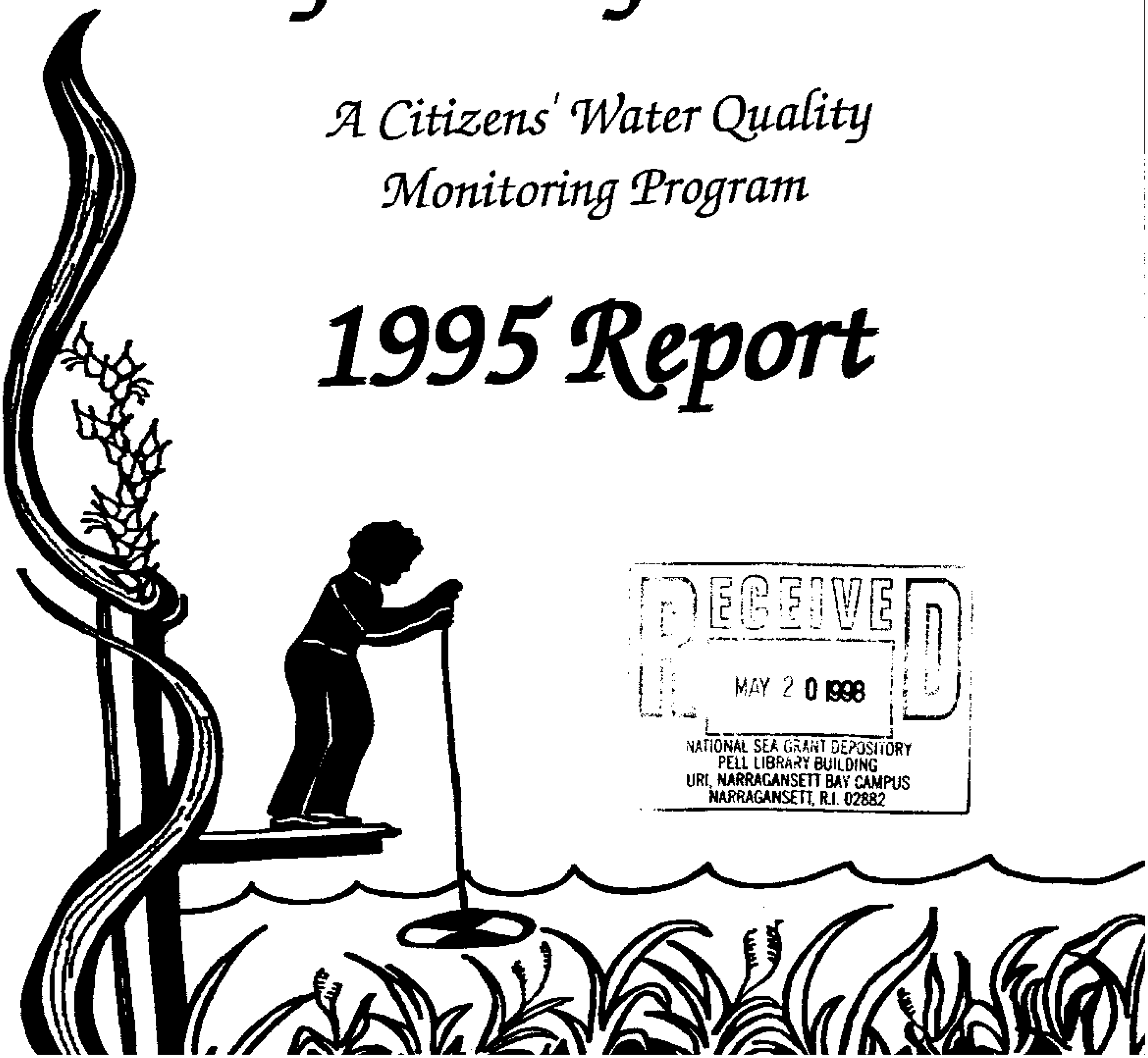
GREAT BAY WATCH
UNH COOPERATIVE EXTENSION/SEA GRANT

Great Bay Watch

A Citizens' Water Quality Monitoring Program

1995 Report



THE GREAT BAY WATCH

ANNUAL REPORT

January - December 1995

GREAT BAY WATCH
UNH COOPERATIVE EXTENSION/SEA GRANT

by

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Sea Grant New Hampshire Maine

Acknowledgments

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The volunteer monitors in the Great Bay Watch must be recognized and gratefully acknowledged, for it is through their efforts that we all better understand and appreciate the Great Bay Estuary.

Executive Summary

The Great Bay Estuary is one of two estuaries in New Hampshire. The system involves seven rivers, Little Bay and Great Bay, and one-third of the watershed is located across the Piscataqua River in Maine.

According to several assessments by various government and state agencies, the Great Bay Estuary is undergoing stress as is witnessed by the closing of more than half its shellfish beds for nearly a decade. Although most sewage treatment plants have been upgraded to at least secondary treatment status, coliform counts are high in some portions of the rivers and the bays. There is potential for increased nutrient-loading, oil spills, and toxic pollution from resuspended solids and from several Super Fund sites at the former Pease Air Force base.

The Great Bay Watch is a volunteer estuarine monitoring group of adults, teachers and students who have been taking samples and making analyses of several parameters, including dissolved oxygen, temperature, water transparency, salinity, pH and fecal coliform bacteria for the past five years. Their mission is to add information to the long term data base being developed for the estuary by the University of New Hampshire's Jackson Estuarine Laboratory and the Great Bay National Estuarine Research Reserve. Activities of the program bring attention to critical problems in water quality that are developing in the estuarine system. The Great Bay Watch is also an educational program that has done much to inform communities around the estuary of the need to conserve this valuable estuarine system. Staff members and volunteers participate in local, regional and national conferences and workshops, helping the public to become better informed decision-makers.

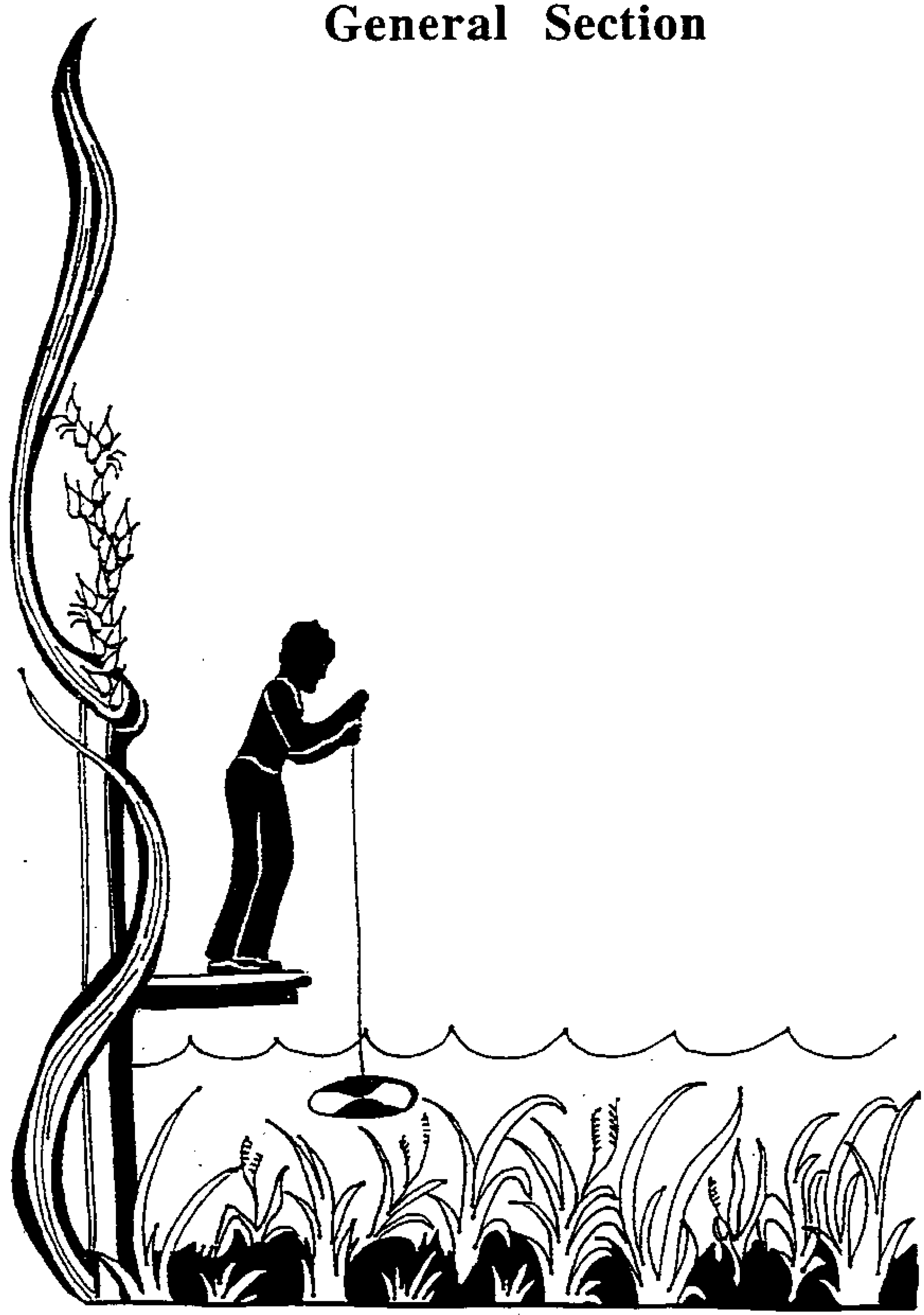
The Great Bay Watch continues to use Quality Assurance/Quality Control Program to ensure that the volunteers consistently produce and provide useful data. Attention to both accuracy and precision are important part of the program. Thus far, the volunteer monitors met the goals set and provide data that is valid.

The data show that while the Great Bay estuary is still fairly healthy, it has some specific problems that need to be addressed by appropriate actions of individuals and town and state governments. High fecal coliform counts in some of the rivers define problem areas that should be investigated. Levels of dissolved oxygen below state standards in the Oyster, Lamprey, and Winnicut Rivers should also be investigated.

The Great Bay Watch intends to continue its monitoring and educational program and will actively seek funding to support its efforts.

Table of Contents

General Section

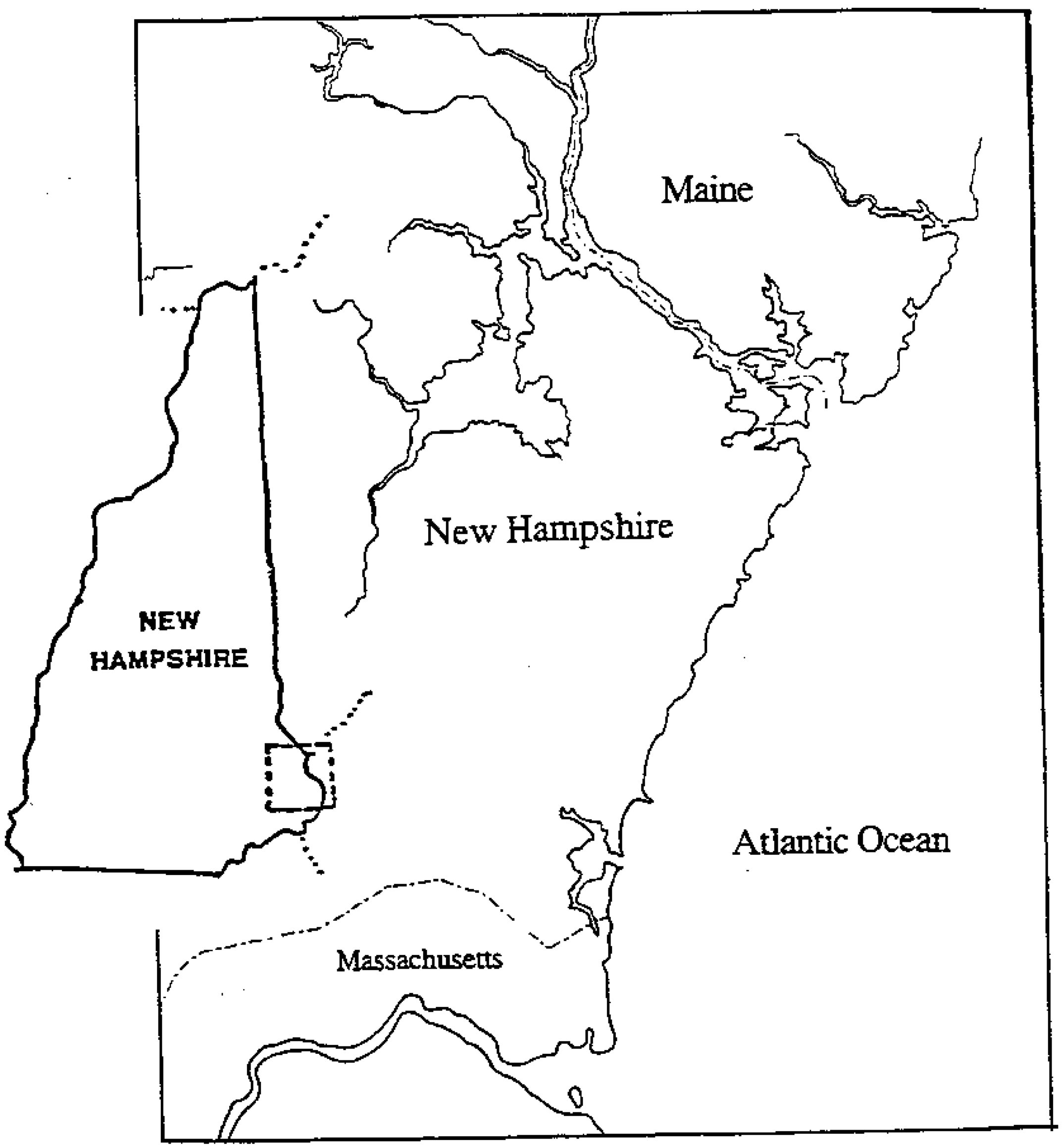


A. The Great Bay Estuary and the Great Bay Watch

What is the Great Bay Estuary and where is it located?

The Great Bay Estuary is one of two estuaries on the short coastline of New Hampshire. It is a complex embayment composed of the Piscataqua River, Little Bay, and Great Bay. It drains a watershed of 930 square miles, one-third of which is in Maine. Eight rivers flow into the estuary, and one of them, the Piscataqua, is part of the boundary between Maine and New Hampshire.

Coastal New Hampshire



What is the Great Bay Watch?

The Great Bay Watch

Currently, the Great Bay Watch is the most wide-ranging program for direct citizen involvement in monitoring estuarine waters. The Watch includes adults from all walks of life, as well as students and teachers from local high schools. The group was formed in 1990 with funding from NOAA in response to the Great Bay National Estuarine Research Reserve Management Plan, which listed the formation of a citizen estuarine monitoring program as one of its objectives. The Great Bay Watch has been a part of the educational efforts of UNH's Cooperative Extension/Sea Grant for the past six years. the number of monitors has tripled, and the Watch now samples at twice as many sites as it originally covered. The mission of the Great Bay Watch is to gather information about the state of the estuary and to increase knowledge and interest among its members and constituents about the importance of conserving it.

The Great Bay Watch has four specific objectives:

1. To establish a wide spatial array of data on the Great Bay estuarine system and make the data available to local and regional agencies, consulting firms, scientists, students, teachers, and to add to Jackson Estuarine Laboratory's long-term estuarine data base;

2. To monitor the fecal coliform content of water samples at all sites and report the results to appropriate individuals and agencies;

3. To bring the University research community, interested citizens, and high school students together in an educational program that develops an understanding of the estuarine system as an important natural resource to be conserved;

4. To augment regional, state, and national citizen water monitoring efforts.

The Great Bay Watch is managed by a coordinator and extension specialist from N.H.'s Cooperative Extension. Currently, the Great Bay Watch has 46 adult members, including businessmen and women, doctors, librarians, secretaries, dentists, homemakers, planners, and retired engineers. More than 100 adults have been members of the Great Bay Watch over the past six years, with 23 enrolled in the program since its inception. Involvement of area high schools has grown from one school in 1990 to seven, by 1994. The volunteers monitor 15 sites, ranging through riverine, bay and near-coastal locations within the estuarine system. During the six years, the monitors have driven thousands of miles and volunteered 11,968 hours to watch over the estuary.

B. Participants and supporters

Who are the volunteers and monitors of the Great Bay Watch?

In 1995 the Great Bay Watch with members from 19 communities around the Great Bay estuarine waters, samples twice a month at 15 different sites. The monitors range from retired adults to high school students. There are more than 50 active members this year, with a number of adults who are UNH Marine Docents. Each Site team was composed of about two to four members. The Quality Assurance/Quality Control (QA/QC) team for the 1995 season was established and they checked both field and lab techniques. An additional 40 people provided support for the Great Bay Watch in many ways ranging from the use of docks, office help, technical advice and financial contributions.

Schools :

Four area schools continued sampling in 1995 for the Great Bay Watch Program. The Oyster River High School serves the towns of Durham, Madbury and Lee. Laura Parsons and Barbara Hopkins are the teacher coordinators of students for sampling at Oyster River(Site 1). Marshwood High School serves the Maine towns of Eliot and South Berwick. The teacher coordinators of the students sampling are Joyce Tugel and Jeff Gardner. Exeter AREA School serves the towns of Exeter, Kensington, Brentwood, East Kingston, Newfields and Stratham. Brian Wazlaw and Peter Stackhouse are the teacher coordinators of Exeter AREA School for sampling (Site 16). The final school participating in the GBW program is Phillips Exeter Academy. The teacher coordinator of the students for sampling (Site 16) is Chris Matlack.

University of New Hampshire Work Study Students

Dave Waltz - Marine Biology Graduate - December 1994
Damon E. Burt - Water Resources Management; Wetland Ecology Minor
Amy Carrier - Life Science and Agriculture Major with concentrations in Soil and Communications
J. Andrew McMahon - Water Resources Management; Wetland Ecology Minor, Graduate - December 1995
Gretel Clarke - Environmental Conservation
Joanne Morrill - Math Statistics

Quality Assurance and Quality Control (QA/QC) Team

Damon E. Burt
Claire Curtis
J. Andrew McMahon
Joanne Morrill
Al Pratt
Ann Reid

Monitors :

Dover

Site 9	Nell Neal, Leslie Molleur, William Kram, John Munson
Site 10	Jim and Jeanne McShane, Dr. William McGrew, Barbara Elkerton

Durham

Site 1	Barbara Hopkins, Laura Parsons, ORHS Students
Site 2	Dr. William Penhale, Jud Porter
Site 7	Alice and Bob Briggs, Ibby Lourie, a few ORHS students

Eliot, ME

Site 15	Joyce Tugel, Jeff Gardner, Steve Sargent and MHS students

Exeter

Site 16	Chris Matlack, Brian Wazlaw, Peter Stackhouse and PEA and EAHS students

Stratham/Greenland

Site 4	Liz Sizemore, Peggy Mullin, Karen Francis, Patty Warren, Anne Taylor

New Castle

Site 11	Al Pratt, Deb Schulte, Maddy Alana, Joanne and John Ireland

Newington

Site 6	Barbara Hill, Barbara Trow

Newmarket

Site 3	Robert and Mary Allard, Don Bassett
Site 12	Audrey Fortin, Amy Carrier
Site 13	Barry Sloat, Michael Mensh
Site 14	Audrey Fortin, Amy Carrier

Portsmouth

Site 5	Barbara Baird, Don Chamberland, Susan McCarthy

Alternate samplers Jack and Jane Jette, Clarie Curtis

Laboratory Technician Damon E. Burt, Stan and Reina Ellis and Dave Waltz

Watchers in training Sue Babula and Marilyn Young

Video and graphics Brian Pay and Lisa St.Gelais Graphics Interns, NHTC
Jane Bennett, UNH Marine Docent

Office Support Marion Gray

Who are the supporters of the Great Bay Watch?

Technical Advisory Committee

The Great Bay Watch was also supported by the Technical Advisory Committee. They are:

Betsy Franz, Education Coordinator at Sandy Point Discovery Center for the Great Bay National Estuarine Research Reserve. Previously a teacher of biology at Skidmore College for 26 years. Presently she develops and delivers educational programs and opportunities at the Sandy Point Discovery Center.

Dr. Steve Jones, research Associate Professor, Jackson Estuarine Laboratory, University of New Hampshire. Bacteriologist in the Department of Natural Resources at UNH. Conducts research on fate and process affecting nutrient and microbial non-point sources pollution in coastal areas; shellfish sanitation and processing; ecology of indigenous estuarine bacterial pathogens; bioremediation of toxic compounds.

Amy Lindsay, Chemistry Lab Supervisor, University of New Hampshire. Coordinates laboratory courses, keeps inventory, and writes lab curricula.

Chris Nash, Principal Planner, New Hampshire Office of State Planning. Director of the New Hampshire Estuaries Project (part of the EPA's National Estuary Program), focusing in the areas of water quality, shellfish resources and environmental planning. University of New Hampshire graduate Masters in Hydrology.

Jeff Schloss, Coordinator Lakes Lay Monitoring Program, Cooperative Extension, University of New Hampshire. Research Scientist with UNH Freshwater Biology Group. Volunteer monitoring program management and sampling protocols. Watershed water quality monitoring and modeling; applied limnology GIS applications for water quality analysis.

Joyce Tugel, Science Teacher, Marshwood High School in Eliot, Maine. A chemistry teacher for 6 years. One of her main interests is incorporating "real life" science into the existing curriculum. Prior to becoming a teacher, she was a research scientist in environmental biogeochemistry for more than 10 years.

Grants Received

The Great Bay Watch major support is from Great Bay Hydrologic Unit(USDA).

Other grants were received from:

1. Great Bay National Estuarine Research Reserve
2. UNH, Cooperative Extension, Water Resources, which provided clerical assistance for the Five-Year Report, the new display and the coliform video entitled, Processing Fecal Coliform Samples.
3. Greater Piscataqua Community Foundation
4. NH Office of State Planning NH Coastal Program

Private funds

Private citizens who contributed to the Great Bay Watch this last year were:

Barbara Baird
Peter and Marjorie Smith
Val England

Jim Fabiano and new Great Bay Watch display.

C. Accomplishments for 1995

What have been the major accomplishments of the GBW?

The spatial array of data on the water quality of the Great Bay estuarine system has been greatly increased, helping to provide a more complete picture of the estuary for scientists, private and public agencies, and local citizens.

Because of the Great Bay Watch's rigorous quality control efforts, it has achieved data results comparable to those achieved by scientists from UNH's Jackson Estuarine Laboratory, the N.H. Office of State Planning and Department of Health and Human Services, and the Newmarket wastewater treatment facility.

Participation in local, state, regional, and national events including conferences, workshops, and committees helped to focus public attention and interest on the vital roles of estuaries in general and Great Bay in particular.

The Great Bay Watch has educated a core of volunteer about the importance of conserving the estuary and its resources, and has provided a direct avenue for their active participation in the process.

Expanding the program to include high school students and their teachers has given educational programs a more direct link to their communities and, in the case of Newmarket, has contributed to greater community and financial support for the school.

Participation in the Great Bay Watch has provided science career-related information and experience for students and has been a direct influence on the choice of careers for several student Great Bay Watchers.

Acquired a modem for "on-line" capabilities with the monitoring groups, student and teacher, and the "Watchers" themselves.

Finished training video for processing coliform with the assistance of Newmarket High School Students and videography by Robert Michelson.

Created and published the Five-Year report and distributed 150 copies to Watchers, staff, government agencies, and other water quality monitoring groups.

Training video "Processing Fecal Coliforms" is being used by the schools that are part of the Great Bay Watch. It has been also requested by other schools, other monitoring groups and several science centers.

Created a new professional quality portable display which was used at presentation on the next page:

Presentations

The Great Bay Watch staff and volunteers presented at:

Spring and Fall New Hampshire Science Teacher Association conference
NH/ME Water Quality Monitoring Fair
Ducker's Day at Wagon Hill Farm
Sandy Point Discovery Center
Newmarket High School Science Fair
Great Bay National Wildlife Refuge
Rachel Carson Wildlife Refuge
Cooperative Extension Spring Meeting
University of New Hampshire Earth Day
National Estuarine Research Reserve annual meeting
National Marine Educators Association Conference
University of New Hampshire Marine Docents
Gulf of Maine Marine Education Association Conference
Elderhostel NH: A Microcosm of New England Shores
Sea Grant Staff and Cooperators meetings
Discover Wild N. H.
Seacoast Science Center
Coastal Clean-up
Farm and Forest Day
St. Thomas Aquinas High School winter term
Cocheco River Fest

Education and Training

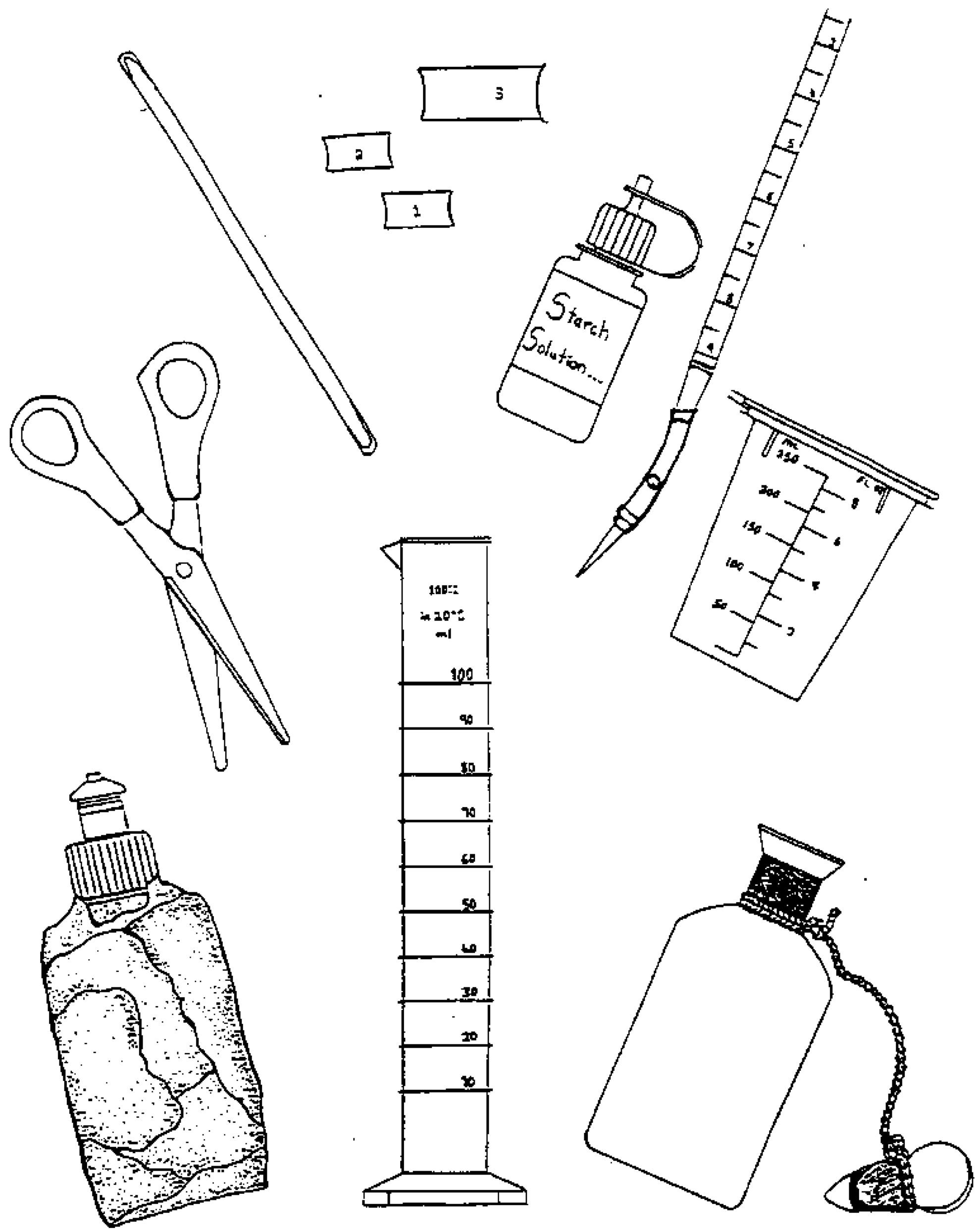
Five University of New Hampshire workstudy students joined the part-time staff of the Great Bay Watch. Workstudy students were involved in a number of different tasks including lab testing, QA/QC, field sampling, split sampling, statistical analysis, office support, publication, and a multitude of other tasks during meetings.

Additional adult volunteer were needed to cover sites because a couple of high schools were not available to do sampling. Approximately seventeen new members as well as 30 or more high school students were trained. 35 volunteers participated in both QA/QC sessions as part of our quality program.

Processing Fecal Coliform Samples video was used to help teach the processing of coliform bacteria to six potential laboratory assistants.
During monthly meetings for the GBW and friends several speakers enthusiastically informed members about the following topics:

1. Chris Nash - New Hampshire Estuary Project
2. Byard Mosher - Nitrogen Deposition with in the Great Bay.
3. Cindy Chase - Lamprey Research from AFARE
4. Welber Bullock - Parasites
5. Khristine Cheetham - Coast Clean-up
6. United States Coast Guard station at New Castle - Tour of the USS Constitution
7. Rick Langan - Great Bay Conservation Trust

Technical Section



Technical Section

A: Water Quality Data and Analyses

What are the Water Quality indicators that the Great Bay Watch monitors?

The Great Bay Watch measures several water quality indicators to track the overall health of the estuary. These standard parameters are routinely measured in water quality studies, and the volunteers use measurement techniques that are commonly employed in monitoring programs throughout the country. All surface waters in the state are classified as "Class A" (highest quality, potential drinking water supply, discharge of sewage or wastes prohibited) or "Class B" (second highest quality, suitable for fishing, swimming, and other recreational uses) by the N.H. Department of Environmental Services (1). All N.H. tidal waters are Class B waters. General water quality standards for each class are established in state law **(RSA 485-A:8)**, and provides guidelines to determine if water is "clean" or "polluted". Where applicable, the data are compared to those standards.

Water temperature is a basic measurement included in water quality studies not only because it influences biological activity, but also because it affects pH and dissolved oxygen readings. Warmer water temperatures slightly increase pH, and colder water has the potential of holding more dissolved oxygen than warm. It should be noted however, that in addition to water temperature, pH and dissolved oxygen levels are influenced by many other factors. Water temperature is a seasonal parameter with highs occurring in the late summer and lows in winter/early spring. Estuarine environments tend to exhibit cooler and less variable temperatures close to the ocean, and warmer and more variable temperatures in the inner estuary and tidal rivers. The GBW data represent these characteristics well.

Salinity is another parameter often measured in tidal areas. Aquatic life, including when and where different organisms can live in the estuary, is affected by varying levels in salinity. Since estuaries are embayments where fresh water mixes with salt water, it is not surprising that salinity readings vary with the seasons and weather conditions. Rain and snow melt cause rivers to swell, decreasing the salinity in the bay. As stream flows decrease and evaporation from the bay's surface increases during the summer months, salinities begin to rise. Salinities tend to drop again in mid to late fall as autumn rains increase river flows. This seasonality is reflected well in the data from the GBW sites. Likewise, the data also reflects how current weather trends have affected the salinity levels. Salinity is measured with a hydrometer and thermometer, and is expressed in parts per thousand (ppt: parts of dissolved solids per 1000 parts sea water).

pH is a measure of the hydrogen ion concentration in water; hence, it is a measure of acidity. The pH scale ranges from 0 to 14, with a pH of 7.0 being neutral (neither acidic or basic). Acidic waters have pH readings less than 7, while basic (or alkaline) waters have pH readings of greater than 7. Open ocean waters tend to have a pH just over 8, while fresh water tends to be slightly acidic. Estuarine waters, a mixture of fresh and salt water, tend to have pH readings between 7 and 8. The GBW data indicates that there has been a small increase in the average pH at some sites which may be attributed to a lack of precipitation. The pH levels in the Great Bay may vary slightly over a year, but in general show little seasonality. Large changes in pH can have a significant impact an estuarine life, and readings well above or well below the 7-8 range may indicate pollution. New Hampshire standards for Class B waters specify that pH readings should be between 6.5 and 8.0, unless naturally occurring. pH is measured with an electronic "pocket" pH meter (Cole Parmer pH testr 2).

Dissolved oxygen (D.O.) is an important measure of the health of the estuary, as aquatic animals and plants require it for survival. Several factors affect the oxygen content of the water. Temperature (cold water holds more oxygen) and salinity (salty water holds less oxygen) significantly affect the amount of oxygen in the water. Wind/wave action, as well as photosynthesis in the water (by phytoplankton and submerged aquatic vegetation), can increase D.O. values. Low dissolved oxygen can be an indicator of pollution from high turbidity (cloudiness of water), which causes a decrease in photosynthesis. Excessive nutrient loading can result in a large amount of organic matter in the water, and the decomposition of this material reduces the oxygen content in the water. Half of GBW sampling times are scheduled to occur when low tide is in the early morning, as this times tends to reflect "worst case" conditions, when neither photosynthesis activity nor colder, high tide water are present to raise the oxygen levels. Dissolved oxygen is measured with a Micro-Winkler titration kit and measurements are expressed in milligrams of oxygen per liter of water (mg/L).

While the overall oxygen content (in mg/L) in the water is important in assessing the health of a water body, it is also useful to look at dissolved oxygen in terms of "percent saturation." Percent saturation is the ratio of oxygen concentration that is in the water to the oxygen concentration that could be in the water, at given temperature and salinity. Expressing dissolved oxygen data in terms of percent saturation makes observations from different sites taken at different times of the day and year comparable to one another, and they are a better indicator of whether or not a particular water body is showing problems. One might expect that the highest obtainable percent saturation value to be 100 percent; however, "supersaturation" (values greater than 100 percent) can occur under certain conditions. Very high concentrations of oxygen are possible in areas with a great deal of aquatic vegetation (oxygen production through photosynthesis), or in areas subject to strong wind and wave action (addition of oxygen through "entrainment" of atmospheric oxygen into the water). New Hampshire standards for Class B waters specify that dissolved oxygen readings should be no less than 75 percent saturation, unless naturally occurring.

Transparency (Secchi depth) measurements are used as a measure of the clarity of the water. Estuarine waters are naturally turbid from the sediments and/or nutrients that cause increased phytoplankton growth. Turbidity tends to be higher in the tidal rivers and inner estuary, decreasing somewhat closer to the ocean (farther away from the sources of turbidity). However, excessive turbidity may indicate problems in the estuary. Erosion from shorelines and upland areas increases the turbidity of the water, as can plankton blooms caused by high levels of nutrients. Compounding these problems is the fact that turbid water decreases the amount of light penetrating through the water column, thus reducing photosynthesis and lowering dissolved oxygen levels. High turbidity, especially that caused by sedimentation, can also affect the living resources of the estuary. For example, oyster larvae require a clean substrate on which to settle, and deposition of sediment on these substrates can reduce larval recruitment (settlement and growth). Since many of the GBW sites are very shallow at low tide (and the secchi disc is often resting on the bottom and still visible), only high tide secchi depths are evaluated for all sites in this report.

Fecal coliform bacteria are used as an indicator of human sewage pollution. While fecal coliforms are found in the feces of all warm-blooded animals, their presence is taken to mean that other, more dangerous bacteria are present. Their presence in high numbers can indicate pollution from improperly treated sewage effluent, waste discharges from boats, improperly functioning or failed septic systems, untreated urban storm water, runoff from agricultural operations, feces from wildlife, or other sources. New Hampshire water quality standards for tidal waters utilize another kind of bacteria (enterococci) to determine if waters are safe for swimming. State standards for tidal shellfish waters, however, do specify acceptable levels of fecal coliforms. While direct application of shellfish water standards to GBW data would not be appropriate (see "How Healthy is the Great Bay Estuary"), these standards can be used to give a general sense of contamination in the estuary. Fecal coliform tests are performed using the membrane filtration (plate count) method.

Note: In a set of bacterial data, the average value is calculated by computing the geometric mean, rather than the arithmetic mean. This is the conventional manner by which bacterial averages are reported (1). Unlike the arithmetic mean, the geometric mean more accurately reflects the nature (or "middle road") of a data set that has a great deal of variability in the observations (as is often the case with bacterial data). For example, consider a set of bacterial data comprised of 10 observations, with eight of the observations equaling two colonies per 100 ml and two observations equaling 500 colonies per 100 ml (indicative of a relatively clean water with occasionally high bacterial levels, perhaps caused by wildlife defecating near the site). The **arithmetic mean** of this data set would be 102 colonies per 100 ml, which does not reflect the fact that most of the observations are quite low. The **geometric mean** of this data set would be six colonies per 100 ml; thus, the geometric mean is a better representation of the bacterial data set. For sites which indicate minimal variability, we also look at the **median** (the middle number when all observations are ordered in increasing order) as an average measure of the bacterial counts. **Appendix E** contains a table of comparisons of fecal coliform geometric means and medians.

In order to calculate geometric means for the GBW data, some adjustments to the data were necessary. First, on several of the sample dates, there were no fecal coliforms detected (0 colonies per 100 ml of water sample). Zero values cannot be used in calculating geometric means, so these observations were changed to have fecal coliform counts of one colony per 100 ml. According to "Standard Methods" for fecal coliform procedures a colony count between 20-60 is preferred, if a 100 ml of sample produced a too numerous to count (TNTC) then 60 was entered as the count. When a 10 ml or 1 ml water samples were used as the dilution and count was TNTC, 600 and 6000 respectively were reported since these would be the calculations for colonies per 100 ml. The second adjustment to the data relates to those samples for which coliforms were TNTC the number of colonies on the plate. In the case of high values, the adjustment utilizes the minimum number of colonies known to be present. By these methods we are prevented from overestimating high counts that could not be documented. When calculating the medians for the GBW data, adjustments to those observations which were too numerous to accurately count were calculated using the same manner implemented for the determination of geometric means. Zero values for calculating the median were not changed.

What are the goals of the data analyses?

In looking at the six years of Great Bay Watch activities, there were many options on how to analyze the data and what to look for specifically. Discussions with the Technical Advisory Committee and Marie Gaudard of the UNH Mathematics Department led to the following goals for the data analysis:

1. Generate site-by-site descriptions and comparisons based on municipal location -- this involved calculating six-year descriptive statistics (number of potential observations, number of missing observations, mean, standard deviation, maximum value, and minimum value) to characterize each site and make qualitative analyses of differences among the various municipal estuarine environments in the sampling site network. Graphs of the means for all parameters are presented in the text of this section, and tables of descriptive statistics are presented in Appendix 5.

2. Determine important year-to-year changes of specific parameters and analyze them -- this involved generating time series graphs to identify trends or changes occurring at all sites. Specific interest was focused on dissolved oxygen percent saturation levels, fecal coliform counts and pH. Possible explanations for the changes are addressed. Time series graphs for all parameters except fecal coliform and turbidity are presented in Appendix C and graphs of year-to-year changes in mean responses are presented in the text of this section.

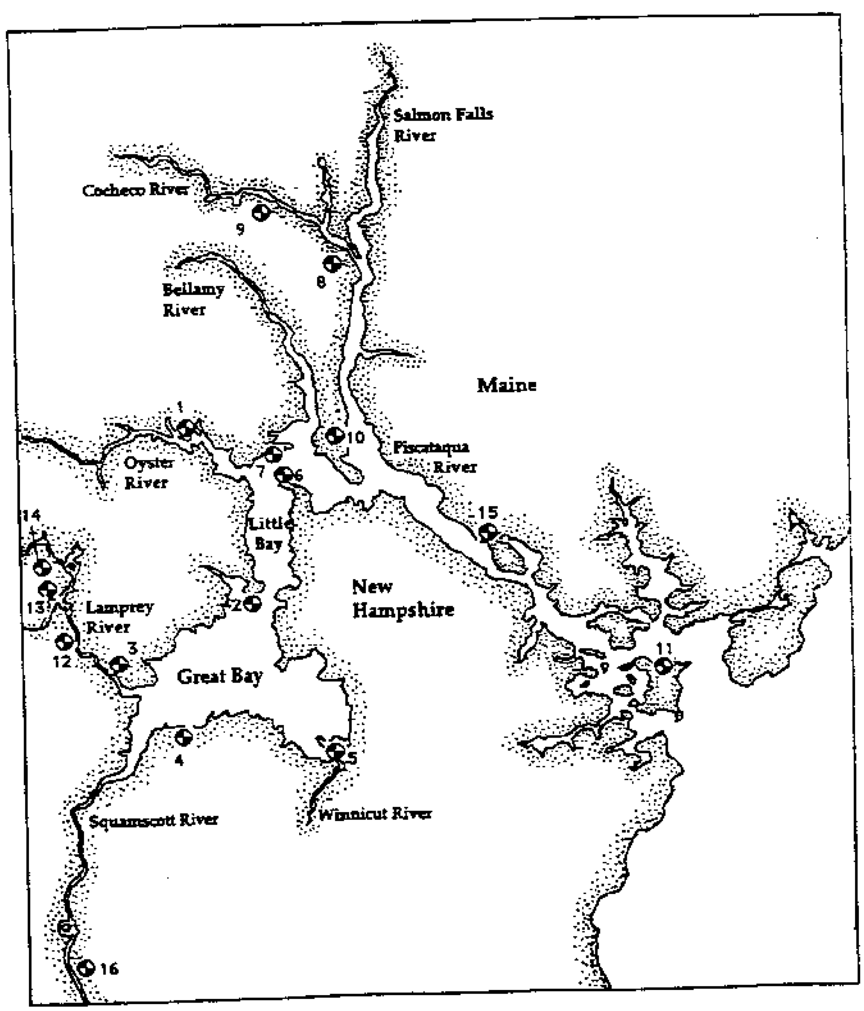
3. Determine the location and nature of water quality problems -- this primarily involved an analysis to determine where the bacterial and dissolved oxygen data indicated water quality problems in the estuary.

What are the general characteristics of each Great Bay Watch site?

The purpose of this section is to generally characterize each site in the sampling network. This is accomplished by calculating descriptive statistics (number of potential observations, number of missing observations, mean, standard deviation, maximum value, minimum value) for each parameter, utilizing all of the data in each site's records **(Appendix B)**. The sites are grouped by their municipal location in order to provide a picture of the quality of the estuarine water in each town. Graphs of the overall means are included at the end of this section.

Qualitative analyses of differences among the various estuarine environments in the sampling site network are made. Graphs of the means for all parameters follow written descriptions of the sites, and tables of all descriptive statistics are presented in **Appendix C** gives a representation of all the data collected at each site by means of time series plots which are used to show the variability of the data over time as well as to indicate potential observations of unusually high or low values that may suggest a problem or a change in natural system function.

Map of the Great Bay Watch Site Location



Dover:

The GBW monitors two sites in the town over Dover. One is located on the Cocheco River while the other is on the Piscataqua River.

Site 9: Neal (Cocheco River)

Site 9 is located off the Neal/Williams property, near the mouth of Fresh Creek on the Cocheco River and upstream of the Dover Wastewater Treatment Facility. Water temperature was somewhat lower than other tidal river sites with low and high tide means of 15.2°C and 16.7°C respectively. However, at both low and high tide, this site was one of the most variable in regards to water temperature. Both low and high tide salinities were relatively low (8.9 ppt and 14.1 ppt respectively) and showed moderate to high variability. Secchi readings were similar to but less variable than other tidal river sites (mean = 126.6 cm). Dissolved oxygen levels at high tide were adequate, averaging 94.68% saturation with only four out of 74 observations below the Class B standard of 75%. Low tide conditions were somewhat lower with a mean of 81.70% saturation with 17 observations falling below 75%. This site has shown very high fecal coliform levels at low tide (mean = 201 colonies and median 215 colonies). Samples show consistently high bacteria counts in every year since the site was added to the GBW network. High tide fecal coliform counts are much lower than low tide (mean = 30 colonies and median = 50 colonies).

Site 10: Clark (Piscataqua River)

Site 10 is located off Clark property (moved from Dube next door) downstream of Site 9, below the outfall to the Dover Wastewater Treatment Facility and downstream of Sturgeon Creek, which empties into the Piscataqua River from the Maine side. The diluting effects of the Piscataqua River were apparent when comparing this site's data to Site 9. Low tide water temperatures were slightly higher than Site 9 (mean 16.0°C) but high tide water temperatures were slightly lower (mean 16.1°C) than Site 9. However the water temperature tends to be a little less variable at this site probably due to its proximity to Little Bay. Salinities were markedly higher at Site 10, with a low tide mean of 19.0 ppt and a high tide mean of 25.8 ppt. This site's salinity tended to be more variable at low tide than site 9 but less variable at high tide. Transparency readings averaged around 208.5 cm. Dissolved oxygen levels were more than adequate at both tidal stages with low and high tide means of 98.54% and 88.60% saturation respectively. To date there have been only 3 observations below 75% all occurring at low tide. Bacterial counts were much lower at this site with low and high tide geometric means of 19 and 3 respectively. The decreased bacterial means at site 10, as compared to Site 9, probably represent dilution of contamination as water mixes and moves downstream.

Durham:

The GBW monitors three sites in the town of Durham; one on the Oyster River, one on Great/Little Bay and one on Little Bay.

