each Species by Depth* at Station EN2-2 Within Proposed Disposal Site

B S M B S M B S - - - 243.5 16.2 64.9 17.0 - - - 730.5 275.9 178.5 115.6 - - - - - - - - - <td< th=""><th></th><th>29</th><th>Oct</th><th>74</th><th>15</th><th>Nov</th><th>74</th><th>21</th><th>Jan 7</th><th>.5</th><th>Samparang</th><th>24 Mar 75</th><th>1</th><th>1</th><th>Apr 75</th><th></th><th>2</th><th>2 Apr 7</th><th>5</th></td<>		29	Oct	74	15	Nov	74	21	Jan 7	.5	Samparang	24 Mar 75	1	1	Apr 75		2	2 Apr 7	5
## Special control con	Organism	s	M	8	S	×	B	S	X	B	S	W	8	S	Σ	1	S	×	B
Language	Bacillariophyta		1	-	1		1			-									
Refigilités	Asterionella japonica	0.5	,	1	1	1	,	1	1	1	243.5	16.2	6.49	17.0	9.49	17.0	376.5	332.4	81.3
## septicipates	Bacteriosira fragilis	1	,	•	1	1	,	i	1	1	730.5	275.9	178.5	112.6	34.0	10.2	,	,	1
## debtilish =	Biddulphia aurita	•	,	•	1	,	,	•	1	1	1	113.6	1	1	1	,	,	,	,
The series of th	Chaetoceros debilis	1	,	1	1	1	,	1	ı	1		•	•		1	,	1.0	10.3	,
Authorities 2.	Chaetoceros spp. (spore)	1	,	1	•	1	,	•	0.1	1		1	•	1	1	1	1	,	,
constituted as	Corethron hystrix		,		0.2		,	-	,	-		1			1	1	1	1	,
### destricts = 0.2 = 0.5 0.7 0.3 = 0.5 0.7 0.3 = 0.5 0.7 0.3 = 0.5 0.7 0.3 = 0.2 0.1 = 0.1 = 0.1 = 0.2 0.1 = 0.1 = 0.2 0.1 = - 0.1 = 0.2 0.1 = - 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.1 = 0.2 = 0.2 = - 0.2	Coscinodiscus lineatus	1	,	1	•	0.1	,	0.1	•	1		1	1	1	1	1	1	,	1
overging app. draws derived - 0.2 0.1 0.1 draws derived - 0.2 0.1 0.1 draws derived - 0.2 0.1 0.1 - 0.1 0.1 - 0.1 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.2 0.1 - 0.3 0.1 - 0.3 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.4 0.1 - 0.5 0.2 - 0.5 0.3	Cyclotella striata	1	1	1	,	1	1	0.5	0.7	0.3	1	•		1	•	1	1	1	,
The designate sp 0.2 0.1 - 0.1 - 0.1	Grammatophora marina	1	0.2	1	,	1	1			1	•	1		•	1	•		1	1
trained danicals	Gyro-Pleurosigma sp.	1	0.2	0.1	,	0.1	1	1	1	1		ı	1			-	1		1
tackina 0.4 0.1 0.5 2.6 3.8 4.2 10.1 7.8 22.4 5.4.9 16.2 112.2 5.7 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Leptocylindrus danicus	'	1	-	,		0.1	1	,		1	•				•		2.0	1
ulcata 0.4 0.1 0.5 2.6 3.8 4.2 16.7 17.8 22.4 - 64.9 16.2 112.2 - 20.4 - 5.1 10.0 - 0.2 0.1 - 0.1 0.1 - 0.2 32.4 32.4 136.1 - 3.4 - 1.0 1.0 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0	Melosira italica	1	1	•	,	1	1	0.1	1	1	ı	•	1		1	•	1	1	•
Pgr. 1.0 0.1 0.1 0.1 0.1 0.1 0.1 0.2 32.4 32.4 136.1 0.1 0.1 0.1 0.1 0.2 32.4 32.4 136.1 0.1 0.1 0.1 0.1 0.1 0.2 32.4 32.4 136.1 0.1 0.1 0.1 0.1 0.2 32.4 32.4 136.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Melosira sulcata	4.0	0.1	0.5	5.6	3.8	4.2	16.7	17.8	22.4	•	6.49	16.2	112.2		20.4	1	5.1	6.2
Secretarium 1.2 - - 0.3 - - - - - - - - - - - - - - - - - - -	Navicula spp.	1	0.2	0.1	,	0.1	0.1	1	,	0.5	32.4	32.4	136.1	1	3.4	1	•	1.0	1
spring hebetata	Nitzschia closterium	1.2	1	•	,	0.3	ı	1	1	1	•	,	•	1		•	2.0	1.0	
tià hebetata 0.2 1.4 0.5 - 0.2 - 0.4 0.3 - 2191.5 2094.1 2970.1 85.0 142.9 98.6 72.0 184.2 sena constatum 0.2 1.4 0.5 - 0.2 - 0.4 0.3 - 2191.5 2094.1 2970.1 85.0 142.9 98.6 72.0 184.2 oldes 0.4 1.1 0.9 16.0 10.9 7.7 52.0 62.4 63.7 259.7 487.0 113.6 115.6 146.2 78.2 169.8 250.0 3 oldes sep. 10.0 1.6 1.0 3.8 2.1 1.3 3.8 4.1 4.1	Nitaschia sp.				,		1	0.5	1.3	9.0	48.7	,		3.4	3.4				1.0
ta costatum 0.2 1.4 0.5 - 0.2 - 0.4 0.3 - 2191.5 2094.1 2970.1 85.0 142.9 98.6 72.0 184.2 emas are an analysis of desired at the costatum 0.4 1.1 0.9 16.0 10.9 7.7 52.0 62.4 63.7 259.7 487.0 113.6 115.6 146.2 78.2 169.8 250.0 5 i.m. and a corpus an article at the corpus and a corpus and a corpus at the corpus at the corpus and a corpus at the corpus and a corpus at the corpus at the corpus at the corpus and a corpus at the corpus at	Rhizosolenia hebetata	•	,	1	,	1	1	1	1	1		,	•	•	•	1	5.1	3.1	3.1
tiva age, 0.4 1.1 0.9 16.0 10.9 7.7 52.0 62.4 63.7 259.7 487.0 113.6 115.6 146.2 78.2 169.8 250.0 5.0 6.8 4.1 4.1 4.1 5.0 10.0 1.6 1.0 3.8 2.1 1.3 3.8 4.1 4.1 5.1 5.1 5.0 5.0 1.0 1.0 1.6 1.0 3.8 2.1 1.3 3.8 4.1 4.1 5.1 5.1 5.0 1.0 1.0 1.6 1.0 1.0 1.8 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Skeletonema costatum	0.2	1.4	0.5	1	0.2	1	0.4	0.3	•	2191.5	2094.1	2970.1	85.0	142.9	98.6	72.0	184.2	8.86
iting agapt, 10.0 1.6 1.0 9 1.7 52.0 62.4 63.7 259.7 487.0 113.6 115.6 146.2 78.2 169.8 250.0 1.7 for deathier sp., 10.0 1.6 1.0 3.8 2.1 1.3 3.8 4.1 4.1	Thalassionema																		
tira decipiens	nitzschioides	0.4	1.1	6.0	16.0	10.9	1.1	52.0	62.4	63.7	259.7	0.784	113.6	115.6		78.2	169.8	250.0	311.7
tira decipiens 0.6 1.9 1.8 0.6 1.9 1.8 0.3 0.1 0.1 3425.3 2970.7 2402.6 615.6 398.0 483.0 47.3 129.6 13.6 dd atoms 0.3 0.1 0.1 3425.3 2970.7 2402.6 615.6 398.0 483.0 47.3 129.6 13.4 dd atoms 0.1 0.2 0.1 0.2	Thalassiosira spp.	10.0	1.6	1.0	3.8	2.1	1.3	3.8	4.1	4.1	,	1	1		1			-	-
itina diatoms	Thalassiosira decipiens	•	1			1	,	9.0	1.9	1.8	,	1			1	1	,	1	
### datacoms	Thalassiosira											1					1	,	
ad diatoms 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.2	nordenskioldii	1	ı	,	1	1	ı	0.3	0.1	0.1	3425.3	2970.7	2402.6	615.6	398.0	483.0	47.3	129.6	109.0
## se speculum	Unidentified diatoms	1	ı	,	ı	ı	1	,	0.1	0.5	1	1	1	1	ı	1		1	
######################################	Chrysophyta																		
As speculum	Chrysochromulina sp. (cf)	17.3	0.5	0.1	1.0	0.5	0.7	,		1						-		-	
sacuminata 2.4 32.4 m variatile 3.0 32.4 m variatile 3.0	Distephanus speculum	"	1	,	ı	•	1	0.1	1	0.5		1				3.4	29.8	9.3	6.2
a acuminata 2.4	Ebria tripartita	(1	,	1	1	ı	0.1	1	,	32.4	16.2	16.2	3.4	ı	3.4	20.6	× ×	13.4
acuminata 2.4	Euglenophyta														,				
acuminata 2.4	Euglena sp.	,	1	,	1	,	1	1	1			81.1	16.2	10.5	8.9	1	1		1
3.0 - 0.2 - 1.1 0.4 0.2 - 0.1	Pyrrophyta	-			1											-		-	-
13.1 0.4 0.2 - 0.1	Dinophysis acuminata	7.7	1	1	1	,	ſ	1	1		1	1	,			,	,	,	•
13.1 0.4 0.2 - 0.1 - 0.1 - 0.6 0.2 0.2 0.1 - 0.6 0.2 0.2 0.1 - 0	Gymnodinium variabile	3.0	1	1	0.2	,	(1	1	,	1	1	,				•	1	1
0.6 0.2 0.2	Prorocentrum redfieldii	13.1	0.4	0.5	ı	0.1	1	0.1	1	1	1		16.2	3.4			,	•	•
	Prorocentrum scutellum	9.0	0.2	0.5	1	1	1	1	1	,	1	1	1		,	,		,	ı
	Unidentified flagellates	,	•	1	1	,	,	0.1	1	0.1	1	•	1	,	,			,	

* Total cell counts are given as cells/liter \times 10 3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F2d

Total Cell Count of Each Species by Depth* at Station EN2-3

Within Proposed Disposal Site

					Samp	ling D	ate and	Depth				
	19	Nov 7	74		21 Ja			Apr 75	,	2	2 Apr 7	5
Organism	S	M_	В	S	M_	В	S	M	B	S	M	В
Bacillariophyta												
Asterionella japonica	-	-	-	-	-	-	83.3	20.5	-	245.9	171.8	51.
Bacteriosira fragilis	-	-	-	-	-	-	133.7	24.7	-	-	2.0	-
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	5.1	-	-
Cyclotella striata	-	-	-	0.8	0.7	-	-	-	-	-	-	-
Gyro-Pleurosigma sp.	-	-	0.1	-	-	-	-	-	-	-	-	-
Leptocylindrus danicus	-	-	-	-	-	-	-	-	-	11.3	-	-
Melosira islandica	-	-	0.1	-	-	-	-	-	-	-	-	-
Melosira sulcata	0.5	0.8	3.8	10.7	24.8	14.5	15.4	27.8	-	-	4.1	24.
Navicula spp.	-	-	-	-	-	0.1	-	1.0	-	-	-	-
Nitzschia closterium	-	0.1	-	-	-	-	-	1.0	-	2.0	-	-
Nitzschia sp.	-	-	-	0.7	1.2	0.3	-	-	-	1.0	3.1	-
Rhizosolenia hebetata	-	-	-	-	-	-	2.0	2.0	_	3.1	-	_
Skeletonema costatum	_		_		0.1	0.1	238.7	69.9	_	78.2	92.6	59.
Thalassionema												
nitzschioides	13.2	14.2	9.6	46.1	68.3	59.8	118.3	78.1	_	59.7	241.8	283.
Thalassiosira spp.	1.5	3.1	2.1	2.8	3.7	2.7	-	-	-	-	-	-
Thalassiosira decipiens	_	-	-	2.7	2.6	2.8	-		-	-	_	-
Thalassiosira												
nordenskioldii	-	_	0.1	_	_	_	443.4	255.1	_	70.0	115.2	90.
Unidentified diatoms	_	-	-	0.1	0.7	0.1	_	-	_	-	_	-
Chrysophyta												
Chrysochromulina sp. (cf)	0.8	1.1	0.6		-	-	_		-	-	-	-
Distephanus speculum	-	-	-	0.1	0.1	-	_	-	_	3.1	10.3	5.
Ebria tripartita	0.1	-	-	0.1	0.1	0.1	-		_	14.4	3.1	10.
Euglenophyta					0.1						3.1	10.
Euglena sp.	-	_	-	-	_	-	5.1	1.0	_	-	_	_
Pyrrophyta					-				-			
Dinophysis acuminata	0.1	-	-	_	0.1		_	_	_	_	_	-
Gymnodinium variabile	0.2	0.1	0.1	-	-	-	_	-	-	_	-	-
Gyrodinium grave	-	0.1	_		-	_	1 2 4	_	_	_		_
Prorocentrum redfieldii	-	0.2	0.1	_	_		2.0	_	_	-	-	_
Prorocentrum scutellum			0.1									

^{*} Total cell counts are given as cells/liter x 10^3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F2e