Site 1: Peninsula (Oyster River)

Site 1 is located at the Smith's dock, just upstream of Bunker Creek on the Oyster River, closer to the river's tidal mouth than to the tidal dam in downtown Durham. This site is located downstream of the Durham Wastewater Treatment Facility. Low and high tide water temperatures were quite moderate with means of 16.0°C and 17.0°C, respectively, and the variability was quite similar at both tidal stages. Of the tidal rivers, this site continues to have one of the highest mean salinities at both tidal stages (low tide mean = 21.3 ppt and high tide mean = 26.0 ppt). Secchi depths continue to be moderate compared to other sites with a mean of 155.5 cm. Low tide dissolved oxygen percent saturation levels had a mean of only 77.11% while high tide levels averaged 98.66%. Of the 87 observations recorded at this site 35 of them showed conditions of oxygen depletion (below 75%). Although the recurring morning oxygen problems at this site are a cause for concern, it is encouraging that the problem does not tend to persist throughout the day. Low tide fecal coliform levels tend to be higher (mean = 40 colonies) than at high tide (mean = 3 colonies) suggesting that bacteria sources are located upstream of the site. Yearly means indicate that there has been a steady decrease in bacteria counts at both tidal stages.

Site 2: Jackson Estuarine Laboratory (Great/Little Bay)

Site 2 is located at the Jackson Estuarine Laboratory on Adams Point, approximately where Little Bay and Great Bay meet. Water temperatures tend to be quite stable at this site. Both the low and high tide means were 15.8°C and varied only about 4.5°C to 5.0°C. Mean salinities were relatively high at both tidal stages (low = 25.6 ppt and high = 27.0) and showed moderate variability. High tide secchi readings averaged 166.4 cm. Dissolved oxygen percent saturation levels were substantially above 75 Percent saturation level at this site with low and high tide means of 91.56% and 97.43% respectively. Only one low tide observation fell below the 75% level. Fecal coliform counts were low averaging 3 colonies at both tidal stages.

Site 7: Cedar Point (Little Bay)

Site 7 is located at the Roshalt's dock on Cedar Point, across Little Bay from Fox Point (Site 6). Water temperatures were cooler at site 7 than at sites 1 and 2 with low and high tide means of 15.1°C and 14.6°C, respectively. Salinities were among the highest measured with low and high tide means of 26.6 ppt and 28.5 ppt respectively and low to moderate variability. This site showed the third highest transparency level averaging 277.6 cm. Low and high tide dissolved oxygen percent saturation levels were quite similar (low mean = 91.75 and high mean = 92.82). Two low tide observations fell below the 75% level. Bacteria counts tended to show large variability at this site; however, the low and high tide geometric means were only 6 colonies and 8 colonies respectively. Bacteria medians compare quite well with the geometric means (5 colonies and 8 colonies).

Eliot, Maine:

The GBW monitors from Marshwood High School monitor one site in the town of Eliot.

Site 15: Patten Yacht Yard (Piscataqua River)

Site 15 is located in the lower Piscataqua River near the Patten Yacht Yard, Inc., in South Eliot. Monitoring of this site began in 1993, thus there are considerably less data for this location. This site is relatively close to the open ocean; hence, its cool mean water temperatures (low tide = 13.9 and high tide = 12.2), high salinities (low = 27.3 ppt and high = 30.4 ppt) and high secchi depth of 413.5 cm are expected. Low tide salinities are quite variable though, while high tide shows much less variability. This site shows high dissolved oxygen percent saturation levels averaging 94.78% at low tide and 97.50% at high tide. Two observations, one at low and one at high, fell below the 75% Class B standard. Fecal coliform counts have been decreasing each year with a low tide mean of 4 colonies and a high tide mean of 2 colonies.

Exeter:

GBW monitors from Exeter AREA High School and Phillips Exeter Academy cover the one site in the town of Exeter.

Site 16: Exeter Town Docks (Squamscott River, Exeter, N.H.)

This site, located downstream of the tidal dam in downtown Exeter and just upstream of the crew docks at Phillips Exeter Academy, is the newest site (added to the program in 1994) in the Great Bay Watch. This site is characterized by relatively high water temperatures (low tide mean = 16.8°C and high tide mean = 18.3°C), low salinities (low tide average = 2.3 ppt and high tide average = 4.1 ppt). Another characteristic of Site 16 is high fecal coliform counts (low tide mean of 234 colonies and high tide mean of 93 colonies). Comparison of bacteria medians and geometric means indicate difference at low tide (mean = 234 colonies median = 295 colonies). This may indicate that on average the counts tend to be on the high side. Nevertheless both of the measures used to determine the middle of the road coliform counts, indicate potentially serious low tide fecal contamination. High dissolved oxygen saturation levels (low tide mean = 96.55% and high tide mean = 119.83%) are also found here. Dissolved oxygen levels fell below the 75% level on three low tide occasions and one high tide occasion. The dissolved oxygen levels are high there is some concern with the readings due to the naturally occurring tea colored water at this site. The GBW intends to pay a considerable amount of attention to this site during its next sampling season by using a YSI meter as an alternate measure for the dissolved oxygen levels. If the readings differ greatly with those taken by the Winkler Titration method steps will be taken to modify sampling procedures in order to allow for more accurate readings.

Greenland/Stratham:

The GBW watch collects water quality data at one site in the town of Greenland.

Site 4: Depot Road (Great Bay, Stratham/Greenland)

Site 4 is located on the southern shore of Great Bay at the Great Bay National Estuarine Research Reserve's Sandy Point Discovery Center. Because of the extensive mudflats exposed at low tide at this location, samples can only be collected at high tide. This site experiences one of the highest high tide water temperatures out of all the sites in the network, averaging 18.1°C. The high tide salinity is relatively variable with a mean of 24.1 ppt. Light transparency averages about 63.9 cm, which is low presumably due to the re-suspension of mudflat sediments from wind and wave action. However this wind and wave action tends to promote high dissolved oxygen percent saturation levels, the site mean was 107.73%. Bacteria counts are quite low with a high tide geometric mean of 4 colonies.

New Castle:

One site is monitored by GBW volunteers in the town of New Castle. Staff members of the New Hampshire Coastal Program also sample the water once a month and the data is compiled with GBW data.

Site 11: Coastal Marine Lab (Piscataqua River)

Located at the U.S. Coast Guard station and the UNH Coastal Marine Lab in New Castle, Site 11 is not far from where the Piscataqua River meets the Atlantic Ocean. This site experiences the lowest water temperatures of all the sites in the GBW network with a low tide mean of 11.9°C and a high tide mean of 12.2°C. In addition, both tidal stages show low water temperature variability. Salinities are quite high with a low tide average of 29.5 ppt and 29.0 ppt most likely due to the site's proximity to the open ocean. Dissolved oxygen percent saturation levels are above the standard at this site with low and high tide means of 91.82% and 91.44% respectively. A total of eight observations, four at each tidal stage, fell below the 75% level. Light transparency depths averaged 375.5 cm and showed some variability. Fecal coliform counts were quite low at both tidal stages as well (low tide mean = 4 colonies and high tide mean = 2 colonies).

Newington:

The GBW covers one site in the town of Newington.

Site 6: Fox Point (Little Bay)

Site 6 is located at Fox Point, where Little Bay's north-south orientation takes a sharp bend to the east. The mouth of the Oyster River is located just to the west, while the mouth of the Bellamy River is just to the north. Readings at this site compare quite well with Site 7 Cedar Point, across the bay. Low and high tide water temperatures were moderately variable with means of 15.1°C and 13.5°C, respectively. Salinities tended to be more variable at this site than at other GBW sites. The mean low tide salinity was 26.4 ppt and the mean high tide salinity was 28.8 ppt. Secchi depths are relatively high showing that the water is quite clear average depth being 253.1 cm. Dissolved oxygen percent saturation levels were quite good averaging 93.07% at low tide and 94.28% at high tide. Four observations fell below the 75% level, one at low tide and three at high tide. Bacteria counts are low with both low and high tide means of 4 colonies.

Portsmouth:

One site in the GBW network is located in the city of Portsmouth.

Site 5: Portsmouth Country Club (Winnicut River)

Site 5 is located on the Winnicut River at the Portsmouth Country Club. Low tide water temperatures averaged 15.6°C while high tide temperatures averaged 18.0°C. Low and high tide salinities were quite variable with a low tide mean of 10.5 ppt and a high tide mean Of 22.8 ppt. Secchi readings averaged 73.7 cm at high tide which shows a good level of transparency. Similar to Site 1, Site 5 dissolved oxygen % saturation levels were quite low at low tide averaging 73.22% saturation. Fifty one out of 88 observations fell below the 75% Class B standard. Although this site continuously shows insufficient low tide percent saturation levels, it appears to recover during high tide (mean % saturation = 103.18%). Bacteria counts tend to be quite high at low tide with a geometric mean of 140 colonies, but high tide counts are much lower with a mean of 9 colonies. Comparison of the median indicates that on average there may be more fecal coliform colonies present at low tide than represented by the geometric mean(median = 200 colonies).

Newmarket:

The GBW monitors four sites in the town of Newmarket. All sites are located on the Lamprey River.

Site 3: Weinert (Lamprey River)

Of the four GBW sites on the Lamprey River, Site 3, which is located at the Weinert's dock, is closest to the river's tidal mouth. Water temperatures are relatively moderate to high at this site with a low tide average of 17.0°C and a high tide mean of 18.3°C. Salinity readings tend to be more variable than at the three remaining sites on the Lamprey River with low tide mean of 10.9 ppt and high tide mean of 9.6 ppt respectively. Secchi transparency readings average 96.9 cm. High tide dissolved oxygen percent saturation levels are more than adequate averaging 98.20% while low tide levels tend to average 85.08%. Yet, ten low tide observations and one high tide observation fell below the 75% level. Fecal coliform counts tend to be high at this site with a low tide mean of 185 colonies and a high tide mean of 89 colonies. Low and high tide bacteria medians are 230 colonies and 95 colonies respectively. Again, the difference between the median and mean at low tide may indicate that the counts tend to be on the high side; therefore it will require more investigation.

Site 12: Newmarket Water Treatment Plant (Lamprey River)

Site 12 is located on the shore just downstream of the Newmarket Wastewater Treatment Facility and downtown Newmarket. Substantial mudflats require that low tide samples be taken close to the treatment plant's outlet, thus low tide values are a good indication of the performance of that facility. Low tide water temperatures average 18.2°C and high tide water temperatures average 18.6°C. Salinity values are quite low at this site averaging 3.7 ppt at low tide and 6.o ppt at high tide. However, high tide readings tend to be more variable than low tide readings. This site has the lowest secchi depth average, 52.0 cm. Low tide dissolved oxygen percent saturation levels are extremely poor at this site averaging only 67.74%. However high tide levels are higher with a mean of 95.74%. Twenty seven observations fell below the 75% level at low tide while only two observations fell below that level at high tide. Again, bacteria counts tend to be high at high tide at this site (mean = 97 colonies) while at low tide the levels are much lower (mean = 16 colonies). This is probably due to the fact that the water sampled at low tide comes directly from the sewage treatment plant outlet.

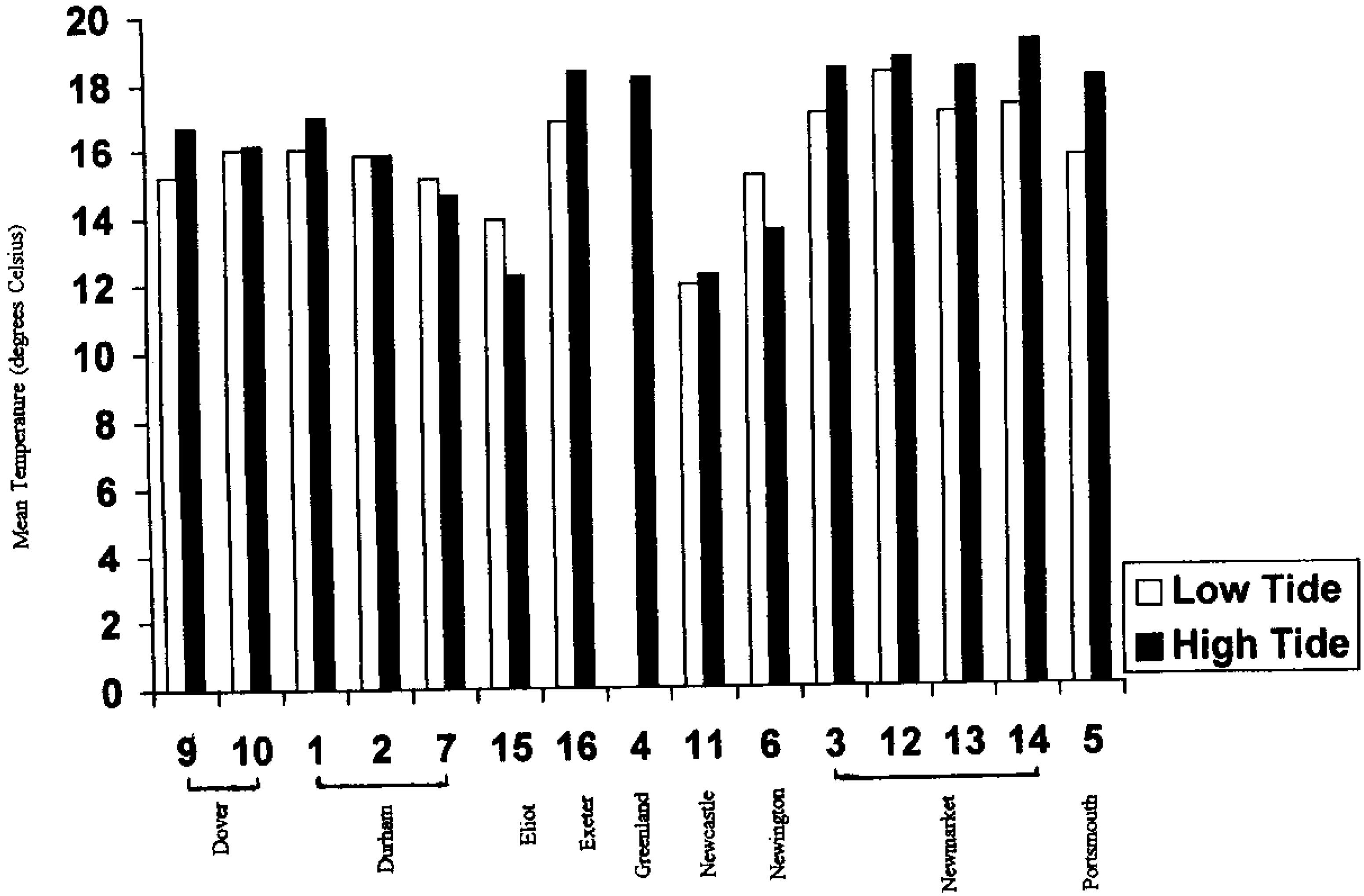
Site 13: Marina Falls Landing at Newmarket (Lamprey River)

Site 13 is located at small boat docking facility upstream of the Town Docks in downtown Newmarket. This site is just upstream from Site 12 and just downstream of the dam marking head-of-tide. Water temperatures are highly variable at this site with low tide mean of 17.0°C and high tide mean of 18.3°C. The average low tide salinity is 5.1 ppt and while the average high tide salinity is lower coming in at 3.4 ppt. Secchi readings average 131.2 cm. Dissolved oxygen levels are more than adequate at this site with a low tide mean of 93.99% saturation and a high tide mean of 95.58% saturation. Two low tide observations fell below the 75% level. Fecal coliform counts tend to be quite high at this site (low mean of 122 colonies and high mean of 124 colonies) might be due to the fact that several birds tend to populate this site. Median comparison indicate that on average there may be more fecal coliform colonies present at low tide than represented by the geometric mean(median = 225 colonies). More investigation needs to be done. Data has been reported to the town and state agencies.

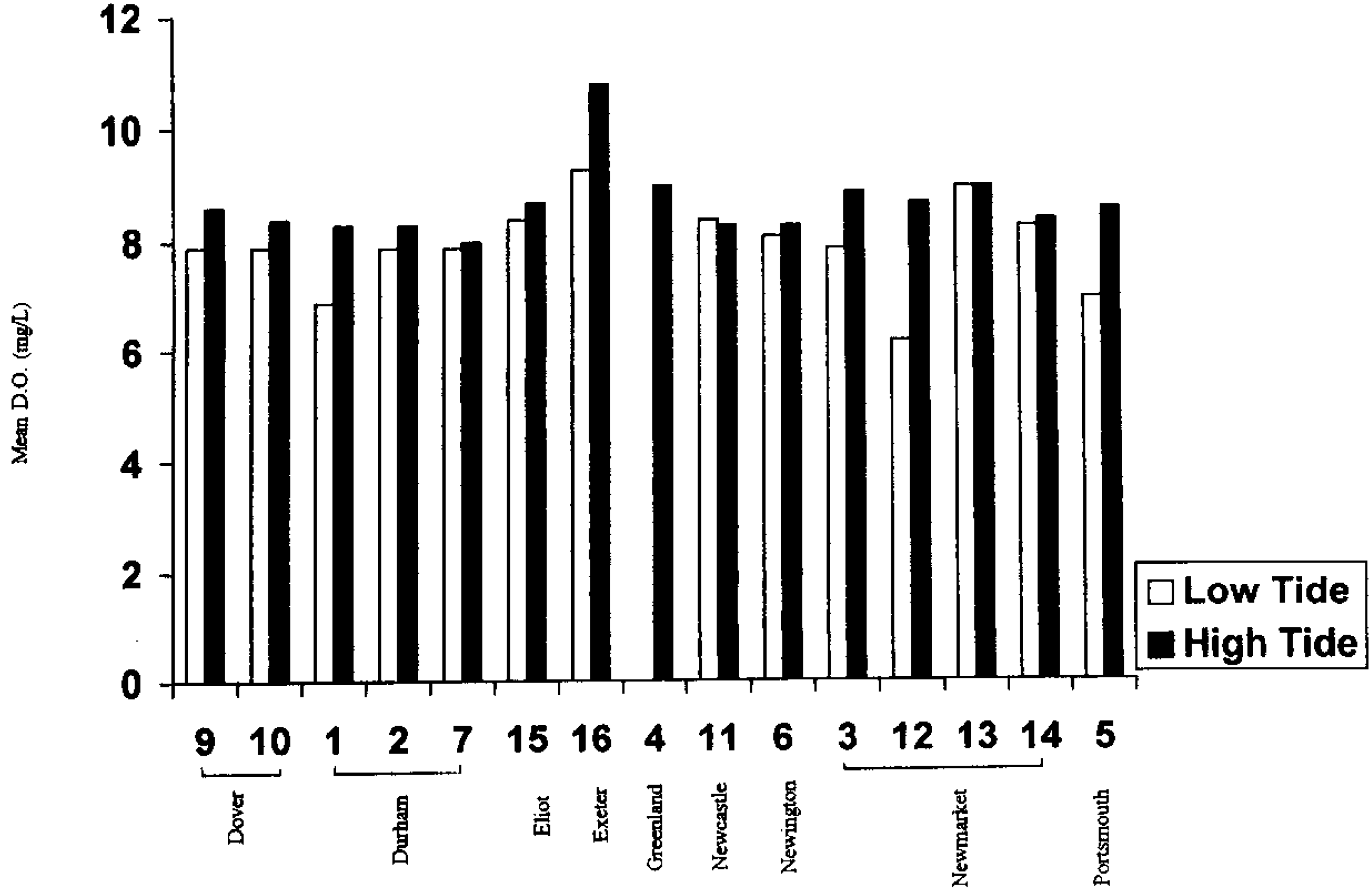
Site 14: Fowler (Lamprey River)

Site 14, the only fresh water site in the Great Bay Watch, is just upstream of the tidal dam (and upstream of downtown Newmarket) at the Fowler's dock. This site shows much variability in water temperature. The mean low tide water temperature was 17.2°C and the high tide mean was 19.1°C. Secchi depths averaged 170.5 cm. Dissolved oxygen percent saturation levels above standards at both low and high tides averaging 85.09% and 91.28% respectively. Still there were seven low tide observations and two high tide observations which fell below the 75% level. Bacteria counts were low (low tide mean = 14 colonies and high tide mean = 17 colonies), but the variability was high with respect to the means.

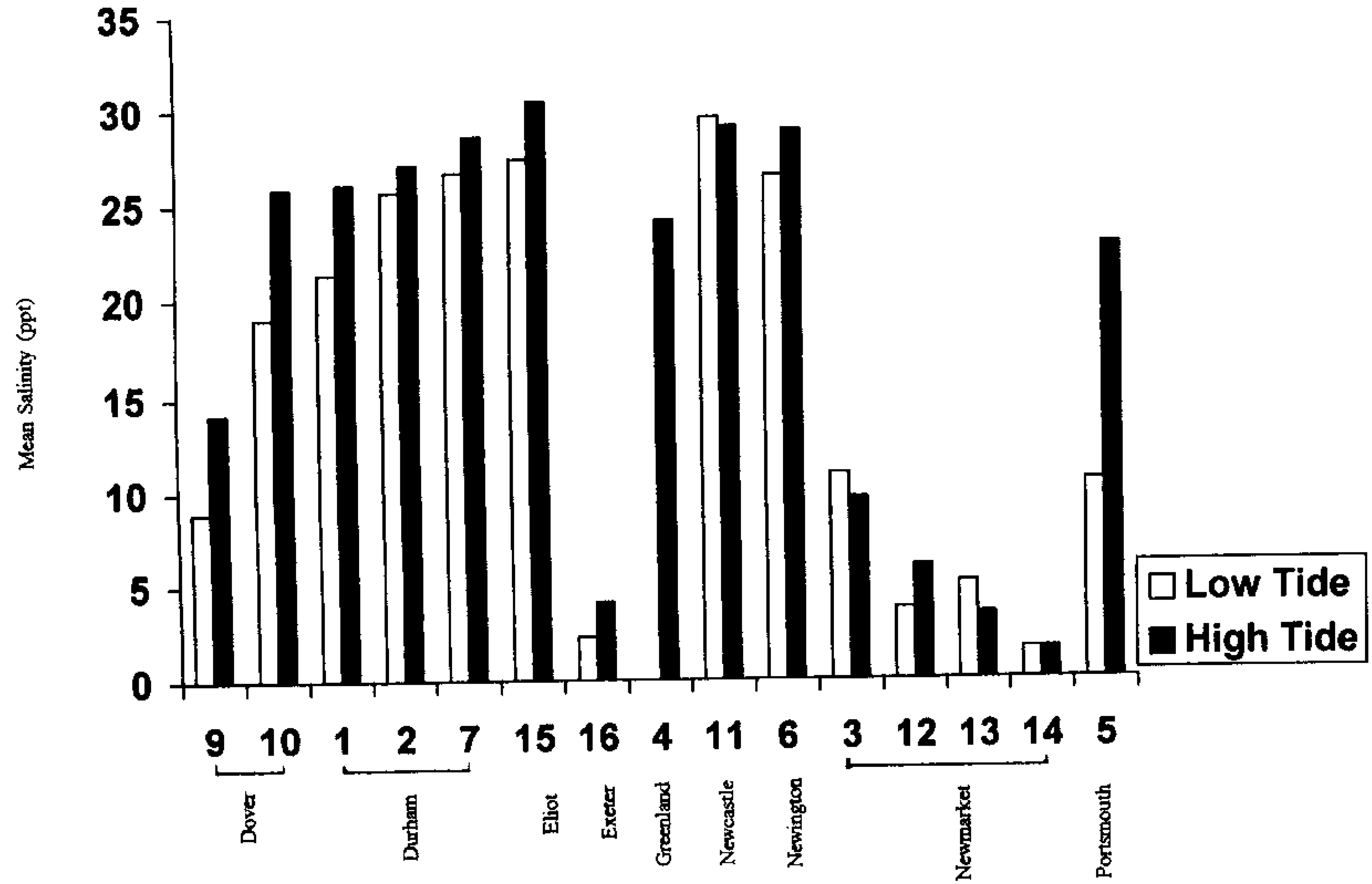
Mean Water Temperatures



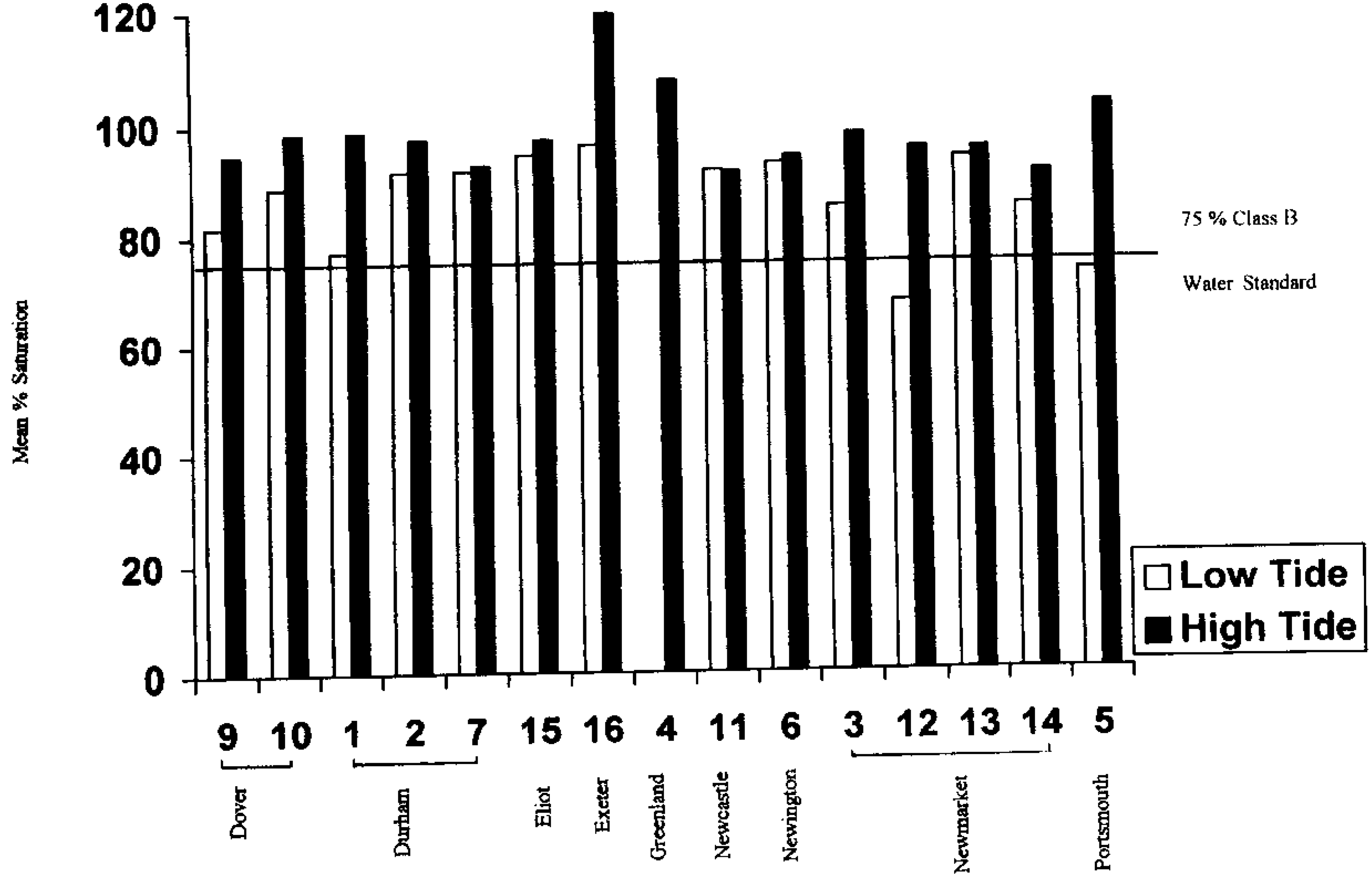
Mean Dissolved Oxygen Levels



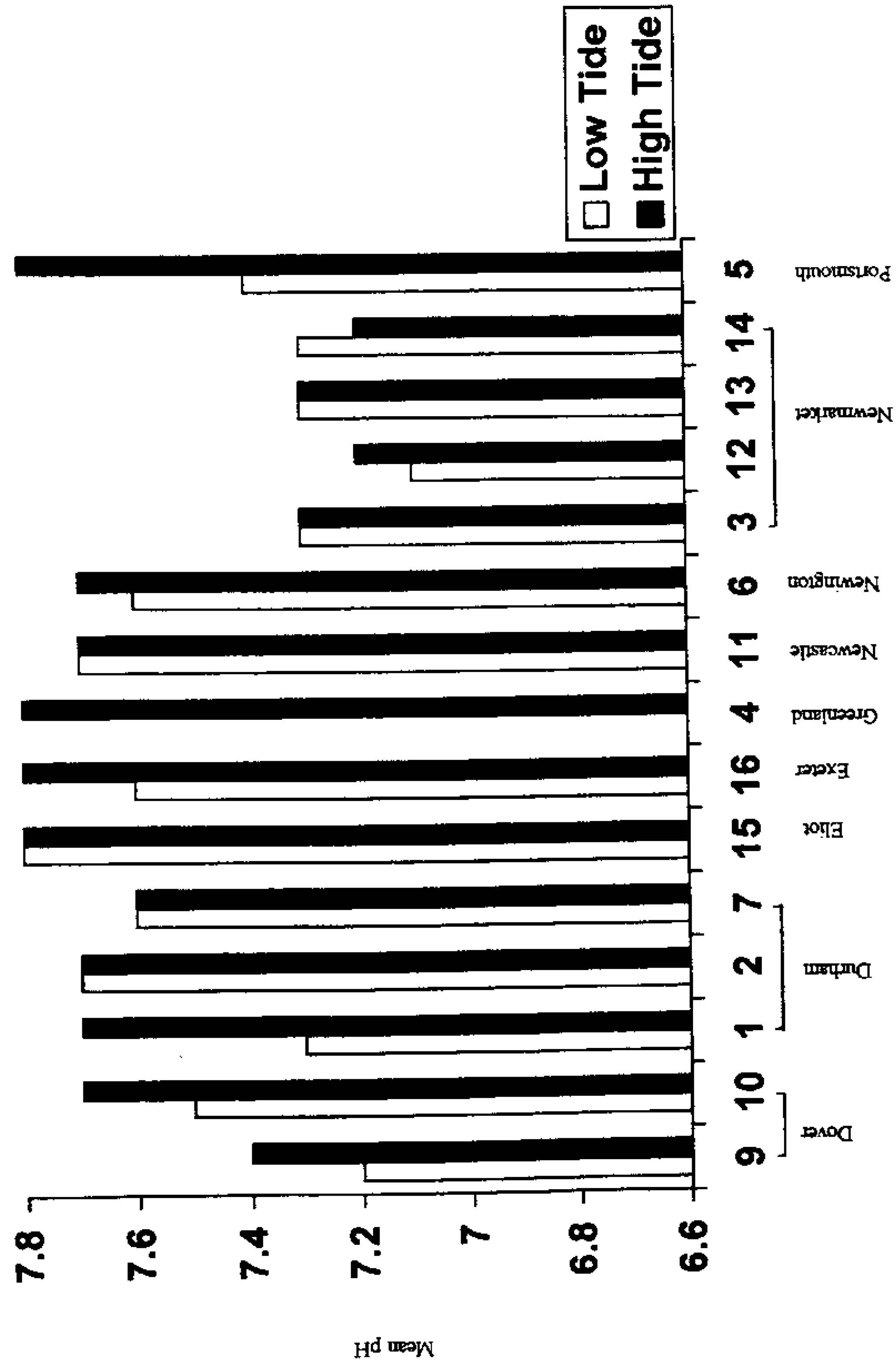
Mean Salinities



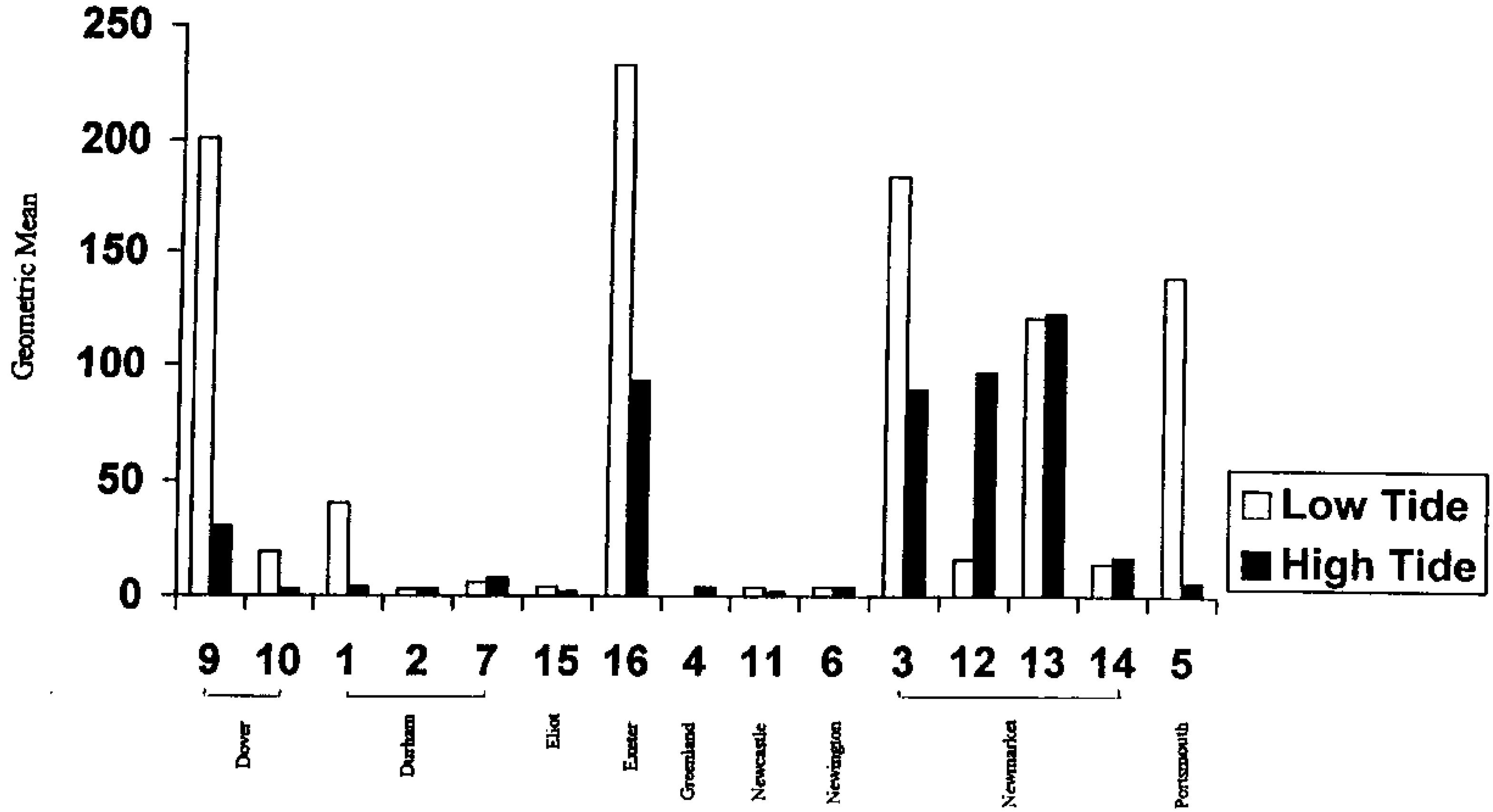
Mean Dissolved Oxygen % Saturation



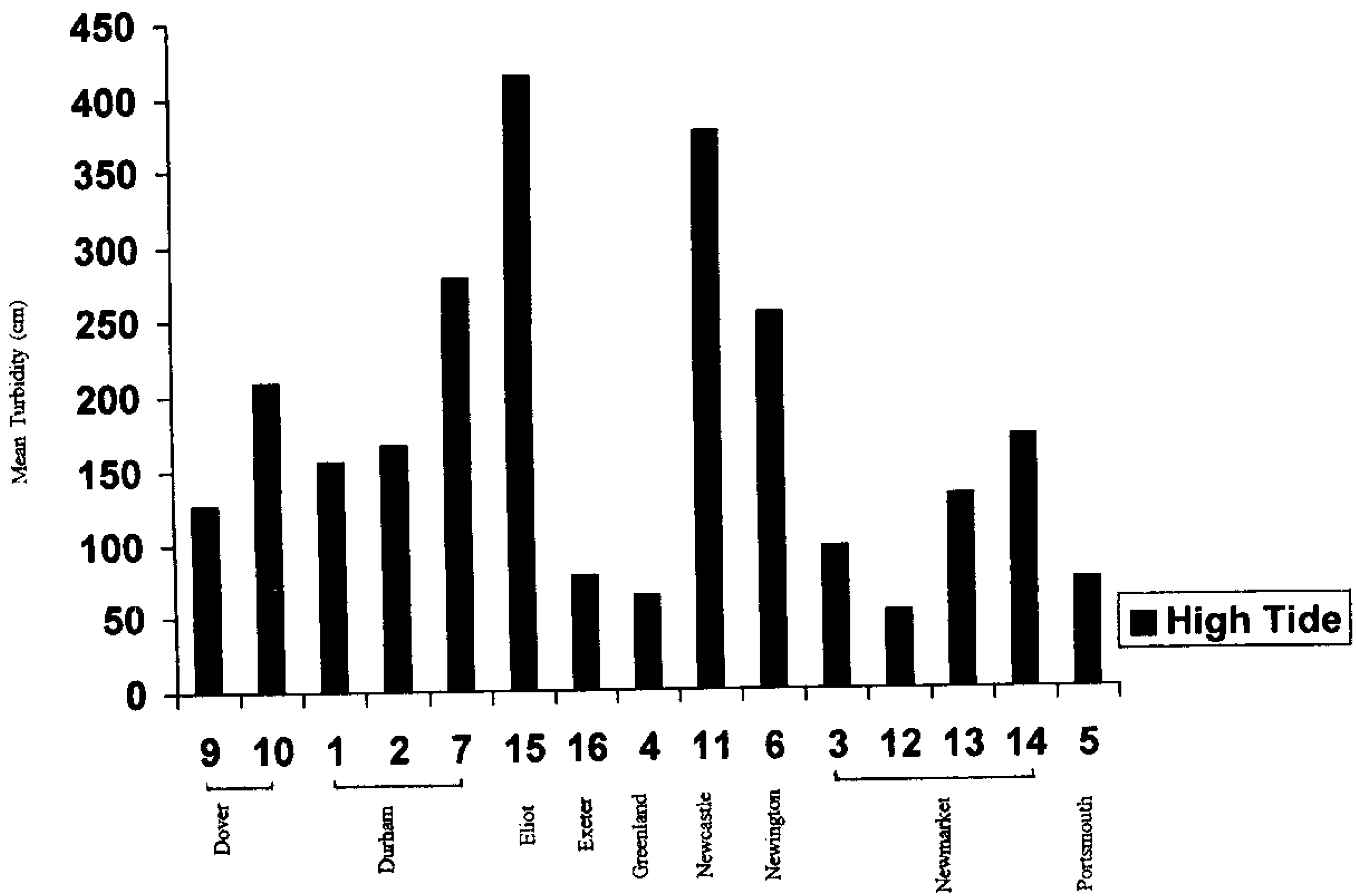
Mean pH


Mean pH
7.8
7.6
7.4
7.2
7
6.8
6.6
9
10
1
2
7
15
16
4
11
6
3
12
13
14
5
Dover
Durham
Eliot
Exeter
Greenland
Newcastle
Newington
Newmarket
Portsmouth
Low Tide
High Tide

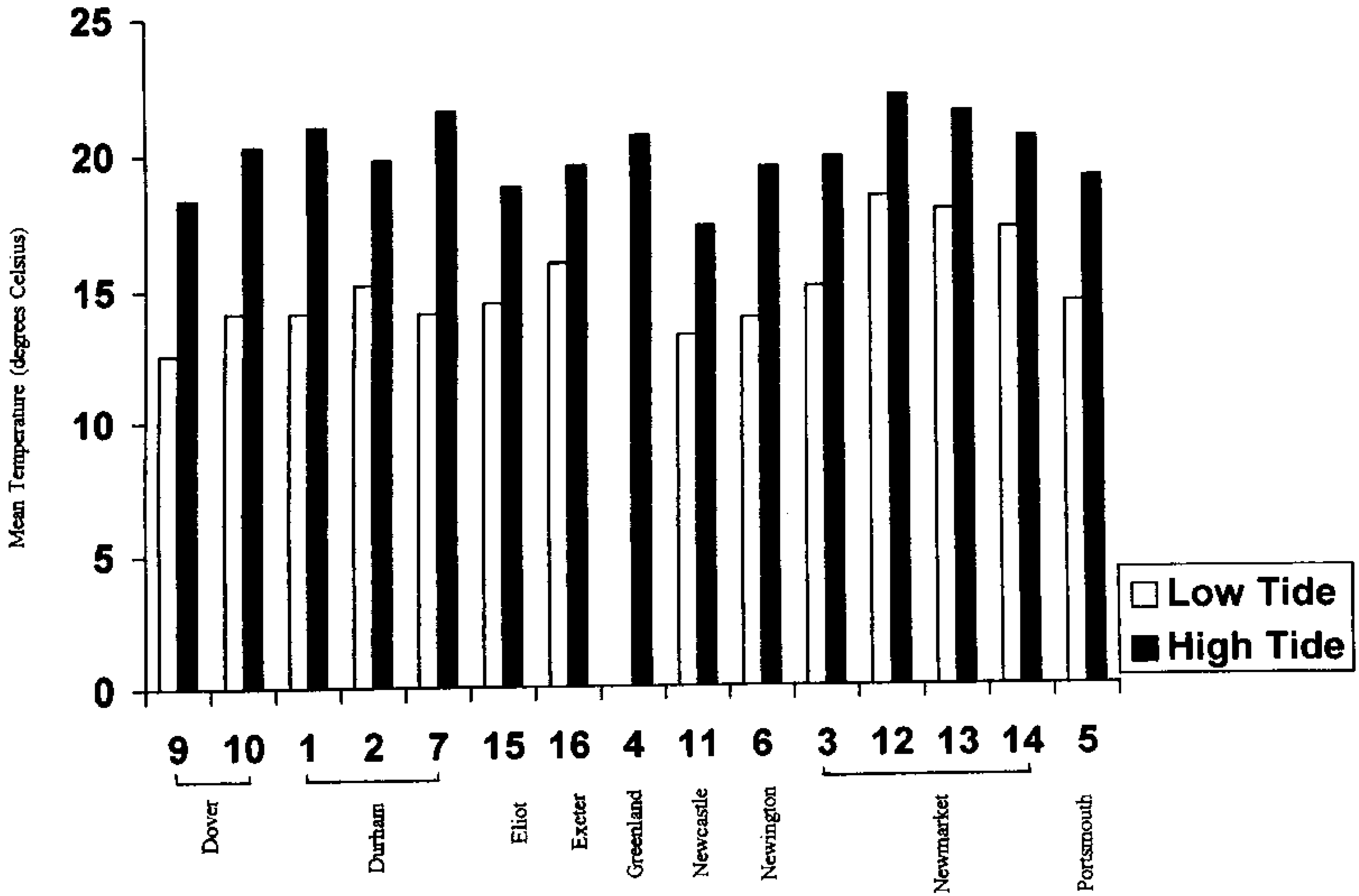
Overall Fecal Coliform Geometric Means



Mean High Tide Turbidity



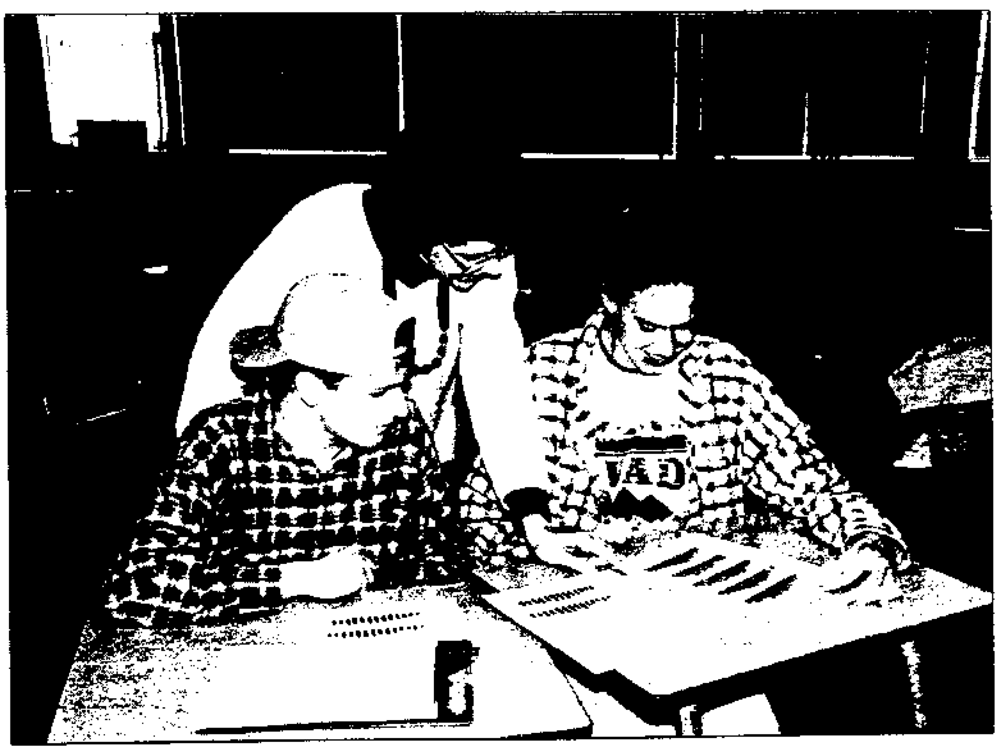
Mean Air Temperatures



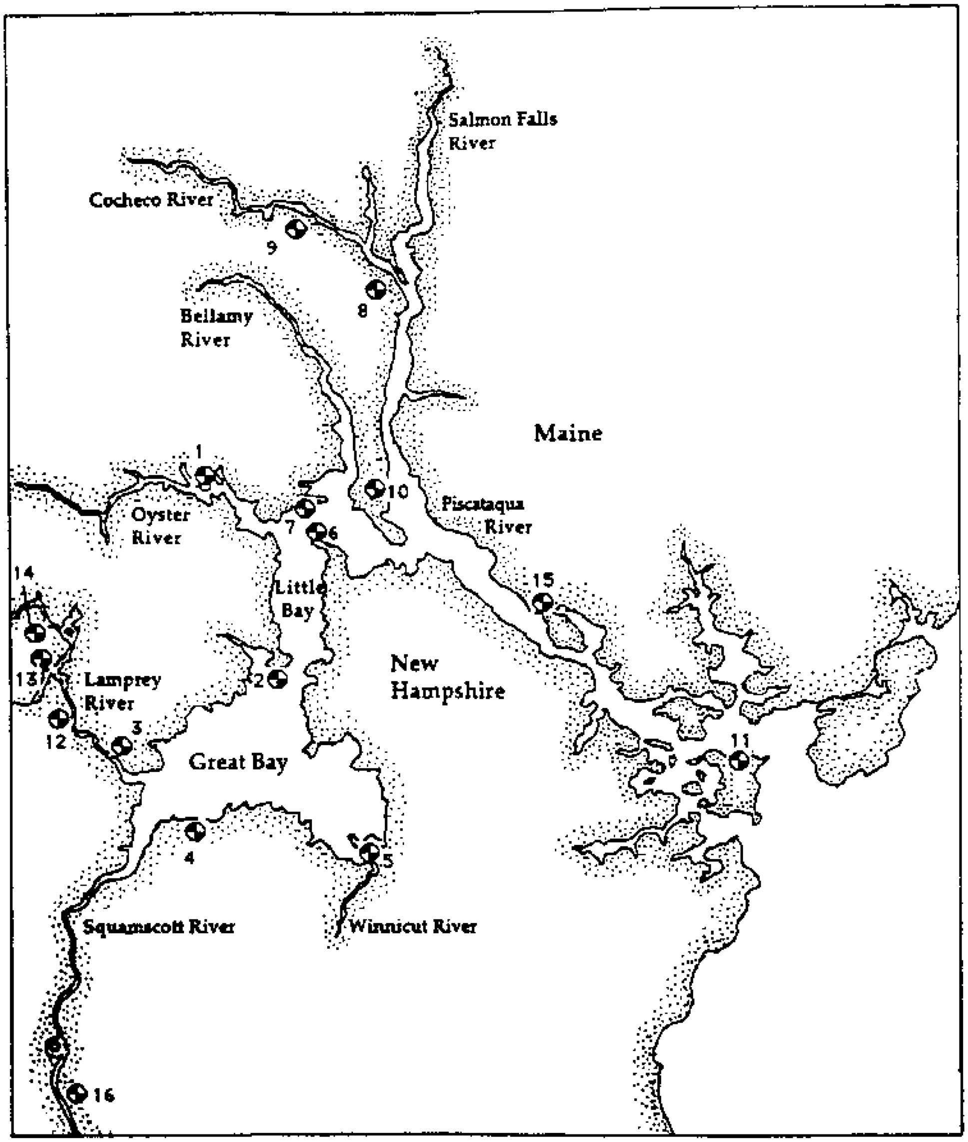
What have been the changes in water quality over the past six years?

The purpose of this section is to review the GBW data for any changes in the measured parameters over time. Mean values of the parameters were calculated for each year and then compared to one another to detect changes over the period of record. More rigorous methods may be employed to statistically detect and confirm trends in the data but they go beyond the scope of this report. Such methods may be used in the future.

Since dissolved oxygen is such an important indicator of estuarine health, much attention has been focused on the percent saturation levels at each site. In addition, times series plots have indicated changes in salinities and pH's so they are covered in this section as well. Much attention will be focused on fecal coliform bacteria counts also. Descriptions of the changes follow the graphs in this section.

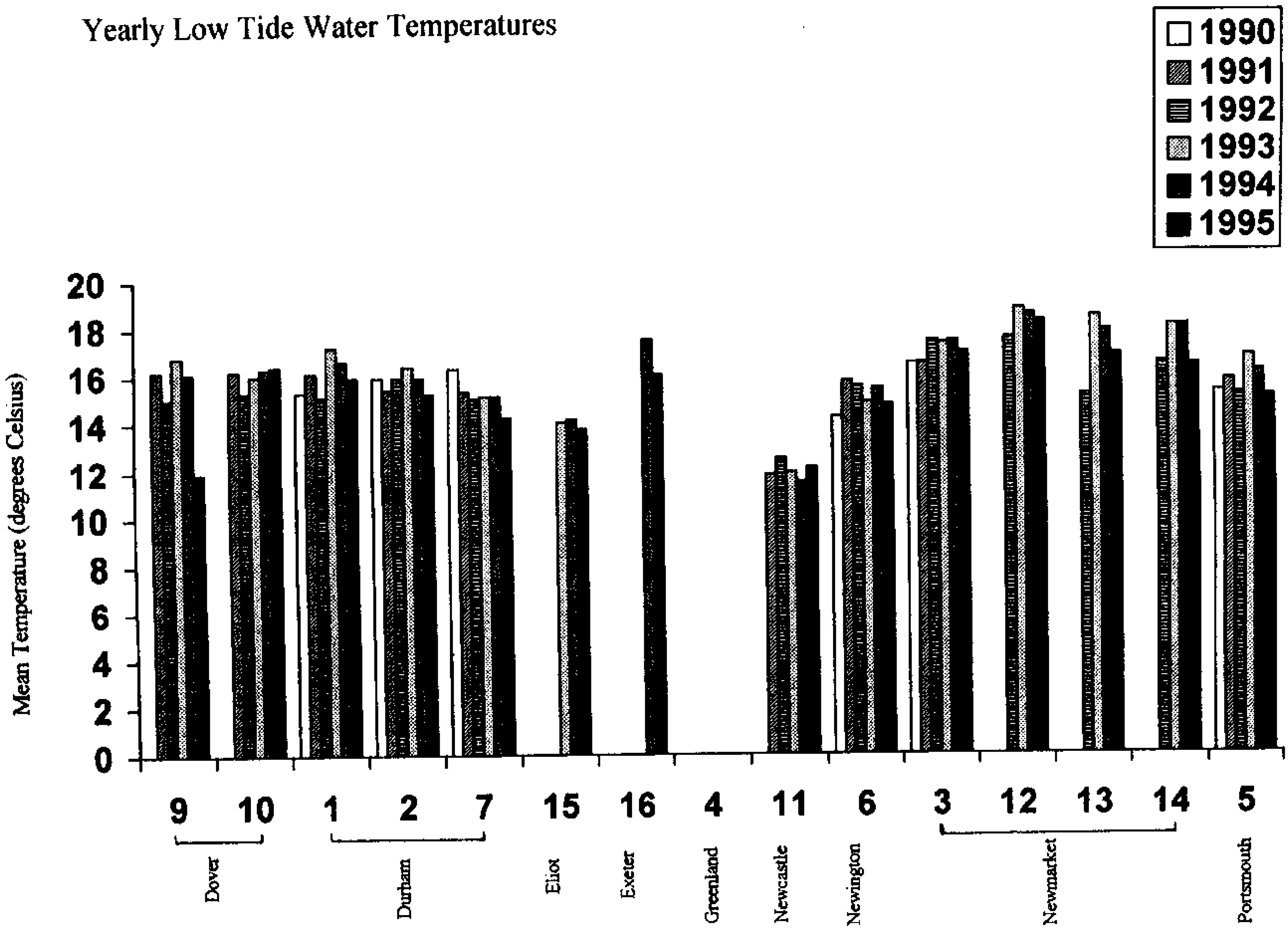


Joyce Tugel and Marshwood High School students comparing data graphs.

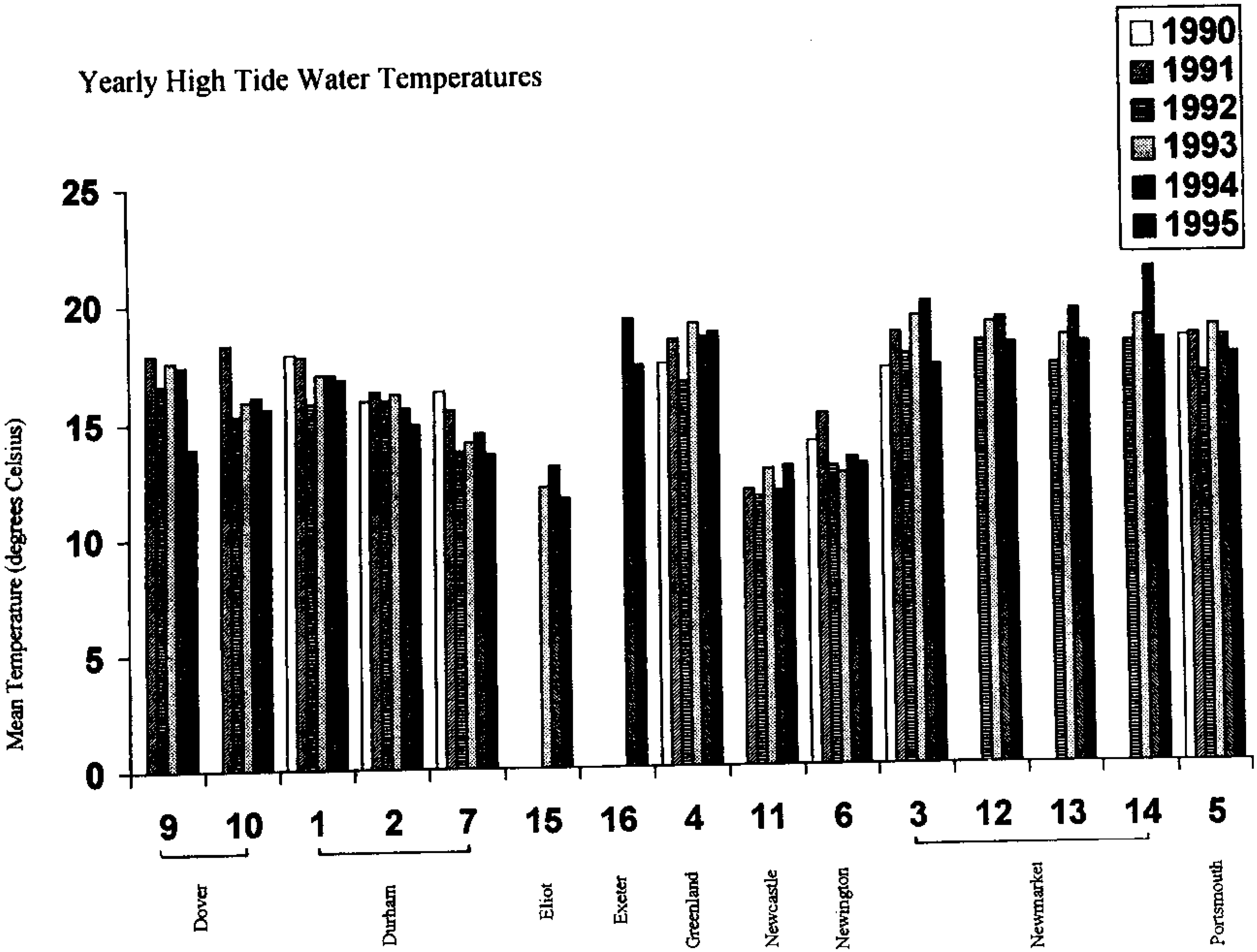


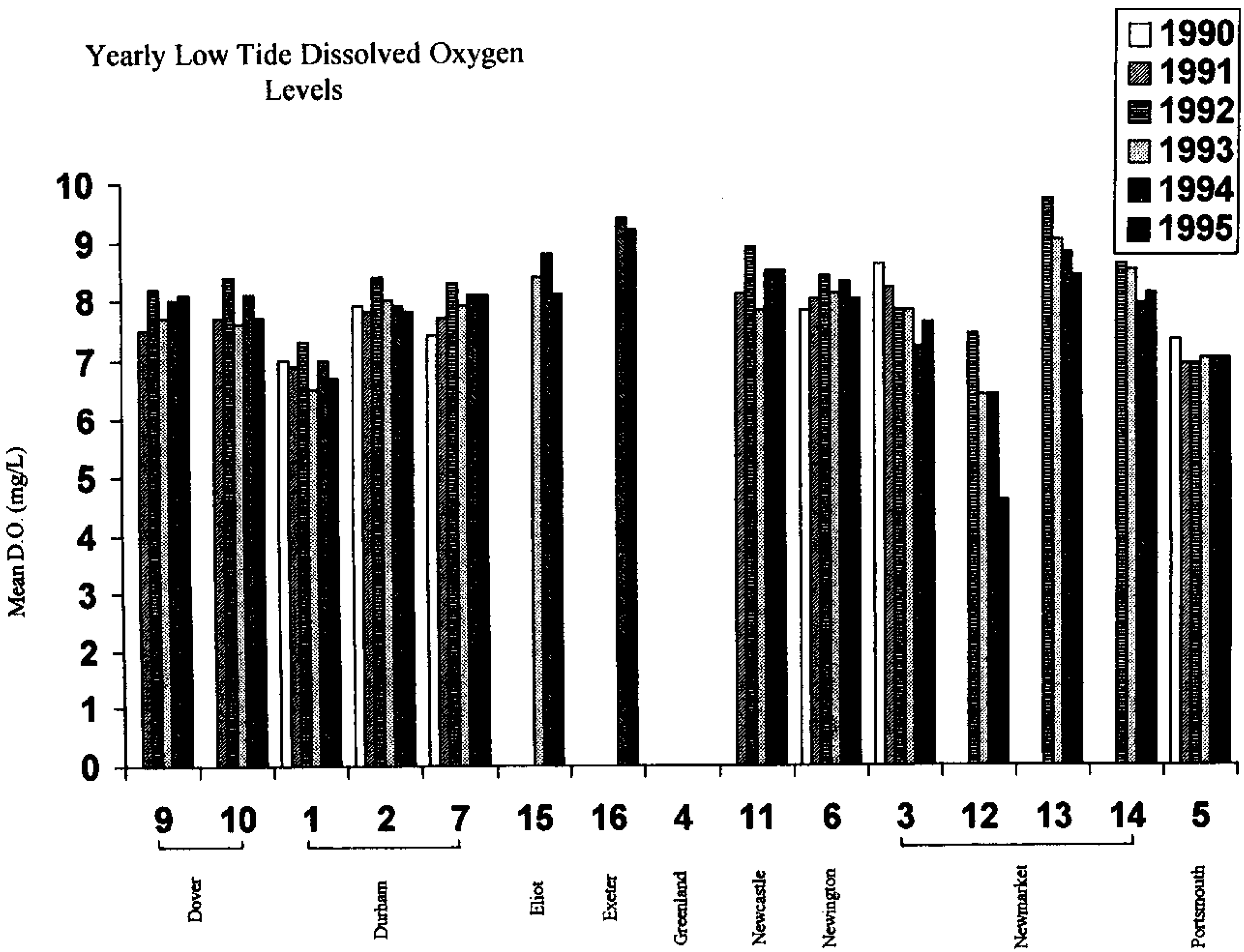
Site Name	Site #	Location	Town
Peninsula (Smith's)	1	Oyster River	Durham
Jackson Estuarine Lab	2	Great Bay	Durham
Lamprey River	3	Lamprey River	Newmarket
Depot Road	4	Great Bay	Greenland/ Stratham
Portsmounth Country club	5	Winnacut River	Greenland/ Stratham
Fox Point	6	Little Bay	Newington
Cedar Point	7	Little Bay	Durham
Rakoskes'	8	Piscataqua River	Dover
Neals'/Williams'	9	Cocheco River	Dover
Clarks'	10	Piscataqua River	Dover
Coastal Marine Lab	11	Piscataqua River	New Castle
Sewage Treatment Plant	12	Lamprey River	Newmarket
Marina Falls Landing	13	Lamprey River	Newmarket
Fowlers'	14	Lamprey River	Newmarket
Patten Yacht Yard, Inc.	15	Piscataqua River	Eliot, Me
Exeter Town Docks	16	Squamscott River	Exeter

Yearly Low Tide Water Temperatures

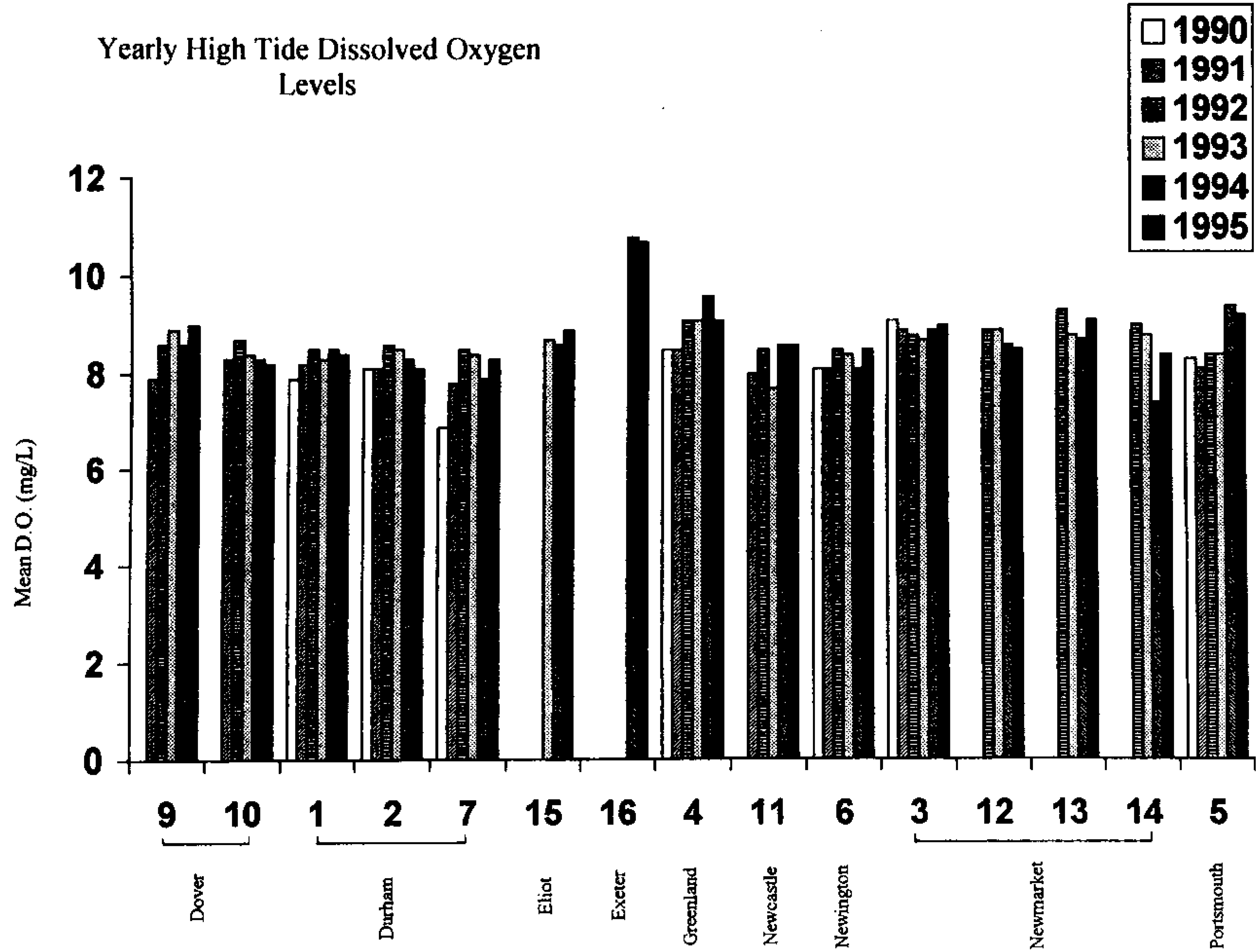


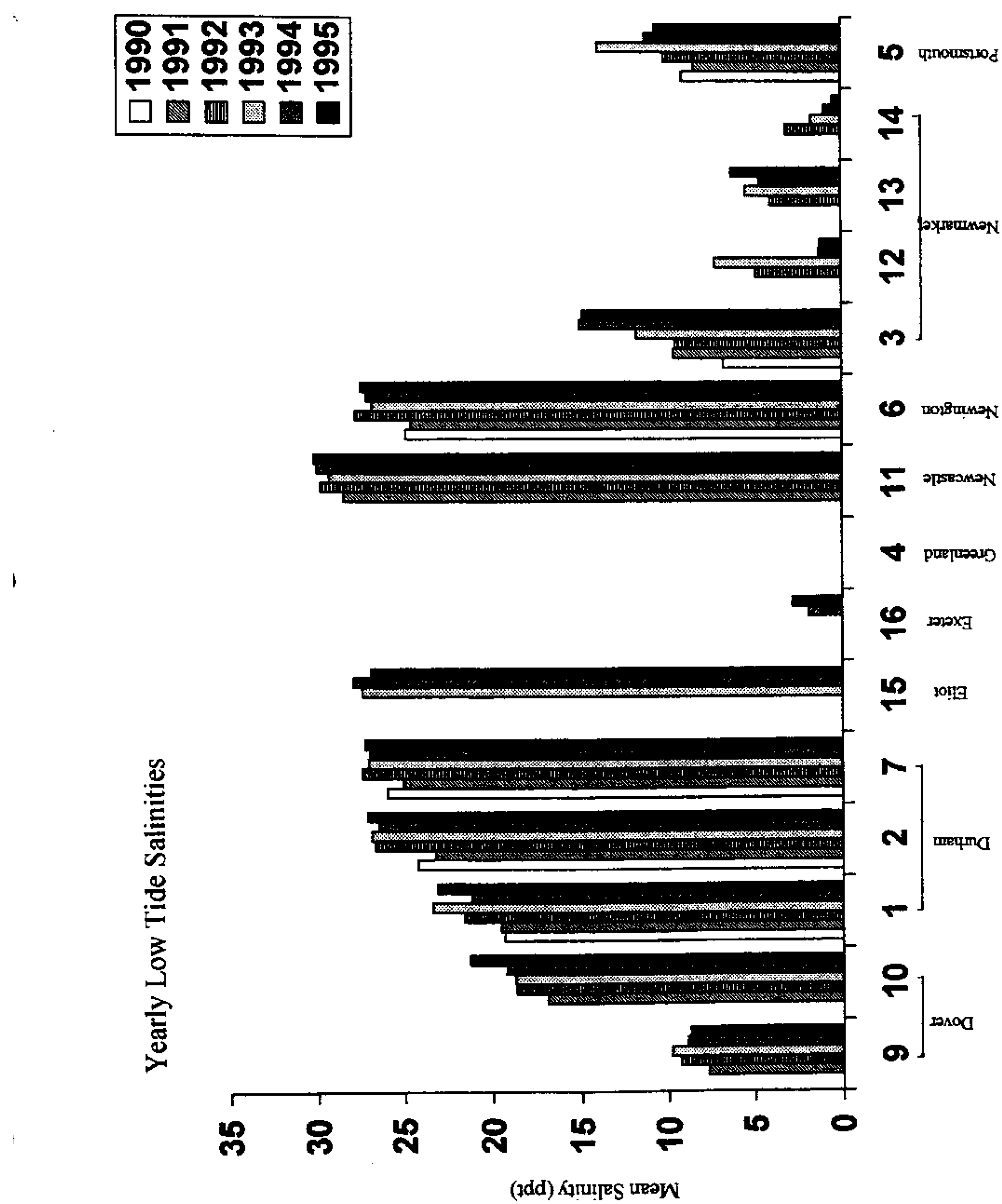
Yearly High Tide Water Temperatures





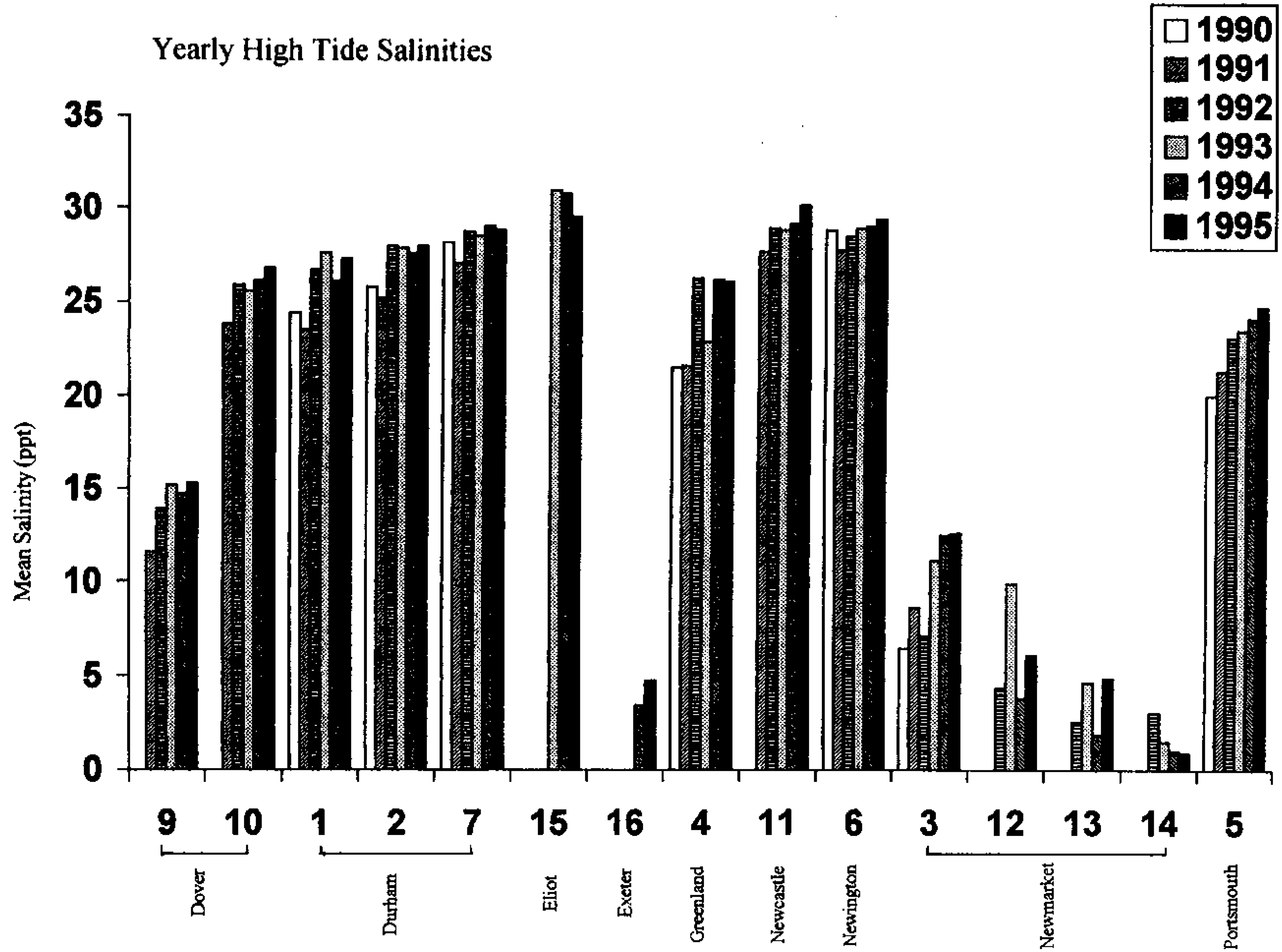
Yearly Low Tide Dissolved Oxygen Levels
1990
1991
1992
1993
1994
1995
Mean D.O. (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9
10
1
2
7
15
16
4
11
6
3
12
13
14
5
Dover
Durham
Eliot
Exeter
Greenland
Newcastle
Newington
Newmarket
Portsmouth


Yearly High Tide Dissolved Oxygen Levels
1990
1991
1992
1993
1994
1995
Mean D.O. (mg/L)
12
10
8
6
4
2
0
9
10
1
2
7
15
16
4
11
6
3
12
13
14
5
Dover
Durham
Eliot
Exeter
Greenland
Newcastle
Newington
Newmarket
Portsmouth

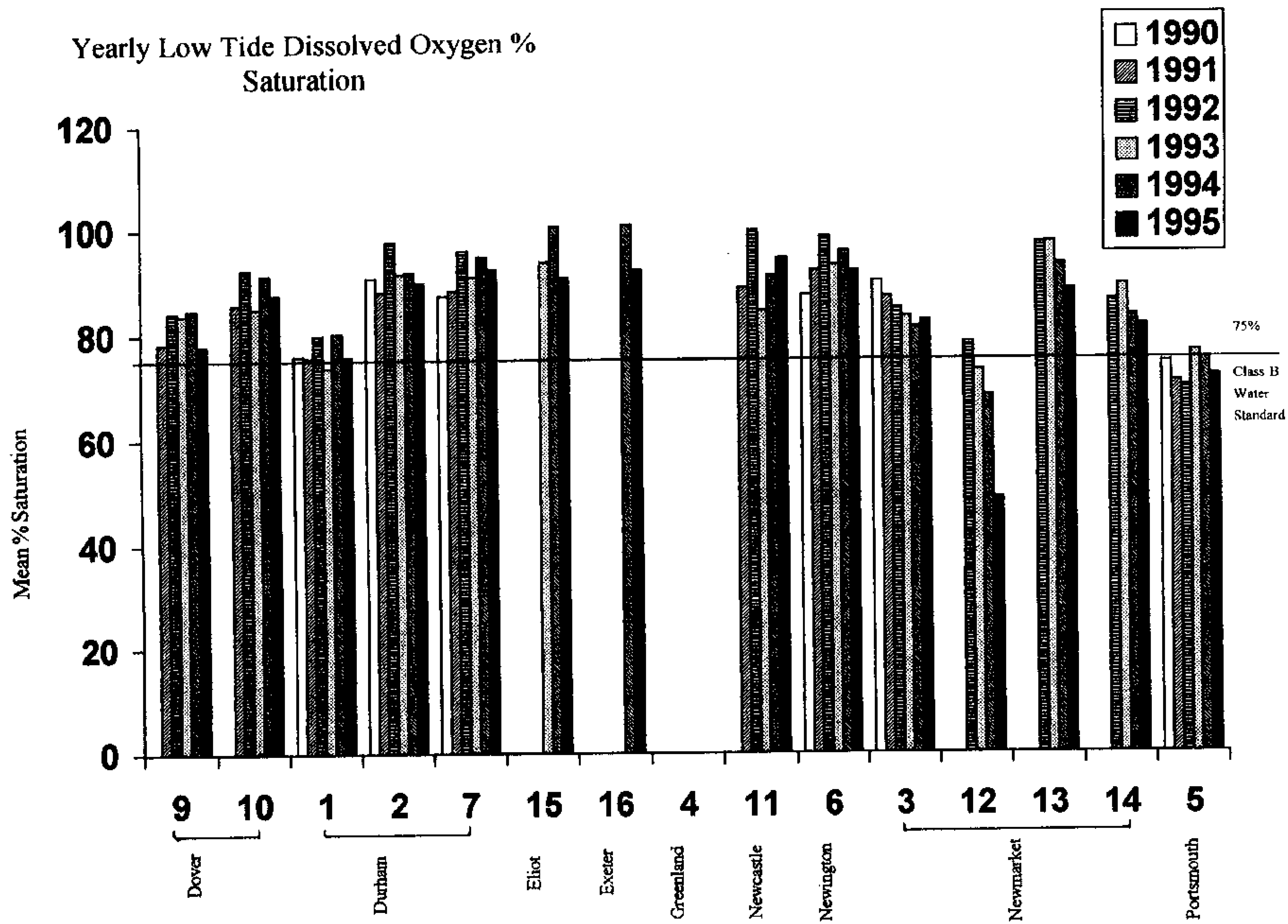


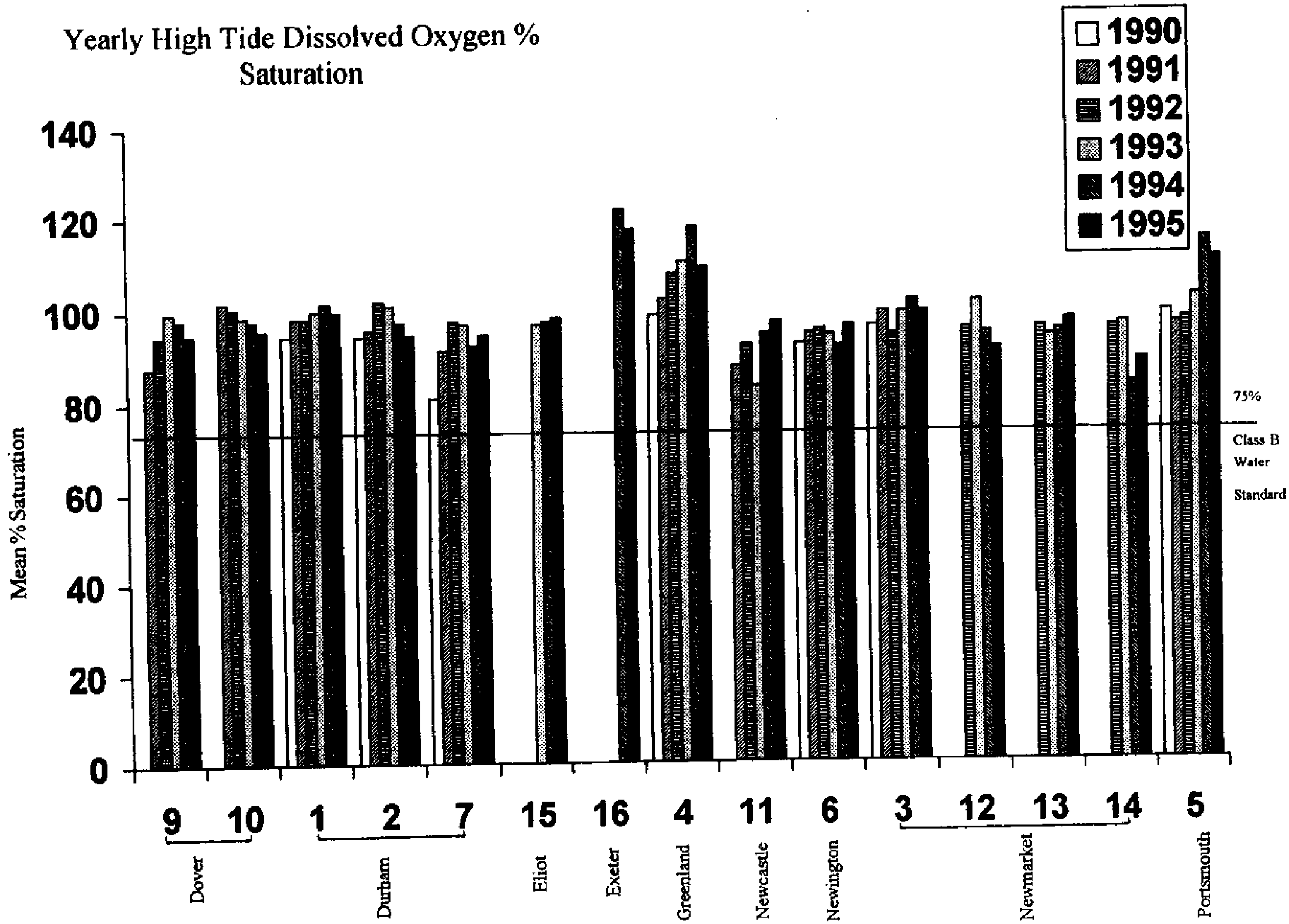
Yearly Low Tide Salinities
Mean Salinity (ppt)
35
30
25
20
15
10
5
0
1990
1991
1992
1993
1994
1995
9
10
1
2
7
15
16
4
11
6
3
12
13
14
5
Dover
Durham
Eliot
Exeter
Greenland
Newcastle
Newington
Newmarket
Portsmouth

Yearly High Tide Salinities



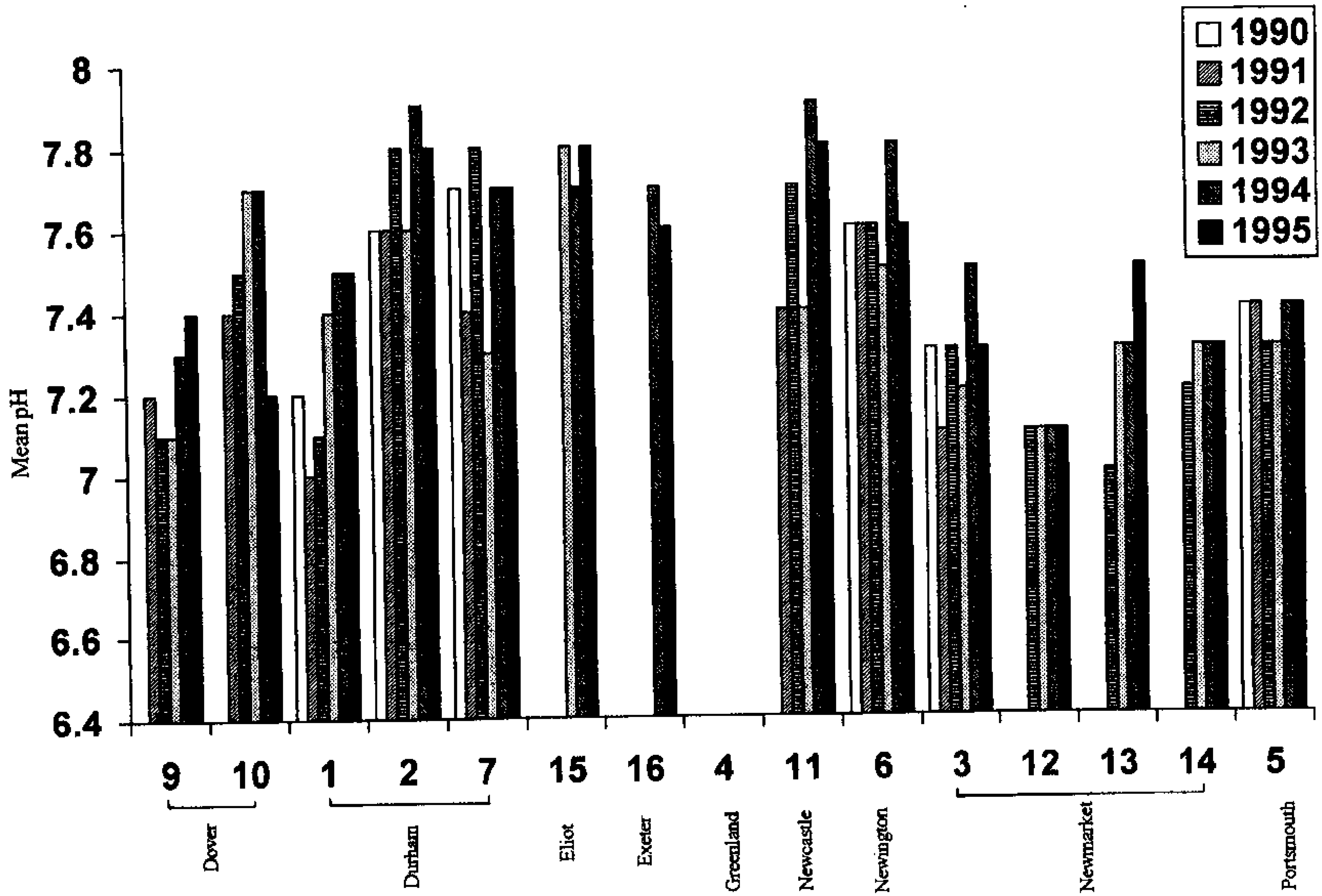
Yearly Low Tide Dissolved Oxygen % Saturation



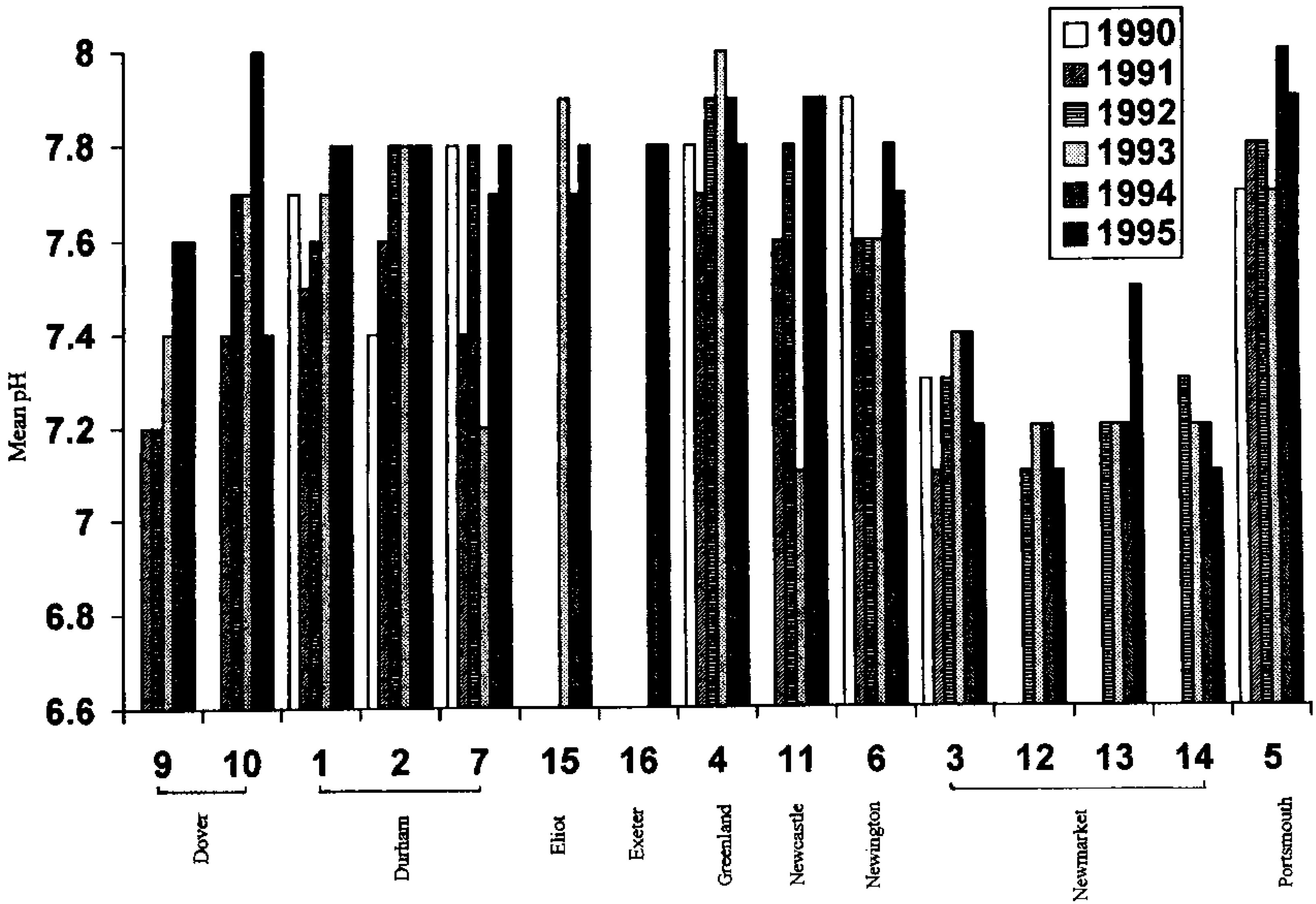


Yearly High Tide Dissolved Oxygen % Saturation
1990
1991
1992
1993
1994
1995
140
120
100
80
60
40
20
0
Mean % Saturation
75%
Class B
Water
Standard
9
10
1
2
7
15
16
4
11
6
3
12
13
14
5
Dover
Durham
Eliot
Exeter
Greenland
Newcastle
Newington
Newmarket
Portsmouth