Total Cell Count of Each Species by Depth* at Station EN2-4 Within Proposed Disposal Site

							and Dep	th				
	1	9 Nov			1 Jan	75	1	Apr 75			2 Apr 7	
Organism	<u>S</u>	_ M	<u>B</u>	<u>S</u>	M_	<u>B</u>	S	M	<u>B</u>	S	M	_ <u>B</u>
Bacillariophyta												
Actinoptychus undulatus	-	-	-	0.1	-	-	-	-	-	-	-	-
Asterionella japonica	-	-	-	-	-	-	36.0	47.3	12.3	201.6	109.0	60.7
Bacteriosira fragilis	-	-	-	-	-	-	89.5	66.9	15.4	-	-	-
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	5.1	-	3.1
Chaetoceros decipiens	-	-	-	-	-	-	-	-	-	1.0	-	-
Chaetoceros spp.	-	0.1	-	-	-	-	-	-	-	-	-	-
Chaetoceros spp. (Spore)	-	-	0.1	-	-	-	-	-	-	-	-	-
Coscinodiscus centralis	-	-	0.1	-	-	-	-	-	-	-	-	-
Coscinodiscus lineatus	-	0.1	-	-	-	-	-	-	-	-	-	-
Cyclotella striata	-	-	-	0.2	0.5	0.6	-	-	-	-	-	-
Eucampia zoodiacus	0.1	-	0.1	-	0.1	-	-	-	-	-	-	-
Grammatophora marina	-	-	-	-	-	-	1.0	-	-	-	-	-
Gyro-Pleurosiama sp.	-	0.1	0.1	-	-	-	-	-	-	-	-	-
Leptocylindrus danicus	-	-	-	-	-	-	-	-	-	1.0	-	-
Melosira italica	-	-	-	0.1	-	-	-	-	-	-	-	-
Melosira sulcata	2.1	6.7	3.8	12.4	21.6	16.2	14.4	16.5	-	19.5	7.2	65.8
Navicula spp.	-	-	-	-	-	-	-	1.0	1.0	2.0	1.0	4.1
Nitzschia closterium	0.1	0.2	-	0.1	0.1	-	-	2.0	-	-	1.0	1.0
Nitzschia sp.	-	-	-	0.8	0.8	-	4.1	1.0	1.0	-	-	-
Rhizosolenia hebetata	-	-	-	-	-	-	2.0	2.0	-	4.1	-	-
Skeletonema costatum	-	0.2	0.1	0.1	0.1	-	61.7	233.5	298.4	38.1	59.6	148.1
Thalassionema												
nitzschioides	21.1	17.0	19.7	53.8	65.0	59.7	81.3	87.4	106.0	189.3	311.7	328.2
Thalassiosira spp.	5.2	4.8	4.9	2.7	3.1	2.6	-	-	-	-	-	-
Thalassiosira decipiens	-	-	0.1	2.7	2.5	2.4	-	-	-	-	-	-
Thalassiosira					4							
nordenskioldii	0.1	-	0.5	-	-	-	322.0	366.3	257.2	55.5	115.2	104.9
Unidentified diatoms	-	-	-	-	0.1	-	-	-	-		-	- 1
Chrysophyta												
Chrysochromulina sp. (cf)	0.5	0.6	0.6	-	-	-	-	-	-	-	-	-
Distephanus speculum	-	-	-	0.1	0.1	-	-	1.0	-	24.7	8.2	3.1
Ebria tripartita	-	-	-	0.1	-	-	1.0	4.1	2.0	21.6	8.2	7.2
Euglenophyta												
Euglena sp.	-	-	0.1	-	-	-	1.0	-	-	-	-	-
Pyrrophyta												
Dinophysis acuminata	0.1	-	0.1	-	-	0.2	-	-	-	-	_	_
Gymnodinium variabile	0.1	0.1	-	-	-	-	-	-	-	-	-	-
Gymnodinium sp.	-	-	-	0.1	-	-	-	-	-	-	-	-
Prorocentrum redfieldii	-	0.2	0.1	-	-	-	-	-	-	-	-	-

^{*} Total cell counts are given as cells/liter x 10^3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom.

Table F2f

Total Cell Count of Each Species by Depth* at

Station EN2-5 Within Proposed Disposal Site

	19 No	7	1/4		Jan 7	te and	2	2 Apr 7	5
0	S		-				S	M M	
Organism	5_	M	B	<u>S</u>	<u>M</u>	<u>B</u>	_5_		B
Bacillariophyta									
Asterionella japonica	0.1	-	-	_	-	-	283.9	114.2	59.6
Chaetoceros debilis	-	-	-	-	-	-	10.3	6.2	-
Coscinodiscus radiatus	-	-	-	-	-	0.2	_	-	-
Cyclotella striata	-	-	-	0.8	0.5	0.2	-	-	-
Melosira sulcata	1.7	-	-	15.3	22.1	19.4	22.6	12.3	17.4
Navicula spp.	-	-	-	0.3	0.5	0.1	1.0	2.0	6.2
Nitzschia closterium	0.2	-	-	0.1	-	-	2.0	3.1	1.0
Nitzschia sp.	-	-	-	0.2	0.7	0.1	-	-	-
Rhizosolenia hebetata	-	-	-	-	-	-	10.3	-	2.0
Skeletonema costatum Thalassionema	-	-	-	-	•	0.1	39.1	161.5	176.0
nitzschioides	21.1	-	-	52.6	72.4	71.4	218.1	210.9	330.2
Thalassiosira spp.	3.8	-	-	3.5	2.1	1.3	-	-	-
Thalassiosira decipiens Thalassiosira	-	-	-	2.2	1.8	2.7	-	-	-
nordenskioldii	-	-	-	0.2	-	-	61.7	91.6	139.9
Unidentified diatoms Chrysophyta	-	-	-	0.4	-	-	-	-	-
Chrysochromulina sp. (cf)	2.4	_	_	_	_	-	_	-	_
Distephanus speculum		-	-	-	0.2	0.1	25.7	11.3	8.2
Ebria tripartita	0.74	-	-	0.1	0.2	0.3	20.6	4.1	6.2
Pyrrophyta									
Prorocentrum scutellum	0.2				The state of				

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

												ALIEN			
	25	9 Oct 7	74	1	19 Nov 7	14		20 Dec 7		•	3 Jan 75	5	7	21 Jan 7	15
Organism	S	M	В	S	M_	В	Om	3m	15m**	S	M_	В	S	M	
	ALKY														1
Bacillariophyta							AND	ATTEMPT OF			0.1		ARTIST		1
Actinoptychus undulatus	-	-,	MILEY		AT LET W						0.1	ALVOY	A THE REAL PROPERTY.		19
Asterionella japonica	-	0.1			The state of		No. of Party	ANGELLY	King Salah	2 1 TO 19	-		AND DEV	AUTON	1
Bacteriosira fragilis							PARTIES			-	-		ALCOHOL: N		1
Biddulphia aurita						-									
Cerataulina bergonii	-	-	-		-	0.1	A TOWN		ASSET STATES	-	-	-	-	-	
Chaetoceros debilis	-	-	-	-	-	-				-	-	-	2517.27		- 1
Chaetoceros decipiens	-	-	AND TO STATE OF		- 1	-	-	- W	0.3	-	-	-	-	-	- 3
Chaetoceros spp.	-	-	0.1	-	-	-	0.1	-	•	-	-	-	-		
Chaetoceros spp. (Spore)	-	-	-	-		-		-					-	-	0.
Coscinodiscus centralis	-	-	-	- 19		-	-	-	-	-	-	-	-	0.1	
Coscinodiscus granii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Coscinodiscus radiatus	-	- 1	- 7	-	0.1	-	-	-	-	-	0.2	-	-	-	1
Cyclotella striata	-	-	-	-	-	-	0.7	1.0	1.5	0.6	1.3	0.3	0.2	0.7	0.
Cyclotella sp.	-	-	-	-	-	-	-	_			-	-	-	-	
Detonula confervacea	-	-	-			-	-	-	-	-	-	-	-	-	
Eucampia zoodiacus	-	- /	A - 10	0.2	-	-	-	-	-	-	-	-	-	-	1
Grammatophora marina	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-
Gyro-Pleurosigma sp.	0.2	0.1	0.7	0.1	- 1	-	-	0.1	-	-	-	-	-	-	1
Hemiaulus membranaceus			44-17			-		-	0.1	-	_	-	-	-	0
Melosira sulcata	0.3	0.1	0.5	5.0	3.3	7.5	11.1	13.2	12.7	15.9	28.6	18.5	13.5	9.7	18
Navicula spp.	_	0.3	0.3	-	0.1	_	-	0.2	0.6	-	0.2	0.1	-	0.1	0
Nitzschia closterium	0.2	0.1	0.1	_	0.1	0.2		-		-	-	-	-	-	100
Nitzschia sp.	-	-			-	-	6 H 10 W			0.3	0.2	-	0.4	0.9	0
Rhizosolenia delicatula	A STATE OF	_	12 23		-				_	-	-	_	-	-	
Rhizosolenia hebetata			— <u> </u>		-			<u>-</u> _				-			
Skeletonema costatum	0.1	0.5	0.1		0.1	0.4		0.2	0.1	0.1			0.1	0.1	0
Thalassionema	0.1	0.5	0.1	ARREST	0.1	0.4		0.2	0.2	0.1	ALLEN	AL INST	0	0.2	
nitzschioides	0.8	1.0	1.8	17.7	20.8	19.3	60.2	67.6	57.3	35.2	43.7	18.4	67.6	54.5	69
	0.8	1.0	2.6	4.6	20.8	2.2	2.1	2.9	2.5	6.9	7.8	0.9	4.1	4.0	5
Thalassiosira spp.	0.0	ALBITER	2.0				2.1		-		2.0	0.9	1.0	1.2	1
Thalassiosira decipiens	0.1			0.3	2.3	5.8		0.3	— <u>:</u> —	1.1	-	0.8	1.0	1.2	-
Thalassiosira gravida	0.1	ALL ST	ABUTY			ANTEN						N. S. S.	ABUTTO		3
Thalassiosira	ATTE	AND THE REAL PROPERTY.	AND	1 4	0.2	0.1			0.1		ALC: Y	ATTE BY	_	0.2	
nordenskioldii				1.4	0.3	0.1	ANDER						AHERY	0.2	
Thalassiosira rotula	ALTER	ART THE		A REST	-	ARM TON	ASSET OF		-		-		2.1	-	
Unidentified diatoms	-	-	-	-	-	-	-	-	-	7			0.1	Control of	1
Chrysophyta	A SECTION AND ADDRESS OF THE PARTY OF THE PA							2.0				2.2	2.1		
Chrysochromulina sp. (cf)	-			0.7	0.9	-	0.4	0.3	1.4	- 1	-	0.2	0.1	-	
Distephanus speculum	113	-	-	-	-	-	0.1	0.1		0.1	0.2		0.1	-	
Ebria tripartita	- 5 NV	-	-	-	-	-	0.2	-	0.1	0.4	-	0.1	0.2	0.3	3
Euglenophyta					ATTANT !										
Euglena sp.		-			0.2	-	-				-	-			0
Pyrrophyta	AMB	The state of the s	AHW	Alaysiy.			ALLEY	ATTEN V							1
Dinophysis acuminata	0.3	0.3	0.6	-	- 1/	-	-	-	0.1	-	-	-	-	-	
Glenodinium lenticula	-	-	-			-	-	-	-	-	-	-	-	-	
Gymnodinium variabile	0.6	-	0.1	-	-	-	- 3	0.1	-	-	-	-	-	-	1
Gymnodinium sp.	-	-	-	-		-	-	- 7	-	-	-	-	-	-	
Gyrodinium grave	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Peridinium (cf)															
minusculum	-	-	-	-	-	35 -17	Allegan	_	_	-	-	-	-	-	1
Peridinium sp.	-	-	-	-			_	_	A 8	-	-	-	-		
Prorocentrum redfieldii	4.0	1.1	1.2	0.2	0.2	- 19 - 18	ATTENT	AND DO			-	-	-	-	
Prorocentrum reajietati Prorocentrum scutellum	0.2	0.3	0.1	-	0.2		ALC: Y	Mary V	_	A SECTION	-	-	-		
Prorocentrum Scutellum Prorocentrum	0.2	0.5	0.1		0.2										
	AND THE	A SECOND	DESTRUCTION OF THE PARTY OF THE	ARREST	ALC: U	A THE STATE OF	ALL DEST	ALC: U		ATTE DIST		-	A SECULIA	ASSET V	
triangulatum	ATTENY.						14.5			A STATE OF	RHIN	ARTEST	0.1		1
Unidentified flagellates	-	-	-	38 45 61	-	-	- 9	- 7		-	-		0.1		-