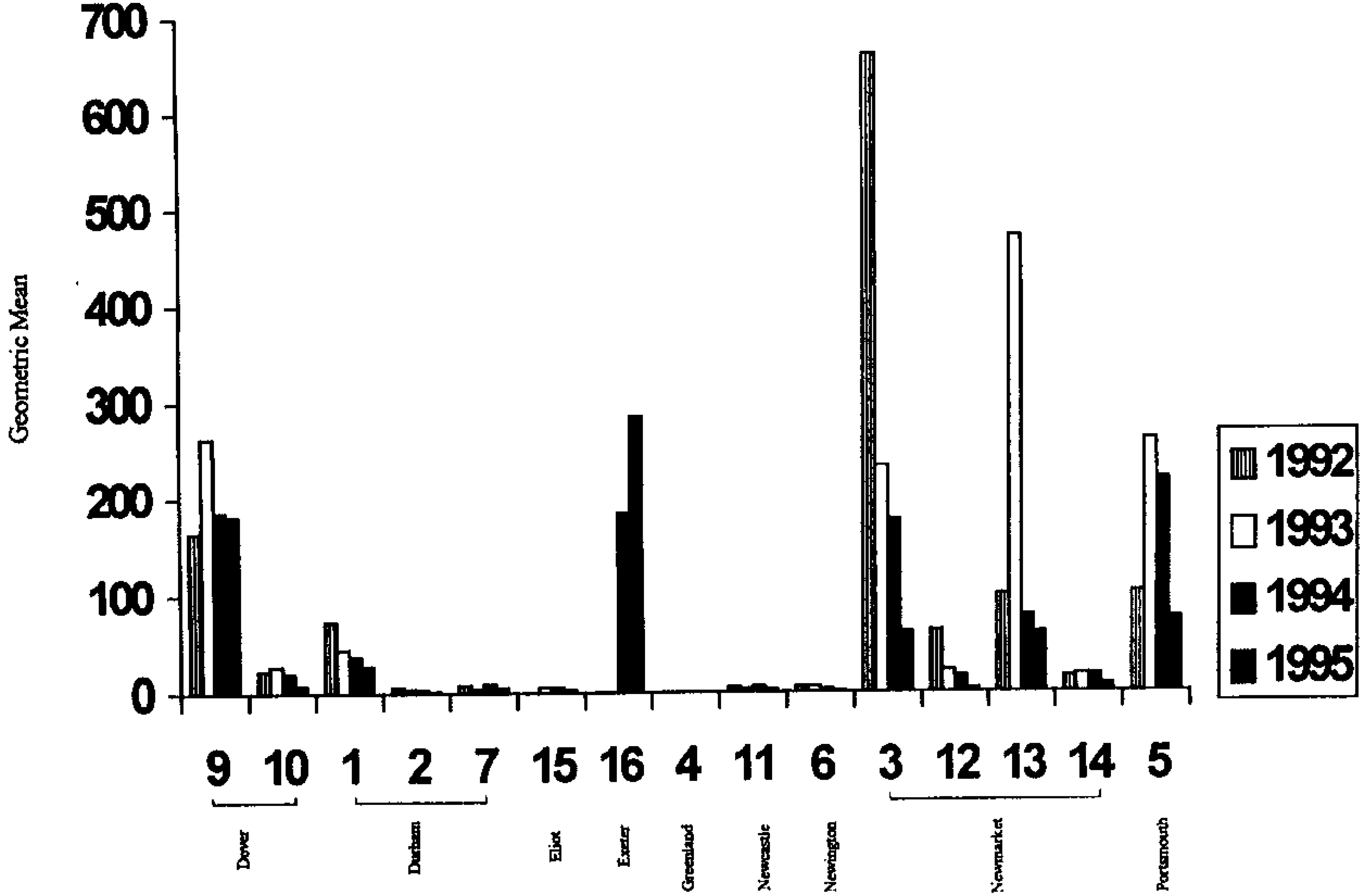
Yearly Mean Low Tide pH



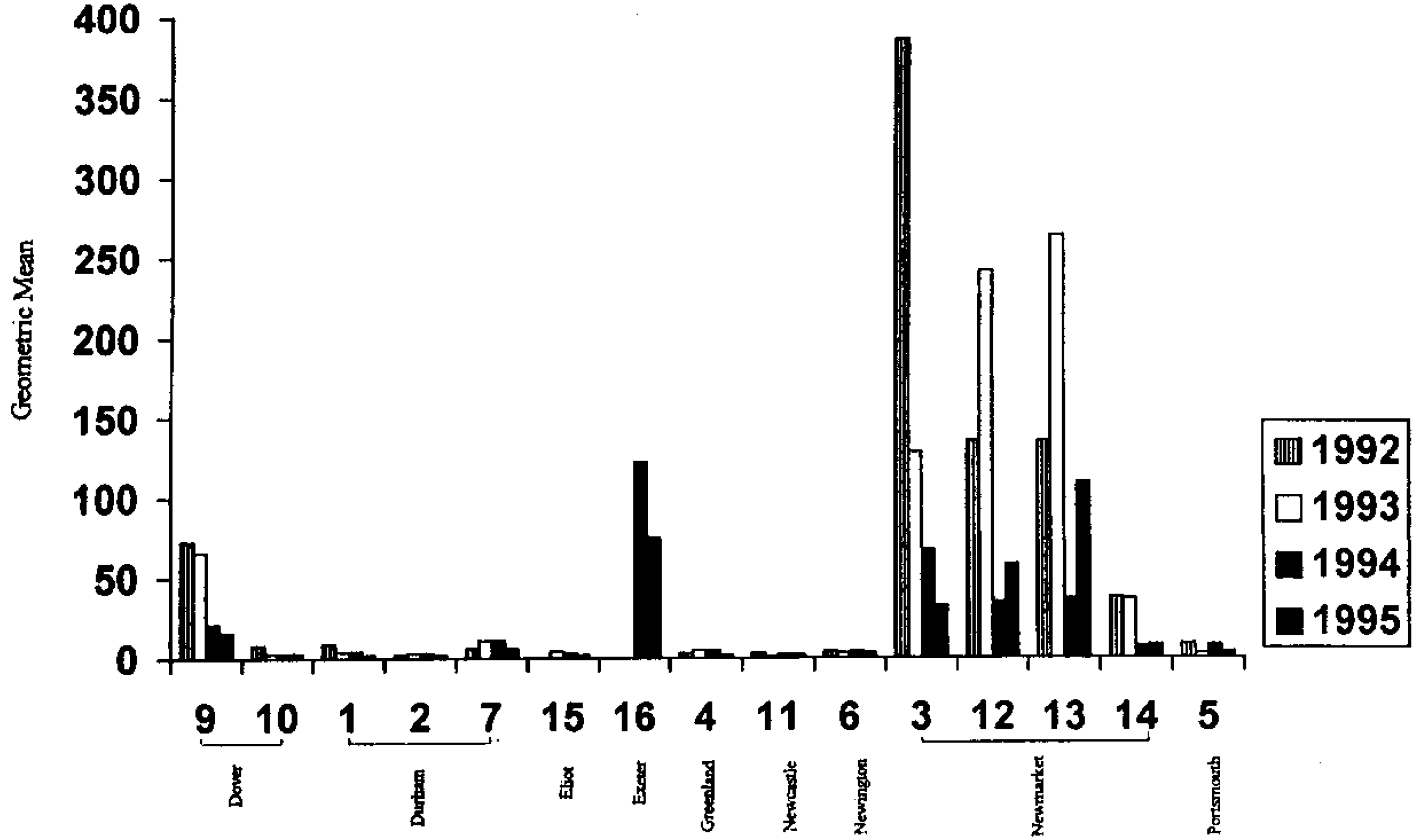
Yearly Mean High Tide pH



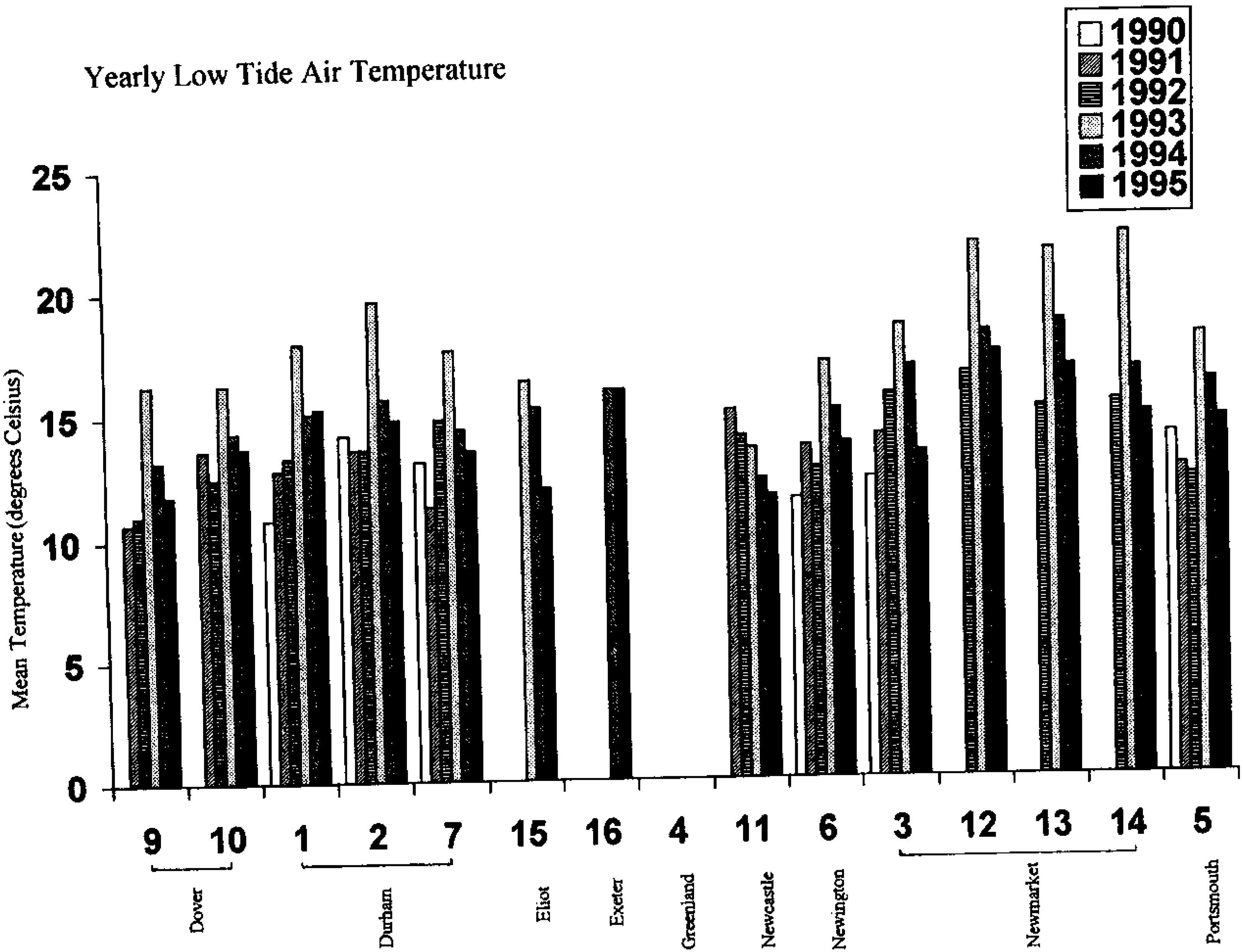
Yearly Low Tide Fecal Coliform Geometric Means

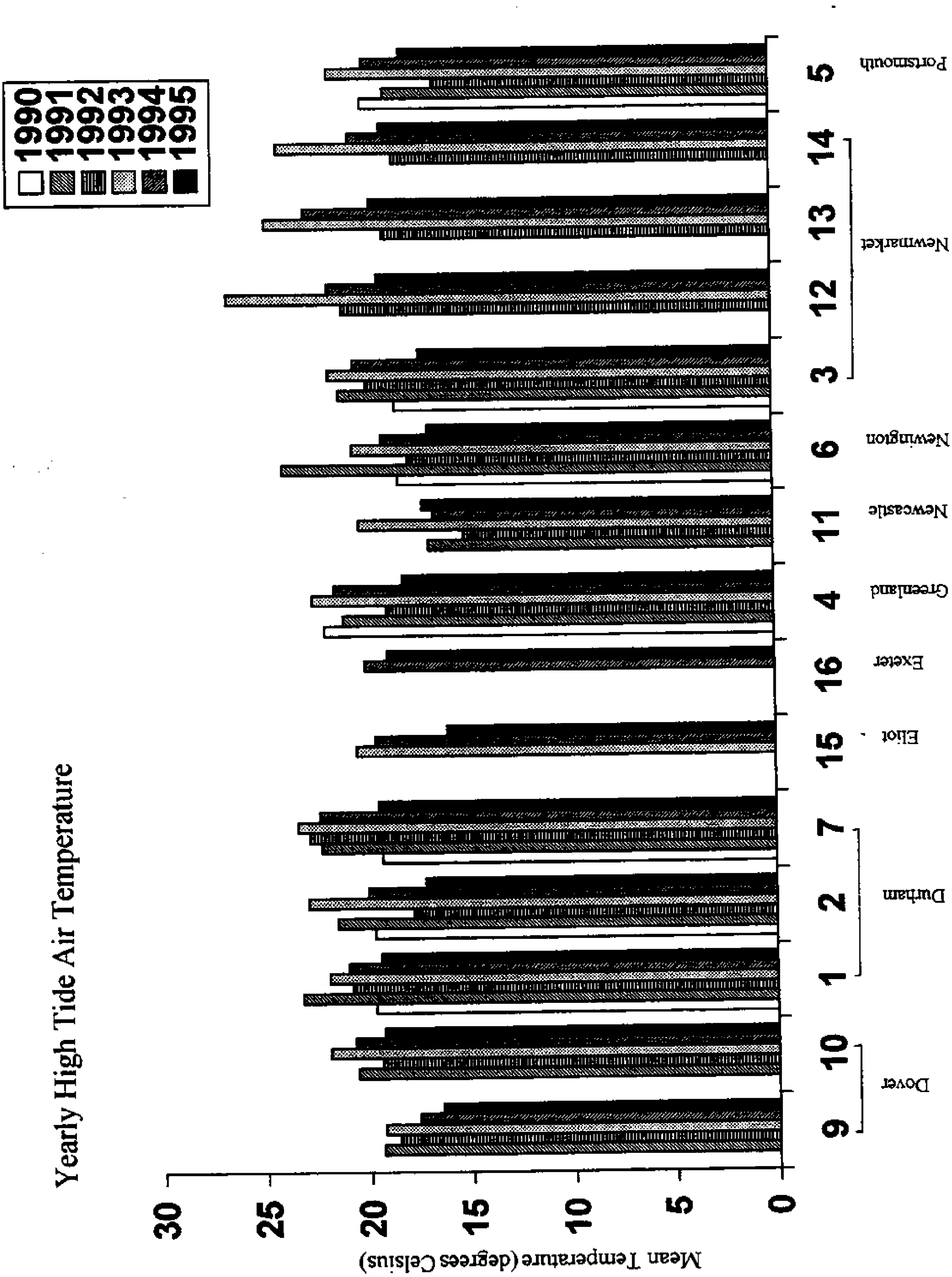


Yearly High Tide Fecal Coliform Geometric Means



Yearly Low Tide Air Temperature




Yearly High Tide Air Temperature
Mean Temperature (degrees Celsius)
0
5
10
15
20
25
30
1990
1991
1992
1993
1994
1995
9
10
Dover
1
2
7
Durham
15
Eliot
16
Exeter
4
Greenland
11
Newcastle
6
Newington
3
12
13
14
Newmarket
5
Portsmouth

What have been the changes in water quality over the past six years? (continued)

All sites except sites 14 and 15 have experienced an increase in their mean high salinities since the start of the GBW program. The most dramatic change occurred at site 3 on the Lamprey River, which exhibited a nearly steady increase from about 6 ppt in 1990 to 15 ppt in 1995. One possible reason may be due to periods of below normal rain during the sampling season. Increases in salinity levels are due to increased intrusion of salt water farther up river. A similar phenomenon occurred at low tide. In general, the increases in salinity were more dramatic farther in the estuary and more subtle closer to the ocean.

Likewise, it appears that this lack of rain may have caused an increase in the pH at many sites, especially the tidal river sites. pH levels at sites located closest to the open ocean and on Little and Great Bays tended to fluctuate from high to low. Site 12, at low tide, was the only site which appeared to be unaffected by exhibiting a constant mean pH throughout it history in the network. The most dramatic changes in low tide pH occurred at sites 1 and 13 which exhibited an overall increase from a pH around 7.1 in 1992 to 7.5 in 1995. High tide pH's have shown an increase on average with the most marked increases at sites 9, 10, 11 and 13.

Some sites have shown a decrease in fecal coliform counts over the years, while levels tend to fluctuate or increase at other sites. Site 3 has experienced an overall decrease in bacteria at both tidal stages. Site 12 has seen a decrease in low tide fecal coliform counts as well. These changes at sites 3 and 12 may be attributed to the work being done at the sewage treatment plant. Fecal coliform counts have decreased during both tidal stages at site 14, however, on average, the high tide counts tended to be a little higher in 1995 than in 1994. Site 5 seems to be experienced a low tide bacteria problem in 1993 and 1994 appears to have been lessening. In 1995 this site showed its lowest mean fecal coliform count ever. While this is encouraging, the counts still tend to be much higher than desired. Fecal coliform counts increased at Site 16 during low tide, but decreased at high tide. Counts appear to be decreasing at Site 9 during both tidal stages. However, this site still exhibits an undesirable amount of bacteria. Site 1 fecal coliform counts have been steadily decreasing at both low and high tides.

Changes in the mean values of percent saturation give a good indication of whether or not there are oxygen problems developing in the estuarine system. Low tide percent saturation levels have been decreasing at Sites 3, 12 13 and 14 (all located in Newmarket). Site 12's levels are becoming very low. Site 15 and Site 16 low tide levels have decreased since 1994 but are still well above the Class B standard. Dissolved oxygen levels at the Portsmouth Country Club, Site 5, continue to be problematic at low tide, as well as low tide levels at Site 1 on the Oyster River. The remaining sites have experienced some fluctuation at low tide but all means are well above the 75% saturation level.

Yearly mean high tide percent saturation levels for all sites have consistently been above the 75% level. Most sites have experienced an actual increase, with only sites 10, 12, 14 and 16 showing a small to moderate decrease.

How Healthy is the Great Bay Estuary?

Dissolved Oxygen

The Great Bay Estuary appears to have quite healthy levels of dissolved oxygen, indicating that it is not experiencing significant "eutrophication" as are some of the estuaries in the country. Most sites showed average percent saturation values well above the Class B standard of 75%, although almost every site showed at least one "violation" of the standard. These violations typically occurred at low tide, but all sites showed acceptable levels of oxygen at high tide, indicating the observed oxygen depletion are not persistent throughout the day. Annual means suggest that Site 1 on the Oyster River, Site 5 on the Winnicut River and Site 12 on the Lamprey River are potential low tide hot spots. Violations of Class B standard below 75% at high tide, although there have been only twenty occurrences in the past six years, could indicate potential problems within in the area. Low saturation levels less than 75% could indicate potential environmental sources, but others may be due to possible sampling error. While GBW volunteers only sample from the water surface, the measurements are likely good indicators of the oxygen content in the entire water column. The physical characteristics of the bay, such as relatively shallow depths and strong tidal currents, ensure good mixing of surface and bottom waters, especially in Great and Little bays and in the Piscataqua River. This mixing is certainly a factor in preventing persistent low oxygen conditions.

Fecal Coliform Bacteria

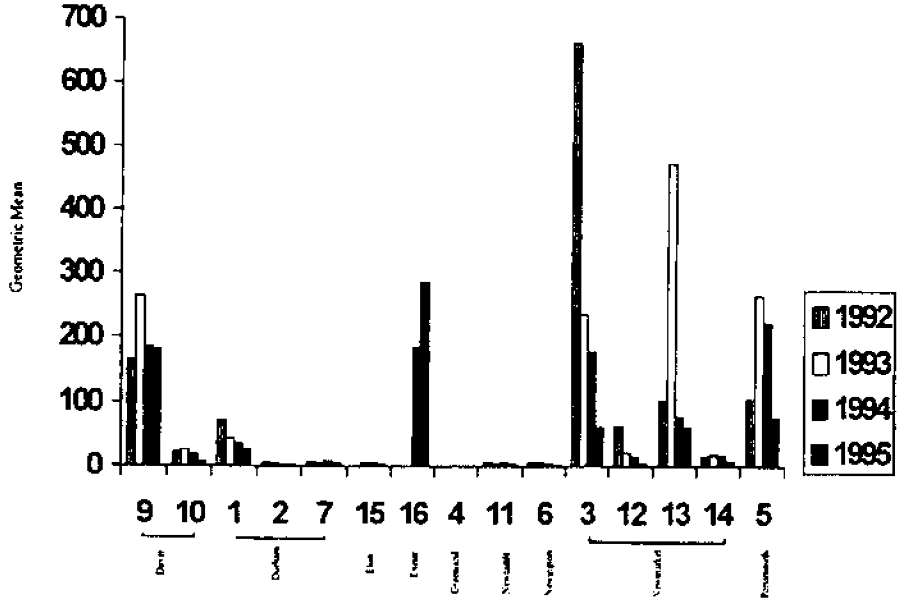
Some of the most commonly asked questions that we hear are "Are the bacteria levels in the estuary too high?", "Is it safe to swim in the Great Bay?" and "Are the shellfish safe to eat?" It is important for the reader to understand the intended purpose of the Great Bay Watch when asking these questions. The volunteers' data are useful for giving generalized information about water quality in the Great Bay Estuary, identifying "hot spots" where state/local regulators should investigate further, and tracking changes in the estuary's water quality over time. GBW monitoring and data might also prove useful in locating the sources or activities that are creating the pollution that impacts shellfish beds. Many of the above questions are specific "regulatory" issues that are best answered by the regulators themselves. For example, state regulations for determining if tidal waters are safe for swimming use the bacteria enterococci, not fecal coliforms, and direct comparisons between the two cannot be made. Determining if waters are safe for shellfishing is a complicated process that involves much more than taking water samples. Real and potential shoreline sources of pollution must be evaluated and other factors that affect the performance of the pollution sources and their effects on shellfish beds (hydrographic, meteorological, and other influences) must be determined. Furthermore, water samples must be tested by a laboratory, certified by the U. S. Food and Drug Administration, using specific analytical methods that are different from those used by the Great Bay Watch. Thus, it would be inappropriate for one to use the bacterial data generated by GBW to make a definitive conclusion on the safety of shellfish beds. However, GBW data can be viewed in the context of water quality standards for shellfishing to get a general sense of how clean or polluted the waters of the estuary are.

Shellfish water regulations state that for an area to be classified as "Approved"(harvesting can occur at any time, regardless of weather conditions or other factors), the geometric mean of several samples should not exceed 14 fecal coliform colonies per 100 ml, and not more than 10 percent of the samples should have counts that exceed 43 fecal coliform colonies per 100 ml. Only sites 2, 6, 11 and 15 would pass this test based on the GBW data collected to date. It is important for the reader to understand that although many of the sites would not meet the "Approved" classification, shellfish water criteria are very strict. Waters determined to be unfit for shellfish harvesting are not necessarily severely polluted and may be perfectly safe for other activities, such as swimming.

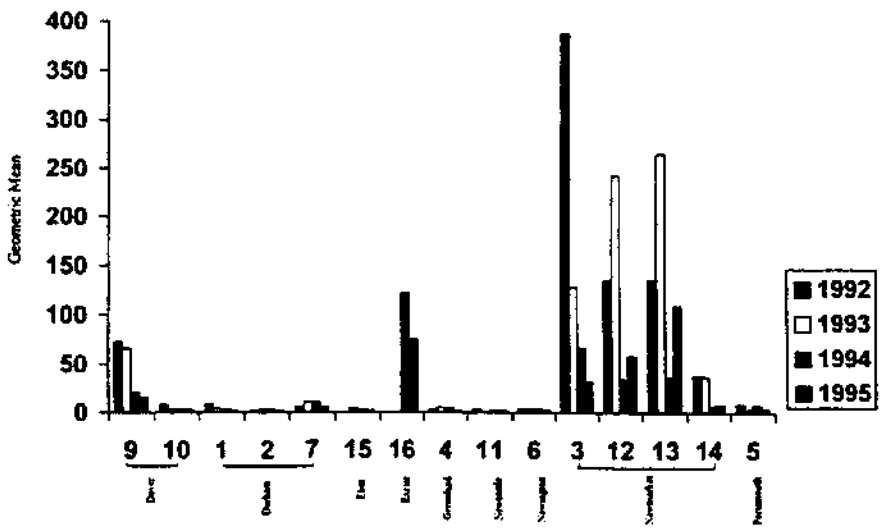
In general, the data indicate that sites located in the Town of Newmarket exhibit the most widespread bacterial contamination out of all the sites in the GBW network. However as indicated by the graphs below, the levels of contamination at each site have been steadily decreasing since their entrance into the sampling network. Site 16 in the town of Exeter also shows a high degree of fecal contamination at low tide which appears to be increasing based on the data collected to date. There is some indication that levels are decreasing at high tide at this site. The Cocheco River site in Dover, Site 9, also exhibits high fecal coliform levels at both tidal stages. However levels at Site 10, downstream on the Piscataqua River are much lower. This would indicate sources of the pollution upstream of Site 9. Most of the Sites in Durham exhibit low levels of fecal coliform. However Site 1 shows somewhat high bacteria counts at low tide. Data shows, however, that the low tide levels are decreasing at Site 1 over the last four years.

Alice and Bob Briggs at Cedar Point (Site 7) completing GBW data sheet.

Yearly Low Tide Fecal
Coliform Geometric Means



Yearly High Tide Fecal
Coliform Geometric Means



These figure shows yearly geometric mean values calculated for each of the Great Bay Watch sites at low and high tide respectively, and allow comparison among years at a single tidal stage.

When comparing fecal coliform levels within years at high versus low tide it becomes clear that most of the serious fecal coliform problems arise at low, rather than high tide.

B: Quality Assurance/Quality Control Analyses

Is the data collected by the volunteers accurate and precise?

The GBW's work on Quality Assurance and Quality Control (QA/QC) has been focused on two areas. First, we have been testing volunteer monitors at QA/QC sessions since 1992. Second, we have utilized QA/QC teams to validate the volunteers' data through the use of split field sampling.

There are two factors which are of primary interest when evaluating the quality of data collected by volunteer monitors. The first is **accuracy**, or how close, on average, are the volunteers' measurements to the true value of the characteristic being measured. Accuracy is evaluated by conducting experiments in which the monitors take measurements from a sample with a known value. A difference between the average monitor estimate and the actual value is computed and reported as the level of accuracy. The second factor is **precision**, or how close the volunteer measurements are to one another. The variation, usually reported as the standard deviation, in the volunteers' measurements for a single sample is calculated and reported as the level of precision.

This year we made a few key changes to our QA/QC procedures in order to control for external factors which may influence the water samples being tested. First we designed a covered container to hold the water for dissolved oxygen sampling to try to control fluctuating dissolved oxygen levels. We also used our incubator for water temperature testing in order to keep a constant water temperature throughout the six hour session.

Both accuracy and precision have been evaluated for the GBW volunteers. We have held a total of eight QA/QC sessions to date; two were held in 1992, three were held in 1993, one was held in 1994 and two were held in 1995. In our first 1995 session we found that there was a need to modify our procedures to control for external influences which were affecting the water samples. This prompted the aforementioned procedural changes and hence only the results from the second 1995 session were used to evaluate the volunteers. A summary of these results can be found in figure B1 below.

	Accuracy		**Precision**	
	Goal	**Actual**	**Goal**	**Actual**
Salinity Test 1	0.82 ppt	0.57 ppt	1.0 ppt	0.56 ppt
Salinity Test 2	0.82 ppt	0.28 ppt	1.0 ppt	0.77 ppt
Salinity Test 3	0.82 ppt	1.31 ppt	1.0 ppt	0.40 ppt
pH	0.1 pH units	0.0004 pH units	0.1 pH units	0.1 pH units
Dissolved Oxygen	0.3 mg/L	0.24 mg/L	0.9 mg/L	0.47 mg/L
Water Temperature	0.5°C	0.24°C	1°C	0.54°C

The results on the previous page are quite encouraging. Calculations for precision among the volunteers shows that variation among volunteers was fairly low and in all cases the pre-set GBW goals were met. Accuracy calculations indicate that, for the most part, the difference between the known values and the averages of those obtained by the volunteers was small with the exception of the third salinity test. However the first two salinity tests indicate that the volunteers are capable of accurately measuring this water characteristic. Nevertheless, we should continue to address the potential problem concerning the accuracy of measuring salinity with hydrometers by focusing more time on the training (and retraining) of the volunteers on the proper methods for using hydrometers. Finally, the results from our QA/QC sessions do indicate that the most active and dedicated volunteers can collect quality data.

Since there are many methods of collecting the types of data the Great Bay Watch measures, it is often a concern to know how our methods compare with the others. At our August 1995 QA/QC meeting we had the opportunity to tests each of our methods for measuring dissolved oxygen, pH, and salinity with another method for measuring these quantities. QA/QC officers simultaneously sampled with the volunteers using a YSI meter to test dissolved oxygen, an Jenco pH meter, and a Orion salinity meter to test salinity. The statistical software package Minitab, was used to perform statistical sign tests to determine if the methods for measuring the above water characteristics were different. Complete results can be found in **Appendix G**. We found that we had little reason (95% confident) to believe that our method for testing dissolved oxygen levels was different from the YSI method. Likewise, we determined that we had little reason (again, 95% confident) to believe that the Cole Parmer pocket pH Testr2 used by the volunteers was different from the Jenco pH meter method. However, we have good reason to believe that there was a difference between the hydrometer method and the Orion salinity meter method. We performed three tests at three different known salinity values using each of these methods. We found that when we tested in low salinity water we could be 95% confident that the two methods were not different. However at an intermediate and a high salinity level the two methods did not give the same close results. The measured values indicate that the average salinity reading was higher for the Orion salinity meter in both cases. At next seasons QA/QC and retraining sessions the proper use and reading of hydrometers will be a important focus.

This year we made a conscious effort to evaluate the volunteers by use of split sampling in the field. QA/QC officers performed split sample tests at least once at both low and high tides at each site throughout the sampling season. Again, Minitab was used to analyze the data collected by both the volunteers and the QA/QC officers. Complete results can be found in **Appendix H**. The results indicate, that based on 95% confidence levels, (we have no reason to believe that the values measured by the volunteers for each parameter were different from those measured by the QA/QC officers in all but one instance, high tide water transparency). After careful observation we came up with two possible reasons for the discrepancy between the monitors and the QA/QC teams. First of all, the secchi measure is a highly subjective type of measurement which can be affected by the individuals eyesight or shadows on the water surface. Secondly, the location at which the measurements were taken may influence the values obtained by the observer. It is highly likely that if the two measurements were taken one after the other, that sediments may have been disturbed enough to cause variable readings in turbidity. Overall the volunteers are doing well in the field. They are accurately and precisely estimating all of the remaining parameters with respect to the QA/QC officers.

What corrections has the Great Bay Watch made to its data?

The QA/QC officers have spent a considerable amount of time reviewing the data for potential posting errors. Through the use of time series charts, several outlying observations were noticed and investigated. It was found that in some instances the data reported was improperly entered into the GBW data archives. Thus, all the data was re-checked and corrected where necessary. In many instances, the mean values and standard deviations for the first five years of the program changed. **Appendix D** Tables 1-13 includes complete tables of the corrected values and a comparison to those reported in the five year report.

For the 5 year report mean percent saturation values were calculated after removing observations with percentage greater than 120 percent. This was done because the authors of the 5 year report felt that it was highly unlikely percent saturation values greater than 120 percent to be naturally occurring. However, after further discussion with the technical advisory committee, the authors of the 1995 annual report decided to keep all values observed in when calculating our means. Since tea-colored water at site 16 and other sites could be due to the leaching of tanic acid from the tree covered river banks and/or suspended materials.

Table of Low Tide Means and Standard Deviations for Percent Saturation
(with and without observations greater than 120 percent)

Site Name	Site #	Mean		Standard Deviation	
		with all observations	**with >120% removed**	**with all observations**	**with >120% removed**
Peninsula	1	77.11	76.57	11.56	10.47
JEL	2	91.56	91.15	8.69	7.84
Lamprey River	3	85.08	85.08	9.91	9.91
Depot Road	4	*	*	*	*
PCC	5	73.22	73.22	10.18	10.18
Fox Point	6	93.07	93.07	7.92	7.92
Cedar Point	7	91.75	91.33	8.51	7.68
Neal	9	81.70	81.70	8.95	8.95
Clark	10	88.60	88.60	9.85	9.85
CML	11	91.82	91.82	10.17	10.17
STP	12	67.74	65.87	24.09	19.74
Marina Falls Landing	13	93.99	92.72	11.92	9.80
Fowlers' Dock	14	85.09	85.09	11.78	11.78
Pattern Yacht Yard	15	94.78	92.91	15.95	13.70
Exeter Docks	16	96.55	91.65	21.39	11.68

Table of High Tide Means and Standard Deviations for Percent Saturation
(with and without observations greater than 120 percent)

Site Name	Site #	Mean		Standard Deviation	
		with all observations	**with >120% removed**	**with all observations**	**with >120% removed**
Peninsula	1	98.66	98.03	10.26	9.55
JEL	2	97.43	97.15	7.88	7.48
Lamprey River	3	98.20	95.98	12.32	7.34
Depot Road	4	107.73	101.85	14.13	9.90
PCC	5	103.18	98.47	15.81	10.44
Fox Point	6	94.28	94.28	8.80	8.80
Cedar Point	7	92.82	92.82	9.03	9.03
Neal	9	94.68	91.51	14.89	11.10
Clark	10	98.54	98.00	8.66	7.52
CML	11	91.44	91.44	10.44	10.44
STP	12	95.74	92.59	16.46	11.72
Marina Falls Landing	13	95.58	94.86	9.74	8.21
Fowlers' Dock	14	91.28	91.28	13.14	13.14
Pattern Yacht Yard	15	97.50	96.88	16.37	16.11
Exeter Docks	16	119.83	94.63	44.50	8.69

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(1) *The Alumnus*, Summer, 1990, Vol. LXVI, 2. University of New Hampshire.

(2) NH Department of Environmental Services, *Section 305(b) Water Quality Report*, June, 1994.

(3) *Standard Methods for the examination of water and wastewater, 17th Edition, 1989*, Lenore S. Clesceri, Arnold E. Greenberg, R. Rhodes Trussell.

(4) NOAA *Strategic Assessment of Near Coastal Waters, Northeast Case Study*. National Oceanic and Atmospheric Administration and Environmental Protection Agency, July 1988.

(5) Jones, Stephen and Langan, Richard, *Coastal Nonpoint Program Water Quality Monitoring - Great Bay*, NH Office of State planning - Coastal Program Report Number 200, June 1994.

(6) *Non-Point Source Management Plan, State of New Hampshire*, Department of Environmental Services, 1989.

(7) Short, Fredrick T. *The Ecology of the Great Bay Estuary, New Hampshire and Maine: An Estuarine Profile and Bibliography*. National Oceanic and Atmospheric Administration, 1992.

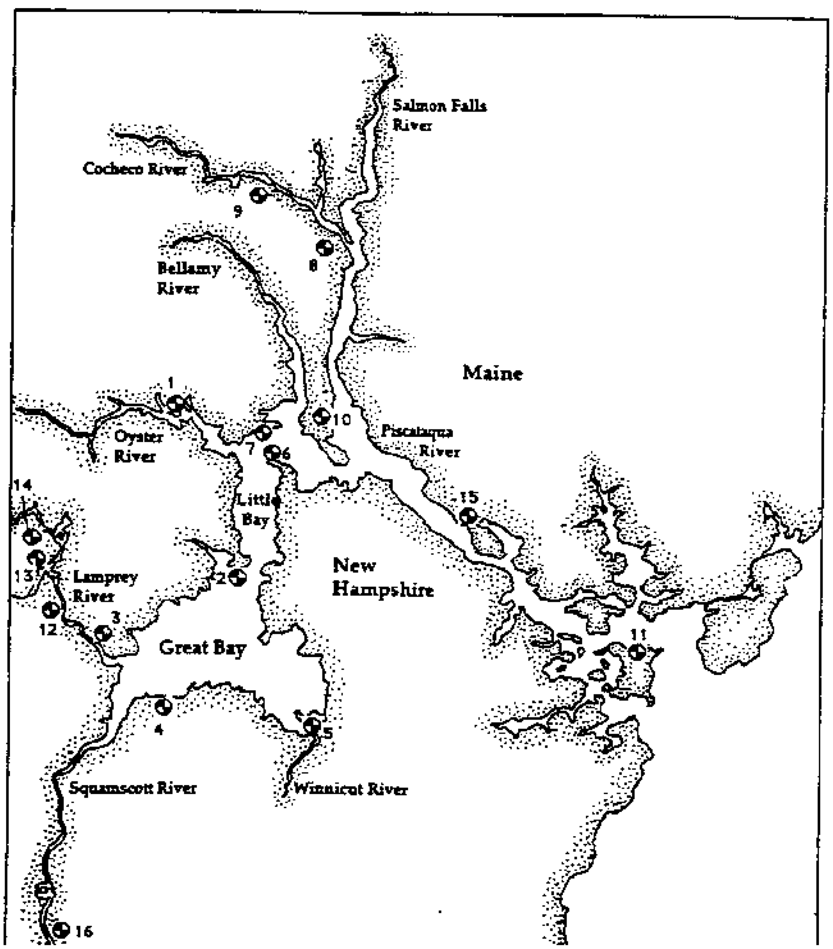
(8) Lehnertz, Christine. *Integrating quality Assurance into Tribal Water Programs*. Environmental Protection Agency, 1994.

Appendices

Appendix A

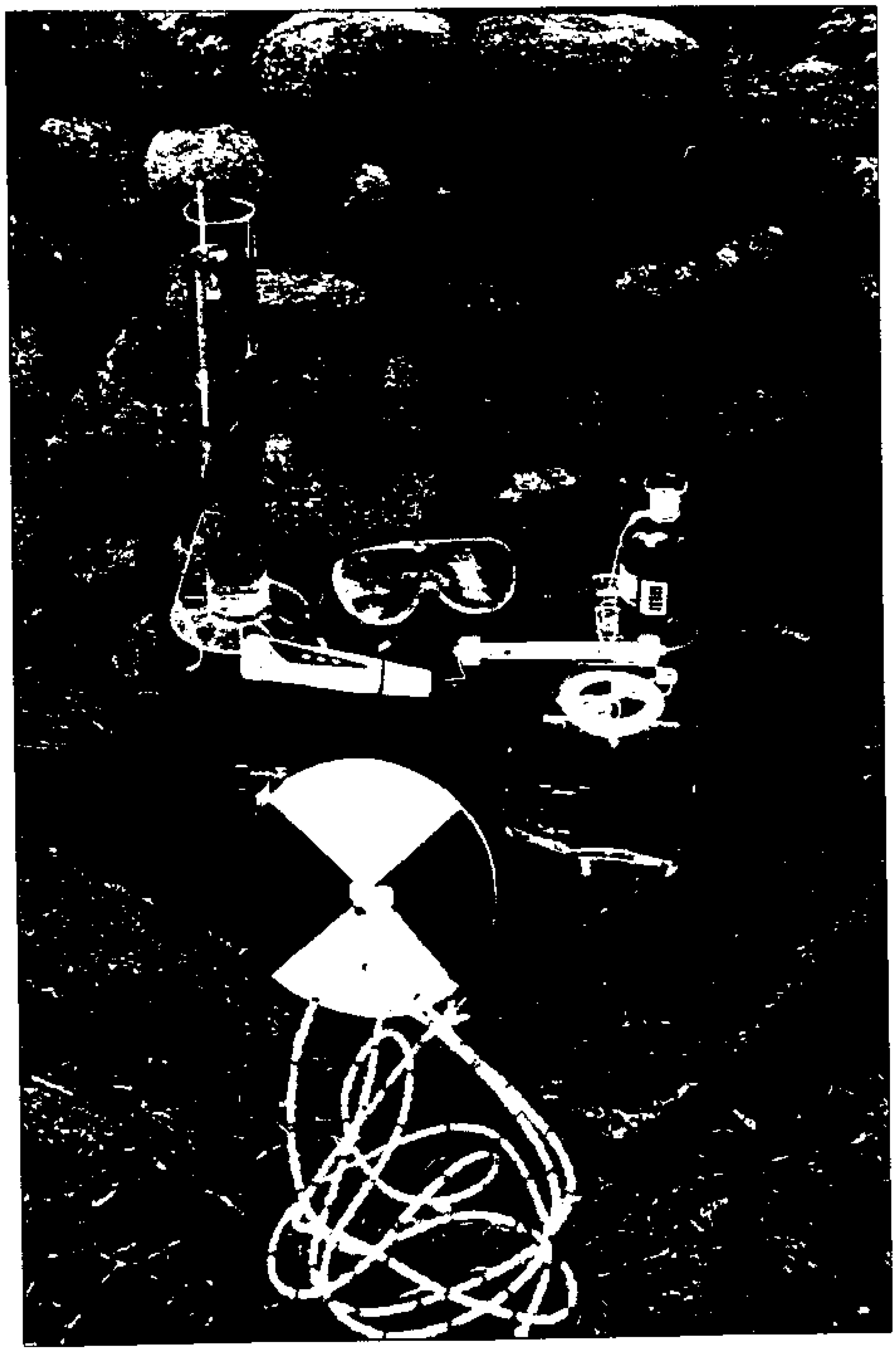
Table of Great Bay Watch Sites, locations, towns and year started

Site Name	Site #	Location	Town	Year Started	Comments
Peninsula (Smith's)	1	Oyster River	Durham	1990	
JEL	2	Great Bay	Durham	1990	
Lamprey River	3	Lamprey River	Newmarket	1990	
Depot Road	4	Great Bay	Greenland/ Stratham	1990	High tide only as of 1993
PCC	5	Winnacut River	Greenland/ Stratham	1990	
Fox Point	6	Little Bay	Newington	1990	
Cedar Point	7	Little Bay	Durham	1990	
Rakoskes'	8	Piscataqua River	Dover	1990	Inactive as of 1992
Neals'/Williams'	9	Cocheco River	Dover	1990	
Clarks'	10	Piscataqua River	Dover	1991	
Coastal Marine Lab	11	Piscataqua River	New Castle	1991	
STP	12	Lamprey River	Newmarket	1992	
Marina Falls Land.	13	Lamprey River	Newmarket	1992	
Fowlers'	14	Lamprey River	Newmarket	1992	
Patten Yacht Yard	15	Piscataqua River	Eliot, Me	1993	
Exeter Town Docks	16	Squamscott River	Exeter	1994	



Appendix B

Site Data



Great Bay Watch equipment kit.