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

**Sampling depths in metres correspond to 100%, 10%, and 1% of incident light intensity.

ble F2g

pth* at Station EN3-1 Outside Proposed Site

	-		ate and I														
2	O Feb 7			4 Mar 75		9	Apr 75		2	2 Apr 75		6	May 75			0 Jun 75	
Om	4m	9m**	Om	3m_	6m**	<u>s</u>	<u>M</u>	_ <u>B</u>	S	<u>M</u>	<u>B</u>		<u>M</u> _	<u>B</u>	<u>s</u>	_ <u>M</u>	-
															_	_	
-	-	-	47.6	57.8	27.2	64.8	14.4	24.7	12.3	52.5	42.2	-	-	-	-	-	
-	-	_	292.5	187.0	197.2	20.6	1.0	5.1	-	-	-	-	-	-	-	-	
_	0.2	-	-	-	-	-	-	-	-	-		-	-	-	-		_
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	2.0	-	2.0	-		-	_	-	
-	-	-	-	-	-	-			-	-		-	-	-	_	-	
0.1	-	-	-			-	-	-	-	-	_	-	-	-	-	-	
	<u> </u>			- -		-	-	-	-	-	-	-	-	-	-	-	
-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
0.2	0.2	0.1	-	-	-	-	-	-	-	-		-	-	-	1209.7	1129.0	
-	-					<u></u>									-	-	_
-	4.6	_	-	-	-	_	-	-	-	-	-	-	-	-	-	-	
_		-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-				-			-	9.2		19.5	2.0	2.8	 -			34.6	_
3.4	14.0	4.8	23.8		71.4	5.1	2.0	9.2	-	1.0	2.0	2.0	_	_	-	-	
1.3	1.4	0.5	13.6	3.4	6.8		-	_	_	-	-	-	-	-	-	-	
2.2	2.1	0.5	5.4	10.2	6.8	-		-	_	-	-	-	-	-	-	-	
-	-	-	_	-	-	-	-	-	-	-				-	15.9	1.9	
		-	3.4	-	-	5.1	2.0	-	-	5.1	1.0	-	-	-	-	-	
1.5	2.7	-	911.5	394.5	496.6	157.4	29.8	102.9	40.1	52.5	96.7	-	10.3	-	-	-	
			100 0		40.8	159.5	169.8	170.8	161.5	242.8	265.4	19.6	37.4	55.2	5.6	8.4	
3.9	49.0	41.6	129.2	64.6	40.0	139.3	109.0	-	-	-	-	-	-	-	0.9	8.4	
4.3	1.2	1.8	-	-	-	-	-	_	-	-	-	1.9	4.7	4.7	-	-	
-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
											00.0						
-	-	-	921.8	860.5	927.8	102.9	59.7	93.6	32.9	84.4	82.3	-	-	-		-	
-	-	-	3.4	-			-	-		_	-	-	-	-	-	-	
-	-	_															_
					-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	3.4	-	6.8	2.0	1.0	3.1	89.5	54.5	11.3	-	25.5	9.4	1.9	0.9	
-	-	0.1	6.8	6.8	6.8	6.2	3.1	1.0	8.2	22.6	2.0	72.9	35.5	9.4	1.9	0.9	
0.1		_	-	_	_	1.0	_		_	-	-	-	-	-	-	-	
0.1						1.0											
-	-	-	-	-	-	-	-	-	-			_	-	-	0.9	-	
-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	
-	-		_			-			1.0	-	-	-	-	-	4.7	-	
0.1			-	-			-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9 2.8	-	
-	-	-	-		-	-	-	-	-	-	-		-	-			
-	-	-	10.2	13.6	6.8	-	•	-	-	-	-	-	-	-	-	-	
			_ - _	-			<u> </u>										
-	-	-	17.0	3.4	-	-	-	-	-	-	-	-	-	-	5.6 887.1	725.8	
-	-	-			-	-		-	-		100	-	-	-	887.1	125.8	

Table F2h

Total Cell Count of Each Species by Depth* at Station EN3-2

Outside Proposed Disposal Site

	Sampling Date and Depth									
		Apr 75								
Organism	S	M	В							
Bacillariophyta										
Asterionella japonica	57.8	27.2	37.4							
Bacteriosira fragilis	112.2	37.4	34.0							
Melosira sulcata	_	10.2	34.0							
Nitzschia sp.	-	-	6.8							
Rhizosolenia hebetata	3.4	-	3.4							
Skeletonema costatum	105.4	47.6	81.4							
Thalassionema										
nitzschioides	88.4	78.2	108.8							
Thalassiosira										
nordenskioldii	663.3	605.4	428.6							
Chrysophyta										
Ebria tripartita	3.4	3.4	-							
Euglenophyta										
Euglena sp.	-	3.4	-							
Pyrrophyta										
Gymnodinium variabile	3.4	-								
Prorocentrum redfieldii	6.8	-	-							

^{*} Total cell counts are given as cells/litre x 10^3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F3a

Percent Composition of Each Species by Depth* at Station EN1 within Pr

																8000				
				A STATE OF												5	sampl:	ing Da	ate and	
	29	9 Oct	74		Nov) Dec			Jan :			Jan '		20 Feb 75				4 Mar
Organism	S	М	В	S	_M_	B	<u>S</u>	<u>M</u>	<u>B</u>	S	<u>M</u>	<u>B</u>	<u>s</u> -	<u>M</u>	<u>B</u> _	<u>s</u> .	<u>M</u>	_ <u>B</u>	<u>s</u>	M
Bacillariophyta																				1
Asterionella japonica	-	-	-	-		-	-	- 7	-	-	-	-	-	-	-	-	-	-	2.3	1.9
Bacteriosira fragilis	-	-	-	- 7	-	-	-	-	-	- 1	-	-	-	-	-	-	-	-	14.1	7.8
Biddulphia aurita	-	-	-	-	-	11-37	10-1	-	-	-	-	-	-	-	-	0.1	-	0.1	-	- 1
Biddulphia rhombus	-	-	-	0.4	-	-	-	-	-	0.2	-	-	-	-	-	8 -	-	-	-	-
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Chaetoceros decipiens	-	-	-	-	-	-		-	0.3		0.5	-	-	-	-	-	-	-	-	-
Chaetoceros spp.	0.6	3.7	-	0.8	-	0.6	0.5	0.2	-		-	7	-	-	-	-	-	-	-	-7
Chaetoceros spp. (Spore)	-	-	-	-	0.4	-	-	0.2		-	-	-	-	-	-	5	- 1	-	-	-
Cocconeis sp.	-	-	-	-	-	-		A STATE			-	-			-		0.1	-		
Corethron hystrix	-	-	-	0.4	-							-		-	-		-	-		-
Coscinodiscus centralis	-	-	-	-	-	-	- 5	- 2	-		0.2	0.2	-	-	0.1			0.1		
Coscinodiscus lineatus	-	-	ALT Y	ENEW	-		0.5		2 1		0.2	0.2	A STATE OF	A SY	0.1	1327				
Coscinodiscus radiatus							-	2.0	0.1	2.7	1.9	1.1	0.9	0.1	0.1	1.8	1.1	0.8	AND	
Cyclotella striata	ALTER V	ALTE	ALTE V	18.	ALC: Y			2.0	0.9	2.,	1.,	1.1	0.5	0.1	0.1	1.0	1.1	0.0	2000	-
Cyclotella sp.											-				-	-	1.7	0.1	-	
Detonula confervacea		A STATE		AF TOTAL		ANTO		0.2	-	MEN		BLE	ART.		10 Lay	-8-19	1.,	-	AREN	
Diploneis sp.							ALL T	0.2	ALLEY	E-16 - 67		MEN	MIN		SEE ST	1			A SERVICE	
Ditylum brightwellii	Mily		1.1	1 0	0.8	1.7		MAN					450					45	A DELY	-
Eucampia zoodiacus	2.5	ATENY		1.9	0.8	1.,	ALL Y	100	-	AND ST		AL ST		-	-	1	1	AL W		-
Grammatophora angulosa	2.5			0.4				0.2						-		-	-	0.1	-	-
Grammatophora marina	1 2	3.7		0.4	MAN	ART NY		-	-			AT LOV	-	-		+ - /		-	-	-
Gyro-Pleurosigma sp.	1.2		1.1	v	ALL	ARRENT			AND	ANTEN	-		ATL	-	_	0.1	-	-	-	-
Hemiaulus sinensis	0.6		ASTA	A STATE		102.00				ALLY	-	1	-	_	-	-	-	-	-	-
Liemophora sp.	0.6	3.7	ALLY	AMEN	A POLY	ASSES!	4	_	ALL Y	SEL	-	ALC:	-	-	-	-	-	6 -17	1	-
Leptocylindrus danicus Mastogloia sp.		-		0.4	-			-	-	-	-	-	-	-		-	-	-	-	-
Mastogioia sp. Melosira italica	-	AND	ASSESS OF	-	AL.	AND Y	-		-17	0.3	-	- 1	-	-	- /	-	-	-	-	-
Melosira italica Melosira moniliformis	0.6	1	ALEV		_	ALL Y	-	-	-		-	-	-	-	-	-	-	-	-	-
Melosira monttijormis Melosira sulcata	100000		15.3	15.9	24.5	26.0	19.1	15.4	22.5	21.9	29.0	29.8	23.7	26.4	31.6	13.1	11.0	10.6		0.2
Navicula spp.	10.5		11.7	-	-	-	0.3		0.3	0.2	-	0.2	-	-	-	1.8			-	0.3
Nitzschia closterium	3.1		-	0.4	0.7		0.2		-	-	-	-	-	-	-	-	-	-	0.2	-
Nitzschia longissima	-	-	- 7	-	-	- 7	- /	1 -	-	-	-	-	-	-	-	0.1		-	-	0.2
Nitzschia sp.	-		_	-	-	-	0.2	-	-	-	-	-	0.7	0.7	1.0	2.1	2.0	2.4	-	0.5
Rhizosolenia delicatula	-		-		-	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhizosolenia hebetata	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-		-
Rhizosolenia shrubsolei	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skeletonema costatum	10.5	18.5	14.1	0.4	0.7	0.6	-	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.1	1.5	2.0	1.4	28.9	30.
Thalassionema	and y	ARRY	ALL WAY									ALC: Y	SHOW		ANY	AR IS	•			-
nitzschioides	9.3	7.4	11.7		55.1			72.2									54.2		4.9	10.
Thalassiosira spp.		22.2			14.2		6.9	7.3	4.5		10.4	5.1	4.2				17.5		-	
Thalassiosira decipiens	3.7		-	-	-	-	-	-	-	0.3		-	1.0	0.7	0.4	4.7	7.1	4.2		_=
Thalassiosira gravida	-	80 - V	- V	-	-		-	-	-	-	0.2	-17	-	-	-	-	-	-	-	
Thalassiosira																	2 2	2.1		-0
nordenskioldii	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	0.2	0.1	48.8	38.
Unidentified diatoms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Chlorophyceae															AL.		AND	ALC: Y	A STATE OF	
Chlamydomonas sp. (cf)	-		-	-			-	-	-	-	-	-	-	-	0.1					-
Chrysophyta	AMIG		ALLEY	Sec. V								- 0				0.5		ALC: Y	ASSESS OF	
Chrysochromulina sp. (cf)	-	-	-	6.4	2.6	0.6	3.4			0.6	0.5	0.9	-	-	- 1	0.5			0.5	
Distephanus speculum	-	-	-	-	-	-,		0.2		-	-	-	-	-	0.1	0.1		0.3	0.5	0.
Ebria tripartita	-	-	-	0.8	0.7	0.6	0.5	-	0.1	0.2	-	-	-	-		0.2	0.7	0.5	ARTIN	0.
Euglenophyta			1	2.0			2.2	2.2								0.2	-			0.
Euglena sp.	-	-	-	0.8		-	0.2	0.2	-		-	A STATE			MIN	0.2	ANY	ALLEY	AHIY	
Pyrrophyta		ALLEY	2 2			Aller	0.2	A COLUMN	ALT DE			ALLEY	A STATE OF	-		-	-	-	-	
Dinophysis acuminata			2.3				0.2			MAN DIV					-	-	-	-	-	
Glenodinium lenticula			-			2.6		A STATE	ABEV	A STATE OF				0.1			-	-	-	
Gymnodinium variabile	1.8					0.6					-			0.1	-	-	-	-	-	0.
Oxytoxum diploconus(cf)	-		-	AND STATE		-						-				-	-	-	-	0
Peridinium trochoideum		-				-						-				-	-	-	-	
Peridinium sp.	22.5	- 22 2	17.6	4.2		2.6	0.7		0.1	444	ALC: Y		1		-	0.1	-	-	-	
Prorocentrum redfieldii		5 22.2				0.6			0.1		0.3					-	-	-	-	
Prorocentrum scutellum			3.5	0.8	0.4	0.6	0.2	0.2			0.3							-		4
Prorocentrum	AND P	ALL ST	ASSET !	A SECTION ASSESSMENT		ALL T	SHEET WAY	ARREST	A STATE OF	AND THE REAL PROPERTY.	ALC: Y				-	-	-	-	-	
triangulatum				A SOLV						115		AND Y			-	-	-	-	-	8.
Unidentified flagellates	AND		ANTY	A STATE OF	ARREST	1000	A THE Y				HEY	ALC: N	ARTERY	AHIT	ANN	ARREST				

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F3a reent Composition of Each Species by Depth* at Station ENI within Proposed Disposal Site