Site 1 - Peninsula

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ml	CFU/100 ml	cm	cm			oC	oC							min	min
90	1	04/09/90			4.0	8.8	11.3	12.8	9.2	16.8	91.63	110.84	6.9	7.8	*	*		113.0	*	*	-2.00	9.50								
90	1	04/26/90			9.8	10.0	9.2	9.5	13.2	17.9	87.43	84.06	6.8	8.2	*	*	29.0	120.0	*	*	7.00	11.00								
90	1	05/09/90			11.0	18.0	8.6	8.4	11.5	17.8	83.73	98.45	7.2	7.6	*	*	60.0	110.0	*	*	9.50	28.00								
90	1	05/24/90			11.0	12.8	7.7	6.4	12.2	17.6	76.28	68.37	7.3	7.6	*	*	65.0	136.0	*	*	6.00	11.00								
90	1	06/08/90			17.5	18.5	6.3	8.2	17.4	22.0	81.32	101.35	7.4	7.7	*	*	70.0	135.0	*	*	18.00	21.00								
90	1	06/22/90			18.5	18.5	6.7	9.0	18.8	24.4	87.91	100.31	7.2	7.7	*	*	75.8	130.0	*	*	16.00	28.00								
90	1	07/06/90			21.0	22.0	6.3	7.4	24.8	26.8	88.18	98.43	7.3	7.8	*	*	80.0	115.0	*	*	12.00	23.00								
90	1	07/21/90			23.0	24.5	6.7	7.3	28.2	30.0	77.98	103.65	7.6	7.8	*	*	80.0	120.0	*	*	21.90	29.00								
90	1	08/04/90			24.0	23.0	6.9	7.2	27.2	30.2	81.07	98.70	7.3	7.7	*	*	186.0	146.0	*	*	21.00	21.00								
90	1	08/20/90			20.0	24.9	5.9	7.3	22.9	29.8	72.38	102.08	*	7.8	*	*	80.0	188.0	*	*	12.80	20.00								
90	1	09/03/90			22.8	22.5	5.8	6.8	22.5	28.0	75.35	80.88	7.2	7.7	*	*	110.8	166.0	*	*	16.80	22.50								
90	1	09/18/90			14.6	16.6	6.2	7.5	20.1	20.8	71.17	89.51	7.6	7.0	*	*	103.8	235.0	*	*	6.50	10.00								
90	1	10/04/90			13.8	16.0	7.8	8.3	20.8	31.0	87.02	101.33	*	7.8	*	*	125.8	250.0	*	*	8.00	23.00								
90	1	10/18/90			13.8	16.0	6.8	6.8	17.8	24.0	61.20	80.80	7.4	7.6	*	*	102.8	188.0	*	*	10.00	21.00								
90	1	11/02/90			7.6	*	8.7	*	13.2	*	78.07	*	7.2	*	*	*	*	*	*	*	6.00	*								
91	1	04/14/91	JS MF JF PS MS BF		7.50	10.50	13.40	10.00	18.00	8.40	123.47	102.00	7.80	7.80	*	*	80.00	118.80	*	*	0.80	11.00	ripple		clear		several sculls			
91	1	04/27/91	PS BF JS		12.00	13.00	8.40	8.80	18.30	18.50	83.04	89.47	7.40	7.80	*	*	75.00	96.00	*	*	14.00	24.50	ripple		pt cloud		UNH crew			
91	1	06/13/91	JS MF JF		16.50	17.50	7.20	8.30	13.70	18.30	78.27	89.53	*	7.60	*	*	40.00	78.00	*	*	12.80	24.00	M BREEZY		clear calm		several crew			
91	1	06/27/91	PS MS		18.00	19.80	6.80	7.80	18.40	23.70	88.21	88.47	6.80	7.00	*	*	80.00	130.00	*	*	14.00	18.00								
91	1	06/11/91	MF BF MS PS		21.00	21.80	6.65	7.20	24.20	27.70	72.70	88.03	7.20	7.70	*	*	80.00	130.00	*	*	21.00	20.00	ripple		pt cloud					
91	1	06/26/91	AR MS PS		20.00	22.80	8.10	8.25	25.80	28.80	77.92	111.33	6.80	7.90	*	*	76.00	140.00	*	*	19.00	31.50	ripple		hot	*	trans labs			
91	1	07/10/91	MF JF MS PS		18.00	20.80	8.80	8.70	28.80	31.80	71.48	118.23	7.20	7.70	*	*	96.00	110.00	*	*	12.80	35.00	waves		hot,windy		boating,birds			
91	1	07/26/91	MS PS		22.50	21.50	5.80	7.80	28.60	31.80	78.11	103.32	7.50	7.80	*	*	86.00	135.00	*	*	22.00	24.00	calm		overcast		hot, no rain			
91	1	08/08/91	MF JF		21.50	21.00	4.20	6.60	30.40	32.10	88.88	118.23	7.40	7.80	*	*	90.00	135.00	*	*	20.00	26.00	ripples		overcast		boats,fish jumping			
91	1	08/24/91	MS PS JS		20.00	22.00	4.20	6.30	8.80	13.80	48.57	78.70	6.50	7.20	*	*	86.00	90.00	*	*	17.00	21.50	brown		overcast		fish activity			
91	1	09/07/91	JT MF JF		18.00	21.80	5.20	7.30	21.20	26.80	83.36	84.48	*	*	*	*	120.00	135.00	*	*	18.00	24.00	calm		clear					
91	1	09/22/91	MS PS		14.00	17.00	8.10	7.00	18.80	28.00	88.57	95.84	6.70	7.20	*	*	120.00	260.00	*	*	3.00	18.00	ripple		clear		clear			
91	1	10/06/91	MS PS		16.00	16.00	7.80	7.90	18.80	20.80	90.41	88.88	6.80	7.20	*	*	86.00	140.00	*	*	18.00	18.50			ripple		downpour			
91	1	10/22/91	PS MS		8.50	*	8.80	*	14.80	*	84.45	*	6.80	*	*	*	85.00	*	*	*	1.00	*			calm		pt cloudy			
91	1	11/06/91	PS MS	BF	8.50	9.00	9.40	8.30	18.00	23.80	88.04	83.20	7.20	7.40	*	*	150.00	240.00	*	*	3.00	*	CALM	RIPPLE	*	OVERCAST	BOATING	BIRDS		
92	1	04/17/92	MS PS	MS	6.00	6.50	10.80	8.70	13.00	21.80	90.28	81.24	6.80	7.70	*	*	100.00	140.00	*	*	1.00	9.00	ripple	ripple	snow	wet snow		BOATING		
92	1	05/02/92	MS PS	MS PS	12.50	12.00	6.76	10.70	13.80	20.30	99.33	112.38	6.70	7.60	*	*	90.00	100.00	*	*	11.80	18.00	ripple	ripple	showers	overcast				
92	1	05/16/92	PS JS	PS	14.50	14.00	7.80	8.40	18.80	23.30	96.10	104.84	7.20	7.70	*	*	*	100.00	*	*	10.80	18.50	calm	ripple	showers	cloudy	ROWERS			
92	1	05/31/92	PS JS	PS MS RB	17.50	18.50	6.80	8.00	22.80	20.30	88.21	88.74	7.20	7.50	*	*	80.00	120.00	*	*	13.50	16.00	ripple	ripples	overcast	overcast		DEAD HORESHOE CRAB		
92	1	06/14/92	PS JS	PS MS	20.00	21.00	6.80	7.80	18.00	21.80	78.71	88.63	7.10	*	*	*	80.00	128.00	*	*	21.00	29.00	ripple	ripples	clear	clear		BOATING		
92	1	06/29/92	PS	KG	20.00	21.50	6.00	7.70	25.40	28.20	76.41	102.63	7.00	7.80	130.00	2.80	86.00	188.00	*	*	16.00	30.00	calm	ripple	clear	pt cloudy				
92	1	07/13/92	MS PS	JJ JJ	21.00	21.70	6.80	*	28.20	28.80	91.05	*	6.70	7.90	56.00	3.80	90.00	188.00	*	*	22.00	34.00	calm	calm	overcast	clear	BLUE HERON	BOATING		
92	1	07/28/92	MS PS	CH JJ	20.70	20.70	6.60	7.20	25.20	28.80	84.73	94.36	7.10	7.70	172.00	4.00	86.00	140.00	*	*	14.00	27.00	calm	CALM	clear	clear	2 BLUE HERON			
92	1	08/10/92	MS PS	JB KG	19.70	21.70	5.40	7.50	25.80	28.80	90.32	100.04	7.40	7.70	64.00	0.40	126.00	188.00	*	*	17.90	26.50	calm	calm	clear			SCHOOL OF FISH		
92	1	08/27/92	MS PS	JB	22.20	22.20	5.70	7.70	23.90	28.10	74.08	104.83	6.80	7.90	340.00	4.00	126.00	166.00	*	*	22.00	20.00	calm	ripple	foggy	hazy		BOATS		
92	1	09/11/92	MS PS	MS	18.70	18.20	6.70	7.60	27.10	28.40	71.20	96.40	7.30	7.30	74.00	16.00	130.00	230.00	*	*	18.00	22.00			showers	pt cloud				
92	1	09/25/92	MS PS	MS	12.30	13.30	7.20	8.70	25.80	30.70	78.33	99.74	7.20	7.60	33.00	0.00	130.00	200.00	*	*	14.00	17.00	calm	ripple	clear	clear		BOATING		
92	1	10/10/92	PS JS	JB KG	12.30	12.00	8.20	8.70	17.00	28.00	84.30	87.47	7.10	7.60	TNTC	190.00	30.00	182.00	*	*	10.50	21.00	calm	calm	showers	pt cloudy				
92	1	10/24/92	JS CH	JB	9.30	9.06	8.30	8.70	25.90	27.00	82.81	90.72	7.00	7.70	10.00	10.00	170.00	300.00	*	*	10.00	18.00	calm	ripple	pt cloudy	rain				
92	1	11/09/92	MS PS	MS PS	1.30	6.30	10.00	10.00	14.10	25.80	81.03	90.91	7.00	7.20	60.00	110.00	*	305.00	*	*	-7.00	2.00	calm	ripple	clear	clear				
93	1	04/21/93	BH EC NW DT	EO BC EG LP	*	14.80	8.10	11.90	3.80	10.30	84.17	122.90	7.20	8.10	200.00	100.00	40.00	80.00	170.00	360.00	18.00	18.00	ripple	waves	OVERCAST	PT CLOUDY	CREWBOATING	BIRDS		
93	1	05/06/93	BH EC DT	BC GC CR LP	10.80	10.00	8.70	8.60	12.20	18.00	73.71	100.28	7.00	7.50	170.00	*	52.50	86.00	133.00	370.00	10.00	27.00	ripple	ripple	OVERCAST	CLEAR	CONSTRUCTION	BOATING		
93	1	05/20/93	BH NW	LP BC EO	13.50	14.00	8.40	7.80	14.00	22.30	88.01	84.32	7.20	7.40	170.00	20.80	87.50	80.00	180.00	346.00	18.00	16.00	calm	ripple	OVERCAST	OVERCAST	CREW BOATS			
93	1	06/03/93	EO CR BH	EG BC LP	14.00	18.80	7.20	8.30	22.00	27.70	79.74	90.22	7.50	7.70	20.00	0.80	86.00	86.00	125.00	376.00	15.80	23.00	ripple	ripple	PT CLOUDY	CLEAR	CREW BOATS			
93	1	06/23/93	EO BH	LP NW	20.00	18.80	6.56	7.80	26.80	28.20	81.18	88.52	7.60	7.80	110.00	10.00	73.00	118.00	150.00	346.00	20.50	26.80	ripple	calm	CLEAR	CLEAR		BOATS		
93	1	07/06/93	EO BH	NW LP	23.00	22.50	5.60	8.00	27.50	29.80	78.28	109.62	7.60	7.80	20.00	0.00	102.80	165.00	140.00	385.00	25.20	33.00	ripple	ripple	CLEAR	CLEAR		HOT		
93	1	07/22/93	EC PPO LP	EC LP	20.50	19.80	5.60	7.50	29.90	31.20	72.21	95.31	7.30	7.80	20.00	10.00	87.50	138.00	135.00	370.00	25.00	24.50	ripple	ripple	CLEAR	OVERCAST	RAIN BEFORE			
93	1	08/03/93	DT LP	LP KP	23.00	23.80	5.10	7.80	27.10	31.50	90.32	100.00	7.20	7.70	*	*	123.00	160.00	140.00	345.00	23.00	30.00	calm	ripple	CLEAR	PT CLOUDY	SWIMMER			
93	1	08/18/93	NW DT BH	EO BH EFG	23.00	23.00	4.70	7.65	28.00	31.20	84.22	98.21	7.30	7.30	120.00	0.00	110.00	190.00	153.00	383.00	19.00	22.50	ripple	ripple	OVERCAST		BUGGY			
93	1	09/02/93	LP	OT BH	22.00	22.50	4.50	7.30	31.00	31.10	81.81	100.73	7.40	7.80	80.00	20.00	122.00	230.00	156.00	360.00	18.00	20.00	CALM	waves	CLEAR	CLEAR	BOATING			
93	1	09/20/93	LP	NW DT BH	18.00	16.80	6.70	7.77	30.00	32.80	88.76	96.00	7.70	7.80	40.00	0.00	118.00	230.00	130.00	385.00	14.00	15.00	RIPPLES	RIPPLES	CLEAR	CLEAR	BLUE HERON	BOATING, BIRDS		
93	1	10/04/93	GC CR LP	EO DT BH	14.00	16.60	6.90	8.40	28.00	30.90	76.14	104.23	7.40	7.70	10.90	8.00	105.00	230.00	105.00	363.00	15.00	24.90	RIPPLES	WHITECAPS	PT CLOUDY	CLEAR	WINDY	WINDY		
93	1	10/19/93	EF EC LP	DT CR BH	12.00	12.00	8.48	8.00	28.10	31.10	73.83	80.06	7.10	7.80	10.80	0.90	180.00	305.00	186.00	406.00	10.50	21.50		ripples		CLEAR		GULLS		
93	1	11/09/93	EF BH	EC NW LP	8.50	9.00	10.25	8.62	22.30	28.50	96.15	82.03	7.80	7.90	15.00	4.50	130.00	315.00	130.00	340.00	11.50	6.50	ripple	calm	OVERCAST	CLEAR	GULLS AND BOATS	BOATS		
94	1	04/26/94	EC GC LP TB	EC GC LP KP	8.00	8.40	9.40	10.80	13.10	20.00	88.20	104.38	7.10	8.00	30.00	3.00	45.00	112.50	128.00	355.00	5.00	7.50	RIPPLE	RIPPLE	SHOWERS	OVERCAST	BOATING	NONE	305.0	160.0
94	1	05/10/94	NW JL LP	JL BH	12.90	13.50	8.20	8.22	6.60	18.70	98.22	97.81	7.40	7.80	30.00	12.80	72.50	137.50	185.00	365.00	14.00	16.50	RIPPLE	RIPPLE	OVERCAST	CLEAR	BOATING	CONSTRUCTION	185.0	140.0
94	1	05/25/94	LP EO TT BC	EC TS DJ JL	16.00	14.50	7.10	8.80	13.90	7.55	78.48	90.42	7.20	7.80	100.00	11.00	140.00	127.50	360.00	375.00	12.00	14.50	ripple	CALM	showers	SHOWERS	none	CONSTRUCTION	200.0	170.0
94	1	06/08/94	LP CR JL	DT EF BH	18.00	18.00	6.10	7.03	8.20	26.00	88.03	98.27	7.40	7.80	170.00	8.00	102.00	130.00	110.00	325.00	18.00	26.00	ripple	RIPPLE	clear	CLEAR	boats	WINDY	120.0	150.0
94	1	06/23/94	BH DH JL EC	OJ LP	20.50	20.00	6.60	7.70	26.10	29.00	83.00	100.88	7.50	7.80	9.00	100.00	88.50	160.00	120.00	265.00	10.50	26.50	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	2 SKULLS	KAYAK	120.0	220.0
94	1	07/11/94	BH NW	JT BH	23.50	24.10	6.05	8.00	27.40	30.00	83.21	113.01	7.80	7.90	110.00	0.00	102.50	102.50	147.00	360.00	21.80	20.80	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	HIGHWAY TRAFFIC	146	210
94	1	07/26/94	LP KM	NW BH DH	24.80	24.80	4.80	7.03	28.80	30.20	87.50	88.93	7.30	7.80	34.00	10.00	88.00	166.00	145.00	360.00	24.00	20.80	CALM	RIPPLE	FOG	PT CLOUDY	BLUE HERON	BOATING	85	210
94	1	08/08/94	BH JT DJ DH	LP EC KP	22.10	22.50	6.93	7.80	28.10	30.80	80.12	100.88	7.80	8.00	14.50	2.00	149.00	122.50	155.00	465.00	20.00	27.00	RIPPLE	RIPPLE	CLEAR	CLEAR	CONSTRUCTION	BOATING	295.0	160.0
94	1	08/22/94	LP KM JB	EC KP LP	22.00	19.00	6.20	7.00	24.00	29.20	88.30	90.63	7.20	7.80	TNTC	0.00	90.00	163.00	138.00	350.00	20.00	17.00	RIPPLE	CALM	OVERCAST	SHOWERS	BIRDS	MUMMICHUGS IN WATER	140.0	120.0
94	1	09/07/94	LP	BH JF BC	16.50	18.00	7.20	7.70	20.50	30.20	84.56	97.24	7.50	7.80	44.00	1.00	85.00	210.70	140.00	306.00	12.00	23.50	CALM	RIPPLE	CLEAR	PT CLOUDY	NONE	NONE	80.0	120.0
94	1	09/21/94	BH BM	JB KP LP	16.70	18.00	7.70	8.70	27.90	31.20	93.07	125.83	7.00	7.80	20.00	0.00	90.50	208.00	140.00	347.00	14.90	29.00	CALM	RIPPLE	CLEAR	CLEAR	MANY BIRDS	ROAD CONSTR.	120.0	180.0
94	1	10/06/94	DJ EC LP	JF JL GC JB	11.50	13.80	8.20	8.13	20.50	25.80	85.27	101.27	8.20	7.80	15.00	1.00	83.00	150.00	120.00	305.00	8.00	10.50	CALM	CALM	CLEAR	PT, CLOUDY	BOATING	BIRD BOAT	160.0	75.0
94	1	10/20/94	JB BM BH	NW JL LP	13.00	13.00	8.06	8.50	20.00	29.40	80.00	107.90	8.20	8.10	*	8.00	100.50	190.00	170.00	380.00	15.60	16.00	RIPPLE	RIPPLE	SHOWERS	OVERCAST	pH METER WAS ST	SEAWEED AND SLUDGE	106.0	175.0
94	1	11/07/94	EG BH	LP KP JL	10.00	11.00	7.84	8.10	14.80	20.90	76.16	87.96	7.60	7.80	82.00	7.00	26.00	100.00	80.00	170.00	8.20	13.00	WHITE CA	WAVES	PT CLOUDY	CLEAR	NO DOCK	NO DOCK	140.0	160.0
95	1	04/18/95	GC RJ LP	BH JB CB	10.00	10.00	10.50	11.10	17.50	22.50	103.84	113.08	7.40	8.00	1.00	0.00	123.00	165.00	133.00	356.00	13.00	12.00	RIPPLE	RIPPLE	CLEAR	CLEAR	BIRDS	NONE	240.0	180.0
95	1	05/01/95	LP CM	JL CJ BH	10.50	11.00	8.80	10.25	17.20	25.10	89.67	100.60	7.70	8.30	1.00	0.00	80.00	132.50	160.00	350.00	9.00	10.00		RIPPLE		OVERCAST		TRAFFIC ; AIR PLANES	240.0	225.0
95	1	05/16/95	EC CB LP	BH AW RQ	13.00	11.00	7.30	8.20	20.40	26.00	78.37	97.38	6.90	7.80	32.00	1.00	80.00	120.00	125.00	375.00	10.00	8.00		RIPPLE		SHOWERS		NONE	120.0	200.0
95	1	05/30/95	RJ NW LP	JT CJ CG BH	17.50	17.80	6.80	7.80	18.40	24.80	87.90	94.33	7.20	7.00	35.00	0.00	42.50	148.00	126.00	346.00	21.00	31.30	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	BOATING	NONE	120.0	240.0
95	1	06/13/95	LC BM ST LP	ET CG CJ BH	18.00	17.60	4.05	7.80	22.70	27.20	68.08	93.28	7.20	7.70	NA	0.00	82.50	127.50	125.00	360.00	22.60	17.50	RIPPLE	RIPPLE	OVERCAST	LIGHT RAIN	BOATING	BOATING	240.0	200.0
95	1	06/27/95	EC LP BM	BH RJ	21.60	21.60	8.00	8.12	25.80	29.00	78.76	108.65	7.70	7.80	57.00	1.00	101.00	186.00	135.00	330.00	18.00	21.80	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	NONE	TRAFFIC	200.0	130.0
95	1	07/12/95	LP	LP AW	20.80	22.00	4.70	7.65	27.80	30.80	61.28	103.07	7.40	7.80	54.00	NV	82.50	130.00	155.00	386.00	21.50	24.50	CALM	RIPPLE	OVERCASTE	OVERCASTE	BIRDS	BOATING	85.0	240.0
95	1	07/27/95	RQ AR	LP CG RJ	24.50	26.50	4.40	6.80	27.70	29.50	58.08	98.62	7.70	8.00	88.80	0.00	90.00	157.50	135.00	330.00	24.30	33.00	CALM	RIPPLE	FOGHAZE	PT CLOUDY	BOATING	BOATING	110.0	220.0
95	1	08/10/95	BAH JL	LP BM JB	22.10	25.00	5.15	7.40	25.30	29.90	88.01	105.30	7.50	7.90	160.00	1.00	142.00	77.00	150.00	350.00	14.60	20.60	CALM	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	180.0	*
95	1	08/28/95	ET LP CM	RJ ET BH	19.50	20.00	7.10	7.45	28.80	30.20	91.60	97.70	8.00	7.70	NV	NV	101.00	130.50	138.00	355.00	18.00	26.00	CALM	RIPPLE	CLEAR	PT CLOUDY	FISH AND BIRDS	WATER SKIING	188.0	390.0
95	1	09/11/95	BH RG EB	AW DJ CG CJ	16.00	18.50	8.80	*	28.80	30.70	104.05	*	7.80	7.90	22.00	1.00	61.00	105.00	130.00	340.00	17.00	29.60	RIPPLE	RIPPLE	CLEAR	CLEAR	LOTS OF FISH	BOATING	135.0	255.0
95	1	09/26/95	BH BM AW	CB LP	14.50	16.00	8.50	7.60	29.00	32.40	78.01	90.68	7.70	7.80	40.00	0.00	65.00	183.00	145.00	380.00	18.50	14.00	CALM	RIPPLE	OVERCAST	OVERCAST			105.0	80.0
95	1	10/10/95	ET ST BH	AW BM LP	13.60	14.00	8.61	7.76	28.20	30.80	76.35	94.37	7.80	7.70	20.00	0.00	90.00	160.00	165.00	370.00	11.50	18.00	RIPPLE	CALM	CLEAR	CLEAR	NONE	BIRDS	120.0	160.0
95	1	10/26/95	BM CG LP	CJ BH DM BH	12.00	13.60	8.40	8.45	21.80	28.20	87.94	108.32	7.00	7.80	30.00	0.00	84.50	182.50	132.00	386.00	7.00	16.50	CALM	RIPPLE	OVERCAST	CLEAR	FISH	ROWER	140.0	240.0
95	1	11/08/95	BM LP EB NW	ET EB BH	6.00	6.30	8.90	8.26	9.80	16.70	57.81	82.60	7.00	7.30	110.00	80.00	*	122.50	*	185.00	7.50	-1.00	CALM	RIPPLE	PT CLOUDY	PT CLOUDY	NONE	NONE	196.0	316.0

Site 2 - JEL

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-	WTMP-	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-	DEPTH-H	ATEMP-L	ATEMP-H	WATER-	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC		ppm	ppm	ppt	ppt	%	%			CFU/100ml	CFU/100ml	cm	cm	cm	cm	oC	oC							min	min
90	2	04/08/90			5.0	5.2	10.8	10.7	13.2	18.3	92.11	94.28	7.5	6.8	*	*	75.0	90.0	*	*	5.0	9.0								
90	2	04/25/90			8.5	11.0	9.5	9.1	18.4	21.7	91.10	83.53	7.4	7.8	*	*	90.0	105.0	*	*	9.0	11.5								
90	2	05/09/90			13.0	12.0	9.0	9.0	21.6	23.0	97.34	96.12	*	7.2	*	*	105.0	110.0	*	*	11.0	23.0								
90	2	05/25/90			10.1	12.0	9.5	9.2	18.8	19.0	94.58	95.83	7.6	7.5	*	*	95.0	95.0	*	*	4.4	18.0								
90	2	06/08/90			17.5	17.0	8.5	8.0	21.8	23.8	100.84	95.22	7.3	7.8	*	*	95.0	120.0	*	*	23.0	22.0								
90	2	06/22/90			18.5	18.0	7.2	7.6	26.1	28.0	88.48	94.66	*	*	*	*	105.0	140.0	*	*	18.0	28.0								
90	2	07/06/90			20.5	11.0	7.8	7.3	28.0	27.4	101.81	95.88	7.9	*	*	*	140.0	135.0	*	*	22.0	28.0								
90	2	07/21/90			24.0	10.0	6.6	7.3	28.6	30.4	82.62	95.85	*	6.9	*	*	100.0	155.0	*	*	24.0	28.0								
90	2	08/06/90			24.0	12.5	6.2	7.1	28.2	30.2	88.34	97.43	7.4	7.1	*	*	90.0	150.0	*	*	23.0	23.0								
90	2	08/19/90			20.0	12.0	7.2	8.8	27.2	30.4	92.08	108.95	7.8	*	*	*	100.0	110.0	*	*	14.0	18.0								
90	2	09/04/90			20.0	12.0	6.5	7.7	25.6	25.5	82.83	101.81	7.7	7.1	*	*	100.0	165.0	*	*	13.0	22.0								
90	2	09/18/90			14.8	18.0	7.6	7.4	28.6	30.0	88.28	89.76	7.4	7.5	*	*	130.0	178.0	*	*	8.0	13.0								
90	2	10/04/90			13.8	15.0	7.7	7.7	28.4	31.6	87.53	92.51	7.9	7.6	*	*	180.0	180.0	*	*	10.0	15.0								
90	2	10/18/90			14.0	16.0	7.4	7.3	23.0	24.8	82.44	83.88	7.7	7.5	*	*	135.0	130.0	*	*	15.0	23.0								
90	2	11/02/90			*	10.0	*	8.8	*	22.6 *		89.65	*	7.6	*	*	*	150.0	*	*	*	18.0								
91	2	04/13/91	WP JH SJ		8.0	8.5	10.3	10.8	28.6	22.4	98.95	106.25	8.3	8.1	*	*	60.0	125.0	*	*	2.0	10.0	ripple		overcst		lab tour			
91	2	04/23/91	WP		7.5	*	9.3	*	15.8	*	95.87	*	*	*	*	*	34.0	*	*	*	10.0	*	ripple		ovrcast		16 hr after storm			
91	2	04/27/91	WP JH SJ		11.0	12.0	9.4	10.3	14.8	17.5	93.35	108.31	7.5	7.5	*	*	70.0	120.0	*	*	18.0	25.0	calm		pt cloud					
91	2	05/13/91	JJ AR BP		16.0	14.5	7.8	7.8	17.0	21.3	85.97	84.67	7.3	7.8	*	*	65.0	80.0	*	*	18.0	25.0								
91	2	05/26/91	JH SJ DJ		18.0	18.0	6.1	7.8	24.0	25.4	74.82	95.12	7.7	7.6	*	*	105.0	150.0	*	*	16.0	30.0					fishjumping			
91	2	06/12/91	JH WP		19.8	18.0	7.2	7.9	28.8	28.1	90.74	100.98	7.8	7.4	*	*	100.0	145.0	*	*	18.0	28.0	ripple		pt cloud		boats for stripers			
91	2	06/25/91	JT		20.5	18.5	7.7	7.8	28.8	29.3	100.57	100.77	7.9	7.9	*	*	83.0	125.0	*	*	16.5	28.0	calm		clear		JEL volleyball			
91	2	07/11/91	JT WP		19.5	18.5	8.4	7.4	28.7	31.6	82.37	95.63	7.9	7.8	*	*	121.0	150.0	*	*	18.5	28.0	calm		clear		birds,crew			
91	2	07/26/91	JH SJ WP		22.0	12.0	6.8	8.1	31.1	31.8	93.00	111.28	7.8	7.4	*	*	110.0	185.0	*	*	22.0	24.0	calm		overcast		lab discharge			
91	2	08/09/91	SJ WP		22.0	10.0	7.2	7.4	31.8	31.2	98.90	97.65	7.9	7.8	*	*	130.0	180.0	*	*	19.0	26.0	ripple		overcast		boats, birds			
91	2	08/25/91	JT JH		20.0	11.0	6.1	6.9	13.6	18.8	72.40	85.05	6.9	7.4	*	*	110.0	80.0	*	*	17.0	23.0	foam		clear		boats-Ned,h-Bob			
91	2	09/08/91	BP		18.0	18.0	7.1	7.1	25.1	28.9	88.87	87.21	7.7	7.7	*	*	110.0	140.0	*	*	18.0	24.0	calm		clear		boats,fishermen			
91	2	09/23/91	BP SJ		15.0	10.0	7.6	7.5	27.2	23.1	87.58	87.13	7.5	7.6	*	*	180.0	250.0	*	*	12.0	10.0	white caps,calm		overcast					
91	2	10/08/91			13.0	10.0	7.3	9.0	20.3	21.5	78.32	82.04	7.1	6.5	*	*	100.0	150.0	*	*	5.0	12.0								
91	2	10/23/91	SJ BP BG		10.0	12.0	8.8	8.8	20.8	22.9	88.10	91.78	7.6	7.8	*	*	145.0	180.0	*	*	5.0	15.0	ripple		clear		quiet, fishing			
91	2	11/06/91	BG BP	BG BP	9.0	9.0	9.0	9.8	23.1	28.8	87.84	92.20	7.5	7.8	*	*	175.0	205.0	*	*	0.0	9.0	WAVES	RIPPLE	OVERCAST	PT CLOUDY	BOATING			
92	2	04/16/92	MS BP	MS BP	7.0	7.0	11.4	11.4	20.8	23.5	107.18	108.10	8.0	8.1	*	*	75.0	127.0	*	*	3.0	8.0	calm	ripple	clear	overcast		president plane		
92	2	05/01/92	MS BP	MS BP	12.0	1.0	10.7	10.3	17.8	20.8	110.12	106.14	8.0	7.8	*	*	80.0	80.0	*	*	13.0	17.0		ripples	overcast	pt cloudy	eelgrass, murky			
92	2	05/15/92	MS BP	MS BP	13.5	14.0	8.8	9.7	21.4	24.7	98.07	108.68	7.8	7.8	*	*	90.0	135.0	*	*	12.0	14.0	small wav	small wave	overcast	clear	construction			
92	2	05/31/92	BP	BP	16.0	15.5	8.1	8.7	20.3	27.4	85.38	102.78	7.8	7.7	*	*	100.0	140.0	*	*	13.5	18.0	calm	ripples	overcast	overcst		boats		
92	2	06/15/92	BP	BP	19.5	10.5	7.1	7.0	22.2	23.4	87.88	88.63	7.7	7.8	*	*	80.0	120.0	*	*	19.0	21.0	waves	waves	overcast	overcst	windy	windy		
92	2	06/30/92	MS BP	MS BP	20.0	10.0	8.1	7.9	28.0	28.5	104.15	103.15	7.8	7.7	*	*	105.0	152.0	*	*	27.0	28.0	ripple	ripple	clear	clear	fishing,boating	fishing,boating		
92	2	07/13/92	MS	MS	20.4	10.5	7.7	7.5	28.3	31.5	100.42	100.08	7.8	7.8	3.0	1.0	125.0	200.0	*	*	23.0	28.0	ripple	ripple	overcast	ptcloud	boating	fishing,boating		
92	2	07/28/92	MS BP	MS BP	20.4	10.0	6.6	7.5	28.0	30.2	85.38	88.35	7.0	7.8	1.0	3.0	85.0	160.0	*	*	19.0	27.0	calm		clear	ptcloud		fishing,boating		
92	2	08/13/92	BP	MS BP	20.0	9.0	7.0	9.0	32.6	30.2	93.12	102.32	7.8	7.7	29.0	1.0	150.0	210.0	*	*	18.0	19.0	ripple	ripple	ptcloud	ptcloud		BOATING		
92	2	08/27/92	MS BP	MS BP	21.4	18.8	7.1	7.1	27.7	28.1	83.40	91.61	7.6	7.9	8.0	2.0	180.0	190.0	*	*	22.0	25.0	ripple	calm	hazy	overcast		fishing		
92	2	09/11/92	MS BP	MS BP	20.5	19.0	7.0	7.6	28.1	30.2	92.02	97.02	7.5	7.8	4.0	2.0	200.0	265.0	*	*	18.0	22.0	ripple	calm	showers	PTCLOUD	boating			
92	2	09/25/92	BP	BP	14.0	16.0	8.4	8.4	30.4	31.1	88.12	105.08	7.8	7.8	4.0	1.0	150.0	195.0	*	*	1.0	15.0	ripple	waves	clear	clear		boating		
92	2	10/11/92	MS BP	MS BP	15.5	16.0	8.7	9.0	31.1	30.2	105.22	108.70	7.9	7.8	9.0	10.0	260.0	380.0	*	*	17.0	17.0	ripple	ripple	overcast	overcast	hunting	fishing,hunting		
92	2	10/25/92	BP	MS	11.5	11.5	9.1	8.9	28.5	28.8	89.81	98.28	8.0	7.6	10.0	0.0	195.0	200.0	*	*	8.0	8.0	waves	waves	overcast	rain		boating		
92	2	11/08/92	MS BP	MS BP	6.0	8.0	10.3	9.8	25.8	27.7	87.82	101.00	7.9	7.9	30.0	30.0	230.0	370.0	*	*	-2.0	3.5	ripple	calm	clear	clear	boating	BOATING		
93	2	04/21/93	MS BP	BP NP MS	10.0	11.5	10.6	11.2	7.3	10.9	88.40	108.87	7.1	*	18.0	10.0	65.0	75.0	250.0	450.0	18.0	20.0	ripple	waves	overcast	pt cloud				
93	2	05/06/93	BP NP MS	MS	14.6	13.5	11.7	11.2	17.0	20.2	127.01	121.37	7.2	7.8	*	30.0	65.0	80.0	225.0	460.0	30.0	25.0	ripple	ripple	overcast	pt cloud		fishing		
93	2	05/20/93	BP MS	MS BP	13.5	13.5	7.5	8.8	23.3	23.3	82.85	88.37	6.7	7.5	8.0	10.0	90.0	110.0	245.0	460.0	12.0	18.0	calm	waves	overcast	overcast	heron	boating		
93	2	06/03/93	BP NP MS	BP NP MS	13.5	12.5	7.8	8.3	24.0	27.5	87.04	92.21	7.4	7.5	18.0	0.0	55.0	115.0	205.0	440.0	13.0	25.0	calm	ripple	clear	pt cloud	boating	boating		
93	2	06/23/93	NP BP	NP BP	18.8	17.5	7.4	7.5	27.2	28.8	81.71	93.03	*	7.8	20.0	20.0	55.0	100.0	210.0	540.0	20.0	30.0	whitecaps	waves	clear		fishing	boating fishing		
93	2	07/08/93	ML BP	ML BP	21.0	10.5	7.2	8.0	28.8	31.2	98.00	108.53	7.8	7.8	*	0.0	135.0	177.5	240.0	440.0	28.0	31.0	ripple	ripple	clear	clear		fishing		
93	2	07/22/93	ML NP	NP ML	20.5	18.5	6.8	8.0	30.3	31.2	90.05	102.63	7.7	7.8	9.0	0.0	117.0	155.0	230.0	470.0	22.0	25.0	ripple	ripple	clear	overcast	rain before	boating buggy		
93	2	08/03/93	BP	BP	21.0	11.0	6.9	7.9	30.7	33.1	91.78	108.78	7.7	7.9	*	*	140.0	130.0	250.0	430.0	25.0	30.0	ripple	ripple	clear	clear	JEL thermom	JEL thermometer		
93	2	08/19/93	BP MS	BP MS	21.0	10.0	5.9	7.0	32.4	31.8	78.88	92.60	7.7	7.7	0.0	0.0	135.0	170.0	220.0	470.0	24.0	29.0	calm	ripple	overcast	clear	bug, JEL boat	boats		
93	2	09/02/93	BP MS	BP MS	21.5	12.5	6.0	8.2	32.5	31.9	82.03	113.71	7.9	8.0	0.0	2.0	180.0	290.0	240.0	440.0	20.0	28.0	calm	waves	clear	clear	lester,greater	yellowleggs		
93	2	09/20/93	BP MS	BP MS	14.5	14.5	7.1	8.0	31.4	31.4	84.33	95.01	7.7	7.8	1.0	0.0	200.0	250.0	240.0	465.0	15.0	15.0	white cap	ripple	pt. cloudy	clear		couple boats		
93	2	10/04/93	BP MS	BP MS	13.5	14.5	7.8	8.2	30.1	30.1	81.15	98.57	7.8	7.9	10.0	0.0	140.0	260.0	260.0	455.0	16.0	22.0	waves	white caps	clear	pt cloudy	bumpy dock	docks rolling		
93	2	10/18/93	BP MS	BP MS	10.0	10.0	8.2	8.8	30.9	30.0	88.29	94.75	7.8	7.9	10.0	3.0	260.0	230.0	250.0	490.0	17.0	20.0	waves	waves	clear	clear	boating, gees	fishing		
93	2	11/09/93	BP MS	BP MS	*	*	10.5	9.3	*	* *	*		7.8	7.9	8.0	8.0	230.0	400.0	230.0	460.0	10.5	5.0	calm	calm	pt cloudy	pt cloudy	JEL boats	boating		
94	2	04/20/94	JP BP	JP BP	8.8	7.5	9.8	10.2	18.4	22.2	83.84	97.81	7.8	7.8	4.0	33.0	105.0	130.0	210.0	250.0	2.0	13.0	RIPPLE	RIPPLE	SHOWERS	OVERCAST	NONE	GULF CHALL	210.0	180.0
94	2	05/10/94	JP BP	JP BP	12.0	12.0	8.8	8.8	17.8	19.0	82.03	82.71	7.8	7.8	15.0	14.0	123.0	183.0	230.0	230.0	*	18.0	CALM	CALM	OVERCAST	CLEAR	NONE	ECLIPSE	185.0	190.0
94	2	05/25/94	JP BP MS	BP MS	14.0	12.0	7.8	8.7	19.3	21.7	86.05	81.63	7.7	7.8	5.0	2.0	105.0	137.0	225.0	485.0	12.0	15.0	CALM	WAVES	SHOWERS	SHOWERS	NONE	NONE	205.0	185.0
94	2	06/09/94	BP	BP JP	17.0	17.0	8.0	8.3	24.0	25.6	86.34	89.89	7.8	7.8	2.0	*	130.0	168.0	275.0	420.0	19.0	24.0	CALM	RIPPLE	CLEAR	CLEAR	BOATS	BOATS	250.0	250.0
94	2	06/23/94	BP MS	JP MS	20.0	18.0	6.4	7.8	28.5	30.2	83.57	95.87	7.8	7.8	12.0	7.0	127.0	165.0	215.0	445.0	21.0	29.0	CALM	RIPPLE	CLEAR	PT CLOUDY	FISHING	BOATING	180.0	185.0
94	2	07/11/94	BP MS	BP MS	22.0	20.8	6.8	7.8	28.1	29.0	81.87	102.47	7.6	7.6	3.0	3.0	152.0	177.0	280.0	405.0	24.0	27.0	RIPPLE	CALM	PT CLOUDY	CLEAR	BOATS	BOATS	230.0	135.0
94	2	07/25/94	BP MS	BP MS	23.5	22.0	5.7	6.5	28.8	30.4	78.43	88.52	7.8	*	1.0	3.0	118.0	150.0	230.0	460.0	24.0	29.0	CALM	CALM	FOG	FOG	FISHING	NONE	150.0	190.0
94	2	08/09/94	BP MS	BP MS	21.0	20.5	6.5	8.0	31.7	30.2	87.63	105.68	7.9	7.7	2.0	1.0	125.0	135.0	235.0	440.0	20.0	26.0	CALM	RIPPLE	CLEAR	PT CLOUDY	FISHING	BOATING	165.0	145.0
94	2	08/22/94	MS JP	MS JP	19.5	18.0	6.5	7.4	30.0	30.7	84.81	83.74	7.5	7.8	*	*	150.0	175.0	240.0	465.0	19.5	18.5	RIPPLE	RIPPLE	OVERCAST	DOWNPOUR	BOATING	BOATING	145.0	180.0
94	2	09/07/94	BP MS	BP MS	15.0	18.0	7.4	7.8	29.0	30.8	87.42	94.98	7.8	7.8	2.0	1.0	162.0	155.0	235.0	480.0	14.0	23.0	CALM	WAVES	PT CLOUDY	PT CLOUDY	LAB BOAT	ANN CAME T	130.0	130.0
94	2	09/21/94	BP MS	BP MS	18.0	18.5	8.4	9.2	30.3	30.6	102.09	113.13	8.4	8.4	1.0	1.0	165.0	270.0	245.0	470.0	17.0	23.0	CALM	RIPPLE	CLEAR	PT CLOUDY	CHANEL 12	TANKERS CI	145.0	160.0
94	2	10/06/94	BP MS	BP MS	12.0	13.0	8.6	8.8	24.2	28.1	100.31	90.17	8.4	8.4	1.0	2.0	122.0	145.0	225.0	475.0	9.0	13.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	NONE	VISITING AR	155.0	175.0
94	2	10/20/94	JP BP	JP BP	12.0	14.0	10.2	9.8	27.8	28.5	112.35	104.52	8.4	*	0.0	0.0	177.5	255.0	245.0	485.0	13.0	11.0	CALM	RIPPLE	OVERCAST	OVERCAST	BOATING	LOBSTERING	190.0	190.0
94	2	11/07/94	BP MS	MS BP	11.0	11.0	8.0	8.4	27.7	28.1	88.18	81.33	8.3	7.5	14.0	3.0	42.5	75.0	225.0	425.0	9.0	12.0	WHITECA	WHITECAP	PT CLOUDY	CLEAR	WINDY	LOBSTERING	140.0	160.0
95	2	04/18/95	BP	BP JP	8.8	8.0	10.6	10.4	21.7	22.3	101.88	101.00	7.8	7.8	0.0	0.0	120.5	131.0	215.0	310.0	10.0	11.0	RIPPLE	WAVES	CLEAR	CLEAR	BOATING	BOATING	105.0	115.0
95	2	05/01/95	JP BP	JP BP	10.0	9.5	10.0	9.7	23.8	28.1	102.80	99.09	8.0	7.8	2.0	0.0	120.0	165.0	220.0	430.0	7.0	8.0	CALM	RIPPLE	OVERCASTE	OVERCASTE	NONE	NONE	155.0	170.0
95	2	05/15/95	JP BP	JP BP	8.0	8.0	8.6	8.5	25.2	28.4	85.28	81.00	7.8	7.8	2.0	0.0	105.0	145.0	220.0	455.0	8.0	6.0	CALM	CALM	SHOWERS	DOWNPOUR	NONE	NONE	160.0	140.0
95	2	05/30/95	BP JJ	AM JJ	16.0	15.0	7.0	7.8	25.1	25.8	82.33	91.34	7.8	7.7	2.0	4.0	122.5	135.0	230.0	420.0	20.0	27.0	CALM	RIPPLE	CLEAR	PT CLOUDY	NONE	BOATING	120.0	70.0
95	2	06/13/95	WP LP	WP	17.0	18.0	6.5	7.4	28.4	27.7	78.82	88.48	7.8	7.8	5.0	1.0	105.0	152.5	230.0	445.0	20.0	17.0	RIPPLE	RIPPLE	OVERCAST	SHOWERES	NONE	BOATING OY	120.0	125.0
95	2	06/27/95	WP LP	JB WP	21.0	22.0	7.1	6.4	27.4	28.5	83.23	113.08	8.0	8.0	2.0	0.0	87.5	140.0	220.0	415.0	17.0	18.0	RIPPLE	WAVES	CLEAR	CLEAR	FISHING	FISHING	180.0	150.0
95	2	07/12/95	WP LP	WP LP	18.0	18.0	7.7	7.8	28.5	29.5	98.67	98.07	7.8	7.9	4.0	2.0	105.0	170.0	225.0	445.0	18.0	23.0	CALM	RIPPLE	OVERCASTE	CLEAR	NONE	BOATS	155.0	165.0
95	2	07/27/95	WP LP	JAM ASR	24.0	23.5	6.5	7.2	28.6	30.2	91.27	100.57	7.8	7.2	0.0	2.0	135.0	150.0	230.0	425.0	23.0	30.0	CALM	CALM	CLEAR	PT CLOUDY	FISHING	BOATING	155.0	105.0
95	2	08/10/95	WP LP	LP WP	23.0	21.0	6.9	7.1	28.6	28.8	94.03	94.00	7.6	7.8	0.0	0.0	127.5	192.5	215.0	455.0	20.0	28.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	RESEARCH P	145.0	190.0
95	2	08/29/95	LP WP	LP WP	18.0	19.0	7.0	7.7	30.8	30.3	90.43	89.17	7.9	7.9	NV	NV	163.0	170.0	240.0	440.0	19.0	21.0	CALM	RIPPLE	CLEAR	CLEAR	BOAT DOCK	FISHING	150.0	180.0
95	2	09/11/95	WP LP	LP WP	18.5	18.5	7.0	7.2	31.6	31.2	90.03	88.67	7.8	7.8	0.0	0.0	145.0	200.0	215.0	455.0	14.5	21.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	NONE	160.0	150.0
95	2	09/28/95	LP WP	LP WP	15.0	15.0	7.3	7.8	31.0	31.8	87.36	93.93	7.9	8.0	7.0	4.0	185.0	215.0	245.0	480.0	18.0	15.0	CALM	RIPPLE	OVERCAST	SHOWERS	BOATING	BOATING	145.0	180.0
95	2	10/10/95	BP JJ	BP LP	13.0	15.0	7.3	8.1	31.1	30.4	83.81	90.56	7.9	7.8	2.0	2.0	118.0	190.0	140.0	455.0	11.0	17.0	CALM	CALM	CLEAR	CLEAR	BOATING	BOATING	120.0	155.0
95	2	10/26/95	LP ASR	LP	12.0	12.0	7.8	7.8	28.6	28.0	85.18	88.03	8.0	7.8	8.0	20.0	165.0	150.0	230.0	475.0	13.0	14.0	CALM	RIPPLE	OVERCAST	CLEAR	BOAT	CARPENTER	135.0	120.0
95	2	11/09/95	LP, WP	LP WP	7.0	7.5	9.2	9.2	18.6	22.2	85.27	88.32	7.8	7.7	0.0	27.0	133.0	160.0	280.0	460.0	2.0	1.0	ripple	whitecaps	partly cloudy	clear	other research		*	*

Site 3 - Lamprey River

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L °C	WTEMP-H °C	DO-L ppm	DO-H ppm	SAL-L ppt	SAL-H ppt	SAT-L %	SAT-H %	pH-L	pH-H	FECAL-L CFU/100ml	FECAL-H CFU/100ml	LP-L cm	LP-H cm
00	3	04/08/00			*	5.0	*	12.2	*	3.4	*	98.22	*	7.2	*	*	*	125.0
00	3	04/25/00			11.8	12.0	10.8	11.0	2.6	3.3	100.00	101.47	7.1	7.0	*	*	134.0	125.0
00	3	05/09/00			11.0	12.5	10.4	10.2	1.0	2.0	85.73	97.34	7.2	7.3	*	*	110.0	115.0
00	3	05/24/00			11.0	12.0	10.8	10.8	1.0	1.0	100.34	102.85	8.1	7.6	*	*	105.0	155.0
00	3	06/06/00			17.5	18.0	8.4	8.8	0.0	4.5	91.81	98.72	7.2	7.3	*	*	95.0	90.0
00	3	06/23/00			20.0	20.0	7.8	7.8	0.0	6.6	87.61	88.84	7.3	7.2	*	*	85.0	80.0
00	3	07/07/00			21.0	23.0	7.0	7.8	0.0	7.0	92.67	95.15	7.3	7.1	*	*	70.0	65.0
00	3	07/21/00			24.0	27.0	8.4	7.2	4.0	10.1	78.17	88.84	7.3	7.5	*	*	65.0	75.0
00	3	08/08/00			24.0	24.0	8.8	7.4	11.5	10.2	87.01	87.82	7.3	7.0	*	*	115.0	88.0
00	3	08/20/00			20.0	23.5	7.8	7.7	16.1	5.5	81.82	93.00	7.2	7.1	*	*	100.0	105.0
00	3	09/04/00			20.0	22.5	7.4	8.8	4.7	4.0	84.78	85.85	7.0	7.1	*	*	110.0	100.0
00	3	09/17/00			17.0	18.0	7.3	7.8	16.0	8.8	78.31	87.10	7.1	7.4	*	*	75.0	100.0
00	3	10/04/00			13.5	15.5	8.1	8.8	16.7	8.8	85.42	91.42	7.0	7.2	*	*	70.0	105.0
00	3	10/18/00			13.5	15.0	10.0	8.8	2.1	1.7	87.53	88.56	7.0	7.0	*	*	85.0	85.0
00	3	11/02/00			8.0	7.5	12.0	12.2	1.4	2.2	97.71	103.57	7.3	7.0	*	*	80.0	100.0
01	3	04/13/01	DB RA VE	DB RA VE	8.0	10.0	10.7	10.7	4.1	4.3	85.24	87.01	7.6	7.5	*	* *		95.0
01	3	04/27/01	DB BA VE S	DB BA VE SW	13.0	15.0	10.0	10.0	1.4	2.8	88.88	101.10	7.2	7.2	*	*	110.0	115.0
01	3	05/14/01	DB MA	DB MA	*	17.5	8.4	8.4	4.1	3.5	*	82.01	7.0	7.0	*	*	70.0	100.0
01	3	05/27/01	DM BA VE	DM BA VE	18.0	21.5	8.8	7.8	8.2	8.2	75.42	88.83	6.8	6.8	*	*	85.0	85.0
01	3	06/12/01	DB MA	DB MA	21.0	25.0	8.8	7.7	13.1	7.8	87.19	87.45	7.1	7.1	*	*	80.0	80.0
01	3	06/26/01	DB RA VE	DB RA VE	21.0	25.0	7.4	8.8	11.8	15.2	88.84	118.40	7.4	7.4	*	*	80.0	90.0
01	3	07/10/01	DB MA VE	DB MA VE	19.0	22.0	7.0	7.2	20.4	18.0	84.88	81.50	7.6	7.0	*	*	80.0	70.0
01	3	07/25/01	DB RA	DB RA	23.0	26.5	8.6	10.3	19.8	20.3	85.49	143.16	7.4	7.4	*	*	85.0	90.0
01	3	08/08/01	DB MA	DB MA	22.0	23.0	8.2	8.7	25.0	20.5	81.74	81.83	7.4	7.4	*	*	75.0	85.0
01	3	08/25/01	RA DB MA	RA DB MA	19.5	21.5	8.4	8.2	2.8	2.0	82.03	84.24	5.8	5.8	*	*	80.0	120.0
01	3	09/09/01	RA VE	RA VE	18.0	22.0	8.3	7.0	10.0	7.0	70.88	83.84	7.2	7.2	*	*	70.0	100.0
01	3	09/22/01	RA	RA	15.0	17.0	9.8	8.8	6.8	5.4	83.73	84.17	6.7	6.7	*	*	80.0	130.0
01	3	10/08/01	RA	RA	15.0	15.0	9.0	8.2	6.0	2.4	82.40	92.80	7.2	7.2	*	*	80.0	130.0
01	3	10/23/01	DB	DB	6.5	10.0	11.7	11.2	3.8	3.8	104.78	101.42	7.2	7.2	*	*	85.0	80.0
01	3	11/05/01	DB	DB MA	8.0	8.0	8.4	10.8	0.0	2.0	82.90	93.20	7.2	7.2	*	*	110.0	110.0
02	3	04/17/02		DB NE	*	8.5	*	12.2	*	3.4	*	101.78	*	7.8	*	* *		90.0
02	3	05/02/02	DB RA	DB RA	13.0	14.0	8.7	10.1	3.4	3.7	84.26	100.40	8.8	7.1	*	*	bev	110.0
02	3	05/16/02	DB MA	DB MA	16.8	17.5	8.4	8.7	5.8	3.7	87.30	83.18	7.1	7.1	*	* *		120.0
02	3	05/31/02	RA MA	RA MA	17.5	19.0	8.2	8.3	12.8	5.8	88.85	88.78	7.4	7.4	*	*	35.0	85.0
02	3	06/14/02	VE RA DB	VE RA DB	21.0	24.0	8.8	7.7	6.3	4.8	88.30	84.14	7.0	7.0	*	*	80.0	105.0
02	3	06/28/02	MA VE	MA	20.0	24.0	7.8	8.8	14.0	7.8	80.57	85.75	7.3	7.3	*	*	55.0	80.0
02	3	07/13/02	MA VE	VE CN	21.0	24.0	7.1	7.1	8.8	8.8	84.20	88.28	7.2	7.3	250.0	350.0	70.0	75.0
02	3	07/28/02	MA RA SM	MA RA	20.8	22.5	6.6	7.8	10.1	8.8	78.28	84.82	7.4	7.5	830.0	800.0	80.0	80.0
02	3	08/11/02	MA DB	MA DB	20.8	23.0	6.7	7.8	10.1	7.2	79.13	84.80	7.0	7.1	300.0	200.0	85.0	85.0
02	3	08/26/02	MA DB	MA DB	21.0	24.0	7.2	7.8	4.3	8.8	87.88	83.40	7.5	7.5	1020.0	380.0	80.0	180.0
02	3	09/10/02	DB MA	DB MA	18.0	22.0	7.4	6.2	8.8	4.4	84.47	88.87	7.1	7.0	3180.0	2340.0	80.0	125.0
02	3	09/26/02	DB MA	DB MA RA	14.8	18.5	8.0	7.8	18.7	23.0	88.27	88.12	7.0	7.0	NTVD	NTVD	105.0	105.0
02	3	10/10/02	RA MA	RA MA	14.8	14.5	8.8	8.0	8.1	12.8	88.74	85.31	7.4	7.7	3640.0	2100.0	45.0	80.0
02	3	10/24/02	RA MA VE	RA MA	9.0	10.0	10.6	10.7	9.4	4.5	91.02	97.73	7.6	7.3	50.0	50.0	70.0	125.0
02	3	11/09/02		MA RA	*	4.5	*	12.0	*	1.4	*	98.72	*	7.3	*	80.0	*	110.0
03	3	04/21/03	MA DB BC S	DB BC	12.6	13.5	10.3	10.7	*	*	*	*	7.4	7.7	*	50.0	*	130.0
03	3	05/08/03	MA BC	MA BC	10.5	10.8	*	8.5	8.8	1.1	*	83.48	7.4	7.2	*	80.0	*	45.0
03	3	05/20/03	DB MA BC	DB CC BC	15.8	18.8	8.8	8.8	6.0	2.5	88.88	81.72	7.1	6.8	*	1000.0	*	100.0
03	3	06/03/03	MA BC	MA BC	15.0	17.6	7.8	8.5	0.0	3.0	81.50	88.70	6.8	7.0	230.0	100.0	45.0	65.0
03	3	06/23/03	MA BC	JJ JJ	21.5	23.5	6.3	7.8	10.8	12.3	78.83	88.34	7.3	7.7	270.0	330.0	50.0	80.0
03	3	07/08/03	JJ JJ DB	MA DB BC	24.8	28.8	7.2	8.8	19.1	16.8	93.80	130.88	7.4	8.2	100.0	100.0	15.0	75.0
03	3	07/22/03	DB CC		23.8	22.5	6.6	7.2	8.4	2.8	78.43	84.97	7.0	7.0	280.0	80.0	75.0	85.0
03	3	08/03/03	DB BC	DB	24.8	27.5	7.4	10.0	13.7	18.0	84.80	151.40	7.3	7.8	470.0	100.0	110.0	100.0
03	3	08/18/03	DB BC	BC DB MA	22.0	24.5	8.2	8.8	20.0	23.2	88.80	88.88	7.1	7.3	120.0	80.0	65.0	100.0
03	3	09/02/03	DB BC	DB BC	22.6	24.6	5.8	7.8	23.7	20.4	88.01	88.45	7.1	7.0	*	*	110.0	120.0
03	3	09/20/03	BC AR	DB BC	14.8	18.5	6.6	6.8	10.8	27.2	72.08	85.35	7.4	7.3	*	*	120.0	135.0
03	3	10/04/03	DB BC	MA BC MA	14.0	16.0	8.0	8.7	0.0	0.0	80.70	82.11	7.1	7.1	540.0	180.0	150.0	125.0
03	3	10/18/03	DB	DB BC	10.8	13.0	8.4	9.8	8.0	4.0	88.62	97.12	6.8	7.0	*	*	115.0	100.0
03	3	11/16/03	MA DB BC S	DB	8.0	5.5	11.7	11.8	0.3	2.6	86.83	88.28	7.0	7.3	*	*	110.0	125.0
04	3	05/10/04	DB MA	DB MA	*	14.5	*	10.0	*	3.7	*	108.81 *		7.3	*	*	*	*
04	3	05/26/04	DB MA	DB MA	18.5	17.5	4.8	8.7	4.1	1.6	48.37	92.13	7.1	7.0	230.0	130.0	78.0	110.0
04	3	06/09/04	DB MA	DB MA	18.0	23.0	7.0	7.8	23.0	8.3	88.21	88.58	7.4	7.4	330.0	250.0	87.0	87.5
04	3	06/23/04	DB MA	DB MA	21.5	26.0	6.1	7.2	18.4	19.8	70.67	84.87	7.5	7.1	240.0	300.0	77.5	87.5
04	3	07/11/04	MA MA RA	MA MA RA	23.5	27.0	6.8	7.8	18.0	8.5	85.34	100.00	7.7	7.2	180.0	40.0	108.0	105.0
04	3	07/25/04	DB MA MA	DB MA	24.5	28.5	8.8	7.8	20.6	23.5	75.20	114.10	7.3	7.0	6400.0	20.0	82.5	87.5
04	3	08/08/04	DB MA MA S	DB MA	18	26	*	*	17	25.3	*	*	7.8	6.3	310.0	30.0	*	*
04	3	08/22/04	DB RA	DB RA	21.0	20.6	6.5	7.8	13.0	7.5	78.52	80.84	7.3	7.4	*	380.0	92.5	113.0
04	3	09/07/04	DM MA	DB MA	18.0	18.0	7.8	8.4	18.3	24.0	88.03	102.00	7.0	7.4	100.0	40.0	120.0	90.0
04	3	09/21/04	MA DB	MA DB SA	18.5	20.8	6.3	10.7	17.1	20.8	83.95	133.02	7.6	8.4	20.0	10.0	80.0	100.0
04	3	10/06/04	DB MA	MA AR MA SA	10.6	14.0	8.5	8.8	9.8	7.5	88.88	87.57	7.4	6.8	*	*	65.0	80.0
04	3	10/20/04	DB MA	DB MA MA SA	11.0	12.0	10.5	10.4	7.0	4.0	88.54	88.50	7.0	7.4	30.0	55.0	102.5	108.5
04	3	11/07/04	DB MA	DB MA	10.5	11.6	8.2	8.3	14.8	12.3	80.02	81.80	7.1	7.0	50.0	*	42.5	57.5
05	3	04/18/05	*	*	*	*	*	*	*	*	*	*	* *		*	20.0	*	*
05	3	05/01/05	*	DB MA MA SA	*	12.8	*	10.8	*	2.7	*	103.38	*	7.1	*	*	*	BSV
05	3	05/16/05	*	DB	*	12.0	*	10.2	*	3.3	*	88.87	*	7.3	*	0.0	*	87.5
05	3	05/30/05	*	DB MA	*	18.0	*	8.8	*	4.8	*	82.63	*	7.4	*	240.0	*	82.5
05	3	06/13/05	DB MA	DB MA	20.0	21.0	6.4	7.8	13.4	8.3	78.01	88.58	7.4	7.1	0.0	400.0	77.5	82.5
05	3	06/27/05	DB	MA DB MA SA	20.8	21.0	7.8	8.8	12.4	18.8	80.74	107.22	7.1	7.0	700.0	120.0	52.5	87.5
05	3	07/12/05	DB MA	DB	20.5	26.5	5.7	7.2	21.5	26.0	71.50	101.48	7.1	7.1	200.0	17.0	53.0	82.5
05	3	07/27/05	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05	3	08/10/05	DEB	DB	22.8	28.0	6.8	8.8	14.1	7.8	85.00	110.02	7.4	7.1	230.0	200.0	32.5	107.5
05	3	08/26/05	DB	DB	18.0	22.0	6.9	7.0	22.4	20.4	73.61	102.25	7.1	7.0	NV	NV	97.5	82.5
05	3	09/11/05	MA DB	MA DB	17.0	18.0	6.3	8.8	27.1	25.0	78.63	110.10	7.4	7.4	80.0	10.0	72.5	82.5
05	3	09/26/05	DB	MA	18.0	14.5	8.4	7.0	23.3	28.8	72.84	82.17	7.7	7.0	280.0	10.0	87.5	87.5
05	3	10/10/05	DB MA	DB MA	12.5	16.0	8.8	8.2	11.7	8.8	80.02	88.18	7.0	6.8	100.0	30.0	95.5	92.5
05	3	10/26/05	DB MA	DB MA	11.0	13.0	8.8	10.3	1.9	1.3	88.42	88.73	8.8	6.8	130.0	30.0	87.5	102.5
05	3	11/08/05	DB	DB, AM	6.0	4.0	13.5	13.0	0.7	2.2	100.10	101.03	7.8	6.9	0.0	10.0	87.5	*

DATE	DEPTH-L cm	DEPTH-H CM	ATEMP-L °c	ATEMP-H °c	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
04/08/00	*	*	*	5.0								
04/25/00	*	*	10.0	11.0								
05/09/00	*	*	9.0	16.0								
05/24/00	*	*	8.5	18.0								
06/06/00	*	*	14.5	23.0								
06/23/00	*	*	19.0	29.0								
07/07/00	*	*	18.0	28.0								
07/21/00	*	*	28.0	32.0								
08/08/00	*	*	23.5	22.0								
08/20/00	*	*	14.0	20.0								
09/04/00	*	*	14.0	22.5								
09/17/00	*	*	10.0	14.5								
10/04/00	*	*	4.0	14.0								
10/18/00	*	*	2.5	20.0								
11/02/00	*	*	0.0	14.0								
04/13/01	*	*	0.5	10.5	ripple	ripple	overcast	overcast	no dock	no dock		
04/27/01	*	*	15.0	25.0	clear	clear	good day	good day	Michael	Michael		
05/14/01	*	*	17.0	18.0			cool breeze	cool breeze				
05/27/01	*	*	15.0	21.0			SUN	SUN	CORMORANTS	CORMORANTS		
06/12/01	*	*	22.0	29.5	clM	clM	clear	clear	heavy rain before	heavy rain before		
06/26/01	*	*	22.0	31.0	calm	calm	pt cloud	pt cloud	humid	humid		
07/10/01	*	*	18.0	29.0	calm	calm	clear	clear	lovely day	lovely day		
07/25/01	*	*	21.0	20.0	ripple	ripple	pt cloud	pt cloud	2 boats mosquitos	2 boats mosquitos		
08/08/01	*	*	20.0	23.0	calm	calm	overcast	overcast	1 swan, 6 egrets	1 swan, 6 egrets		
08/25/01	*	*	17.0	22.0	brown	brown	clear	clear	foam	foam		
09/09/01	*	*	18.0	26.0	brown	brown	clear	clear	oysterson rocks	oysterson rocks		
09/22/01	*	*	2.0	16.0	calm	calm	fog,wind	fog,wind				
10/08/01	*	*	18.0	18.0	ripple	ripple	rain,wind	rain,wind				
10/23/01	*	*	8.0	10.0	calm	calm	clear	clear	foam in dock	foam in dock		
11/05/01	*	*	0.0	7.0	CALM	CALM	OVERCAST	OVERCAST				
04/17/02	*	*	*	0.0		ripple		snow drizzle				
05/02/02	*	*	12.0	18.0	calm	ripple	overcast	overcast	Am observed	dock installed		
05/16/02	*	*	12.0	17.5	calm	ripple	overcast	slight foam	muddy h20			
05/31/02	*	*	15.0	17.0	ripple		overcast	sprinkles		pollen		
06/14/02	*	*	21.0	31.0	calm	ripple	clear	clear	pollen			
06/28/02	*	*	18.0	24.5	calm	calm			foam, murky			
07/13/02	*	*	24.0	30.0	calm	ripple	overcast	pt cloudy				
07/28/02	*	*	18.0	24.0	calm	ripple	clear	pt cloudy	crows, jays	lg fish		
08/11/02	*	*	18.0	27.0	ripple	ripple	pt cloud	pt cloud		cormorant		
08/26/02	*	*	18.0	28.0	calm		overcast					
09/10/02	*	*	23.0	28.0	ripple	ripple	overcast	overcast	crows			
09/26/02	*	*	2.0	12.0				pt cloud	frost			
10/10/02	*	*	18.0	18.0	calm	calm	showers	pt cloud				
10/24/02	*	*	7.0	15.0	calm	ripple	pt cloud	overcast	birds	breezy		
11/09/02	*	*	*	2.0		ripple		clear		yellow h2o		
04/21/03	*	130.0	17.0	22.0			overcast		swan			
05/08/03	*	45.0	10.0	27.0		ripples	overcast	pt cloud	boating			
05/20/03	*	118.0	10.0	15.0		ripple	overcast	overcast	cormorants	boating		
06/03/03	*	320.0	14.0	22.0	ripple	ripple	clear	pt cloud		swans		
06/23/03	125.0	370.0	22.0	25.0		calm		overcast		swans,duck		
07/08/03	125.0	235.0	28.0	30.0	calm	CALM	clear	CLEAR	swans			
07/22/03	85.0	380.0	24.0	25.0	calm		clear					
08/03/03	135.0	220.0	23.0	31.5	calm	ripple	clear	clear	swans	boating		
08/18/03	120.0	380.0	18.0	25.0	ripple	ripple	clear	clear		debris, swans, blue heron		
09/02/03	115.0	330.0	21.0	28.0	ripple	ripple	clear	clear	mosquitos, 5 swans	birds, boating		
09/20/03	115.0	280.0	14.0	15.0	ripple	ripple	clear	clear	extreme tides			
10/04/03	150.0	380.0	18.0	22.0	ripple	ripple	pt cloudy	clear	windy			
10/18/03	120.0	280.0	12.0	18.0	waves	waves	pt cloudy	clear	sandpipers	mallards		
11/16/03	120.0	240.0	12.0	-2.0	ripple	calm	clear	clear				
05/10/04	*	*	*	18.0					NO DOCK!	NO DOCK!		
05/26/04	140.0	185.0	12.0	16.0				DOWNPOUR				
06/09/04	110.0	215.0	18.0	24.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY			45	60
06/23/04	105.0	275.0	23.0	28.5	CALM	RIPPLE	CLEAR	CLEAR			45	60
07/11/04	110.0	340.0	25.0	29.0	RIPPLE			CLEAR	MUDDY, MURKY WATER		80	90
07/25/04	110	255.0	24	*	RIPPLE	RIPPLE	OVERCAST	PT CLOUDY			30	35
08/08/04	*	*	20	25	CALM	LIGHT	CLEAR	PT CLOUDY	BOATING	FISHING	90	180
08/22/04	100.0	215.0	18.0	17.0	CALM	RIPPLE	OVERCAST	SHOWERS			65	81
09/07/04	120.0	270.0	15.0	*	RIPPLE	RIPPLE	PT CLOUDY	CLEAR			75	75
09/21/04	100.0	335.0	18.5	26.0	CALM	RIPPLE	CLEAR	CLEAR	2 CORMORANTS		90	140
10/06/04	90.0	365.0	8.0	14.0	CALM	RIPPLE	CLEAR	PT CLOUDY			110	150
10/20/04	120.0	108.5	13.0	15.0		RIPPLE		OVERCAST		WATER DIDN'T SMELL B	80	480
11/07/04	65.0	310.0	8.0	11.5	RIPPLE	RIPPLE	CLEAR	HAZE	COLD!!!	LOST MICRO BAG	90	140
04/18/05	*	*	*	*	*		*		*		*	*
05/01/05	*	65.0	*	12.0	*	RIPPLE	*	PT CLOUDY	*	NONE	*	95
05/16/05	*	235.0	*	8.9	*	RIPPLE	*	DOWNPOUR	*	NONE	*	30
05/30/05	*	210.0	*	24.0	*	RIPPLE	*	PT CLOUDY	*	WINDY, 20' FLOATING D	*	45
06/13/05	105.0	380.0	17.0	*	CALM	RIPPLE	OVERCAST	SHOWER	BOATING	NONE	70	70
06/27/05	140.0	325.0	17.0	20.0	CHOP	RIPPLE	CLEAR	CLEAR	NONE	NONE	145	55
07/12/05	85.0	235.0	17.0	28.0	RIPPLE	RIPPLE	OVERCASTE	CLEAR	NONE	BOATING	85	48
07/27/05	*	*	*	*	*	*	*	*	*	*	*	*
08/10/05	80.0	335.0	18.0	30.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	BOATING	75	55
08/26/05	110.0	350.0	18.0	23.0	RIPPLE	RIPPLE	CLEAR	CLEAR	NONE	NONE	31	55
09/11/05	100.0	350.0	13.0	20.0	RIPPLE	RIPPLE	CLEAR	CLEAR	DUCKS	BOATING	85	40
09/26/05	100.0	375.0	15.0	13.0	RIPPLE		OVERCAST				60	105
10/10/05	120.0	350.0	10.0	18.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	NONE	130	140
10/26/05	110.0	380.0	7.0	14.0	CALM	RIPPLE	OVERCAST	PT CLOUDY	GEESES AND FROTH O	BOATING	100	140
11/08/05	145.0	*	0.0	0.0	RIPPLE	RIPPLE	PT CLOUDY	*	*	NONE	*	80

te 4 - Depot Rd

SA	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					°C	°C	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm	cm	cm	cm		°c							min	min
90	4	04/05/90			8.1	8.1	8.8	11.7	11.2	11.6	80.24	108.83	7.8	7.8			BSV	BSV			6.2	18.0								
90	4	04/26/90				10.0		8.7		17.1		86.51		7.6				105.0				11.0								
90	4	05/08/90			12.8	12.0	12.8	8.8	10.2	20.1	119.67	82.78	7.8	7.9			BSV	BSV			15.0	13.0								
90	4	05/24/90			13.0	13.0	8.5	10.8	15.2	18.8	85.95	112.33	7.2	7.7			BSV	BSV			8.8	13.5								
90	4	06/06/90			10.0	18.1	8.8	8.0	18.8	20.4	103.99	85.18	7.7	7.8			BSV	BSV			10.0	22.7								
90	4	06/22/90			19.0	22.8	7.7	7.8	24.3	26.2	86.33	88.73	7.6	7.7				96.0			10.0	31.0								
90	4	07/01/90			21.0	23.8	8.5	6.7	28.8	22.4	123.85	88.78	8.0	7.8				90.0		90.0	19.5	30.0								
90	4	07/20/90			23.0	26.8	8.4	8.8	28.9	28.3	118.40	123.72	8.0	7.9							24.1	37.0								
90	4	08/05/90			24.0	28.8	8.7	7.7	27.8	28.8	83.08	112.18	7.8	8.0			BSV	116.0		116.0	24.0	29.0								
90	4	08/26/90			18.0	21.8	7.6	8.2	24.0	19.4	82.83	103.07	7.8	7.8				120.0		120.0	14.5	19.0								
90	4	09/03/90			18.5	22.5	8.3	8.8	22.2	22.4	78.47	88.08	7.6	7.6				45.0			13.0	27.5								
90	4	09/16/90			11.6	15.0	8.6	7.0	27.1	26.8	87.18	80.83	7.8	7.8				96.0			7.0	18.5								
90	4	10/04/90			13.0	18.5	8.2	8.8	28.8	28.0	104.84	106.00	7.8	7.9				90.0		80.0	4.0	21.5								
90	4	10/18/90			14.0	10.1	7.0	7.5	18.9	21.2	78.63	84.13	7.4	7.9				85.0		96.0	10.0	20.5								
90	4	11/02/90			7.7	11.0	8.8	8.1	14.4	18.3	81.28	81.20	7.6	7.7				110.0		110.0	10.0	23.0								
91	4	04/14/91	LB FM EP E	LB FM EP EN	5.5	11.8	8.2	12.0	19.0	18.3	82.83	121.69	7.7	8.3				40.0		40.0	-4.0	12.0	ripple	ripple	clear	clear	45 gulls	45 gulls		
91	4	04/28/91	LB FM EP	LB FM EP	10.0	14.8	8.0	9.2	12.7	19.3	88.27	87.71	7.8	7.9				4.0			8.8	14.0	whitecaps	whitecaps	pt cloud	pt cloud	noisy waves	noisy waves		
91	4	05/13/91	EP FM	EP FM	14.0	18.0	7.8	7.8	15.8	18.2	80.87	80.00	7.8	6.0				70.0		70.5	14.8	33.0			sun	sun	horseshoe crabs mating	horseshoe crabs mating		
91	4	05/27/91	EP LB	EP LB	17.0	18.8	8.2	8.2	21.4	22.8	88.18	101.38	7.7	7.7			BSV	40.0		40.0	12.0	18.0	calm	calm	overcast	overcast	many hs crabs	many hs crabs		
91	4	06/11/91	EP JJ JJ LB	EP JJ JJ LB BF	21.0	22.0	7.8	7.8	28.8	27.4	88.44	104.31		7.8			BSV	90.0		60.0	28.0	28.0	calm	calm	overcast	overcast	hs crabs mating	hs crabs mating		
91	4	06/26/91	LB EP	LB EP	23.5	24.8	8.4	9.2	30.8	28.5	131.16	129.44	8.0	7.9				85.0		56.0	27.0	30.0	ripple	ripple	pt cloud	pt cloud	AM buggy, 12GBH	AM buggy, 12GBH		
91	4	07/10/91	EP AR	EP AR	20.0	22.8	8.4	8.8	31.5	31.8	111.08	123.41	7.9	7.8				66.0		65.0	10.0	26.0	waves, ripples	waves, ripples	clear	clear	3 herons, fish	3 herons, fish		
91	4	07/25/91	EP LB	EP LB	22.0	24.0	8.7	7.1	31.1	30.8	81.05	100.42	7.7	7.8				66.0			21.5	22.0	calm	calm	overcast	overcast	rain night before	rain night before		
91	4	08/05/91																												
91	4	08/24/91	FM LB	FM LB	17.5	23.5	6.3	8.8	9.2	9.0	80.18	80.50	7.2	7.2			10.0	40.0			17.0	22.0	calm	calm	pt cloud	pt cloud	H-Bob	H-Bob		
91	4	09/09/91	FM MM	FM MM	17.0	23.0	9.4	9.0					7.4	7.8							14.8	24.0	calm	calm	clear	clear	no beaker	no beaker		
91	4	09/23/91	LB FM	LB FM	10.0	10.0	7.0	8.7	23.4	24.0	71.73	106.73	7.3	7.6							4.0	18.0	calm	calm	clear	clear				
91	4	10/06/91	LB FM	LB FM	16.0	10.0	7.3	7.7	10.7	18.0	78.94	87.24	7.8	7.9				120.0		120.0	15.0	20.0	ripple	ripple	haze	haze	highest tide ever	highest tide ever		
91	4	10/23/91	LB EP	LB EP	8.0	12.0	8.8	8.2	18.0	18.6	83.20	88.12	7.8	7.8				80.0		80.0	4.0	15.0	ripple	ripple	clear	clear	water high	water high		
91	4	11/06/91	LB EP	EP		8.0		8.5		23.5		83.23		7.8				60.0		60.0		11.0		CALM		OVERCAST		NONE		
92	4	04/16/92	HM PF PW	PF PW	8.6	7.5	11.0	12.0	20.8	22.2	103.18	116.10	7.7	8.2				70.0		70.0	8.0	8.0								
92	4	05/03/92	PW PF HH	FM	12.8	12.5	8.8	10.1	14.8	18.1	80.33	104.44	7.8	8.5				BSV			16.0	15.0								
92	4	05/15/92			10.6	17.0	8.8	8.7	20.1	21.2	112.82	101.84	7.7	7.8				BSV			14.0	17.0								
92	4	06/01/92	PW	PW	12.0	12.0	7.6	8.8	18.0	24.8	78.24	86.88	7.7	7.8							10.0	10.8								
92	4	06/16/92	PW	PW	21.0	21.0	8.0	8.8	21.2	21.2	113.81	111.38	7.8	7.8							20.5	22.0								
92	4	06/29/92	PK PW	PK PW LS	22.0	24.8	8.8	8.8	28.0	27.8	121.83	120.92	7.8	7.8	8.0	3.0		70.0		70.0	23.0	31.0								
92	4	07/14/92	PW	PW PK	20.0	19.5	8.2	7.3	28.4	30.2	100.87	94.93	8.0	7.8	4.0	2.0					21.0	18.0								
92	4	07/28/92	PW JJ	JJ JJ	23.8	24.0	8.5	8.1	30.3	30.8	118.61	114.43	8.1	7.0	2.0	2.0		90.0			24.0	30.0								
92	4	08/12/92	PK PW	PK LS	19.0	21.0	7.8	8.1	23.8	30.3	93.80	121.43	7.0		10.0	1.0	140.0	BSV			18.5	27.0								
92	4	08/26/92	PW LS	PW LS	21.8	26.8	6.8	8.8	27.5	28.5	97.07	121.00	7.0	8.8	27.0	4.0		BSV			23.0	30.0								
92	4	09/11/92	LS PW	LS PW	19.0	22.0	7.2	8.8	38.8	29.8	83.03	118.78	7.8	8.0	8.0	8.0					20.0	23.0								
92	4	09/28/92	OW JH	OW JH	12.8	14.8	9.4	9.0	24.8	30.4	102.80	108.20	7.8	7.8	6.0	3.0	BSV	BSV			13.0	16.8								
92	4	10/10/92	PW LS	PK LS	14.8	18.0	7.2	8.8	27.1	34.7	82.33	101.92	7.8	8.8		10.0	BSV	BSV			10.0	23.0								
92	4	10/24/92	LB PW	LB JJ	7.8	10.0	8.7	8.8	28.4	28.4	88.06	134.02	7.6	7.7	0.0	0.0		BSV			8.0	16.0								
92	4	11/06/92		PW LS	-7.8	3.5	10.1	11.5	23.8	24.3		88.35	7.0	7.9	0.0	0.0					-4.0	4.0								
93	4	04/21/93		LS PW		11.5		11.7		7.7		112.05		8.2	10.0	10.0		70.0		70.0		28.0		ripple		pt cloud		fox		
93	4	05/06/93		LS PM		18.0		8.2		11.8		108.02		7.7		40.0		40.0		40.0		24.0		waves		clear		horseshoe crabs		
93	4	05/20/93		PM PW		14.8		8.1		20.8		88.88		7.7		0.0		95.0		85.0		13.0		ripple		overcast				
93	4	06/03/93		LS AR		26.0		8.8		23.5		108.15		7.9		0.0		85.0		55.0		26.0		ripple		pt cloud				
93	4	06/23/93		LS		21.0		7.7		1.2		87.20		8.8		30.0		30.5		80.0		20.0		whitecaps		clear		Hat, biting flies		
93	4	07/06/93		JJ JJ LB		28.0				26.1				8.1		0.0		66.0		65.0		35.0		ripple		[illegible]		water grey		
93	4	07/22/93		LS PW		23.0		7.8		29.4		106.60		8.0		0.0		70.0		70.0		27.0		waves		cloudy		sailboat		
93	4	08/03/93		LS PW		28.0		8.8		28.8		141.07		8.1				75.0		75.0		33.0		ripple		clear		QAQC sampler		
93	4	08/18/93		PW		24.0		8.4		28.8		117.10		7.8		0.0		80.0		80.0		24.0		ripple		overcast		sailboats		
93	4	09/02/93		LB KF		24.0		7.8		31.7		112.38		7.8		0.0		80.0		80.0		24.5		ripple		clear				
93	4	09/20/93		LB PF KF		17.8		8.2		30.1		114.88		8.1		18.0		80.0		80.0		14.0		calm		pt cloudy				
93	4	10/04/93		AT LB PW PF		17.5		8.8		29.2		121.78		8.0		TNTC		80.0		80.0		24.0						higher water than norm		
93	4	10/18/93		LB PW		18.0		10.1		27.8		120.59		8.0		240.0		40.0		40.0		12.0		whitecaps		clear		goose flying		
93	4	11/08/93		LB AT KF		9.0		10.1		23.1		98.88		7.8	0.9	0.0		36.0		35.0		4.9		calm		clear		STRAW ON SURFACE		360.00
94	4	04/26/94		LB KF PM		9.0		11.2		18.8		109.48		7.8		1.0		55.0		45.0		8.8		RIPPLE		OVERCAST		ECLIPSE		600.00
94	4	05/10/94		LB KF AT PW		18.0		8.9		11.8		107.83		7.8		30.0		40.0		40.0		20.0		WAVES		PT CLOUDY		BIRDS		510.00
94	4	05/26/94		LB KF AT PW		18.8		9.4		19.3		106.08		7.8		1200.0		70.0		70.0		15.0		RIPPLE		SHOWERS		HORSESHOE CRABS		180.00
94	4	06/09/94		KF AT		22.0		8.8		24.3		134.73		7.0				25.0		35.0		28.0		WHITECAPS		CLEAR				315.00
94	4	06/23/94		LB KF PM AT		33.0		8.1		28.8		111.08		8.1		7.0		80.0		60.0		27.0		WHITECAPS		PT CLOUDY		BOATING		300
94	4	07/11/94		LB KF PW		27		8.8		30.9		120.12		8.1		8.0		60		60		28.0		CALM		CLEAR		BOATS		295.00
94	4	07/26/94		PW PM KF		27.8		7.7		31.7		118.22		7.9		2.0		90.0		80.0		34.0		CALM		PT CLOUDY		BOATING		270
94	4	08/09/94		PM KF PW		28.5		8.8		31.1		130.18		8.2		1.0		45		45		29.0		RIPPLE		CLEAR		BUOY		230
94	4	08/23/94		LB KF		19		7.3		30.8		94.18		7.8				70		70		18.5		WAVES		OVERCAST		PERFECT DAY!		380
94	4	09/07/94		LB PM KF PW		18		8.8		31.3		124.62		8				80		85		28.0		RIPPLE		PT CLOUDY		GUNDALOW/TOURISTS		400
94	4	09/21/94		KF AT PM PW		20		8.9		31.3		130.72		8.1		0		42		42		22.0		WAVES		CLEAR		BOATING		290
94	4	10/06/94		LB KF		13		12.8		24.2		137.42		8.5		2		88		80		13.0		RIPPLE		PT CLOUDY				310
94	4	10/20/94		LB AT KF		13		11.0		20.4		134.13		8.3		0		88		80								WINDY		405
94	4	11/07/94		LB KF PW		8		8.7		23.6		87.38				15		16		60		10.0		WAVES		CLEAR		CHILDREN PLAYING		450
95	4	04/18/95		LB KF AT				11.8						7.1		0.0				65.0		12.0		RIPPLE		CLEAR				486
95	4	05/01/95		PG KF PW		13.8		10.8		21.8		114.88		7.8		0.0		BSV		45.0		10.0		RIPPLE		CLEAR				520
95	4	05/15/95		PG KF PW		12.8		9.8		23.8		86.37		7.8		2.0		BSV		76.0		8.8		CALM		RAIN		DUCKS		310
95	4	05/30/95		PM KF LB		23.0				20.1				7.8		60.0				36.0		27.0		WHITECAPS		PT CLOUDY		HERON SEEN		180
95	4	06/13/95		LB AT KF PW		18.0		8.4		24.8		102.59		7.8		4.0		BSV		47.0		18.8		CALM		SHOWERS		NONE		230
95	4	06/27/95		LB PM		23.8		8.7		28.8		118.45		7.8		11.0		BSV		25.0		28.8		WHITECAPS		CLEAR				
95	4	07/12/95		LB PW KF		24.0				29.2				7.8		1.0				68.8		29.8						BOATS		300
95	4	07/27/95		PM KF		29.8		8.7		28.5		133.20		8.0		NV		BSV		65.0		36.8		CALM		HAZY		BOATS		275
95	4	08/10/95		LB PM KF		29.8		9.0		27.3		127.88		8.0		1.0		BSV		86.0		31.0		RIPPLE		CLEAR		BOATS		340
95	4	08/29/95		LB KF PW		23.0		8.3		30.1		114.88		7.8		NV		BSV		66.0		23.0		RIPPLE		CLEAR		NONE		310
95	4	09/11/95		PM AT		20.8		8.1		31.3		107.83		8.1		0.0		BSV		85.0		21.0		CALM		CLEAR				340
95	4	09/26/95		PM KF LB PW		15.0		7.6		30.4		88.41		7.7		1.0		BSV		65.0		15.0		CALM		DRIZZLE		BOATING		420
95	4	10/10/95		LBS KF MY PM		18.0		9.0		32.0		110.68		7.8		0.0		BSV		65.0		10.0		RIPPLE		CLEAR		EEL GRASS		420
95	4	10/25/95		LBS KF AT PM		12.8		9.3		24.2		101.16		7.8		0.0		BSV		80.0		1.5		RIPPLE		CLEAR				
95	4	11/08/95		LB KF MY PM		6.0		10.8		13.7		84.72		7.8		14.0		45.0		80.0		0.0		waves		clear, windy, COLD				