		Sampling Date and Depth																-		-								
								5	Samp1	ing Da									75	22	A== :	75						_
ec	74		Jan			Jan			Feb			4 Mar	75	- 1	Apr	75 B		9 Apr M		S .	Apr	B	6	May 1	B		Jun 7	
×	B	<u>s</u>	<u>M</u>	В	<u>s</u>	<u>M</u>	В	<u>s</u>	M	В		M		-2													<u></u> -	- B
													1 1	9.0	0 3	2 4	10.2	9.1	3.8	12.0	11.3	8.4	-	-	1.0	0.1		_
		-	-		_	-	-	-	-	-		1.9		12.7	6.7		3.5	1.3	~		0.3	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-	-	-	-	-	-	- 1	-	-	-	-	-	-	-	-
-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-	1.4	-	-	-	-
-	0.3		0.5	-	-	-	-	-		-			-		-	-	-		-	- 0.2	-	-		1,4	-	-	-	÷
0.2	0.3	_	-	-	_	-	_	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.1	-	-	-	-		-	-	-		_	-		-	-		-	-	-	-
-	-		- -	0.2	<u>-</u> -		- -	- -	<u> </u>	0.1		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.2	-	-	0.2	0.2	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	0.1	-	0.2		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.0	0.9	2.7	1.9	1.1	0.9	0.1	0.1	1.8	1.1	0.8	-	-	-	-	-	-	-	-	-	-	_	-	-	_	-	69.3 9	4.1 1	7.9
-	-	-	-	-	-	-	-	-	1.7	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	_
-	-	_	-	_	-	-	-	-	_	-		-	-	_	-	-	_	-	-	-	-	-	-	-			-	_
0.2	-	-	-	-	-	-	-	-	-	9.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	_	-		-		-	-	-	-	0.6		-	0.3		-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-		-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	-	-	-
	-	0.3	-	-		-	-	-	-	-	-	-	-	_		-	-	-	-	-		-		-	-	-	-	-
-	-	-	-	-	-	_	-	-	_	-	-	_	-	-	-	-	_	-	-	-	-		-	-	-	-	-	-
15.4		21.9			23.7			13.1			-	0.2	-	-		2.0	0.9	1.1			5.2			11.2	8.2	-	2.1	
0.3	0.3	0.2		0.2	<u> </u>			1.8	2.0	1.4	0.2	0.3	0.3	0.7	0.6	0.8			0.3	0.2	0.4	0.5	1.8	-		0.1	0.1	3.6
-	-	_	_	_	_	_	_	0.1	_	_	-	0.2	_	-	-	-	0.1		-	-	0.8	-	-	_	-	-	-	-
-	-	-	-	-	0.7	0.7	1.0		2.0	2.4	-		0.3	-	0.3	0.4	0.3	0.1	-	0.2	0.1	-	1.2	-	-	-	-	-
=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.5	-
-	-	-	-	-		-	-	-	-	-	-	-	-	0.3	-		_	0.3	-	-	0.4	-	-	÷	-	-	0.1	-
0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.1	1.5	2.0	1.4	28.9	30.7	49.8	14.7	18.8	16.8	31.5	49.1	30.3	11.0	23.9	27.6	-	-	8.2	-	-	-
72.2	60 0	47 0	= = 0	62.2	60.2	44 0	60.0	51 1	5/ 2	50 1	, ,	10.1		10 7												0.6	0.9	3 6
	4.5	5.9	10.4	5.1	4.2	4.6	5.4	20.6	17.5	19.0	4.9	10.1	6.6	12.7	16.5	12.4	19.4	19.4	34.1	54.2	39.9	42.5	13.5	9.1	40.0		0.5	
-			0.5			0.7			7.1			-	-		_	-	_	-	_	-	-	_	-	-	-	-	-	-
-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	_	-	0.2	-	-	-	-	_	0.2	0.1	48.8	38.9	27.7	47.8	43.2	60.7	31 0	18 /	22 2	15.5	15 /	16.1	_		-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	13.3	-	-	-	-	-	-	-	-
1							0.1			_																		-
							0.1				-					-			-		-	-	-	<u> </u>				
	1.0		0.5	0.9	-	-	-	0.5	-	-	-	-	-	-	-	-	_	_	_	_	-	-	-	-	-	-	-	-
0.2	0.1	0.2	-	-	-	-	0.1	0.1	0.7	0.3	0.5	0.5	-	0.7		-		0.3	-	1.7	0.7	0.3	1.8	0.7	1.0	0.7	-	-
	0.1	0.2	-	-			-	0.2	0.7	0.3		0.5	0.1	0.3	0.3	-	0.4	0.8	-	1.5	1.1	1.2	74.2	17.7	40.8	0.1		
0.2	-	-	-	-	-	-	-	0.2	-	-	-	0.3	-	1.3	0.3	-	-	-				-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	0.1	-	-
-	-	-	-	-	-	0.1	-	-	-	-	-	-	-			0.2	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	~	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	-
-	0.1	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	0.2	0.1	0.1	-	0.2	-	-	-	-	-	-	-	-
0.2	-	-	0.3	-	-		-	-	-	-	-	-	-	-	-	-		-	_	-	-	-	-	-			-	-
-	-	_	-	_	-	-	_	_	_	_	_	-	_									ANA				0.1		_
-	-	-	-	-	-	-	-	-	-	-	-		4.3	-	-	-	-	-	-	-	-	-	-	-	-	28.6	-	-
																			-	-	-	-						
	400																											

depth, and near bottom.

		29 Oct 7	74		19 Nov			20 Dec			3 Jan 75	,	21 Jan 1		
Organism	S	M	В	S	M	B_	Om	3m_	15m**	S	M	В	S	_ <u>M</u> _	
Bacillariophyta															
Amorpha sp.	0.2	-	-	-	-	-	-	-	- 1 Tom	-	-	-	-		
Asterionella japonica	-	-	-	-	7	-	-	-		-	-	-		-	
Bacteriosira fragilis	-	-	-	-		-	-	-	-	-	-	-	-	- 1	
Biddulphia aurita	-	-	-		-	-	-	-		-	-	-		- 3	
Cerataulina bergonii	-	-	-	-	-	-	0.1	-	-	-	-	-	-	- 1	
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	-	-	-	-	- 3	
Chaetoceros decipiens	-	-	1.8	-		-	-	-	-	-	-	-	-	- 1	
Chaetoceros spp.	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	
Chaetoceros spp. (Spore)	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	
Corethron hystrix	-		-	-	-	0.4	-	-	-	-	-	-	-	0.1	
Coscinodiscus lineatus	-	-	-	-	-	-	-	-	-	-	0.2	-	-	- 1	
Coscinodiscus radiatus	-	-	-	-	-	-	-	-	_	-	0.2	-	-	- 1	
Cyclotella striata	_	-	-	-	-	-	0.3	0.7	1.7	0.9	1.8	0.9	0.6	0.7	
Cyclotella sp.	-	_	-	_	-	_	_	-	-	-	-	-	-	- 3	
Diploneis sp.	-	-	-	-	-	0.4	-	-	-	-	-	-	-	- 1	
Eucampia zoodiacus	_	_	-	-	-	-	-	-	-	-	-	-	-	-	
Grammatophora marina	0.2	_	_	-	-	_	-	-	11/4	-	-	-	-	- 1	
Gyro-Pleurosigma sp.	_	_	_	0.3	0.5	1.3	_	_	_	_	-	-	-	- 1	
Hemiaulus sinensis	_		_	-	-	-	0.2	-	_	_	-	-	_	- 3	
Leptocylindrus danicus							-				0.2			-	
Melosira sulcata		25.0	11.1	24.1	18.6	18.2	22.9	13.7	19.6	22.3	33.1	28.1	18.4	21.9	
		3.1	3.7	24.1	-	-	0.2	-	-	0.2	0.3	-	0.3	0.1	
Navicula spp.		-	-		_		-			-	-		-	0.1	
Nitzschia bilobata	-			_		_		_		_	-	-	_	0.2	
Nitzschia closterium					0.5						0.6	0.2	0.6	1.2	
Nitzschia sp.	-	-	-				-		-	-	0.6	0.2	0.0	1.2	
Rhizosolenia delicatula	-	-	-	-	-		-	-	-	-	-	-			
Rhizosolenia hebetata	-	-	-	-	-	-	-			-	-	-			
Rhizosolenia shrubsolei	-	-	-	-	-	-		-	-	-	-	-	-	0.8	
Skeletonema costatum		-	9.3	0.7		2.2	0.1	-	0.1		0.2			0.0	
Thalassionema													72 0		
nitzschioides	0.2	12.5	20.4	59.0	71.0	58.9	69.9	82.1	74.9	70.7	51.7	66.4	73.9	69.6	
Thalassiosira spp.	2.1	15.6	20.4	9.8	7.4	13.9	4.6	2.3	2.8	4.9	9.9	2.6	4.8	3.9	
Thalassiosira decipiens	-	-	-	-	-	-	-	-	-	-	1.0	1.8	1.1	1.2	
Thalassiosira															
nordenskioldii	-	-	-	-	-	-	0.4	0.1	-	-	-	-	0.1	-	
Unidentified diatoms		-	-	-	-	-	-	-	-	-	-			- 1	
Chrysophyta															
Chrysochromulina sp. (cf)	71.2	-	-	3.7	0.5	3.9	0.9	0.7	0.7	0.6	0.3	-	-	- 1	
Distephanus speculum	-	-	-	-	-	-	-	-	-	-	0.3	-	-	- 1	
Ebria tripartita	-	-	-	-	-	-	0.2	0.3	0.1	-	0.2	-	-	-	
Euglenophyta															
Euglena sp.	-	-	-	-	-	-	-	0.3	-	0.2	-	-	-	-	
Pyrrophyta															
Dinophysis acuminata	2.8	-	3.7	-	-	-	-	-	_	0.2	0.2	-	-	- 3	
Glenodinium lenticula	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	
Gumnodinium variabile	0.2	_	-	_	-	-	0.2	-	-	-	-	-	-	-	
Gymnodinium sp.	-	-	-	-	-	-	-	-	_	-	-	-	-	- 3	
Gyrodinium grave	-	-	-	1.0	0.5	0.9	-	_	-	-	-	-	-	- 1	
Oxytoxum diploconus(cf)	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	
Peridinium pentagonum	_	-	-	_	-	-	0.1	_	_	-	-	-	-	- 1	
Peridinium trochoideum	_	_	_	-	_		-	-	_	_	_	-	-	- 3	
Peridinium sp.												-		- 1	
Phalacroma rotundatum	_	_	1.8	_	_						_	-	-	-	
Prorocentrum redfieldii	22.8	43.7	22.2	0.7									_	_	
Prorocentrum scutellum	22.0	43.7	5.5	1.0	1.0				_				_	-	
Prorocentrum			5.5	1.0	1.0			777							
triangulatum													_		
Unidentified flagellates		<u> </u>	<u> </u>			<u> </u>							<u> </u>	_	
Unidentified flagellates	-	-	-	-	-	-	-	-	-	-	-				

^{*} Total cell counts are given as cells/litre x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom unless stated in metres.

**Sampling depths in metres correspond to 100%, 10%, and 1% of incident light intensity.

Table F3b

Depth* at Station EN2-1 Within Proposed Disposal Site

	Sampling Date and Depth																			
21 Jan 7			20 Feb 7			4 Mar 7	15	9	Apr 75		2	2 Apr 7	5	6	May 75		10 Jun 75			
M	В	Om	4m	9m**	Om	3m	6m**	S	M	В	S	M_	В	S	M	В		M	<u>B</u>	
										_	_	_	_	-	_	-	_	_	_	
	-	-	-		2.5	1.1	2.5	17.8	5.6	3.9	21.0	48.3	35.3	-	-	-	0.1	-	-	
	-		-	-	6.8	8.9	6.0	9.8	0.6	0.6	-	0.4	1.0	-	-	-	-	-	-	
-	-	-	-	-	2.2	1 -	-	-	-		-	-	-	-	-	-		-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	0.1	0.7	0.6	-		-	-	_	-	
-	-	-	-	-	-			-	_	-	-	_		_	_	-	0.2	-	-	
	-	-	-	_	-	_	_	_	-	_	_	-	-	-	-					
0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-		-	-		
0.7	0.5	1.3	0.1	-	-	-	-	-	-		-	-	-	_	_	_	61.8	97.5	10.0	
-	-	-			- -	 -	 -				-	-	-			-	-	-	-	
-	_	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	0.4	-	-	
-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	_			
-			<u></u>			- -		1.0			<u></u> -	0.5	0.5					-		
21.9	25.2	10.9	10.1	9.0	3.4	_	_	0.6	8.9	7.1	1.0	-	13.3	4.9	9.6	14.6	-	0.8	40.0	
0.1	-	1.1	1.4	0.5	-	0.2	0.3	-	-	0.6	-	0.1	-	-	-	-	-	0.1	-	
_	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0.2			0.1		-	-	0.3					0.1		 -				- -		
1.2	0.3	1.9	2.0	1.2	0.1	0.2	-	-	-	-	_	-	_	_	_	_	1.2	0.1		
_	_	_	-		0.1	_	-	1.2	0.1	0.2	0.6	0.4	0.2		_	_	-	-	-	
_	_	_	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	0.2	-	
0.8	0.2	1.2	0.4	-	52.7	41.9	24.4	38.6	54.8	39.7	17.1	20.4	12.9			6.6	-			
									10.0	21.7	45.7	11.7	32.3	31.2	53.4	63.7	_	0.7	_	
69.6	67.7	50.3	54.6 26.1	65.8	4.3	6.1	18.4	14.4	13.2	24.7	43.7	-	-	-	-	-	0.1	0.3	50.0	
3.9	1.8	4.3	4.3	4.1	_	_	_	_	_	-	-	-	-	-	-	10.6	-	-	-	
1.2	1.0	4.5																		
-	-	0.5	-	-	26.7	38.6	43.2	16.0	16.2	21.9	13.5	15.8	11.4	-	-	-	-	-	-	
-	-	-	-		-	0.4														
	_	0.3	_			_	_			_	-	_	_	-	-	-	-	-	-	
		-		_	0.1	_	-	-	0.1	0.6	0.4	0.5	0.8	-	0.9	-	-	-	-	
-	-	0.3	0.4	0.7	0.1	0.5	-	0.4	0.5	0.6	0.6	1.0	1.9	63.8	35.2	3.9	0.1	-	-	
															0.0	0.4				
-	-	0.1	0.3		-	0.1	-	0.1		-	-	-	-	-	0.9	0.4				
		_	_	_	_	0.1					-	_	_	_	-	-	-	0.1	-	
	_		-	-	_	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	
-	-		-	_	_	_			-	-			-	-		-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1		
-	-	-	-	-	-	0.1	-	•	-	-	-	1	_	-		_	-	_	-	
-	-	_	-			0.1			_		_	-	-	_	_	-	-	-	-	
	_	_	_	_	-	_	_	_	_	0.4	_	-	-	-	-		-	-		
-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	•		-		_	-	
-	-	-	-	-	-	-	-	-	_	_	-	-				_	-	-	-	
-		-	-																	
-	_	_	-	-	_	-	_	-	-	-	_		-	-	-	-	0.2	0.2		
-	-	-	-	-	1.0	1.5	4.8	-	-	-	-	-	-	-	-	-	35.3	-	-	



Table F3c Percent Composition of Each Species by Depth* at Station EN2-2 Within Proposed Disposal Site

	1	9 000	74		VON 9	74	Sam	Sampling Date		and Depth	Mar	75	-	Apr 75		22	Apr 75	1
Organism	S	M	В	S	S	В	S	×	B	8	X	B	S	×	B	S	E	B
Bacillariophyta																		
Asterionella japonica	0.5	1	1	1	1	ı	1	1	1	3.5	0.3	1.1	1.6	8.9	5.4	51.9	35.7	12.9
Bacteriosira fragilis	1	1	1	1	1	1	•	1		10.5	4.5	3.0	10.7	4.3	1.4	1	•	,
Biddulphia aurita	1	1	1	,	1	•	1		1		1.8	•	1		•	1		,
Chaetoceros debilis	1	1	•	,	1	1	1	•			,	,		1	•	0.1	1.1	ı
Chaetoceros spp. (spore)		1		,	1			0.1			,		1			1	-	
Corethron hystrix	1	1	1	0.8	1	•	•		•		,	•			,	1	1	
Coscinodiscus lineatus	1	1	1	,	9.0	•	0.1	1	•		,				•		1	,
Cyclotella striata	1	1	•	,	1	•	0.7	8.0	0.3	•	,	•		1	•		1	,
Grammatophora marina	1	4.0	1	,	1	1	1	1	1	1	,	1	-	•	•	1	1	,
Gyro-Pleurosigma sp.	1	4.0	2.7	,	9.0						,							
Leptocylindrus danicus	1	1	1	1	1	0.7	1	,	1	1	,	1		1	•	1	0.2	,
Melosira italica	1	1	1	,	•	1	0.1	•	1	1	,	1	,	1		1	•	,
Melosira sulcata	6.0	1.7	13.9	10.9	20.9	30.9	22.1	20.5	23.9		1.1	0.3	10.4	•	2.9	1	0.5	1.0
Navicula spp.	1	3.5	2.7	1	9.0	0.7	•	1	0.2	0.5	0.5	2.3		0.4	•	1	0.1	,
Nitzschia closterium	3.7		1	,	1.6						,					0.3	0.1	,
Nitzschia sp.	1	1	1	1	1	•	0.7	1.4	9.0	0.7	,	•	0.3	7.0	1	1		0.2
Rhizosolenia hebetata	•	1	1	•	1						,				•	0.7	0.3	0.5
Skeletonema costatum	0.5	24.0	13.9	1	1.1		0.5	0.3		31.5	34.0	50.1	7.9	17.9	13.8	6.6	19.6	15.7
Thalassionema				,	9		9	9		,	,						,	
nitzschioides	6.0	1	72.0	7./9	29.9	20.0	68.9	70.7	6.79	3.1	6.1	1.9	10./	18.3	10.9	73.4	9.97	43.4
Thalassiosira spp.	22.8	28.2	27.8	15.9	11.5	9.6	2.0	4.6	4.4	•	,	1	,	1	1	•	1	,
Thalassiosira decipiens	1		1	1	L	1	0.8	2.1	1.9		,	ı		1	1	1	1	,
Thalassiosira																		
nordenskioldii	1	1	1	1	1	1	0.4	0.1	0.1	49.5	48.3	40.5	57.0	8.65	9.19	6.5	13.8	17.3
Unidentified diatoms	1	ı	1	1	1	1	1	0.1	0.2	t	1	ı	1	1		•	1	1
Chrysophyta																		1
Chrysochromulina sp. (cf)	28.0	3.6	2.7	4.2	2.7	1.5	1	•	1			1		1	•	1		,
Distephanus speculum	1	1	1	1	1	1	0.1		0.2		,	1			0.5	4.1	1.0	1.0
Ebria tripartita	1	1	1	1	1	1	0.1	1	1	0.5	0.3	0.3	0.4	1	0.5	2.8	0.9	2.1
Euglenophyta																		
Euglena sp.	1	-	1	-			1	1	1	1	1.3	0.3	0.9	0.9	1		1	1
Pyrrophyta																		
	5.5	1	ı	ı	1	1	1	1	1	ı	1		1	1	1	1	1	1
Gymnodinium variabile	8.9	1	1	0.8	1	1	•	•		1	•	1	1	1	•	1	1	1
Prorocentrum redfieldii	29.6	7.1	5.6	•	9.0	1	0.1		1	•	1	0.3	0.3	•	1	•	1	1
Prorocentrum scutellum	1.4	3.5	5.6	-	1	1	1		-	•	-		-	-	-	-	-	1
Unidentified flagellates	ı	1	•	1	1	•	0.1	1	0.1	1	•		1	•	1	1	1	,

* Total cell counts are given as cells/liter x 103. Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom.

Table F3d

Percent Composition of Each Species by Depth* at Station EN2-3

Within Proposed Disposal Site

							te and	Depth				
	19	Nov 7	4	2	1 Jan	75	1	Apr 75		_ 2	2 Apr	75
Organism	S	M_	В	S	M	В	S	M_	B	S	M	B
Bacillariophyta												
Asterionella japonica	-	-	-	-	-	-	8.0	4.3	-	49.8	26.7	9.8
Bacteriosira fragilis	-	-	-	-	-	-	12.8	5.1	-	-	0.3	-
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	1.0	-	-
Cyclotella striata	-	-	-	1.2	0.7	-	-	-	-	-	-	-
Gyro-Pleurosigma sp.	-	-	0.6	-	-	-	-	-	-	-	-	-
Leptocylindrus danicus	-	-	-	-	-	-	-	-	-	2.3	-	-
Melosira islandica	-	-	0.6	-	-	-	-	-	-	-	-	-
Melosira sulcata	3.0	4.1	22.8	16.7	24.2	17.7	1.5	5.8	-	-	0.6	4.7
Navicula spp.	-	-	_	-	-	0.1	-	0.2	-	-	-	-
Nitzschia closterium	-	0.5	- 18	-	-	-	-	0.2	-	0.4	-	-
Nitzschia sp.	-	-	-	1.1	1.2	0.4	-	-	-	0.2	0.5	-
Rhizosolenia hebetata	-	-	-	-	-	-	0.2	0.4	-	0.6	-	-
Skeletonema costatum	-	-	-	-	0.1	0.1	22.9	14.5	-	15.8	14.4	11.4
Thalassionema												
nitzschioides	80.5	72.1	57.5	71.9	67.2	74.6	11.3	16.2	-	12.1	37.5	54.0
Thalassiosira spp.	9.1	15.7	12.6	4.4	3.6	3.3	-	-	-	-	-	-
Thalassiosira decipiens	-	-	-	4.2	2.5	3.4	-	-	-	-	-	_
Thalassiosira												
nordenskioldii	-	-	0.6	-	-	-	42.5	53.0	-	14.2	17.9	17.2
Unidentified diatoms	-	-	-	0.2	0.7	0.1	-	-	-	-	-	-
Chrysophyta												
Chrysochromulina sp. (cf)	4.9	5.6	3.6	-	-	-	-	-	-	-	-	-
Distephanus speculum	-	-	-	0.2	0.1		-	-	-	0.6	1.6	1.0
Ebria tripartita	0.6	-	-	0.2	0.1	0.1	-	-	-	2.9	0.5	1.9
Euglenophyta												
Euglena sp.	-	-	-	-	-	-	1.0	0.2	-	-	-	-
Pyrrophyta												
Dinophysis acuminata	0.6	-	-	-	0.1	-	-	-	-	-	-	-
Gymnodinium variabile	1.2	0.5	0.6	-	-	-	-	-	-	-	-	-
Gyrodinium grave	-	0.5	-	-	-	-	-	-	-	-	-	-
Prorocentrum redfieldii	-	1.0	0.6	-	-	-	0.2	-	-	-	-	-
Prorocentrum scutellum	-	-	0.6	-	-	-	-	-	-	-	-	-

^{*} Total cell counts are given as cells/liter x 10^3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom.

Table F3e

Percent Composition of Each Species by Depth* at Station EN2-4 Within Proposed Disposal Site

							and Dep	th				
	1	9 Nov			1 Jan	75		Apr 7			22 Apr 7	
Organism	S	<u>M</u>	<u>B</u>	<u>S</u>	<u>M</u> _	<u>B</u>		_ <u>M</u> _	В	S	_ <u>M</u> _	_ <u>B</u>
Bacillariophyta												
Actinoptychus undulatus	-	-	-	0.1	-	-	-	-	-	-	-	-
Asterionella japonica	-	-	-	-	-	-	5.9	5.7	1.8	35.7	17.5	8.4
Bacteriosira fragilis	-	-	-	-	-	-	14.6	8.1	2.2	-	-	-
Chaetoceros debilis	-	-	-	-	-	-	-	-	-	0.9	-	0.4
Chaetoceros decipiens	-	-	-	-	-	-		-		0.2	-	-
Chaetoceros spp.	-	0.3	-	-	-	-	-	-	-	-	-	-
Chaetoceros spp. (Spore)	-	-	0.3	-	-	-	-	-	-	-	-	-
Coscinodiscus centralis	-	0 -	0.3	-	-	-	-	-		-	-	-
Coscinodiscus lineatus	-0	0.3	-	-	-	-	-	-	-	-	-	-
Cyclotella striata	-	20	-	0.3	0.5	0.7	-	-	-	-	-	-
Eucampia zoodiacus	0.3	-	0.3	-	0.1	-	-	-	-	-	-	-
Grammatophora marina	-	-	-	-	-	-	0.2	-	-	-	-	-
Gyro-Pleurosigma sp.	-	0.3	0.3	-	-	-	-	-		-	-	-
Leptocylindrus danicus	-	-	-	-	-	-	-	-	-	0.2	-	
Melosira italica	-	-	-	0.1	-	-	-	-	-	-	-	-
Melosira sulcata	7.1	22.3	12.5	16.9	22.9	19.8	2.3	2.0	-	3.5	1.2	9.1
Navicula spp.	-	-	-	-	-	-	-	0.1	0.1	0.4	0.2	0.6
Nitzschia closterium	0.3	0.7	-	0.1	0.1	-	-	0.3	-	-	0.2	0.1
Nitzschia sp.	-	-	-	1.1	0.9	-	0.7	0.1	0.1	-	-	-
Rhizosolenia hebetata	-	-	-	-	-	-	0.3	0.3	-	0.7	-	-
Skeletonema costatum	-	0.7	0.3	0.1	0.1	-	10.0	28.2	42.0	6.8	10.0	20.4
Thalassionema												
nitzschioides	71.7	56.5	64.8	73.4	69.1	73.0	13.2	10.5	14.9	33.6	50.2	45.2
Thalassiosira spp.	17.6	15.9	16.1	3.7	3.3	3.2	-	-	-	-		-
Thalassiosira decipiens	_	-	0.3	3.7	2.6	2.4	_	-	-	-	-	-
Thalassiosira						-						
nordenskioldii	0.3	_	1.6	-	_	_	52.4	44.2	36.2	9.8	18.5	14.4
Unidentified diatoms	-	_	-	-	0.1	_	_	_	_	-	-	_
Chrysophyta					0.1							
Chrysochromulina sp.(cf)	1.7	2.0	2.0	_	-	_	-	-	-	_	-	-
Distephanus speculum	-	-	-	0.1	0.1	-	-	0.1		4.4	1.3	0.4
Ebria tripartita		-	-	0.1			0.2	0.5	0.3	3.8	1.3	1.0
Euglenophyta				0.1			0.2	0.5	0.5	3.0	1.5	1.0
Euglena sp.	_	_	0.3	_	-	-	0.2	_	_	_	-	_
Pyrrophyta	Med I		0.5				3.2					
Dinophysis acuminata	0.3	-	0.3	_	_	0.2	_	_	_		-	_
Gymnodinium variabile	0.3	0.3	-			- 0.2		_			-	_
Gymnodinium sp.	0.3	0.5	-	0.1		_		_				_
Prorocentrum redfieldii		0.6	0.3	0.1								
From reaj tetati	-	0.0	0.3	1			40.50	77 -			No. of the last	6 000