Site 5 - Portsmouth Country Club

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					Oc	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm	cm	cm	cm	0c	'Oc							MIN	MIN
90	5	04/09/90			5.0	11.0	10.7	10.4	2.8	7.2	85.84	98.73	7.2	7.3	•	•	•	23.0	•	•	3.0	14.0								
90	5	04/25/90			11.0	11.0	8.3	8.3	1.8	10.0	85.01	93.03	7.3	7.7	•	•	•	65.0	•	•	10.0	10.0								
90	5	05/08/90			12.0	21.0	8.8	8.8	2.0	12.7	82.97	107.33	7.5	7.4	•	•	•	55.0	•	•	11.0	27.8								
90	5	05/24/90			10.0	16.0	9.0	8.8	1.8	13.8	80.04	82.04	7.4	7.6	•	•	•	38.0	•	•	12.0	9.0								
90	5	06/08/90			17.0	23.0	7.7	7.8	4.1	17.6	81.81	101.68	7.3	7.8	•	•	•	49.0	•	•	18.0	22.0								
90	5	06/22/90			18.0	25.0	5.8	7.7	10.8	22.5	85.27	105.57	7.2	7.8	•	•	•	45.0	•	•	17.0	29.0								
90	5	07/07/90			20.0	24.0	8.8	8.2	10.1	24.8	78.86	111.93	7.4	8.0	•	•	•	88.0	•	•	17.0	22.0								
90	5	07/22/90			23.0	28.0	4.7	7.1	20.1	28.2	81.33	102.36	7.5	8.0	•	•	•	75.0	•	•	22.0	27.0								
90	5	08/06/90			23.0	23.0	5.5	7.5	18.8	28.9	71.16	103.41	7.4	7.8	•	•	•	45.0	•	•	23.0	22.0								
90	5	08/20/90			19.8	21.0	6.6	8.3	12.2	28.1	78.30	108.14	7.2	8.0	•	•	•	90.0	•	•	10.0	18.0								
90	5	09/04/90			18.0	21.0	8.5	7.9	10.8	22.2	73.14	100.67	7.3	7.7	•	•	•	95.0	•	•	14.0	20.0								
90	5	09/18/90			12.0	14.0	8.8	8.2	14.9	28.9	67.05	93.65	7.3	7.8	•	•	•	55.0	•	•	10.0	13.0								
90	5	10/04/90			12.0	15.0	8.8	8.5	17.5	27.4	88.12	89.40	7.8	8.2	•	•	•	•	•	•	11.0	23.0								
90	5	10/18/90			13.0	14.0	7.2	7.3	0.1	10.8	88.69	75.61	7.2	7.2	•	•	•	80.0	•	•	17.0	24.0								
90	5	11/02/90			•	10.0	•	9.1	•	14.0	•	88.24	•	7.8	•	•	•	80.0	•	•	•	18.0								
91	5	04/14/91	HJ SM LK BB	HJ SM LK BB	8.5	11.5	9.0	10.4	2.8	17.5	82.28	106.15	7.5	8.1	•	•	•	70.0	•	•	3.0	11.0	ripple	ripple	clear	clear	golfers	golfers		
91	5	04/28/91	HJ LK BB	HJ LK BB	13.0	15.0	8.1	8.6	2.1	11.4	78.14	91.30	7.0	7.6	•	•	•	30.0	•	•	9.0	12.0	ripple	ripple	pt cloud	pt cloud	songbirds	songbirds		
91	5	05/14/91	LK HJ BB	LK HJ BB	18.5	17.0	8.0	7.6	8.8	17.1	88.28	95.78	7.3	7.8	•	•	•	45.0	•	•	17.0	15.0	calm	calm	OVERCAST	OVERCAST	3 sandpiper	3 sandpiper		
91	5	05/28/91	BB HJ LK	BB HJ LK	18.0	23.0	8.2	7.2	8.2	22.8	88.78	95.31	7.4	7.7	•	•	•	65.0	•	•	14.0	28.0	calm	calm	haze	haze	cormorant	cormorant		
91	5	06/12/91	BB HJ LK	BB HJ LK	21.0	24.0	4.8	8.1	10.3	22.9	67.12	82.35	7.3	7.8	•	•	•	78.0	•	•	20.0	25.0	ripple	ripple	pt cloud	pt cloud	rain night before	rain night before		
91	5	06/26/91	BB SM HJ LK	BB SM HJ LK	21.0	25.0	7.2	8.5	14.2	27.8	87.58	120.17	7.7	8.0	•	•	•	85.0	•	•	21.0	30.0	ripple	ripple	pt cloud	pt cloud	hot	hot		
91	5	07/11/91	BB LK HJ	BB LK HJ	20.0	23.0	5.8	8.0	20.6	28.8	71.79	110.51	7.4	7.9	•	•	•	80.0	•	•	18.0	27.8	ripple	ripple	clear	clear	golfers	golfers		
91	5	07/26/91	LK BB HJ	LK BB HJ	22.0	23.0	4.0	8.0	18.6	30.2	58.43	83.08	7.6	7.8	•	•	•	85.0	•	•	20.0	24.0	calm	calm	overcast	overcast	noseeums	noseeums		
91	5	08/08/91	HJ SM LK	HJ SM LK	22.6	23.0	5.5	7.4	23.8	32.1	72.00	103.68	7.6	7.9	•	•	•	95.0	•	•	19.0	21.0	ripple	ripple	overcast	overcast	birds, wasps,golf tour	birds, wasps,golf tour		
91	5	08/25/91	LK SN BB	LK SN BB	19.0	23.0	8.0	7.4	1.8	8.8	85.58	91.18	7.1	7.5	•	•	•	70.0	•	•	18.0	20.0	calm	calm	clear	clear	after Bob	after Bob		
91	5	09/09/91	HJ RJ BB RH	HJ RJ BB RH	18.0	22.0	5.8	8.6	8.8	23.8	63.55	112.58	7.3	7.9	•	•	•	85.0	•	•	12.0	19.0	calm	calm	clear	clear	swan	swan		
91	5	09/23/91	HJ LK BB	HJ LK BB	12.0	18.0	7.8	8.0	3.3	20.9	74.08	91.70	7.2	7.7	•	•	•	115.0	•	•	11.0	18.0	calm,ripple	calm,ripple	overcast	overcast	tide not dead low	tide not dead low		
91	5	10/07/91	LK SM BB	LK SM BB	12.0	13.5	7.4	8.4	2.0	13.9	71.65	87.64	7.3	7.6	•	•	•	55.0	•	•	6.0	12.0	waves,calm	waves,calm	pti cloud	pti cloud	tide very high	tide very high		
91	5	10/23/91	HJ LK SM	HJ LK SM	7.0	11.0	8.8	9.4	1.8	17.5	73.55	84.90	7.3	7.7	•	•	•	•	•	•	2.0	14.0	ripple	ripple	clear	clear				
91	5	11/06/91	LK HJ BB	LK SM BB	5.0	8.0	8.2	9.5	5.2	22.0	74.88	87.08	7.7	7.8	•	•	•	•	•	•	0.0	7.0	CALM	CALM	PT CLOUDY	PT CLOUDY	NO GOLFERS	GOLFERS		
92	5	04/16/92	LK SM HJ BB	SM BB	5.5	8.5	10.8	12.0	2.8	18.3	87.94	115.00	7.2	8.3	•	•	BSV	55.0	•	•	-2.0	2.0	calm	calm	clear	cloudy	frost			
92	5	05/02/92	LK HJ SM BB	LK HJ SM BB	12.5	14.5	8.8	9.8	2.1	16.3	82.83	105.31	7.4	8.1	•	•	BSV	90.0	•	•	11.0	13.0		ripples	overcast	overcast		burette leaked		
92	5	05/16/92	LK SM BB	LK SM BB	13.5	16.5	7.3	8.5	6.7	18.7	73.05	95.17	7.4	7.8	•	•	BSV	85.0	•	•	9.0	14.0	calm	ripples	showers	sunny		fishing		
92	5	06/01/92	SM BB	SM HJ BB	14.0	13.5	6.4	7.5	12.6	17.6	48.98	90.00	7.4	7.6	•	•	BSV	35.0	•	•	8.0	9.0			showers	overcast				
92	5	06/14/92	LK BB	LK BB	21.0	27.0	4.6	6.9	3.7	13.8	52.93	93.42	7.1	7.7	•	•	BSV	55.0	•	•	20.0	30.0	calm	ripples	clear	clear	dk br h20	golfers		
92	5	06/30/92	HJ LK SM	HJ LK SM	22.0	28.0	5.1	8.8	10.0	25.8	83.84	122.13	7.2	7.9	•	42.0	BSV	80.0	•	•	20.0	29.0	calm	ripples	hazy	pt cloudy	slight odor	golfers		
92	5	07/14/92	LK SM BB	LK SM BB	21.0	20.0	6.5	6.7	11.6	27.2	65.92	86.28	7.2	7.7	0.0	10.0	bsv	95.0	•	•	20.0	17.0	calm	ripples	overcast	showers	golfers	golfers		
92	5	07/28/92	HJ BB LK	HJ BB LK	20.0	22.0	5.9	7.5	14.0	26.8	70.31	99.84	7.3	7.7	480.0	18.0	bsv	100.0	•	•	22.0	24.0	ripples	ripples	clear	pt cloudy	mallards	mallards		
92	5	08/13/92	SM BB	SM BB	19.0	20.0	6.8	8.7	14.4	27.2	78.65	112.01	7.4	7.8	137.0	2.0	bsv	bsv	•	•	12.0	18.0	calm	calm	overcast	pt cloudy	sea gull	ducks		
92	5	08/27/92	LK SM HJ BB	LK SM BB	22.5	24.0	4.5	8.2	16.0	26.0	58.85	85.22	7.2	7.8	560.0	15.0	bsv	125.0	•	•	20.0	28.5	calm	ripples	foggy	hazy	golfing	humid		
92	5	09/11/92	LK SM HJ BB	LK SM HJ BB	20.8	21.0	5.1	7.1	12.7	27.4	60.33	83.23	7.2	7.7	390.0	8.0	bsv	bsv	•	•	18.0	22.0	ripples		showers	pt cloudy		woodchuck		
92	5	09/26/92	SM HJ LK BB	SM HJ BB	12.0	14.0	7.4	8.7	17.5	28.5	76.38	101.03	7.5	7.9	90.0	5.0	bsv	bsv	•	•	11.0	15.0	calm	ripples	pt cloudy	sprinkles	golfing	cormorants		
92	5	10/11/92	HJ LK BB	HJ LK BB	13.0	14.8	8.2	7.7	18.5	28.5	82.73	98.84	7.1	7.5	540.0	42.0	bsv	bsv	•	•	13.0	17.0	calm	calm	foggy	overcast	sandpipers	golfing		
92	5	10/25/92	SM BB	SM BB	8.0	8.0	8.1	8.8	8.3	28.8	74.33	98.87	7.2	7.6	200.0	6.0	bsv	bsv	•	•	7.0	8.0	ripples	calm	showers	overcast		debris on h2o		
92	5	11/09/92	LK SM BB	LK HJ SM BB	1.0	3.0	10.8	10.8	2.2	19.1	78.15	91.80	7.5	7.7	10.0	18.0	bsv	80.0	•	•	-8.0	2.0	calm	sunny	clear	clear	ice	golfing		
93	5	04/21/93	HJ SM	BB HJ SM	13.5	15.5	8.8	11.2	1.1	4.4	85.35	115.51	7.3	8.2	180.0	330.0	•	57.5		100.0	15.0	20.0	ripple	waves	overcast	pt cloud	course workers	course workers		
93	5	05/06/93	HJ SM BB AR	HJ SM BB	17.0	18.5	7.6	7.8	1.8	15.5	70.75	82.21	7.4	7.5		•	40.0	47.5	40.0	70.0	19.0	29.0	ripple	waves	overcast	clear	golfers			
93	5	05/20/93	BB DC	HJ BB DC	13.5	15.5	7.3	7.8	3.9	18.6	71.81	88.40	7.2	7.4	1100.0	0.0	35.0	62.5	35.0	118.0	11.5	13.0	calm	ripple	overcast	overcast	golfers	golfers		
93	5	06/06/93	HJ SM DC BB	HJ SM DC BB	14.0	17.5	6.8	7.8	10.3	23.2	66.18	83.41	7.4	7.6	240.0	10.0	30.0	27.5	30.0	125.0	14.0	22.0	ripple	waves	clear	pt cloud	cormorants	golfers		
93	5	06/23/93	SM BB DC	SM BB	19.5	21.6	6.2	8.9	15.0	26.8	73.03	80.44	7.3	7.6		•	30.0	27.5	30.0	120.0	20.0	24.0	waves	waves	clear	clear	golfers	golfers		
93	5	07/08/93	SM BB DC	SM BB DC	24.5	28.0	7.2	7.6	19.8	16.7	99.35	105.71	7.4	7.7	350.0	8.0	35.0	162.5	35.0	115.0	24.8	34.0	ripple	ripple	clear	clear	golfers	golfers		
93	5	07/22/93	BB DC	BB DC SM	21.5	22.5	5.5	7.0	24.3	32.3	71.84	97.30	7.3	7.7	200.0	0.0	45.0	55.0	45.0	75.0	22.0	25.0	ripple	ripple	clear	overcast	birds	birds		
93	5	08/03/93		BB DC SM	23.5	27.5	7.8	8.8	18.0	28.8	101.48	130.88	7.3	7.8	800.0	8.0	45.0	110.0	45.0	120.0	24.0	31.0	ripple	ripple		pt cloud		rain day before		
93	5	08/19/93	SM DC	SM DC BB	21.0	23.0	4.2	8.8	23.8	30.1	53.88	84.10	7.2	7.7	210.0	10.0	35.0	135.0	35.0	135.0	18.5	24.5	calm	calm	foggy	cloudy	rain day before	flock of killdeer		
93	5	09/02/93	BB SM DC	BB SM DC	22.0	24.0	4.3	8.2	24.1	31.6	56.39	116.47	7.2	7.8	100.0	0.0	45.0	110.0	45.0	110.0	20.0	23.5	calm	ripple	pt cloud	pt cloud	birds and golfers (ibis)	blue heron and others		
93	5	09/20/93	BB SM	BB SM DC	15.0	18.5	8.8	9.2	19.6	24.1	75.77	100.81	7.5	7.9	•		45.0	87.5	45.0	145.0	18.0	15.0	ripple	calm	pt cloud	pt cloud	golf, prob w salinity	golf		
93	5	10/04/93	BB SM DC	BB SM DC	12.5	16.0	7.9	9.5	12.9	28.0	80.10	113.78	7.4	7.9	140.0	0.0	80.0	110.0	50.0	110.0	17.0	22.0	ripple	ripple	pt cloud	clear	great blue herons	birds		
93	5	10/19/93	BB DC	BB DC SM	11.5	14.0	7.4	8.6	13.9	28.5	73.90	88.08	7.5	7.8	•	•	45.0	27.5	45.0	•	18.0	18.0	ripple	ripple	pt cloud	pt cloud	golfers	golfers		
93	5	11/09/93	SM DC BB	SM DC	5.0	3.0	10.5	10.1	5.7	22.8	85.51	88.74	7.4	7.7	•	•	35.0	85.0	35.0	85.0	10.0	1.0	calm	calm	overcast	clear	golfers	debris on water		
94	5	04/26/94	BB DC SM	BB DC SM	8.0	8.0	8.8	10.4	1.0	17.0	77.08	97.71	7.3	8.0	80.0	12.0	•	72.5	•	115.0	5.0	7.0	RIPPLE	RIPPLE	SHOWERS	OVERCAST	NONE	GOLF	210.0	335.0
94	5	05/10/94	BB DC SM	BB DC SM	14.0	16.0	8.3	8.8	1.0	10.6	81.35	84.88	7.3	7.8	100.0	80.0	•	27.5	•	110.0	14.0	18.0	CALM	RIPPLE	PT CLOUDY	CLEAR	GOLF	ECLIPSE	175.0	280.0
94	5	05/25/94	B6 DC SM	BB DC SM	15.0	15.5	6.5	7.8	4.9	17.8	86.52	84.23	7.3	7.5	TNTC	20.0	•	82.5	•	135.0	11.0	15.0	CALM	CALM	OVERCAST	DOWNPOUR	GOLF	BIRDS	160.0	275.0
94	5	06/09/94	BB DC	BB DC SM	18.5	23	6.6	8.8	7.1	21.8	61.24	117.14	7.3	8.0	520.0	11.0	•	55.0	•	95.0	19.0	26.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	GOLF	GOLF	120.0	240.0
94	5	06/23/94	BB DC SM	BB DC SM	20.5	23.0	5.8	7.8	19.5	27.2	69.52	107.44	7.3	7.8	TNTC	25.0	35.0	40.0	35.0	70.0	21.0	22.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	GOLF	GOLF	160.0	240.0
94	5	07/11/94	BB DC	DC SM	24.0	27.0	6.9	10.4	20.5	28.2	91.88	152.51	7.5	8.2	340.0	34.0	35.0	75.0	35.0	75.0	24.0	33.0	RIPPLE	CALM	CLEAR	CLEAR		GOLF	100.0	220.0
94	5	07/26/94	BB DC	DC SM	25.0	28.0	6.5	8.3	18.8	28.4	85.08	138.00	7.5	7.9	430.0	10.0	35.0	87.5	35.0	115.0	25.0	30.0	CALM	CALM	FOG	FOG	GOLF	GOLF	110.0	215.0
94	5	08/09/94	BB DC	BB DC SM	21.0	25.0	6.8	8.8	22.6	28.2	78.52	128.87	7.4	8.1	320.0	10.0	35.0	115.0	35.0	115.0	21.0	27.0	CALM	RIPPLE	CLEAR	CLEAR	GOLF	GOLF (LOTS)	90.0	245.0
94	5	08/22/94	BB DC	BB DC	20.0	19.5	5.1	7.0	8.8	27.0	59.06	89.18	7.3	7.6	1000.0	0.0	35.0	80.0	35.0	90.0	19.0	18.0	CALM	CALM	OVERCAST	OVERCAST	GOLF	BIRDS	100.0	180.0
94	5	09/07/94	BB DC SM	BB DC SM	14.5	17.0	6.8	8.8	15.7	29.2	73.25	118.18	7.3	8.1	•	•	35.0	100.0	35.0	100.0	18.0	21.0	CALM	CALM	CLEAR	CLEAR	GOLF	GOLF	160.0	250.0
94	5	09/21/94	BB DC SM	BB DC SM	10.0	10.5	8.5	11.9	13.2	28.9	93.18	147.83	7.8	8.4	87.0	1.0	25.0	105.0	25.0	105.0	18.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	GOLF	GOLF	145.0	235.0
94	5	10/06/94	BB DC	BB DC SM	9.5	13.0	7.8	11.4	3.1	20.3	70.73	122.31	7.3	8.4	110.0	2.0	35.0	82.5	35.0	100.0	8.0	14.0	CALM	RIPPLE		PT CLOUDY	MURKY WATER COL	GOLF	220.0	300.0
94	5	10/20/94	BB DC SM	BB DC SM	11.0	13.0	7.3	10.4	8.4	28.6	88.78	118.28	7.4	8.3	33	3	35.0	75.0	35.0	130.0	19.0	18.0	CALM	RIPPLE	OVERCAST	OVERCAST	GOLF	DETRITUS ON WATER	100.0	310.0
94	5	11/07/94	BB SM	BB SM	8.0	8.0	8.3	9.8	13.4	27.4	78.07	82.57	7.4	7.7	280.0	10.0	35.0	18.5	35.0	•	0.0	11.0	WAVES	WAVES	CLEAR	CLEAR	GOLF	GULLS AND WINDY	90.0	235.0
95	5	04/18/95	BB SM	BB DC SM	10.0	12.5	10.8	11.1	1.2	18.8	96.33	116.73	7.8	8.0	22.0	NV	•	87.5	45.0	110.0	13.0	11.0	CALM	RIPPLE	CLEAR	PT CLOUDY	GOLF	GOLF	110.0	295.0
95	5	05/01/95	BB DC SM	BB DC SM	10.0	12.0	9.1	9.3	4.3	20.1	83.02	87.54	7.6	7.9	28.0	3.0	•	87.5	45.0	105.0	8.5	11.0	CALM	CALM	OVERCASTE	PT CLOUDY	GOLF	GOLF	170.0	245.0
95	5	05/16/95	BB DC SM	BB DC SM	12.0	11.5	8.3	8.4	3.3	22.8	78.82	88.51	7.4	7.8	110.0	8.0	•	70.0	45.0	120.0	10.0	9.0	RIPPLE	RIPPLE	SHOWERS	SHOWERES	GROUNDS WORKER	NONE	210.0	270.0
95	5	05/30/95	BB DC	BB DC	17.5	21.0	6.8	8.8	4.2	19.8	84.44	108.03	7.5	7.8	240.0	20.0	•	27.5	45.0	85.0	20.0	23.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	GOLF	GOLF	90.0	185.0
95	5	06/13/95	BB SM	DC SM BB	18.5	19.0	5.1	7.4	11.4	23.8	65.85	81.47	7.2	7.8	220.0	25.0	•	75.0	45.0	120.0	17.0	18.5	CALM	RIPPLE	PT CLOUDY	SHOWERS	GOLF	GOLF	110.0	245.0
95	5	06/27/95	DC SM	DC SM	21.0	22.0	6.8	8.1	14.8	27.8	80.44	108.58	7.5	8.0	340.0	4.0	•	70.0	45.0	95.0	22.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	GOLF	GOLF	130.0	210.0
95	5	07/12/95	BB DC SM	BB DC SM	20.0	23.8	4.8	7.5	22.0	28.8	67.41	102.88	7.3	8.0	2300	5.0	•	100.0	45.0	115.0	17.0	24.0	CALM	CALM	FOG/HAZE	PT CLOUDY/	GOLF	GOLF	150.0	275.0
95	5	07/27/95	BB SM	BB DC SM	24.0	29.8	5.1	9.5	2.8	25.5	61.65	143.00	7.3	8.0	TNTC	NV	•	BSV	45.0	95.0	24.0	32.0	CALM	CALM	CLEAR/HAZE	PT CLOUDY	GOLF	GOLF	95.0	235.0
95	5	08/10/95	BB DC SM	BB SM	21.0	20.8	5.8	8.0	16.8	27.0	81.42	128.49	7.3	8.0	320.0	0.0	•	•	45.0	115.0	20.0	28.5	CALM	RIPPLE	CLEAR		GOLF	GOLF	165.0	155.0
95	5	08/20/95	BB DC SM	BB DC SM	18.0	22.0	6.8	8.7	21.4	29.8	71.78	131.02	7.4	8.0	NV	NV	•	BSV	45.0	115.0	20.0	22.0	CALM	RIPPLE	CLEAR	CLEAR	GOLF	GOLF	120.0	255.0
95	5	09/11/95	BB SM	BB SM DC	15.0	18.0	8.5	10.3	20.0	30.8	76.34	130.98	7.5	8.0	10.0	0.0	•	87.5	45.0	120.0	14.0	21.0	RIPPLE		CLEAR		GOLF		95.0	240.0
95	5	09/26/95	SM DC	BB DC SM	14.5	13.0	8.3	8.8	21.8	28.8	70.32	100.29	7.5	8.0	80.0	0.0	•	130.0	45.0	135.0	14.0	15.0	CALM	CALM	OVERCASTE	OVERCASTE	GOLF	GOLF	110.0	280.0
95	5	10/10/95	BB DC	BB DC SM	11.5	10.0	7.4	10.0	8.4	27.7	71.54	119.54	7.4	8.0	30.0	0.0	•	BSV	45.0	130.0	10.0	18.0	calm	ripple	clear	clear	golf	golf	•	•
95	5	10/26/95	BB DC SM	BB DC SM	10.0	13.0	9.0	9.1	2.4	24.2	72.18	100.04	7.4	7.8	10.0	10.0	•	90.0	45.0	140.0	8.0	18.0	calm	ripple	mostly cloudy	clear	golf	golf	•	•
95	5	11/09/95	BB DC	BB DC	4.5	5.0	10.3	10.6	0.2	13.0	80.13	89.43	7.4	7.6	140.0	120.0	•	19.8	45.0	130.0	1.0	0.0	ripple	ripple	partly cloudy	clear	•	•	•	•

Site 6 - Fox Pt

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTE	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					t	ºC	ppm	ppm	ppt	ppt	%	%			CFU/100ml	CFU/100ml	cm	cm	cm	cm	ºC	ºC							MIN	MIN
90	6	04/09/90				5.8	11.2	10.0	17.3	21.4	97.17	98.31	-	7.8	-	-	106.0	205.0	-	-	-2.0	12.0								
90	6	04/25/90				8.8	6.6	10.0	20.3	26.7	89.83	100.07	7.7	7.8	-	-	106.0	200.0	-	-	9.0	11.0								
90	6	05/09/90				14.0	7.7	8.8	21.2	24.0	79.86	100.30	8.8	7.8	-	-	102.0	208.0	-	-	11.0	20.0								
90	6	05/24/90				10.5	9.8	9.8	20.3	26.4	88.39	93.64	7.5	7.7	-	-	126.0	205.0	-	-	6.5	12.5								
90	6	06/06/90				13.5	8.8	8.1	24.0	27.3	93.51	91.70	7.9	-	-	-	115.0	220.0	-	-	15.0	20.5								
90	6	06/21/90				16.5	7.8	8.2	26.8	29.3	90.61	90.65	8.0	8.1	-	-	95.0	190.0	-	-	16.0	16.5								
90	6	07/07/90				17.8	6.8	7.4	28.8	28.8	88.70	90.74	-	7.5	-	-	140.0	235.0	-	-	19.0	21.0								
90	6	07/20/90				19.6	7.2	7.8	27.4	32.3	94.84	96.97	7.6	7.8	-	-	-	285.0	-	-	22.0	32.0								
90	6	08/06/90				20.8	-	7.2	-	31.1	-	96.42	-	7.8	-	-	-	285.0	-	-	-	-								
90	6	08/20/90				18.8	6.8	7.2	28.8	31.3	88.30	91.60	7.6	8.1	-	-	-	295.0	-	-	16.0	19.0								
90	6	09/04/90				18.8	6.8	6.8	25.9	30.4	87.39	85.90	7.8	7.8	-	-	120.0	290.0	-	-	13.0	19.0								
90	6	09/18/90				15.8	7.4	6.8	29.8	32.3	88.65	82.87	7.5	7.7	-	-	100.0	300.0	-	-	8.0	13.0								
90	6	10/04/90				13.8	7.8	7.4	30.0	32.9	89.81	86.97	7.7	7.9	-	-	-	330.0	-	-	9.0	22.0								
90	6	10/18/90				14.8	7.5	7.2	28.9	30.4	88.64	84.10	7.7	7.7	-	-	110.0	300.0	-	-	19.0	24.5								
90	6	11/02/90				11.8	8.9	8.3	28.2	29.5	87.34	90.40	7.4	7.8	-	-	130.0	330.0	-	-	3.5	14.5								
91	6	04/13/91	BF JG BH JT	BF JG BH JT		8.8	10.3	10.9	19.8	25.4	98.95	100.37	7.6	7.4	-	-	90.0	-	-	-	6.0	17.0	ripple	ripple	overcast	overcast	lobstering	lobstering		
91	6	04/27/91	DF BF BH JG ET	DF BF BH JG ET		10.6	9.8	9.9	18.7	23.5	99.57	102.63	7.8	-	-	-	70.0	180.0	-	-			calm	calm	clear	clear				
91	6	05/13/91	BH JJ	BH JJ		13.8	8.8	8.8	18.3	23.3	82.99	86.20	7.3	7.6	-	-	75.0	180.0	-	-	12.0	38.0	calm	calm	clear	clear	common tern 1 boat	common tern 1 boat		
91	6	05/29/91	BH JJ BF	BH JJ BF		18.8	7.7	7.9	26.1	28.0	82.38	94.62	7.5	7.7	-	-	115.0	190.0	-	-	27.0	37.0	ripple	ripple	fog	fog	terns	terns		
91	6	06/11/91	BH DF BF	BH DF BF		17.8	7.4	8.2	26.9	26.9	81.84	89.40	7.8	7.9	-	-	105.0	225.0	-	-	23.0	30.0	calm	calm	clear	clear	new dock,birds	new dock,birds		
91	6	06/25/91	BH JJ	BH JJ		17.8	9.3	8.6	29.3	31.5	106.23	106.16	7.6	7.8	-	-	109.0	260.0	-	-	18.0	32.0	calm	calm	clear	clear	picnicers, many boats	picnicers, many boats		
91	6	07/10/91	BH CC JJ	BH CC JJ		17.8	7.5	6.8	30.8	31.0	96.86	109.64	7.7	7.7	-	-	85.0	200.0	-	-	18.0	20.0	calm	calm	clear	clear	lobster boat,jellyfish	lobster boat,jellyfish		
91	6	07/26/91	BH DF BF	BH DF BF		20.8	7.2	7.8	31.8	32.9	88.90	104.03	7.8	-	-	-	120.0	275.0	-	-	20.0	30.0	ripple	ripple	overcast	overcast	sandpiper,heron	sandpiper,heron		
91	6	08/08/91	BH DF BF	BH DF BF		19.8	7.8	7.4	31.4	31.6	92.48	98.80	7.8	7.5	-	-	108.0	265.0	-	-	17.0	31.0	calm	calm	clear	clear	lobster boat	lobster boat		
91	6	08/24/91	BH DF BF	BH DF BF		20.8	6.8	8.2	15.3	19.2	72.03	79.11	7.3	7.6	-	-	105.0	140.0	-	-	17.0	22.0	ripple	ripple	clear	clear	6 days after BOB	6 days after BOB		
91	6	09/07/91	CC RF DF	CC RF DF		17.8	7.0	8.1	24.4	30.8	85.29	78.75	7.5	7.3	-	-	100.0	240.0	-	-	14.0	24.0	ripple	ripple	clear	clear	deer, fish	deer, fish		
91	6	09/22/91	BH BF	BH BF		17.8	7.3	7.1	27.2	29.8	88.99	87.56	7.4	7.9	-	-	100.0	310.0	-	-	6.0	17.0	calm	calm	clear	clear	boats	boats		
91	6	10/07/91	BH BF	BH BF		13.8	8.1	7.9	20.4	25.8	88.82	88.13	7.6	7.6	-	-	110.0	205.0	-	-	7.0	13.0	ripple	ripple	clear	clear	quiet foam	quiet foam		
91	6	10/22/91	BH	BH		12.8	8.3	6.9	22.0	27.4	86.18	78.88	7.6	7.6	-	-	-	-	-	-	6.0	15.0	calm	calm	clear	clear				
91	6	11/06/91	PG BH	BH PG		11.8	9.1	9.8	25.8	30.0	12.61	98.44	7.6	7.6	-	-	155.0	290.0	-	-	1.0	9.0	RIPPLE	RIPPLE	OVERCAST	OVERCAST	BOATING			
92	6	04/17/92	no data/snow storm	BH		8.8	-	10.7	-	20.4 *		100.92 *	-	7.6	-	-			-	-	2.0	4.0		ripple		slight rain				
92	6	05/02/92	BH	BH	[illegible]	9.8	10.6	8.7	20.0	24.8	100.63	97.76	7.8	8.8	-	-	100.0	145.0	-	-	10.0	20.0	ripple	calm	overcast	overcast				
92	6	05/16/92	BH CC	BH CC	[illegible]	12.8	9.1	9.3	22.8	26.7	99.23	101.71	7.7	7.8	-	-	95.0	200.0	-	-	12.0	20.0	ripple	waves	clear	clear	4 common tern	4 common tern		
92	6	06/01/92	CC AR	AR Newington students	[illegible]	12.8	9.2	8.9	27.2	29.1	83.83	90.07	7.8	7.7	-	-	77.0	205.0	-	-	9.0	10.0	ripple	waves	downpour	showers	coliform sample			
92	6	06/15/92	AR PO	AR PO	[illegible]	17.8	7.8	7.7	23.3	26.7	87.19	92.70	7.7	7.2	-	-	126.0	185.0	-	-	20.0	23.0	ripple	ripple	pt cloudy	PT CLOUDY	lobstering	fishing boats		
92	6	06/29/92	BH PO	LA MA BH	[illegible]	16.5	8.6	8.6	28.1	29.5	106.95	102.81	7.8	7.7	2.0	8.0	-	-	-	-	16.0	20.0	calm	ripple	clear	clear	terns	terns cormorants		
92	6	07/14/92	BH CS	BH PO	[illegible]	18.8	8.7	8.6	31.2	29.6	113.75	102.97	7.9	8.8	3.0	2.0	-	-	-	-	16.0	22.0	ripple	ripple	overcast	rain	terns	terns		
92	6	07/28/92	PO CS	PO CS	[illegible]	18.6	6.9	8.3	28.8	29.3	89.76	101.22	7.8	7.4	18.0	6.0	-	-	-	-	14.0	25.0	ripple	ripple	clear	pt cloudy	fishing boats	fishing boats		
92	6	08/12/92	PO BH	PO BH	[illegible]	18.8	7.7	8.6	30.2	30.6	90.10	104.06	7.6	7.4	8.0	2.0	-	-	-	-	19.0	22.0	ripple	whitecaps	clear	clear	terns,fishing	windy, boating		
92	6	08/27/92	PO CS	PO DW	[illegible]	18.8	6.9	7.7	28.5	30.0	88.89	97.88	7.7	7.6	6.0	8.8	-	-	-	-	20.0	24.0	calm		thick fog					
92	6	09/10/92	BH PO	BH PO	[illegible]	18.0	7.8	7.7	30.4	31.0	92.43	93.39	7.8	7.7	mve	6.0	-	-	-	-	20.0	27.0	ripple	calm	picloud	picloud	heron	fishing		
92	6	09/26/92	BH PO	BH PO	[illegible]	13.8	8.1	8.1	30.2	32.7	94.49	94.10	7.8	7.8	6.8	2.0	-	-	-	-	10.0	16.0	RIPPLE	ripple	OVERCAST	overcast	1 HERON, 2 DUCKS	lobstering		
92	6	10/11/92	BH	BH	[illegible]	12.8	9.8	8.5	30.4	31.8	102.98	91.61	7.4	7.7	29.8	11.0	-	-	-	-	12.0	17.0	calm	calm	fog	overcast	MISTING	fish jump		
92	6	10/26/92	PO BH	BH	[illegible]	9.8	8.1	7.8	30.2	31.4	94.49	82.43	7.8	7.7	-	38.0	-	-	-	-	18.0	8.0	ripple	ripple	overcast	rain	heron ducks			
92	6	11/09/92	JJ JJ	JJ JJ	[illegible]	6.8	11.6	8.1	25.6	18.2	107.31	81.00	6.8	6.7	20.0	8.0	-	-	-	-	-2.0	4.9	calm	calm	clear	clear	ducks	lobstering		
93	6	04/21/93	JP BP CC BT	JP BP CC	[illegible]	6.6	11.8	10.9	9.7	18.3	101.09	103.15	7.5	7.7	10.0	20.0	80.0	162.5	110.0	380.0	13.0	20.0	calm	calm	overcast	picloud	boating	boating		
93	6	05/06/93	JP BP	JP BP BH	[illegible]	10.8	8.8	9.2	18.1	24.9	93.16	96.99	7.5	7.1	30.0	8.0	86.0	200.0	95.0	310.0	10.0	35.0	calm	ripple	overcast	clear	debris	dock in		
93	6	05/20/93	JP BH	JP BH	[illegible]	11.8	8.2	9.3	23.2	26.7	89.58	99.83	7.5	7.6	-	8.0	120.0	290.0	126.0	276.0	11.0	14.0	calm	ripple	overcast	overcast	lobstering terns	boats,terns		
93	6	06/03/93	JP BP BH	JP BP BH	[illegible]	11.8	8.4	9.1	25.8	29.4	92.30	99.14	7.5	7.7	8.0	0.0	180.0	287.0	108.0	318.0	18.0	24.0	calm	waves	clear	clear	terns kingfisher	terns fishing		
93	6	06/23/93	BH	NB CC ND BH	[illegible]	13.8	7.4	6.8	27.7	29.8	98.33	82.66	7.6	7.9	100.0	10.0	80.0	200.0	80.0	285.0	14.0	21.5	whitecaps	whitecaps	clear	clear				
93	6	07/08/93	JP BP	JP BP	[illegible]	16.8	7.9	6.8	28.6	30.9	99.33	103.79	7.6	7.3	0.0	0.0	110.0	275.0	118.0	278.0	20.0	28.0	calm	calm	hazy	hazy	fishing	fishing		
93	6	07/22/93	BH JP BP	BH JP BP	[illegible]	14.8	7.1	6.4	28.7	31.4	89.38	90.27	7.6	7.2	0.0	20.0	110.0	303.0	118.0	330.0	22.0	32.0	ripple	ripple	clear	overcast	terns,duck	terns fishing		
93	6	08/03/93	JP BP	JP BP	[illegible]	18.8	7.8	7.5	30.6	31.0	101.83	100.27	7.7	7.2	-	-	98.0	280.0	98.0	290.0	21.0	31.0	calm		haze	pt cloudy	new deck	fishing		
93	6	08/19/93	BH JP BP	BH JP BP	[illegible]	17.5	7.0	8.8	31.1	30.9	94.82	100.49	7.6	7.8	10.0	8.0	110.0	177.5	110.0	263.0	18.0	23.0	calm	calm	haze	clear	motor skips	ducks		
93	6	09/02/93	BP JP BH	BH JP	[illegible]	10.5	6.6	6.8	31.6	30.9	88.49	90.86	7.6	7.6	10.0	0.0	140.0	350.0	143.0	305.0	10.0	28.0	calm		clear			motor dead		
93	6	09/20/93	JB BP	JB BP	[illegible]	12.8	7.3	8.8	31.4	33.4	86.70	90.84	7.8	7.8	4.0	2.0	130.0	335.0	130.0	380.0	12.0	14.0	white caps	ripple	pt cloudy	pt cloudy	strong wind	boating, bait fish on dock		
93	6	10/04/93	JB BP BH	JB BP	[illegible]	12.8	8.3	7.8	30.1	32.3	95.08	88.45	7.1	7.3	7.0	13.0	140.0	340.0	145.0	348.0	19.0	20.0	ripple	white caps	clear	pt cloudy	coastal cleanup	boating		
93	6	10/19/93	JB BP BH	JB BP	[illegible]	9.8	6.3	8.4	29.2	30.8	87.29	89.30	7.1	-	4.0	2.0	126.0	316.0	129.0	378.0	18.0	15.0	ripple	whitecaps	clear	clear	windy	lobstering		
93	6	11/09/93	JP	JP	[illegible]	7.8	9.8	9.0	27.3	28.8	94.24	89.28	7.8	7.7	4.0	3.0	110.0	295.0	116.0	295.0	6.8	6.8	calm	calm	pt cloudy	clear	boating/ducks	lobstering		
94	6	04/26/94	BH BT	BH BT	0	6.0	10.4	10.6	22.1	27.2	100.85	100.66	7.9	8.0	11.0	27.6	95.0	147.0	90.0	230.0	5.9	7.0	RIPPLE	RIPPLE	OVERCAST	CLEAR	NONE	ECLIPSE	75.00	70.00
94	6	05/10/94	BH BT	BH BT	0	11.0	9.1	9.6	17.6	21.8	93.02	98.39	7.9	7.8	24.0	12.0	135.0	258.0	135.0	310.0	13.0	17.0	RIPPLE	RIPPLE	SHOWERS	OVERCAST	BIRDS	BOAT	60.00	45.00
94	6	05/26/94	BH BT	BH BT	5	11.0	8.8	9.4	20.4	28.8	93.31	100.47	7.7	7.9	8.0	8.0	120.0	290.0	120.0	368.0	11.0	16.0	RIPPLE	RIPPLE	RAIN	SHOWERS	LOON	DUCKS	60.00	60.00
94	6	06/09/94	BT JJ	BT JJ	0	14.0	7.6	8.3	23.5	27.4	88.65	95.09	7.8	7.9	3.0	60.0	135.0	290.0	135.0	320.0	11.0		RIPPLE	WAVES	CLEAR	CLEAR	OYSTERING	FISHING/BOATS		
94	6	06/23/94	BH BT	BH BT	0	-	8.6	7.7	28.3	30.0	100.06 *		7.9	7.8	10.0	4.0	105.0	205.0	105.0	338.0	20.0	26.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BIRDS	BIRDS	30.00	45
94	6	07/11/94	BH JJ	JJ JJ BM	0	18.0	-	7.8	33.4	31.2 *		99.12	7.8	7.8	2.0	8.0	120.0	320.0	120.0	320.0	23.0	27.0	RIPPLES	CALM	CLEAR	CLEAR	NONE	BOATING	*	45.0
94	6	07/25/94	BH BT	BH BT	0	16.0	8.6	7.6	30.4	30.2	88.52	92.37	7.8	7.9	1.0	4.0	115.0	298.0	115.0	333.0	29.0	29.0	CALM	RIPPLE	PT CLOUDY	FOG		FISHING	40.00	40.00
94	6	08/09/94	BH BT	BH BT	0	18.8	7.4	7.8	30.2	30.4	87.04	90.75	-	7.9	2.0	2.0	115.0	285.0	115.0	335.0	29.0	27.0	CALM	RIPPLE	CLEAR	CLEAR	FISHING	BOATING	45.00	45.00
94	6	08/22/94	JJ	BH	0	18.0	7.6	8.8	29.8	31.1	94.29	88.46	7.8	7.8	4.0	3.0	145.0	215.0	145.0	360.0	19.0	22.0	CALM	RIPPLE	OVERCAST	SHOWERS	BOATS	NONE	65.00	*
94	6	09/07/94	BT BH	BT BH	0	19.6	7.8	7.4	30.0	31.5	92.74	89.61	7.9	7.8	1.0	3.0	120.0	275.0	120.0	356.0	15.0	24.0	CALM	RIPPLE	CLEAR	CLEAR	LOBSTERING/DUCKS	SAILBOAT/DOGS	30	
94	6	09/21/94	BH BT	BH BT	5	16.0	8.4	7.8	30.3	31.1	103.09	91.01	8.1	7.9	0.0	1.0	110.0	225.0	110.0	225.0	18.0	21.0	CALM	RIPPLE	CLEAR	CLEAR	BROWN CHUNKS IN WATE	DUCK AND DUCKLINGS/OTHER BIRD	75	45
94	6	10/06/94	BH BT	BH BP	0	12.0	8.6	7.8	26.4	29.1	96.08	77.76	6.8	7.8	0.0	0.0	125.0	270.0	125.0	355.0	6.0	13.0	CALM	WAVES	CLEAR	CLEAR	NONE	LOBSTERING	45	45
94	6	10/20/94	BH	AR SL	0	12.0	9.8	8.4	29.1	30.5	100.07	94.24	7.8	8.1	1.0	1.0	160.0	295.0	160.0	355.0	14.5	18.0	CALM	CALM	OVERCAST	OVERCAST	NONE	BOATING	45	
94	6	11/07/94	BH	DW BP	0	10.0	7.7	8.4	20.7	30.0	81.69	89.90	7.4	7.6	7.0	4.0	85.0	210.0	165.0	330.0	8.0	6.8	whitecaps	WHITECAP	clear	CLEAR	geese/ducks	WINDY 40MPH+!!!	45	60
95	6	04/16/95	BT BH	BT	5	8.0	10.7	10.7	22.2	27.7	102.71	102.94	7.8	7.4	1.0	5.0	BSV	BSV	165.0	330.0	12.0	11.6	CALM	WAVES	CLEAR	PT CLOUDY	NONE	NONE	*	*
95	6	05/01/95	BH BT	BH BT	0	8.0	10.2	10.7	24.8	26.6	103.09	100.42	7.9	8.0	2.0	1.0	BSV	BSV	118.0	318.0	10.0	9.0	CALM	RIPPLE	OVERCASTE	OVERCASTE	NONE	TWO DUCKS	*	*
95	6	05/16/95	BT AR AB	BT AB	0	8.5	8.7	9.8	28.0	29.8	92.67	101.35	7.7	7.8	0.0	6.0	BSV	245.0	120.0	250.0	10.0	8.6	CALM	CALM	SHOWERS	SHOWERS	3 decked boats, styrofoam cu	6 gulls, 13 cormorants	155	55
95	6	05/30/95	BT JJ	BH JJ	0	13.0	8.8	8.9	24.6	27.4	91.92	99.99	7.6	7.1	2.0	2.0	-	180.0	130.0	345.0	15.0	24.0	RIPPLE	WAVES	PT CLOUDY	OVERCASTE	BOATS/BIRDS	NONE	180	60
95	6	06/13/95	BH BT	BH BT DG	0	13.0	7.3	8.5	27.4	29.4	87.10	97.78	7.6	7.9	2.0	6.0	BSV	225.0	130.0	338.0	15.8	17.0	CALM	RIPPLE	OVERCAST	OVERCAST	nesting terns	2 fisherpersons, 1 boat, terns	85	200
95	6	06/21/95	BT BH	BT BH	0	15.0	8.8	8.8	28.2	29.4	103.63	103.12	7.8	7.9	2.0	5.0	BSV	285.0	130.0	315.0	10.0	19.6	RIPPLE	RIPPLE	CLEAR	CLEAR	NONE	NONE	130	145
95	6	07/12/95	BH BT	BH JJ	0	14.0	7.0	8.8	28.2	30.6	87.84	102.06	7.4	7.7	5.0	3.0	BSV	310.0	100.0	360.0	17.0	23.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	NONE	FISH/BOAT	85	185
95	6	07/27/95	BT DG	BT DG	0	20.0	6.4	7.6	30.2	32.4	87.08	99.71	7.8	7.9	4.0	6.0	BSV	290.0	126.0	315.0	23.0	30.0	CALM	CALM	HAZE	CLEAR	BOATS/BIRDS	BOATS/BIRDS	105	170
95	6	08/10/95	BT BH	BT BH	6	18.5	7.1	7.8	29.0	29.6	85.88	96.82	7.8	7.8	nd	4.0	BSV	282.5	110.0	338.0	17.0	20.0	CALM	RIPPLE	CLEAR	CLEAR	BOATING	BOATING LOBSTERING	90	150
95	6	08/26/95	BT DG	BT BH	0	18.0	7.8	7.6	29.9	30.8	88.23	94.61	7.7	7.9	NV	NV	BSV	295.0	120.0	335.0	16.0	21.0	CALM	RIPPLE	PT CLOUDY	PT CLOUDY	LOBSTERING	FISHING	140	150
95	6	09/11/95	BT BH	BT BH	0	16.0	7.2	7.6	31.3	31.6	88.87	89.40	7.7	7.8	1.0,	1.0	BSV	BSV	110.0	340.0	15.0	10.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	FISHING	100	120
95	6	09/26/95	BT BH	BT BH	0	13.5	8.0	7.8	30.8	31.4	91.69	90.77	7.7	7.5	2.0	3.0	BSV	BSV	130.0	355.0	14.0	14.0	RIPPLE	RIPPLE	DRIZZLE	DRIZZLE	NONE	BIRDS	125	150
95	6	10/16/95	BH BT	BH BT	0	14.8	7.5	7.8	31.4	30.0	88.38	91.36	7.8	7.8	0.0	0.0	BSV	350.0	130.0	350.0	9.0	17.0	CALM	CALM	CLEAR	CLEAR	NONE	BOATS	80	120
95	6	10/26/95	BT DG	BT BH DG	0	12.8	8.8	7.0	28.4	29.1	87.32	77.78	7.8	7.6	6.8	3.0	BSV	273.0	125.0	335.0	3.0	13.0	ripple	CALM/murk	overcast	CLEAR	birds	LOBSTER BOAT	*	60
95	6	11/09/95	BT DG	BT DG	0	9.0	9.2	9.0	19.3	24.6	85.56	88.01	7.3	7.6	11.0	16.0	150.0	105.0	150.0	350.0	4.0	1.0	ripple	rip,waves,w	clear	clear	birds, boats	boats		