^{*} Total cell counts are given as cells/liter x 10^3 . Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F3f

Percent Composition of Each Species by Depth* at
Station EN2-5 Within Proposed Disposal Site

	10 1		11.			ate and		22 4	75
	19 No	-			Jan 7			22 Apr	
Organism	S	M	<u>B</u>	S	<u>M</u>	<u>B</u>	S	<u>M</u>	B
Bacillariophyta									
Asterionella japonica	0.3	-	-	_	-	-	40.8	18.5	7.9
Chaetoceros debilis	-	-	-	-	-	-	1.5	1.0	-
Coscinodiscus radiatus	-	-	-	-	-	0.2	-	-	-
Cyclotella striata	-	-	-	1.1	0.5	0.2	_	-	-
Melosira sulcata	5.8	-	-	20.2	21.9	20.2	3.3	1.9	2.3
Navicula spp.	-	-	-	0.4	0.5	0.1	0.1	0.3	0.8
Nitzschia closterium	0.7	-	-	0.1	-	-	0.3	0.5	0.1
Nitzschia sp.	-	-	-	0.3	0.7	0.1	-	-	_
Rhizosolenia hebetata	-	-	-	-	-	-	1.5	-	0.3
Skeletonema costatum Thalassionema	-	-	-	-	-	0.1	5.6	26.2	23.6
nitzschioides	71.5	-	-	69.5	72.0	74.4	31.4	34.2	44.2
Thalassiosira spp.	12.9	-	-	4.6	2.1	1.4	- 14	-	-
Thalassiosira decipiens Thalassiosira	-	-	E 1	2.9	1.8	2.8	-	X = C TOURS	-
nordenskioidii	-	-	-	0.3	-	-	8.9	14.8	18.7
Unidentified diatoms Chrysophyta) - 3	-	-	0.5	-	- 1-	-		- 165-65
Chrysochromulina sp. (cf)	8.1	_	_	_	_	-	-	_	_
Distephanus speculum	-	_	-	_	0.2	0.1	3.7	1.8	1.1
Ebria tripartita	-	-	-	0.1	0.2	0.3	2.9	0.7	0.8
Pyrrophyta									
Prorocentrum scutellum	0.7	-	-	-	-	9-44 14	-	-	-

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

	7	29 Oct 7			19 Nov 7	/4		20 Dec 7			3 Jan 75	,		21 Jan
Organism	S	M	В	S	M	В	Om	3m_	15m**	S	M	В	S	M
Bacillariophyta	ARE W		ANNEXY			Servery.				1000	0.1	_		-
Actinoptychus undulatus	AWALEY	2.5	4-11-W			A STATE OF THE PARTY	ALC: NO				0.1			
Asterionella japonica	ANDERS	2.5				AVERT	ALC: LIVE	A CONTRACT	AWARE	AND LAY				-1
Bacteriosira fragilis								A STATE OF						
Biddulphia aurita						0.3								-
Cerataulina bergonii						0.3	ALC: THE			DE TO				-1
Chaetoceros debilis	200		-				-		0.4					-1
Chaetoceros decipiens			1.2						0.4					
Chaetoceros spp.	A SERVICE		1.2				0.1							
Chaetoceros spp. (Spore)														0.1
Coscinodiscus centralis	ANTAY.	-				-		A PROPERTY		PARTY	-			0.1
Coscinodiscus granii		-	-		0.3	ACCES DAY	-			-				3
Coscinodiscus radiatus		-			0.3	-	-	1 2	2.0		0.2	0.8	0.2	1.0
Cyclotella striata	AWALY				-	A PARTY	0.9	1.2	2.0	1.0	1.5	0.8	0.2	
Cyclotella sp.														-
Detonula confervacea	STATE OF	article.		2.7	-		And Tarry		-	ARMEN				
Eucampia zoodiacus	AND THE		-	0.7	-		-							
Grammatophora marina		2.5	0.5	0.3	-		Bar Tally	0.1	7 4 THE	AS STATE			7	
Gyro-Pleurosigma sp.	2.6	2.5	8.5	0.3	-	-	-	0.1	0.1	-				-
Hemiaulus membranaceus	-	-		16.5	10.7	- 21.1	1/ 0		0.1	76.2	- 22.0	- (7.1	15 /	
Melosira sulcata	3.9	2.5	6.1	16.5	10.7	21.1	14.8	15.3	16.5	26.2	33.9	47.1	15.4	13.6
Navicula spp.	-	7.6	3.6	-	0.3	-	-	0.2	0.8	-	0.2	0.3	-	0.1
Nitzschia closterium	2.6	2.5	1.2		0.3	0.6	-	-	-		-	-	~ -	
Nitzschia sp.	-	-	-	-	-	-	-	-	-	0.5	0.2	-	0.5	1.3
Rhizosolenia delicatula	-			-		-								-
Rhizosolenia hebetata		-	-	-	-	-	-	-		-	-	-	-	-
Skeletonema costatum	1.3	12.8	1.2	-	0.3	1.1	-	0.2	0.1	0.2	-	-	0.1	0.1
Thalassionema						ALL STATES	ALC: N						•	
nitzschioides	10.5	25.6	21.9	58.4	67.8	54.2	80.4	78.6	74.6	58.1	51.8	46.8	77.3	75.9
Thalassiosira spp.	10.5	-	31.7	15.2	6.8	6.2	2.8	3.4	3.3	11.4	9.3	2.3	4.7	5.6
Thalassiosira decipiens	-	-	-	1.0	7.5	16.3		0.4	-	1.8	2.4	2.0	1.1	1.7
Thalassiosira gravida	1.3	-	-	-	-	- VI	-	-	-	-	-	-	-	-
Thalassiosira									A STATE OF					
nordenskioldii	-	-	-	4.6	1.0	0.3	- 7	-	0.1	-	-	-	-	0.3
Thalassiosira rotula	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified diatoms	- 7	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Chrysophyta														
Chrysochromulina sp. (cf)	-	-	-	2.3	2.9	-	0.5	0.4	1.8	-	-	0.5	0.1	-
Distephanus speculum	-	-	-	-	-	- 19	0.1	0.1	-	0.2	0.2	-	0.1	-
Ebria tripartita		011-	-	-	-	-	0.3	-	0.1	0.7	-	0.3	0.2	0.4
Euglenophyta														
Euglena sp.	-	-	-	-	0.7	-	-	- /	-	-	-	-	-	-
Pyrrophyta	ALC: NO.	19 50	EMM											
Dinophysis acuminata	3.9	7.6	7.3	-	-	-	-	-	0.1	-	-	-	-	-
Glenodinium lenticula		-	-	-	-	-	-	-	-	-	-	-	-	-
Gymnodinium variabile	7.8	-	1.2	-	0.3	-	-	0.1	-	-	-	-	-	-
Gymnodinium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gyrodinium grave	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peridinium (cf)			THE REAL PROPERTY.											
minusculum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peridinium sp.	-	-	-	-	-	-	-	-	-	-		-	-	-
Prorocentrum redfieldii	52.6	28.2	14.6	0.7	0.7	-	- 7	-	-	-	-	-	-	-
Prorocentrum scutellum	2.6	7.6	1.2	_	0.7		-		-	-	-	-	-	-
Prorocentrum	TOWN	A STATE OF			0	A STATE OF	ALC: Y	ANTIN	ARTHUR					1
triangulatum	- 1	-	_	_					_	- 7	-	-	-	
Unidentified flagellates	-	-	-		-							-	0.1	
Ollingenerated and and			ANNIHIT	A STATE OF THE PARTY	A STREET	AMERICA	ALLEN	ADDRESS		A CONTRACTOR OF THE PARTY				

^{*} Total cell counts are given as cells/liter x 10³.

Sampling depths are indicated as S, M, and B for surface, middepth, and near-bottom unless stated in metres.

**Sampling depths in metres correspond to 100%, 10%, and 1% of incident light intensity.

Table F3g

th* at Control Station EN3~1 Outside Proposed Disposal Site

			Sampli	ng Date	and De	pth														
-	1 Jan 7	75		20 Feb		-	24 Mar	75		Apr 75		2	2 Apr 7	5	6	May 75		1	O Jun 7	5
4			Om	4m	9m**	Om	3m	6m**	S	M	В	S	M	В	S	M	В	S	М	В
	_ M_	B	Ott	4111	3444	-Ott	Ju	- Oui							-					
																			_	-
	-	-	-	-	-	-	-	-			-	~ -	-							
	-	-	-	-	-	2.0	3.8	1.5	12.4	5.1	6.0	3.5	9.8	8.4	-		-	-		
	-	-	-	-	-	12.3	11.7	10.7	3.9	0.4	1.2	-	-	-	-	-	-	-	-	
	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-		-	-			
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	0.6	0.4	-	-	-	-	-	-	-
	_	_	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	_	-	_	-	-	-	_	-	-	-		-	-	-	-	-	-	-	-
		0.1	0.1	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.1								-	-	-	-	-	-	-	-	-	-	-	-
	0.1		-	0.1	_				-	-	_	_		-	_	-	-	-	-	-
				0.1							_	_	_	-	_	_	-	_	-	-
	-		-	-										_	_	_	-	_	-	-
2	1.0	1.0	0.2	0.2	0.2	-										_		56.6	59.1	26.5
				-								 -						30.0	37.1	
	-	-	-	5.0	-	-	-	-	-	-	-	-	-			K 7/ 1/2	-			
	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-					-	
4	13.6	19.2	14.8	15.1	9.1	1.0	_	3.9	1.0	-	2.2	-	3.6	0.4	2.9	-	-	-	1.8	66.7
	0.1	0.2	1.4	1.5	0.1	0.6	0.2	0.4	_	0.7	-	-	0.2	-	-	-	-	-	-	-
	-	-	-		-	0.1	-	0.4	_	_	_	_	-	-	-	-	-	-	-	-
	1.3	0.4	2.4	2.3	0.9	-	0.6	0.4	_	_	_	_	-	-	-	-	-	-	-	-
2	1.3	0.4		2.3	-		-	-		_	_	_	_	-	_	_	-	0.7	0.1	-
					— <u> </u>	0.1	— <u> </u>		1.0	0.7			1.0	0.2				-	_	-
				-								11.5	9.8	19.2	-	11.7		_	-	-
1	0.1	0.2	1.7	2.9	-	38.2	24.6	26.9	30.0	10.5	25.1	11.5	9.0	19.2		11.,				
												,, ,	,,,	ra (20.2	42.5	79.6	0.3	0.4	_
3	75.9	72.3	59.4	52.9	79.2	5.4	4.0	2.2	30.4	60.0	41.6	46.5	45.4	52.6	20.2	42.3	79.0		0.4	6.8
7	5.6	5.2	15.0	17.8	5.9	-	-	-	-	-	-	-	-	-	1.0			0.1		0.0
1	1.7	1.3	4.7	1.3	3.4	-	-	-		-					1.9	5.3	6.8			
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	0.3	-	-	-	-	38.6	53.7	52.7	19.6	21.1	22.8	9.5	15.8	16.3	-	-	-	-	-	-
6		_		_	-	0.1	_	-	-	-	_	-	-	-	-	-	-	-	-	-
1						-	_	_	-	-	-	-	-	-	-	-	-	-		-
			_									_	_	-	-	-	-	-	-	-
1						0.1		0.4	0.4	0.4	0.8	25.8	10.2	2.2	-	-	-	-	-	-
1	14.00	-				0.1	0.4	0.4	1.2	1.1	0.2	2.4	4.2	0.4	75.0	40.4	13.6	0.1	0.1	-
.2	0.4	-	-	-	0.2	0.3	0.4	0.4	1.2	1.1	0.2	2.4	4.2	0.4	, 5.0					
																	_	_	-	-
-	-	0.1	0.1	-	-	-	-	-	0.2	-	-			-						
8																		-		
	-	-	-	-	-	-	-	-	-	-	-	-	-	-				0.1		
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1		
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-		-	-	-	-	-	-	-	0.3	-	-	-	-	-	0.2	-	-
24	-	-	0.1	-	-	-	-	-	-	-	-	-	-		-	-				
	-	-	_	_	_	-	-	-	-	_	_	-	-	-	-	-	-	0.1	-	-
2				14 124		_	_	_	_	_	_	-	-	-	_	-	-	0.1	-	-
						0.4	0.9	0.4	_		_	_	_	_	-	-	_	-	-	-
18-		3 2 7	-	-		0.4	0.9	0.4			_		_	_	_	-	-	-	-	-
	-	-	-	-	-					-	You Till									
														1411	100		_	0.3	-	_
-	-																	41.5	38.0	
.1	-	0.1	-	-	-	0.7	0.2	-	-	-	-	-	-		-			41.3	30.0	

Table F3h

Percent Composition of Each Species by Depth* at Control

Station EN3-2 Outside Proposed Disposal Site

		ing Date Depth	and
	1	Apr 75	
Organism	S	M	В
Bacillariophyta			
Asterionella japonica	5.5	3.3	5.1
Bacteriosira fragilis	10.7	4.7	4.6
Melosira sulcata	-	1.2	4.6
Nitzschia sp.		- 74	0.9
Rhizosolenia hebetata	0.3	-	0.5
Skeletonema costatum	10.2	5.9	11.1
Thalassionema			
nitzschioides	8.5	9.6	14.8
Thalassiosira			
nordenskioldii	63.5	74.4	58.4
Chrysophyta			
Ebria tripartita	0.3	0.4	-
Euglenophyta			
Euglena sp.	_	0.4	-
Pyrrophyta			
Gymnodinium variabile	0.3		
Prorocentrum redfieldii	0.6	-	-

^{*} Total cell counts are given as cells/litre x 103. Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom.

Table F4a Summary of Total Phytoplankton Counts by Depth* Within Stations (Cells per litre x 10³)

	N3-2	B		,			•	,		734.4	,	,		1
	Station EN3-2	×		•	1	•	•	•	1	812.8	•	•	•	•
	Sta	S	1	•	•	•	•	•	•	1044.1 812.8	•		•	
Control Station	-1	8	8.2	35.6	76.8#	39.3	95.4	52.5+	1846.8+		410.4	6.405	69.3	110.8
Con	Station EN3-1	W	3.9	30.7	86.0+	84.3	71.8	92.0+	1601.8+	•	282.8	534.9	87.9	1909.0
	Sta	S	1.6	30.3	74.9**	9.09	87.5	**1.06	2387.6** 1601.8* 1846.8**	•	524.6	347.5	97.2	2136.0
1	12-5	В	1	21	1		6.56	1	1	1	1	746.7	1	
	Station EN2-5	E	1	1	1	1	100.5		1	1	1	517.2	1	
	Stat	S	r	29.5	•	1	75.7 1	1	1	1	1	695.3 617.2 746.7	1	1
	2-4	В		30.4	1	1	81.7	1	1	693.3	ı	726.2	1	1
	Station EN2-4	×	1	30.1		1	0.46	1	1	329.0	1	521.1	1	1
	Stat	S	,	29.4		1	73.3	1	1	614.0 829.0 693.3	1	563.5 621.1 726.2	1	1
1	2-3	В	,	16.7	1	ı	80.5	r	1	1	1		1	1
	Station EN2-3	E	•	19.7	1	1	102.4		1	181.1	1	0.449		1
sal Site	Stati	S		16.4	1	1	64.1 102.4	r	1	1041.9 481.1	1	493.8 644.0 525.6	,	•
d Dispos	-2	В	3.6	13.6	1	1	93.7	1	930.6		1	630.7	,	•
Propose	Station EN2-2	W	9.6	18.2		,	88.8		152.1 5	799.3 714.2	1	939.2		1
Within Proposed Disposal Site	Stat	S	43.8	23.8	1	1	75.4	•	6964.0 6152.1 5930.6	1081.4		724.1		,
	-1	8	5.4	23.1	77.2++	54.5	91.7	60.3++		1	554.5	9.659	221.2	147.0
	Station EN2-1	M	3.2	20.4	77.5+	67.1	88.2	79.1+	1799.1+ 1	•	864.1	1435.2	98.2	934.1
	Stat	S	46.3	29.5	100.5**	9.49	78.7	74.5** 79.1*	24 Mar 75 2019.2 2016.8 2676.8 4693.7** 2799.1* 1071.3**	1	1086.5	903.1	14.8	1825.5
	1	В	8.5	17.71	0.08	55.0	78.4	85.9	676.8	673.3	404.1		91.6	411.7
	Station EN	W	2.7	27.4	68.1	65.3	9.78	87.9 85.9	016.8 2	173.4 1	772.5	754.0 694.3	134.5	028.5
	Sta	S	16.1	26.4	6.99	9.19	79.7	101.0	1019.2 2	1 Apr 75 1016.6 1173.4 1673.3	698.4 772.5 404.1	617.2	152.4	10 Jun 75 1913.8 1028.5 411.7
	Bu	1	74	74	74	75	75		75 2	75 1		22 Apr 75		75 1
	Sampling	Date	29 Oct 74	19 Nov 74	20 Dec 74	3 Jan 75	21 Jan 75	20 Feb 75	4 Mar	1 Apr	9 Apr 75	22 Apr	6 May 75	O Jun

* Sampling depths are indicated as S, M, and B for surface, middepth, and near bottom except where noted otherwise.

** Sampling depth (surface) corresponds to 100 percent of incident solar radiation. + Sampling depth corresponds to 10 percent of incident solar radiation.

++ Sampling depth corresponds to 1 percent of incident solar radiation.

Average of Total Phytoplankton Counts by Station and by Sampling Date (Cells per litre x 103)

Sampling Date Station Pate Station Pate			Witl	hin Propos	Within Proposed Disposal Site	Site		Control	Control Station	
9.1 18.3 17.7 - - - 6.6 - 23.8 24.3 18.5 17.6 30.0 29.5 32.2 - 71.7 85.1 - - - 79.2 - 62.6 58.7 - - - 61.4 - 81.9 86.2 86.0 82.3 83.0 90.7 84.9 - 91.6 71.3 - - - 78.4 - - 2237.6 2854.7 6348.9 - - - 1945.4 - 33 1287.8 - 865.0 761.5 712.1 - 405.9 - 663.8 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 688.8 1118.0 968.9 - - - - - 64.8 - - 1118.0 968.9 - - - - - - - - - - - - <t< th=""><th>ampling</th><th>Station EN1</th><th>Station EN2-1</th><th>Station EN2-2</th><th>Station EN2-3</th><th>Station EN2-4</th><th>Station EN2-5</th><th>Station EN3-1</th><th>Station EN3-2</th><th>Average for Date</th></t<>	ampling	Station EN1	Station EN2-1	Station EN2-2	Station EN2-3	Station EN2-4	Station EN2-5	Station EN3-1	Station EN3-2	Average for Date
23.8 24.3 18.5 17.6 30.0 29.5 32.2 - 71.7 85.1 - - - - 79.2 - 62.6 58.7 - - - 61.4 - 81.9 86.2 86.0 82.3 83.0 90.7 84.9 - 91.6 71.3 - - - 78.4 - 33 2237.6 2854.7 6348.9 - - - 1945.4 - 33 1287.8 - 865.0 761.5 712.1 - - 863.8 6 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 688.8 118.0 968.9 - - - - - 684.8 - 1	9 Oct 74	9.1	18.3	17.7	•			9.9		12.9
71.7 85.1 - </td <td>9 Nov 74</td> <td>23.8</td> <td>24.3</td> <td>18.5</td> <td>17.6</td> <td>30.0</td> <td>29.5</td> <td>32.2</td> <td></td> <td>25.1</td>	9 Nov 74	23.8	24.3	18.5	17.6	30.0	29.5	32.2		25.1
62.6 58.7 - - - - 61.4 - 81.9 86.2 86.0 82.3 83.0 90.7 84.9 - 91.6 71.3 - - 78.4 - 33 2237.6 2854.7 6348.9 - - 1945.4 - 33 1287.8 - 865.0 761.5 712.1 - - 863.8 6863.8 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - - 645.8 - - 1126.2 128.1 - - - - - - 648.8 - - - - 645.9 - <	0 Dec 74	71.7	85.1	•	•			79.2		78.7
81.9 86.2 86.0 82.3 83.0 90.7 84.9 - 91.6 71.3 - - - 78.4 - - 2237.6 2854.7 6348.9 - - - 1945.4 - 33 1287.8 - 865.0 761.5 712.1 - - 863.8 8 625.0 835.0 - - - - 405.9 - 6 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 6 1126.2 128.1 - - - - - 6 - 1118.0 968.9 -	3 Jan 75	62.6	58.7				•	61.4		6.09
91.6 71.3 - - - - 78.4 - 35 2237.6 2854.7 6348.9 - - 1945.4 - 35 1287.8 - 865.0 761.5 712.1 - 863.8 8 625.0 835.0 - - - 405.9 - 6 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 6 126.2 128.1 - - - - 84.8 - 1 1118.0 968.9 - - - - - - 1	1 Jan 75	81.9	86.2	86.0	82.3	83.0	90.7	84.9		85.0
2237.6 2854.7 6348.9 - - 1945.4 - 1287.8 - 865.0 761.5 712.1 - - 863.8 625.0 835.0 - - - 405.9 - 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 126.2 128.1 - - - - 84.8 - 1118.0 968.9 - - - - 1385.3 - 1	0 Feb 75	91.6	71.3	•				78.4		80.4
1287.8 - 865.0 761.5 712.1 - - 863.8 625.0 835.0 - - 405.9 - 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 126.2 128.1 - - - 84.8 - 1118.0 968.9 - - - 1385.3 - 1	4 Mar 75	2237.6	2854.7	6348.9	•			1945.4		3346.7
625.0 835.0 405.9 - 688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 84.8 - 118.0 968.9 1385.3 - 1	1 Apr 75	1287.8	•	865.0	761.5	712.1	•	•	863.8	898.0
688.5 999.2 764.7 554.5 636.9 686.4 462.4 - 126.2 128.1 84.8 - 1118.0 968.9 1385.3 - 1	9 Apr 75	625.0	835.0	1	1	•		405.9	•	622.0
126.2 128.1 84.8 - 1118.0 968.9 1385.3 - 1	2 Apr 75	688.5	999.2	7.497	554.5	636.9	4.989	462.4		684.7
1118.0 968.9 1385.3 -	6 May 75	126.2	128.1	•	•			84.8	1	113.0
	0 Jun 75	1118.0	6.896	1	•	•	1	1385.3	•	1157.4

Table F5

Comparison of Productivity at a Station Within the Proposed Disposal Site and at the Control Station (mgC/m³/hr)

		ed Dispo Station ent Radi		S	trol Station : tation :	EN3
Date	100%	10%	1%	100%	10%	1%
20 Dec 74	4.67	1.94	-	2.72	1.53	0
20 Feb 75	2.58	1.99	0.82	0.91	2.45	0.42
1 Apr 75	1.44	0.87	0.49	1.04	1.06	0.73

^{*} Percentages refer to depths at which 100 percent (surface), 10 percent, and 1 percent of incident surface radiation was measured.

Table F6

Species Comprising at Least 5 Percent of the Phytoplankton Population at Any One Sampling Depth and Time

Asterionella japonica*
Bacteriosira fragilis
Biddulphia rhombus
Chrysochromulina sp.*
Cyclotella sp.*
Detonula confervacea
Dinophysis acuminata
Distephanus speculum
Ebria tripartita*
Gymnodinium variable
Gyro-Pleurosigma sp.

Melosira sulcata*
Navicula spp.
Prorocentrum redfieldii*
Prorocentrum scutellum
Skeletonema costatum*
Thalassionema nitzschioides*
Thalassiosira sp.*
Thalassiosira decipiens
Thalassiosira nordenskioldii*
Unidentified flagellates

^{*}Comprised at least '50 percent of the population at one or more sampling depth and time.

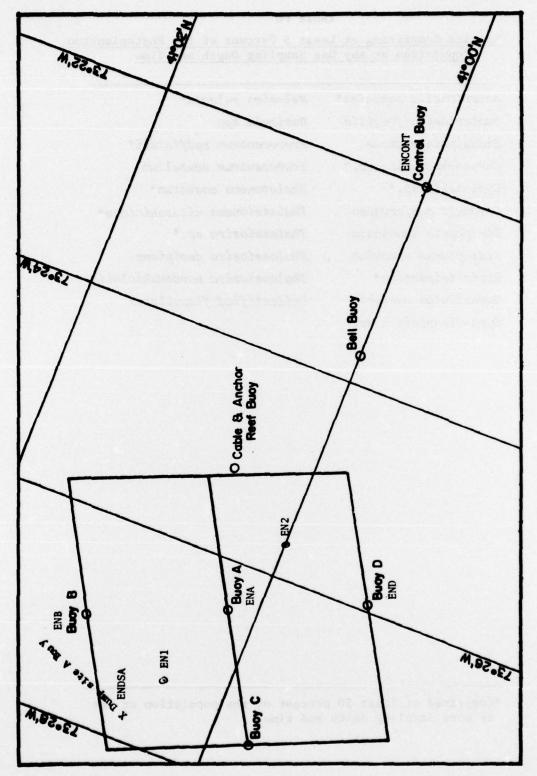


Figure Fl. Eatons Neck study site

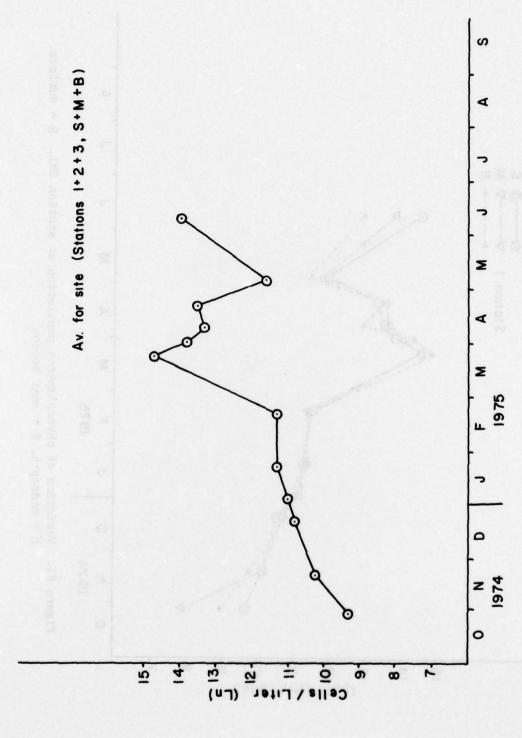
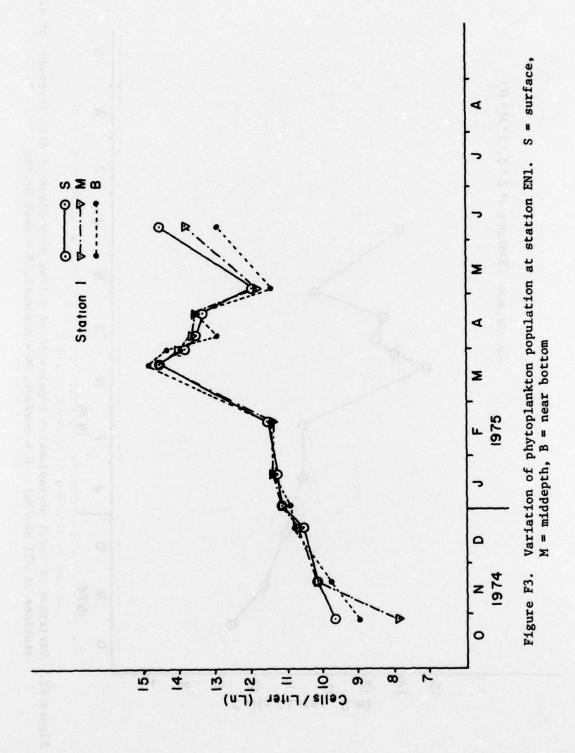


Figure F2. Variation of total phytoplankton population at Eatons Neck disposal site (averages of all stations at all depths). S = surface, M = middepth, B = near bottom



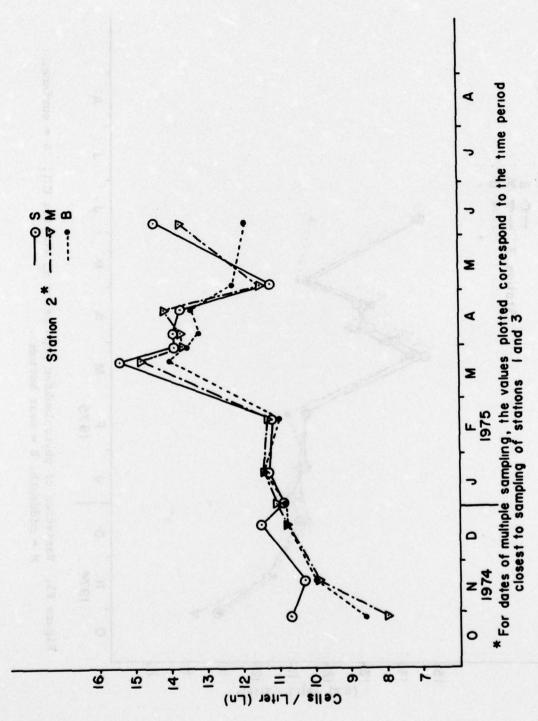
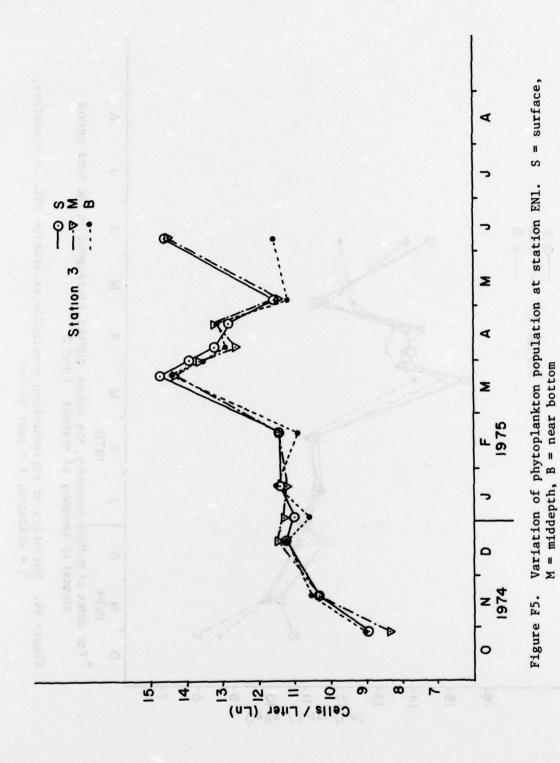


Figure F4. Variation of phytoplankton population at station EN1. S = surface, M = middepth, B = near bottom



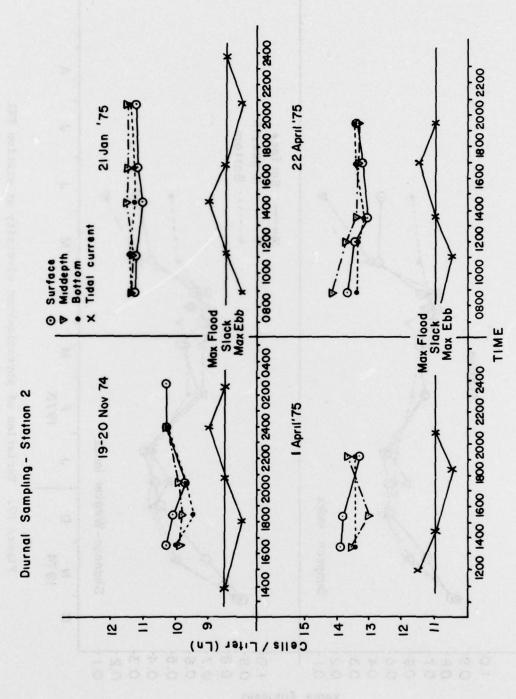
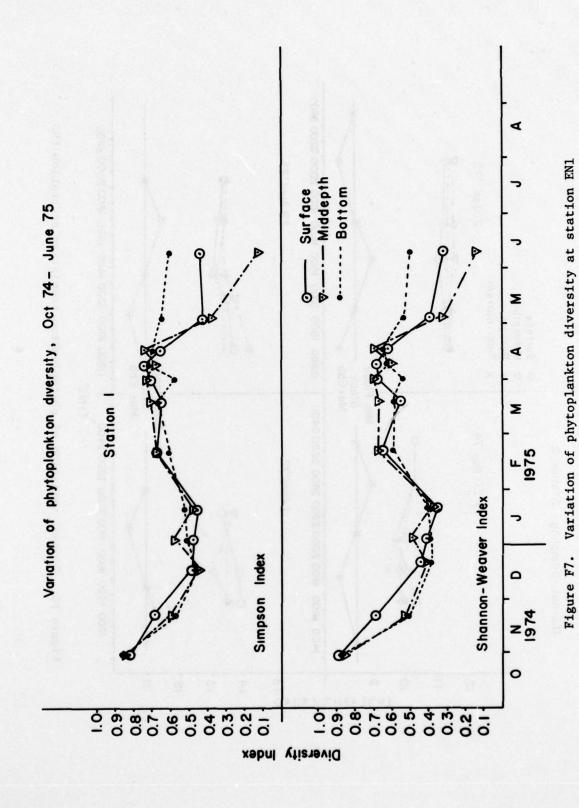
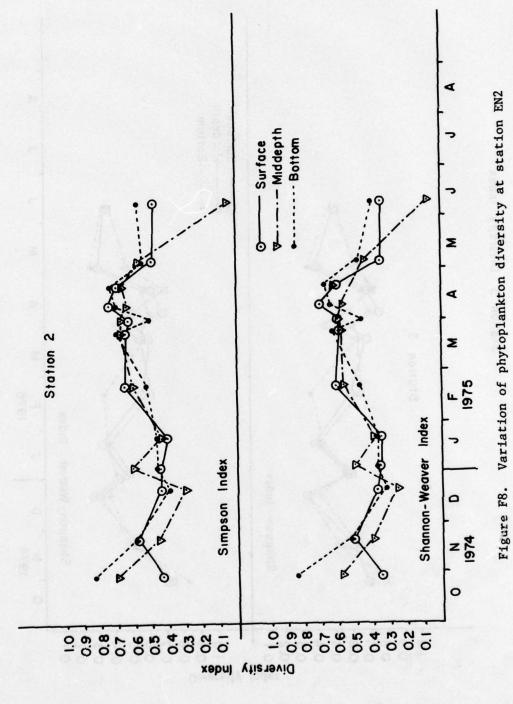
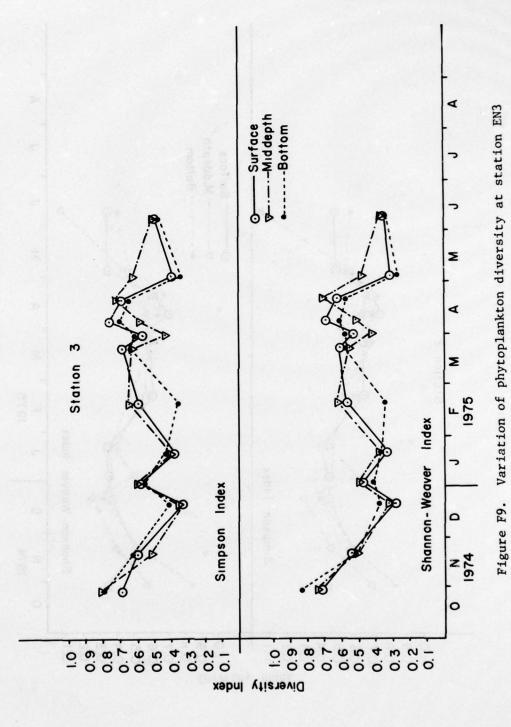


Figure F6. Diurnal variation of phytoplankton population at station EN2









0800 1000 1200 1400 1600 1800 2000 2400 0800 1000 1200 1400 1600 1800 2000 2200 22 April '75 Diurnal variation of Phytoplankton diversity at Station 2 21 Jan '75 O Surface TIME 1400 1600 1800 2000 2200 2400 0200 0400 1200 1400 1600 1800 2000 2200 2400 19-20 Nov '74 1 April '75 Simpson Index Diversity O :-w O 0.4 0.9 Index 0.2 0.8 0.7 9.0 0.5 0.8 9.0 0.5 4.0 0.3 0.7

-

Figure F10. Diurnal variation of phytoplankton diversity at station EN2 (Simpson index)

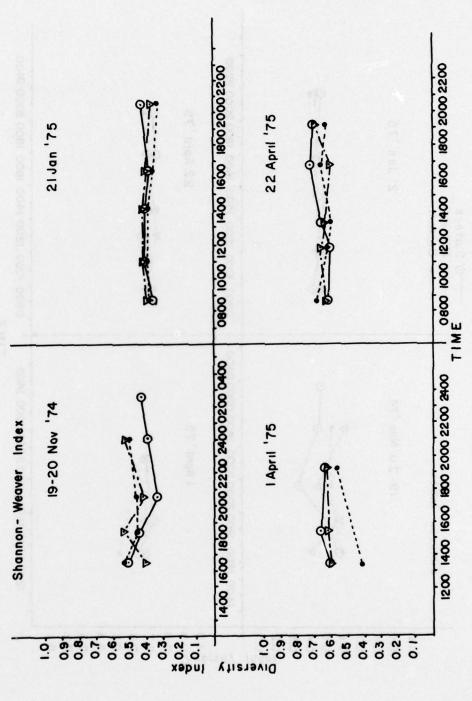


Figure F11. Diurnal variation of phytoplankton diversity at station EN2 (Shannon-Weaver index)

In accordance with letter from DAEN-RDC, DAEN-ASI dated 22 July 1977, Subject: Facsimile Catalog Cards for Laboratory Technical Publications, a facsimile catalog card in Library of Congress MARC format is reproduced below.

Nuzzi, Robert

Aquatic disposal field investigations, Eatons Neck disposal site, Long Island Sound; Appendix F: Predisposal baseline conditions of phytoplankton assemblages / by Robert Nuzzi, New York Ocean Science Laboratory, Montauk, New York. Vicksburg, Miss.: U. S. Waterways Experiment Station, 1977. 12, 732j p.: ill.; 27 cm. (Technical report - U. S Army Engineer Waterways Experiment Station; D-77-6, Appendix F) Prepared for Office, Chief of Engineers, U. S. Army, Washington, D. C., under Contract No. DACW51-75-C-0016 (DMRP Work Unit 1A06C)
References: p. 12.

1. Benthic fauna. 2. Disposal areas. 3. Dredged material disposal. 4. Eatons Neck disposal site. 5. Field investigations. 6. Phytoplankton. 7. Sampling. 8. Waste water disposal. 9. Water quality. I. New York Ocean Science Laboratory. II. United States. Army. Corps of Engineers. III. Series: United States. Waterways Experiment Station, Vicksburg, Miss. Technical report; D-77-6, Appendix F. TA7.W34 no.D-77-6 Appendix F.