Site 7 - Cedar Pt

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ml	CFU/100ml	cm	cm	cm	cm	oC	oC								
90	7	05/24/90			10.0	12.0	8.8	8.8	16.5	20.1	88.33	90.20	7.5	7.7	.	.	.	370	.	.	9.5	16.0								
90	7	06/07/90			17.0	17.0	7.5	8.5	23.9	.	88.32	.	7.8	8.1	.	.	175	.	.	.	18.0	19.0								
90	7	06/21/90			18.0	18.0	8.2	8.8	26.7	28.2	103.28	91.65	7.8	7.8	.	.	205	400	.	.	14.0	18.5								
90	7	07/07/90			19.0	19.0	8.8	8.8	28.1	28.2	88.39	87.71	7.7	7.8	.	.	130	195	.	.	16.0	23.6								
90	7	07/21/90			20.0	18.8	7.6	6.8	.	31.4	.	83.98	7.8	7.9	.	.	140	235	.	.	23.0	28.0								
90	7	08/08/90			22.5	20.5	6.3	8.9	30.4	31.5	88.88	92.06	7.8	7.9	.	.	135	245	.	.	22.5	23.0								
90	7	08/20/90			18.8	19.0	7.1	8.0	30.5	29.8	81.55	77.03	7.8	7.9	.	.	.	340	.	.	13.0	23.0								
90	7	09/04/90			19.8	20.0	6.3	7.1	26.0	27.0	78.10	92.00	7.9	7.8	.	.	.	215	.	.	13.0	20.0								
90	7	09/18/90			15.0	16.0	7.6	6.7	31.1	30.4	81.01	87.95	7.7	7.8	.	.	175	270	.	.	8.8	14.0								
90	7	10/04/90			14.0	14.5	.	8.3	30.4	31.2	.	82.87	7.7	7.7	.	.	120	250	.	.	9.0	17.5								
90	7	10/16/90			13.0	14.6	8.8	8.4	23.5	28.7	72.24	78.05	7.6	7.8	.	.	160	195	.	.	3.5	18.0								
90	7	11/02/90			8.0	10.5	9.2	7.8	18.2	25.1	87.10	81.70	7.7	7.9	.	.	.	290	.	.	11.0	16.0								
91	7	04/14/91	MG MR IL DL	MG MR IL DL	7.5	9.9	10.8	10.6	22.6	25.0	104.91	107.31	7.9	7.9	.	.	.	200.0	.	.	2.0	14.0	ripple	ripple	clear	clear				
91	7	04/28/91	MG MR IL	MG MR IL	12.0	11.0	9.1	9.3	19.9	22.0	84.49	90.05	7.8	7.7	.	.	100.0	136.0	.	.	6.0	18.0	waves	waves	pt cloud	pt cloud	windsurfers	windsurfers		
91	7	05/14/91	IL MR	IL MR	14.0	13.5	7.9	9.3	19.1	23.3	85.40	91.00	7.7	7.7	.	.	95.0	165.0	.	.	13.0	27.0	calm	calm	clear	clear	duck 12 duckling etc	duck 12 duckling etc		
91	7	05/28/91	DL MR ML IL	DL MR ML IL	16.6	16.5	8.3	8.5	26.0	26.8	89.01	103.20	7.1	.	.	.	.	200.0	.	.	16.0	31.0	ripple	ripple	haze	haze	river rat cormorant	river rat cormorant		
91	7	06/11/91	IL MR MG	IL MR MG	19.0	18.0	7.3	8.2	27.7	29.4	92.51	77.05	7.7	7.7	.	.	165.0	250.0	.	.	19.5	29.0	ripple	ripple	pt cloud	pt cloud	shore debris	shore debris		
91	7	06/25/91	DL IL MR ML	DL IL MR ML	18.5	17.5	7.8	7.3	28.3	31.2	88.74	81.98	7.8	7.2	.	.	210.0	326.0	.	.	15.0	22.0	calm	calm	clear	clear	lobstering	lobstering		
91	7	07/11/91	MR MG IL ML	MR MG IL ML	18.0	17.0	6.8	7.4	28.8	31.2	85.01	82.26	7.7	7.5	.	.	178.0	290.0	.	.	18.0	29.5	calm	calm	clear	clear	ducks,geese	ducks,geese		
91	7	07/26/91	MR MG IL ML	MR MG IL ML	21.5	20.8	7.0	7.6	31.5	33.3	95.11	101.82	7.8	7.8	.	.	186.0	265.0	.	.	22.0	24.0	calm	calm	slw,haze	slw,haze	geese, ducks	geese, ducks		
91	7	08/08/91	MR MG IL ML	MR MG IL ML	19.5	19.0	7.0	7.3	31.8	31.2	81.05	84.66	7.4	7.5	.	.	178.0	266.0	.	.	19.0	23.0	ripple	ripple	ovecst	overcst	ducks,geese	ducks,geese		
91	7	08/26/91	MR MG DL	MR MG DL	20.0	21.0	6.8	6.4	18.6	18.8	70.18	80.26	6.8	7.3	.	.	120.0	146.0	.	.	20.0	21.0	waves brown	waves brown	clear	clear	ducks,geese	ducks,geese		
91	7	09/10/91	MG JG	MG JG	18.0	19.0	7.0	7.2	28.7	28.5	88.48	89.98	7.0	6.8	.	.	190.0	270.0	.	.	14.0	30.0	calm	calm	clear	clear	ducks,geese	ducks,geese		
91	7	09/22/91	MR RR DL	MR RR DL	14.0	17.8	7.8	7.0	27.4	23.4	88.20	83.12	7.8	7.1	.	.	265.0	349.0	.	.	2.0	22.0	calm	calm	clear	clear	ducks	ducks		
91	7	10/07/91	MR IL DL	MR IL DL	13.0	13.0	7.2	7.4	21.3	26.4	77.73	82.00	7.1	7.2	.	.	140.0	209.0	.	.	4.5	18.0	waves	waves	ptl cloud	ptl cloud	SSHeritage,foam	S.SHeritage,foam		
91	7	10/23/91	IL MR	IL MR	10.0	12.0	8.5	8.6	22.4	28.0	88.03	81.99	7.1	7.3	.	.	226.0	336.0	.	.	3.0	13.0	waves	waves	clear	clear	moon in AM	moon in AM		
91	7	11/08/91	IL MR	IL MR	8.0	10.0	8.5	8.3	26.8	28.8	84.55	88.11	7.2	7.3	.	.	208.0	286.0	.	.	-2.0	11.0	CALM	RIPPLE	OVERCAST	OVERCAST	GEESE	GULLS		
92	7	04/18/92	IL MR	MR MG	6.5	7.0	10.9	10.8	22.6	25.3	102.30	104.80	8.0	7.8	.	.	.	260	.	.	12.0	11.0		ripple	clear	overcast	UNH sculls	ducks		
92	7	05/02/92	MR MG	IL MG	11.0	9.5	11.8	10.6	20.6	23.9	110.30	108.00	7.8	8.0	.	.	90	165	.	.	12.0	19.5	calm	calm	overcast	overcast	ducks	duck, boating		
92	7	05/16/92	MR IL	MR MG	12.0	12.5	8.8	8.9	23.4	24.8	92.08	98.00	7.8	7.8	.	.	100	175	.	.	13.0	22.0	ripple	ripple	pt cloudy	clear	mallards	lobstering		
92	7	05/31/92	DL IL	MR MG	14.5	13.0	8.8	8.8	27.8	28.8	92.83	97.50	7.8	7.9	.	.	160	210	.	.	18.0	18.0	ripple	waves	overcast	overcast	lobstering	mallards		
92	7	06/14/92	IL MG	IL MG	18.5	18.0	7.2	7.8	23.1	24.5	87.26	84.47	7.8	7.8	.	.	135	170	.	.	18.5	34.0	calm	calm	clear	clear	geese ducks	fishing boats		
92	7	06/30/92	MR MG	MR MG	18.0	18.0	7.7	8.1	28.8	30.7	88.39	110.00	7.8	7.7	.	.	160	229	.	.	20.0	37.0	ripple	ripple	haze	haze	ducks	2ducks		
92	7	07/13/92	MR MG	MR RR	18.0	18.0	8.8	8.0	29.5	30.2	100.12	113.05	8.0	7.7	8.0	1.0	160	230	.	.	20.0	32.0	calm	ripple	overcast	clear	boating	boating ducks		
92	7	07/28/92	MR MG	IL MR	18.0	17.8	7.1	7.3	28.3	30.2	88.07	88.42	7.7	7.7	8.0	8.0	100	278	.	.	14.0	32.0	calm	calm	clear	overcast	geese ducks	geese ducks		
92	7	08/13/92	IL NR	IL NR	17.5	17.0	7.1	7.7	29.9	30.6	88.83	95.82	7.9	7.8	8.0	0.0	202	323	.	.	17.5	26.0	ripple	waves	overcast	overcast	lobstering	boating		
92	7	08/27/92	IL MG	MR DL	21.0	18.0	7.4	8.0	28.9	30.2	98.08	101.02	7.8	7.7	8.0	6.0	200	293	.	.	21.0	29.0	calm	calm	dense fog	clear	fishing	boating		
92	7	09/10/92	IL MR	IL MG	17.0	17.0	7.8	7.5	28.8	31.3	93.90	93.48	7.8	7.7	nivd	13.0	220	295	.	.	20.0	29.5		ripple	overcast	ptcloud	geese	mallards		
92	7	09/26/92	IL MG	IL MR	14.0	13.0	7.9	8.3	30.8	31.1	92.40	95.41	7.7	7.5	3.0	4.0	105	365	.	.	3.0	12.0	calm	ripple	clear	ptcloud	frost	fishing		
92	7	10/10/92	MG MR	IL DL	13.0	13.0	8.2	9.0	30.2	31.6	93.70	92.20	7.8	7.8	44.0	8.0	295	445	.	.	13.0	20.0	calm	ripple	overcast	overcast	ducks,geese	lobstering		
92	7	10/26/92	IL MR	IL MG	10.0	9.9	8.3	7.8	28.8	30.8	87.60	82.97	7.7	7.8	10.0	78.0	180	346	.	.	8.0	13.0	calm	ripple	showers	showers	dark,geese	lobstering		
92	7	11/08/92		IL DL	.	7.6	.	8.8	.	29.9	.	88.41	.	7.8	.	10.0	.	408	.	.	.	9.5		calm		clear		mallards		
93	7	04/21/93	IL MR	IL AR	9.0	9.6	10.7	10.6	9.7	13.8	88.42	104.03	7.2	7.4	.	100	36.0	165.0	30.0	210.0	18.0	23.0	ripple	whitecaps	overcast	ptcloud	planes	quiet		
93	7	05/06/93	EL MR	EL DL	13.6	11.0	9.0	8.2	17.8	23.6	88.49	95.88	7.2	7.4	0	10	76.0	232.5	76.0	286.0	18.0	28.5	ripple	ripple	overcast	clear	gulls	mallards boating		
93	7	05/20/93	EL MR MB	MR EL MB	13.6	13.5	9.0	8.4	23.8	28.2	88.54	94.81	7.6	7.4	0	100	117.0	200.0	420.0	430.0	12.0	20.0	calm	waves	overcast	overcast	mallards	debris		
93	7	06/03/93	EL MR	MR MB	12.5	13.6	8.2	8.4	27.2	30.1	80.92	109.45	7.6	7.6	0	0	106.0	116.0	485.0	.	9.5	29.0	ripple	ripple	ptcloud	clear	geese	fishing		
93	7	06/23/93	MR EL MB	EL MR	17.5	18.0	7.3	8.2	28.2	29.5	90.15	88.55	7.5	7.5	10	0	115.0	205.0	545.0	430.0	20.5	28.5	ripple	ripple	clear	clear	gulls geese	boating		
93	7	07/08/93	MR MB AB	EL MB	18.6	18.0	7.6	8.1	30.3	30.3	87.48	101.72	7.3	7.1	.	200	72.0	330.0	435.0	630.0	28.8	35.0	calm	ripple	clear	clear	ducks			
93	7	07/22/93	AB MB	IL AB	18.5	18.5	6.8	6.7	28.9	30.8	88.82	107.18	7.8	7.8	2500	10	136.0	260.0	540.0	650.0	22.0	24.0	ripple	ripple	clear	overcast	rain day before	windy		
93	7	08/03/93	IL MB	IL MB AB	18.5	18.8	7.2	7.6	30.1	30.7	83.48	88.38	7.8	6.8	.	.	212.5	407.0	475.0	630.0	24.5	32.0	calm	ripple	haze	clear	ducks,geese	geese,mallards		
93	7	08/18/93	MB BB MR	MR	20.0	19.0	6.9	7.0	30.8	30.6	80.71	90.26	7.6	7.6	10	40	180.0	360.0	495.0	630.0	21.0	29.0		calm	fog,cloudy	clear	mallards,geese	fish		
93	7	09/02/93	AB BB	EL MR	21.0	19.8	6.8	7.3	33.1	31.5	82.48	82.31	7.4	7.3	0	30	227.0	435.0	460.0	640.0	23.0	22.0	calm	waves	clear	pt cloudy	birds,	meter,line trouble		
93	7	09/20/93	IL MR	IL DL	15.0	12.5	7.4	.	31.4	31.1	88.78	.	7.2	7.1	30	90	260.0	462.0	525.0	640.0	11.0	18.0	ripple	ripple	pt cloudy	pt cloudy	50 different birds	cormorants		
93	7	10/04/93	DL BB	IL AB	14.0	14.0	7.3	7.4	31.4	31.8	95.24	87.12	7.6	7.7	.	0	220.0	440.0	395.0	640.0	15.0	22.0	white caps	white caps!	pt cloudy	few clouds	DO heated up	sailing, geese		
93	7	10/18/93	AB MB BB	AB MB	10.6	11.0	8.7	8.7	29.2	30.7	93.62	95.61	7.8	6.7	0	0	327.5	420.0	640.0	640.0	14.0	20.0	ripple	waves	pt cloudy	clear	fishing	flock of ducks		
93	7	11/09/93	BB AB MR	BB AB	7.0	8.8	9.8	9.6	29.2	29.8	93.64	94.88	6.8	6.5	0	0	362.5	670.0	470.0	640.0	11.0	0.0	ripple	calm	overcast	clear	none	none		
94	7	04/26/94	MR AB BB	MR BB AB	7.0	6.0	9.1	8.9	20.8	26.7	85.44	93.42	8.3	7.8	17.0	26.0	22.0	195.0	22.0	245.0	4.0	4.0	RIPPLE		SHOWERS	OVERCAST	NONE		71.00	76.00
94	7	05/10/94	IL BB	IL BB	12.0	12.0	9.1	9.1	17.6	17.5	93.92	93.92	7.8	7.8	18.0	8.8	80.0	218.5	80.0	278.0	13.0	17.0	RIPPLE	RIPPLE	OVERCAST	PT CLOUDY	BIRDS	ECLIPSE	80.00	.
94	7	05/25/94	BB AB	IL AB BB	13.0	12.0	7.9	.	20.3	26.5	94.76	.	6.8	7.8	.	7.0	.	232.5	.	310.0	11.0	16.0	RIPPLE	CALM	OVERCAST	SHOWERS	NONE	DUCKS	100.00	195.00
94	7	06/08/94	EL BB	IL BB	16.0	16.9	7.9	7.8	23.5	26.1	92.00	92.31	7.8	7.8	3.0	TNTC	80.0	175.0	80.0	175.0	10.0	30.0	RIPPLE	WAVES	CLEAR	CLEAR	LOBSTERING	LOBSTERBOAT	80.00	165.00
94	7	06/23/94	IL AB BB	IL AB BB	18.0	18.6	7.1	7.8	27.8	29.0	88.38	94.62	7.8	7.8	730.0	180.0	70.0	280.0	70.0	280.0	20.0	30.0	CALM	RIPPLE	CLEAR	PT CLOUDY	NEW RAMP!	BOATS	165.00	180.00
94	7	07/11/94	AB BB	AB	20.5	19.0	7.2	7.3	30.8	30.2	95.17	93.31	7.7	7.8	4.0	5.0	80.0	185.0	80.0	185.0	20.9	32.0	RIPPLE	CALM	CLEAR	CLEAR	DUCKS	BOATING	60.00	35.00
94	7	07/26/94	BB AB	AB IL	21.0	20.0	8.4	7.0	30.2	31.5	120.88	92.64	7.3	7.0	4.0	4.0	90.0	250.0	80.0	300.0	24.5	32.0	CALM	RIPPLE	OVERCAST	PT CLOUDY	DUCKS	BIRDS	65.00	105.00
94	7	08/09/94	IL BB	IL AB	18.5	18.5	7.5	7.9	29.8	32.5	98.36	102.18	7.8	7.8	0.0	1.0	85.0	277.0	85.0	310.0	21.0	30.0	CALM	WAVES	CLEAR	CLEAR	BIRDS	BOATING	80.00	120.00
94	7	08/22/94	IL AB	AB BB	18.0	18.0	6.8	6.9	30.8	33.9	94.00	86.84	7.7	7.8	5.0	TNTC	95.0	300.0	95.0	300.0	19.0	22.0		RIPPLE		SHOWERS	BOATING	BIRDS	75.00	80.00
94	7	09/07/94	AB BB	AB	15.0	18.0	7.5	7.3	28.0	31.9	88.08	89.84	7.4	7.2	4.0	6.6	81.0	287.0	91.0	340.0	13.0	27.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	BOATING	WINDY	75.00	65.00
94	7	09/21/94	AB BB	AB	16.0	16.0	8.7	7.9	30.8	31.5	105.53	96.82	7.4	7.2	0.0	.	85.0	300.0	95.0	300.0	17.0	26.0	CALM	RIPPLE	CLEAR	CLEAR	LOTS OF DUCKS	DEPTH MEASURED ON SIDE	85.00	80.00
94	7	10/06/94	EL RB	EL RB	12.0	12.5	8.7	7.4	26.6	29.4	94.48	83.23	7.9	6.0	.	3.0	81.0	286.0	81.0	335.0	5.0	17.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	QUIET	NONE	60.00	120.00
94	7	10/20/94	EL AB	EL AB	12.0	12.0	8.8	8.6	31.7	30.8	88.98	86.48	8.0	7.4	5.0	1.0	115.0	302.5	115.0	340.0	14.0	15.5	RIPPLE	RIPPLE	OVERCAST	OVERCAST	LOBSTERBOATS .	BIRDS	-110.00	130.00
94	7	11/07/94	EL BB	EL AB	11.0	11.0	8.2	8.1	28.1	31.5	88.57	89.48	7.8	7.8	81.0	11.0	78.0	280.0	78.0	300.0	5.0	12.0	WHITECAPS	WHITECAPS	PT CLOUDY	PT CLOUDY	LOBSTERING	BIRDS	90.00	120.00
95	7	04/18/95	RDB NHW SET	TAB DJ CG	7.0	7.0	10.6	10.6	22.8	26.5	100.84	103.46	7.9	7.9	0.0	0.0	.	300.0	76.0	300.0	13.0	14.0	RIPPLE	WAVES	CLEAR	CLEAR	BIRDS	NONE	160.00	171.00
95	7	05/01/95	AB LC JL	BB AB EB BC	6.5	8.5	8.9	10.1	24.1	27.3	88.64	102.63	7.3	7.1	0.0	NV	.	.	65.0	280.0	8.0	11.0	RIPPLE	RIPPLE	OVERCAST	PT CLOUDY	BIRDS	NONE	114.00	157.00
95	7	05/15/95	EL RJ ST	EL ET	10.0	9.0	8.4	8.3	25.7	28.6	87.37	88.08	.	7.8	10.0	4.0	60.0	207.5	60.0	290.0	12.0	9.5	CALM	WAVES	SHOWERS	SHOWERS	GEESE	NONE	140.00	70.00
95	7	05/30/95	EL CG CJ	EL ET	14.5	14.5	8.7	9.0	28.4	28.0	89.43	82.95	7.7	7.8	NV	60.0	70.0	250.0	70.0	260.0	21.6	25.5	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	LOBSTERING	NONE	120.00	140.00
95	7	06/13/95	BB AB	BB AB	15.5	14.5	7.1	8.0	28.8	29.2	83.44	93.87	7.8	7.7	4.0	17.0	100.0	220.0	100.0	318.0	17.0	18.0	RIPPLE	RIPPLE	OVERCAST	SHOWERS	LOTS OF DUCKS	FISHING	40.00	40.00
95	7	06/27/95	AB BB	AB BB	18.5	17.8	6.6	6.2	28.8	28.2	107.42	101.81	7.5	7.8	2.0	10.0	116.0	286.0	115	295.0	17.0	23.0	RIPPLE	RIPPLE	CLEAR	CLEAR	DUCKS	FISHING	80.00	50.00
95	7	07/12/95	AB BB	AB BB	18.5	15.0	8.0	8.7	28.6	29.0	97.00	103.31	7.3	7.8	6.0	17.0	.	237.5	100.0	320.0	16.0	27.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	BIRDS	BOATS/BIRDS	80.00	120.00
95	7	07/27/95	BB CB	AB BB	21.0	20.0	7.3	7.1	28.8	29.1	87.15	92.48	7.8	7.8	TNTC	28.0	.	287.5	112.0	295.0	23.0	34.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	FISHING	FISH/BOAT	140.00	115.00
95	7	08/10/95	AB BB	AB BB EB	20.0	18.5	6.9	7.3	29.3	29.3	89.43	84.31	7.8	7.8	1.0	0.8	BSV	292.5	110.0	315.0	16.0	30.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	FISHING	BOATING	100.00	120.00
95	7	08/28/95	BB IL	RB AB	17.8	18.0	7.2	7.8	30.8	30.2	90.18	94.71	7.8	7.8	NV	NV	BSV	BSV	115.0	315.0	17.5	25.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	FISHING	FISHING/BOATING	90.00	105.00
95	7	09/11/95	RB EL	AB SS	15.0	18.5	7.2	8.4	30.6	31.9	88.84	104.15	7.8	7.8	80.	0.0	BSV	BSV	103.0	320.0	13.0	22.0	CALM	CALM	CLEAR	CLEAR	LOBSTERING	BOATING AND 1 MALLARD	115.00	105.00
95	7	09/26/95	RB EL	EL RB	13.6	13.0	7.6	7.8	30.2	30.8	87.74	89.37	7.8	7.8	5.0	2.0	BSV	315.0	120.0	345.0	14.0	16.0	RIPPLE	RIPPLE	OVERCAST	SHOWERS		LOBSTERING	135.00	135.00
95	7	10/10/95	RB EL	RB EL	15.0	14.0	7.7	7.6	30.0	30.4	87.07	88.70	7.9	8.0	2.0	0.8	BSV	BSV	120.0	330.0	8.5	21.0	RIPPLE	RIPPLE	CLEAR	CLEAR	FISHING	BOATS	90.00	120.00
95	7	10/26/95	RB EL	RB EL	11.0	11.5	7.8	8.0	26.4	28.8	84.56	87.74	7.8	7.8	11.0	23.8	115.0	307.0	118.0	350.0	0.0	18.0	CALM	RIPPLE	OVERCAST	PT CLOUDY	DUCKS BIRDS ETC	BOAT CORMORANTS	105.00	90.00
95	7	11/08/95	RB EL AB	BB AB IL	12.0	7.0	8.3	8.8	20.0	24.4	97.48	84.72	7.8	7.8	28.0	25.0	140.0	195.0	140.0	330.0		1.5	ripple	RIPPLE	partly cloudy	CLEAR	many ducks	FISHERMAN NEAR SAMPLIN	.	150.00

Site 9 - Cocheco River

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm				oc									
91	9	04/14/91	NN JH	NN JH	9.0	11.0	10.2	10.0	3.5	6.2	90.47	94.30	7.1	7.0	.	.	.	.	.	.	0.0	10.0	calm	calm	clear	clear	2 boats	2 boats		
91	9	04/28/91	AR JH	AR JH	13.0	14.0	9.0	9.2	2.8	6.0	97.16	92.10	7.4	7.2	.	.	.	.	.	.	8.0	11.0	ripple	ripple	pt cloud	pt cloud				
91	9	05/13/91	NN JHCC	NN JHCC	10.0	18.0	9.3	9.2	3.2	5.9	86.96	89.76	7.1	6.8	.	.	.	.	.	.	10.0	22.0	br h2o	br h2o	pt cloud	pt cloud	cormorant	cormorant		
91	9	05/27/91	JH NN	JH NN	18.0	21.0	6.8	6.0	7.6	11.8	84.11	71.92	7.0	7.2	.	.	.	.	.	.	13.0	20.0	br h20	br h20	overcast	overcast	4 boat	4 boat		
91	9	06/11/91	JH JJ NN	JH JJ NN	19.5	23.0	4.8	6.6	9.8	4.6	62.40	67.13	7.1	7.2	.	.	.	.	.	.	18.0	28.0	calm	calm	pt cloud	pt cloud	fish jump	fish jump		
91	9	06/26/91	NN JH	NN JH	19.5	22.5	7.3	10.0	9.3	18.1	83.92	127.81	7.4	7.8	.	.	.	.	.	.	18.0	27.0	calm	calm	clear	clear	POTW stopped	POTW stopped		
91	9	07/11/91	NN JH	NN JH	19.5	21.0	8.3	4.9	18.6	24.8	75.40	89.40	7.2	7.6	.	.	.	.	.	.	17.0	22.0	ripple	ripple	clear	clear	fish jump	fish jump		
91	9	07/26/91	NN JH	NN JH	23.5	23.0	6.8	6.3	18.0	26.4	75.40	84.77	7.6	7.6	.	.	.	.	.	.	20.0	23.0	calm	calm	showers	showers	murky h2o	murky h2o		
91	9	08/08/91	JH NN CN	JH NN CN	21.5	21.5	6.7	7.0	19.5	27.2	84.75	92.85	7.4	7.6	.	.	.	.	.	.	17.0	24.0	calm	calm	pt cloud	pt cloud	pine pollen	pine pollen		
91	9	08/26/91	NN JH	NN JH	18.9	21.0	7.0	6.3	2.1	3.4	78.84	72.24	6.9	6.9	.	.	.	.	.	.	13.0	24.0	ripple brownh20	ripple brownh20	clear	clear	fish,birds	fish,birds		
91	9	09/07/91	NN JH	NN JH	18.0	22.0	6.0	7.9	7.2	13.6	69.18	87.57	6.8	6.8	.	.	.	.	.	.	12.0	29.0			clear calm br h2o	clear calm br h2o				
91	9	09/23/91	NN JH	NN JH	14.5	17.0	7.1	7.7	6.3	10.8	72.44	84.82	7.2	7.0	.	.	.	.	.	.	1.0	16.0	ripple	ripple	clear	clear				
91	9	10/08/91	NNJH	NNJH	15.0	15.0	8.8	8.0	3.0	5.1	90.08	81.06	7.0	7.0	.	.	.	.	.	.	14.0	18.0	ripple	ripple	overcast	overcast	highest high tide	highest high tide		
91	9	10/22/91	JH SJ NN	JH SJ NN	10.0	11.0	10.0	8.9	2.2	4.8	90.14	83.33	7.3	7.0	.	.	.	.	.	.	5.8	10.5	ripple	ripple	pt cloud	pt cloud	Oceanic	Oceanic		
91	9	11/05/91	NN JH	CC JH	7.0	8.0	10.0	10.0	4.8	8.7	85.15	88.23	7.2	7.0	.	.	.	.	.	.	-2.0	4.0	CALM	RIPPLE	OVERCAST	OVERCAST	NONE	HUNTING		
92	9	04/18/92	NN SS	SS CC	6.5	6.0	11.2	11.8	6.4	9.0	92.10	100.76	7.3	6.8	.	.	.	.	.	.	-8.0	6.5	calm	ripple	clear	overcast ripple	seagulls			
92	9	05/02/92	JH NN	JH NN	11.0	12.8	9.4	9.6	4.9	6.3	89.01	92.76	7.0	7.0	.	.	.	.	.	.	10.0	18.0	calm	ripple	overcast	overcast	seagulls, ducks			
92	9	05/16/92	NN	NN JT	16.0	16.5	8.5	8.4	6.3	9.2	87.67	88.48	7.4	7.3	.	.	.	.	.	.	9.5	18.0	calm	calm	showers	overcast				
92	9	06/01/92	NN	SS CC	14.0	13.8	7.8	9.1	9.8	14.5	78.31	84.81	7.1	7.3	.	.	.	.	.	.	10.0	10.0	calm	ripple	showers	showers	new mooring			
92	9	06/14/92	NN	JH	19.8	22.5	6.4	6.5	7.0	11.5	72.66	90.89	7.1	7.1	.	.	.	.	.	.	19.0	28.0	calm	calm	clear	clear	no hilde sample	boating cormorants		
92	9	06/28/92	SS NN	SS NN	17.5	22.0	6.7	6.5	11.1	19.5	74.70	82.99	6.7	7.6	.	.	.	.	.	.	13.5	28.0	calm	ripple	clear	pt cloudy	boating	boating		
92	9	07/14/92	NN	NN SS	20.5	20.0	6.7	7.2	17.0	20.5	82.41	88.44	7.8	7.6	.	.	.	.	.	.	18.0	19.0	calm	ripple	overcast	showers	boating			
92	9	07/28/92	NN	JT NN	20.6	22.0	7.1	9.1	16.3	18.1	88.06	110.92	7.5	7.6	.	.	.	.	.	.	15.0	27.0	calm	.	clear	clear				
92	9	08/12/92	NN	NN SS	20.5	22.0	6.5	8.3	8.8	16.7	78.40	104.30	7.0	7.4	180.0	62.0	.	.	.	.	14.0	24.0	calm	.	clear	clear	boating	fishing		
92	9	08/27/92	CC JJ	SS	22.0	25.0	6.9	8.4	8.8	17.4	83.51	111.81	6.8	7.5	22.0	150.0	.	.	.	.	22.0	27.0	calm	calm	showers	hazy		boating		
92	9	09/10/92	SS	SS	19.0	23.0	8.3	8.1	9.2	16.1	84.43	103.33	6.9	8.4	1010.0	nbd	.	.	.	.	20.0	27.0	calm	.	foggy	ptcloudy				
92	9	09/26/92	NN	NN CN	14.5	18.0	8.0	8.8	12.8	20.3	84.82	98.22	7.0	7.6	.	.	.	.	.	.	10.5	17.0	calm	ripple	overcast	overcast		fishing boating		
92	9	10/11/92	SS	NN	13.0	14.0	8.2	8.4	7.8	9.4	81.73	80.30	7.0	7.1	.	.	.	.	.	.	13.0	18.0	calm	calm	overcast	overcast		boating		
92	9	10/24/92	NN	NN SS	9.0	10.5	10.2	8.6	4.8	13.5	82.23	83.77	7.0	7.1	.	.	.	.	.	.	7.0	15.0	calm	calm	ptcloudy	cloudy				
92	9	11/08/92	SS	SS	3.8	6.0	11.3	11.6	5.4	6.0	87.20	93.78	6.8	6.8	170.0	60.0	.	.	.	.	-8.0	2.0	calm	.	clear	clear				
93	9	04/21/93	NN JM	NN JM	10.0	11.5	10.1	10.2	0.0	0.0	88.82	94.02	7.1	7.2	20	70.0	17.0	118.0	17.0	180.0	18.0	19.0	calm	ripple	ptcloud	ptcloud	quiet	geese		
93	9	05/05/93	NN JM	NN JM	17.0	17.0	8.9	8.6	0.0	2.9	92.60	88.73	7.1	7.0	420	100.0	24.0	100.0	24.0	250.0	17.0	22.0	calm	ripple	overcast	ptcloud	quiet			
93	9	05/20/93	NN JM	NN JM	15.0	15.0	7.8	7.4	4.7	8.8	78.73	80.00	7.0	6.9	260	140.0	20.0	118.0	20.0	400.0	11.0	13.0	calm	ripple	overcast	overcast	quiet	boating		
93	9	06/04/93	NN JM	NN JM	15.0	17.0	8.1	8.0	6.9	10.8	83.30	88.22	6.8	7.0	240	100.0	20.0	180.0	20.0	200.0	10.0	20.0	calm	ripple	clear	ptcloud		boating		
93	9	06/23/93	JM BK	JM BK	21.0	20.6	6.5	7.8	14.0	18.3	78.88	97.38	7.0	7.3	600	100.0	.	.	.	176.0	19.0	21.0	waves	ripple	clear	clear	boating			
93	9	07/06/93	JM	JM	24.0	26.5	7.5	8.2	12.8	20.4	88.88	114.84	7.8	7.8	.	.	.	.	.	400.0	30.0	32.0	ripple	ripple	clear	clear	loon	fishing		
93	9	07/23/93	NN JM	NN JM	22.0	22.0	4.8	7.2	18.5	24.8	80.33	94.88	7.1	7.8	310	40.0	.	.	30.0	425.0	20.0	23.0	ripple	ripple	clear	pt cloudy	cormorant	boating		
93	9	08/05/93	NN JM	NN JM	23.0	20.0	7.3	6.8	12.4	21.1	81.24	131.60	7.3	7.7	.	.	.	.	.	400.0	22.0	29.0	ripple	ripple	pt cloudy	pt cloudy	herons	osprey		
93	9	08/19/93	NN JM	NN JM	22.0	24.0	8.3	.	15.4	21.7	86.12	.	7.1	7.5	470	10.0	.	.	.	485.0	18.0	27.0	calm	calm	overcast/foggy	pt cloudy	fish jumping	howling		
93	9	09/02/93	NN	NN	22.0	22.0	6.8	6.9	20.0	26.2	71.71	116.16	7.4	7.5	180	100.0	40.0	185.0	40.0	.	18.5	22.0	calm	ripple	clear	clear	birds and boats	boat		
93	9	09/20/93	JM	JM	16.5	18.0	7.0	8.4	17.0	24.5	77.58	112.48	7.3	7.8	320	30.0	.	.	.	440.0	12.0	15.0	ripple	ripple	clear	pt cloudy	frost and birds	heron, boating		
93	9	10/04/93	JM	JM	12.5	15.0	8.5	8.9	8.4	16.4	84.03	107.58	7.1	7.8	440	60.0	.	.	.	385.0	13.0	20.5	calm	ripple	pt cloudy	pt cloudy	green glob plants	breezy		
93	9	10/18/93	JM	JM	8.5	11.5	.	9.7	4.3	13.3	.	88.57	7.0	7.3	600	120.0	.	.	.	400.0	14.0	17.0	ripple	ripple	pt cloudy	clear	birds, mild temp	foliage tour boats		
93	9	11/08/93	JM IL	JM IL	6.0	2.0	11.1	11.0	3.8	6.0	91.86	82.45	6.8	7.5	170	90.0	.	.	.	380.0	7.8	-4.0	calm	calm	pt cloudy	clear	ducks	ice		
94	9	04/26/94	NN	NN RJ	9.0	8.0	10.2	10.1	1.4	8.4	90.48	88.50	7.3	7.3	210.0	30.0	30.0	13.0	30.0	430.0	5.8	6.0	CALM	.	SHOWERS		NONE		90.00	.
94	9	05/10/94	BK JM	BK RJ	11.5	12.0	10.1	8.5	0.0	3.4	93.00	90.27	.	7.1	600	130.0	.	.	.	650.0	12.8	18.0	.	RIPPLE	CLOUDY	CLEAR	DEER	NONE	60.00	225.00
94	9	05/26/94	AR JJ JJ	RJ BK	16.0	18.0	9.2	9.0	2.4	6.0	84.84	81.81	6.8	7.3	210.0	70.0	10.0	110.0	10.0	600.0	12.0	13.0	RIPPLE	RIPPLE	SHOWERS	PT CLOUDY	NONE	BOAT	100.00	120.00
94	9	06/09/94	NN	RJ NN	17.0	20.0	7.3	7.2	7.0	14.5	70.01	88.04	7.3	7.6	220.0	30.0	30.0	148.0	30.0	310.0	16.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	BOATING	180.00	40.00
94	9	06/23/94	JM	RJ CC JM	21.0	22.0	6.6	6.6	13.0	20.0	70.06	84.05	7.1	7.2	420.0	80.0	.	.	.	.	16.0	24.0	CALM	RIPPLE	CLEAR	CLEAR		BOATING	.	90.00
94	9	07/11/94	NN	NN	23.5	26.0	6.8	8.3	13.9	20.9	86.40	112.74	7.0	7.8	400.0	20.0	20.0	120.0	20.0	285.0	23.0	28.0	RIPPLE	CALM	CLEAR	CLEAR	MODERATE BRE	NO BOATS	80.00	90.00
94	9	07/26/94	JM	JM KG	24.0	26.0	7.4	6.7	13.6	.	84.93	.	7.7	7.7	70.0	10.0	.	.	.	445.0	22.0	27.0	RIPPLE	WAVES	FOG	PT CLOUDY		BOATING	.	.
94	9	08/09/94	BK CC	BK	20.5	23.0	7.6	7.7	16.6	26.6	91.05	103.07	7.7	7.8	600.0	0.0	.	.	.	.	18.0	23.5	CALM	RIPPLE	CLEAR	CLEAR		FISHING/BOATING	65.00	70.00
94	9	08/22/94	NN	RJ NN	20.5	20.0	7.2	8.1	8.8	16.6	84.17	87.86	7.3	7.3	.	.	40.0	130.0	40.0	.	18.0	18.0	CALM	CALM	OVERCAST	DOWNPOUR	BLUE HERON	BOATING	60.00	90.00
94	9	09/06/94	WK	BK RJ	15.0	17.5	7.8	10.6	14.1	24.0	84.12	127.50	7.7	7.4	TNTC	40.0	.	.	.	.	11.5	17.0	RIPPLE	WAVES	PT CLOUDY	VERY WINDY	NONE	BOATING	60.00	75.00
94	9	09/21/94	JM SO	BK JM	16.0	19.0	8.0	10.7	8.9	19.1	86.60	120.78	7.6	8.7	130.0	0.0	.	.	.	480.0	8.0	22.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	CANOE	80.00	60.00
94	9	10/06/94	NN	RJ NN	11.0	14.0	7.8	9.0	8.1	13.8	72.63	94.82	6.9	7.8	180.0	11.0	20.0	95.0	20.0	480.0	4.0	11.0	CALM	CALM	CLEAR	PT CLOUDY	BOATING	NONE	60.00	.
94	9	10/20/94	NN	BP BK	11.0	12.0	8.8	9.1	7.0	4.6	84.30	87.08	7.2	7.6	110.0	80.0	40.0	205.0	40.0	510.0	13.0	13.5	.	RIPPLE	.	OVERCAST		FISHING	.	140.00
94	9	11/07/94	NN JM	NN JM	8.5	10.0	9.0	8.8	10.7	17.1	84.25	86.85	6.9	7.5	300.0	30.0	.	145.0	.	200.0	7.0	9.0	WAVES	WAVES	PT CLOUDY	CLEAR	WINDY		.	90.00
95	9	04/18/95	BK JM	LM NN	10.0	8.0	10.9	10.4	1.8	0.1	88.09	94.70	7.1	7.2	20.0	11.0	BSV	117.5	30.0	400.0	10.0	11.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BIRDS	NONE	.	90.00
95	9	05/01/95	JM BK	NN LM	10.0	11.0	9.9	9.8	4.4	9.7	89.91	94.40	7.0	7.0	70.0	3.0	BSV	167.5	40.0	380.0	1.0	10.0	CALM	CALM	PT CLOUDY	OVERCASTE	NONE	NONE	.	.
95	9	05/16/95	JM	JM LM	7.0	8.0	8.5	8.3	6.4	11.2	72.84	84.30	7.8	7.0	160.0	NV	BSV	102.0	26.0	480.0	8.0	6.0	RIPPLE	RIPPLE	SHOWERS	SHOWERS	NONE	NONE	120.00	150.00
95	9	05/30/95	JM	BK LM	17.0	19.0	7.8	7.4	4.2	8.8	74.42	84.01	6.9	7.4	130.0	100.0	BSV	.	30.0	.	18.0	23.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	NONE	BOATING	120.00	115.00
95	9	06/13/95	BK JM	BK JM	18.0	19.5	7.5	6.8	8.8	13.7	82.54	77.78	7.0	7.3	NV	80.0	BSV	117.6	30.0	420.0	15.0	18.5	CALM	RIPPLE	PT CLOUDY	OVERCAST	NONE	SAILBOAT MOTOR	120.00	120.00
95	9	06/27/95	NN JM	NN LM	20.5	19.0	7.0	7.6	10.1	20.8	82.41	81.17	7.4	7.5	670.0	NV	BSV	182.0	40.0	380.0	17.5	.	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	BOATING	BOATING	160.00	180.00
95	9	07/12/95	NN JM	NN WK	21.0	22.5	6.9	8.2	14.0	25.4	72.89	82.87	7.6	8.5	400.0	20.0	BSV	135.0	35.0	400.0	17.5	24.0	CALM	RIPPLE	FOG/HAZE	PT CLOUDY	NONE	BOATING	120.00	120.00
95	9	07/27/95	BK JM	BK DB	23.5	27.5	7.0	7.6	9.8	17.2	87.06	104.20	7.8	7.8	100.0	110.0	BSV	127.5	40.0	320.0	22.0	27.0	CALM	RIPPLE	CLEAR	PT CLOUDY	FISHING	NONE	130.00	120.00
95	9	08/10/95	LM NN	NN BK	14.5	18.5	6.8	7.0	9.8	10.3	89.73	82.08	7.4	7.8	240.0	10.0	BSV	150.0	40.0	380.0	15.0	25.0	CALM	CALM	CLEAR	CLEAR	NONE	NONE	220.00	120.00
95	9	08/29/95	LM BK	LM BK CM	12.0	13.6	7.8	10.0	17.4	29.7	81.49	110.71	7.8	8.2	NV	NV	BSV	.	40.0	.	18.5	21.5	CALM	RIPPLE	CLEAR	PT CLOUDY	NONE	NONE	90.00	210.00
95	9	09/11/95	WK JM	JAM CC	9.0	10.0	7.8	9.8	17.5	27.8	75.30	124.27	7.8	9.0	140.0	0.0	BSV	160.0	50.0	375.0	10.0	18.0	RIPPLE	RIPPLE	CLEAR	CLEAR		BOATING	.	90.00
95	9	09/26/95	BK JM	DB CC	8.0	8.0	8.8	8.2	10.0	24.8	85.86	90.78	7.8	7.8	600.0	0.0	BSV	100.0	40.0	.	13.5	14.0	CALM	RIPPLE	OVERCAST	OVERCAST			160.00	120.00
95	9	10/10/95	JM AR	CC JM	5.0	8.0	8.4	13.4	10.4	17.0	70.40	130.80	7.5	8.4	230.0	0.0	BSV	100.0	40.0	430.0	7.0	18.0	CALM	RIPPLE	CLEAR	PT CLOUDY	BOAT/FISH	BOAT/FISH	.	105.00
95	9	10/26/95	BK JM	LM JM	4.0	8.0	8.1	9.0	1.0	4.1	70.47	74.45	7.1	7.1	320.0	210.0	BSV	135.0	40.0	.	4.0	14.0	CALM	RIPPLE	PT CLOUDY	CLEAR	BIRDS		120.00	160.00
95	9	11/09/95	JM LM	JM LM	-1.0	-1.0	11.7	12.0	8.6	0.8	.	.	7.4	7.3	130.0	110.0	BSV	105.0	40.0	400.0	1.0	2.0	RIPPLE	RIPPLE	PT CLOUDY	P CLOUDY	NONE	WIND	125.00	135.00

Site 10 - Piscataqua River

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEM-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	of	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm	cm	cm	cm	0c	0c							min	min
91	10	07/11/91	JJ JB PB CC	JJ JB PB CC	20.5	26	7.1	7.8	26.5	28.1	91.31	113.05	7.6	7.9	•	•	•	•	•	•	21.0	27.0	ripple	ripple	clear	clear	open site	open site		
91	10	07/26/91	JB JJ CC	JB JJ CC	23.0	23	6.9	9.6	27.4	31.5	93.95	133.98	7.7	7.5	•	•	•	•	•	•	21.0	23.0	calm	calm	shwe	shwe	minnows	minnows		
91	10	08/08/91	JJ KG	JJ KG	21.0	22	7.7	7.9	28.9	33.2	102.04	109.46	7.7	7.4	•	•	•	•	•	•	19.0	25.0	ripple	ripple	overcast	overcast	fishing	fishing		
91	10	08/24/91	JJ JJ	JJ JJ	20.0	23	7.4	7.8	8.0	3.5	85.30	92.97	7.0	6.9	•	•	•	130.0	•	•	18.0	28.0	CALM	CALM	CLEAR	CLEAR	boating	boating		
91	10	09/07/91	JJ PB	JJ PB	19.0	20	7.2	6.8	17.6	25.9	85.90	112.40	7.4	6.9	•	•	•	180.0	•	•	19.0	25.0	calm blue h	calm blue h	clear	clear				
91	10	09/23/91	JJ JJ	JJ JJ	15.0	16	8.2	7.5	14.5	28.1	87.02	88.76	6.9	6.9	•	•	•	•	•	•	14.0	18.0	ripple	ripple	overcast	overcast	boats,quiet	boats,quiet		
91	10	10/07/91	AR TD	AR TD	12.0	13	8.3	7.6	6.6	23.5	80.32	84.06	7.4	7.8	•	•	•	170.0	•	•	5.0	15.0	calm	calm	ptcloud	ptcloud				
91	10	10/23/91	KG	KG	9.0	12	8.2	8.8	9.3	20.3	84.42	93.40	7.4	7.7	•	•	24.0	180.0	•	•	5.0	18.0	ripple	ripple	clear	clear	higher tide	higher tide		
91	10	11/06/91	KG	AR SM	6.0	8.	9.0	9.0	14.2	21.4	78.18	87.97	7.4	7.4	•	•	54.0	220.0	•	•	2.0	8.5	RIPPLE	CALM	OVERCAST	OVERCAST	NONE	BOATING		
92	10	04/16/92	BW RW	BW RW	5.5	6.	11.2	11.2	10.3	22.2	94.97	105.00	7.3	8.1	•	•	80	176	•	•	0.0	8.0	calm							
92	10	05/01/92	BW RW	BW RW	10.5	14	10.0	10.3	8.7	15.4	94.87	110.75	7.5	7.8	•	•	210	220	•	•	7.0	24.0	calm	calm			seagulls,cormorant	cormorants		
92	10	05/15/92	BW RW	BW RW	15.5	14	8.7	9.4	13.9	21.0	94.69	104.64	7.4	7.7	•	•	65	135	•	•	11.0	14.0	whitecaps	ripple			boating windy	boating		
92	10	06/01/92	BW RW	BW RW	14.5	13	7.6	8.3	18.2	24.8	83.10	92.44	7.8	7.8	•	•	55	140	•	•	9.0	9.0	waves	ripple						
92	10	06/15/92	JJ JJ	JJ JJ	20.5	21	6.8	7.6	14.8	20.0	82.18	98.41	7.2	7.8	•	•	80	130	•	•	18.0	23.0	ripple	ripples			boating	boating		
92	10	06/30/92	BW RW	BW RW	21.5	18	9.0	8.2	25.2	28.8	104.62	103.50	8.1	7.9	•	•	85	135	•	•	32.0	29.0	ripple	ripple			boating	boating		
92	10	07/14/92	BW RW	BW RW	19.4	17	8.0	8.3	23.1	28.4	98.59	101.65	7.7	7.9	38.0	21.0	110	205	•	•	18.0	18.5	calm	ripple			docks	fish jump		
92	10	07/29/92	BW RW	BW RW	20.4	19	7.9	8.7	22.1	30.0	99.65	111.63	7.8	7.9	4.0	2.0	70	180	•	•	18.0	30.0	calm	ripple			BIRDS			
92	10	08/12/92	BW RW	BW RW	20.4	20	7.0	7.7	21.3	27.7	87.00	90.43	7.8	7.7	78.0	7.0	•	235	•	•	15.0	34.0	ripple	ripple			gulls	boating		
92	10	08/27/92	BW RW	BW RW	22.4	20	8.7	7.5	22.7	30.0	113.16	96.23	7.8	7.8	28.0	22.0	•	250	•	•	20.0	28.0	calm	calm			cormorant	scum on h2o		
92	10	09/10/92	BW RW	BW RW	18.9	20	7.5	8.1	22.1	31.6	90.90	107.15	7.7	7.7	25.0	4.0	•	270	•	•	20.0	30.0	ripple	ripple			birds	fish jump		
92	10	09/26/92	BW RW	BW RW	13.4	13	8.3	7.8	23.0	30.8	90.56	89.48	7.4	7.5	•	•	•	240	•	•	11.0	18.0	waves	ripple						
92	10	10/11/92	BW RW	BW RW	14.4	14	8.1	8.3	20.4	28.2	88.82	95.68	7.3	7.7	304.0	80.0	95	300	•	•	13.0	18.0	calm	calm				boating		
92	10	10/24/92	BW RW	BW	8.4	8.	8.5	9.0	18.4	29.0	80.87	93.67	7.2	7.8	0.0	0.0	160	•	•	•	5.0	5.0	calm	calm				lobstering		
92	10	11/08/92	BW RW	BW RW	4.4	5.	9.8	10.6	14.8	21.8	87.32	95.45	7.2	7.4	•	•	•	255	•	•	-8.0	6.0	calm	ripple						
93	10	04/21/93	HB BM KM	MS KM BM	10.0	11	10.2	11.1	0.3	6.0	90.70	105.35	7.1	7.6	30.0	0.0	•	110.0	•	235.0	12.5	19.5	calm	waves	pt cloud	windy pt cloud	no seccl	8cormorants		
93	10	05/06/93	MS KK BM	RW KK BM	16.5	16	8.0	8.6	6.3	18.3	83.59	98.17	10.0	7.0	140.0	0.0	•	250.0	•	250.0	17.0	25.0	ripple	ripple	pt cloud	pt cloud	ph meter trouble	no dock		
93	10	05/20/93	JD JD BM	BM MC KM	13.5	13	7.1	8.0	14.7	22.7	74.74	87.45	7.4	7.8	70.0	0.0	•	60.0	25.0	220.0	11.0	14.0	calm	waves	overcast	overcast	no dock	cormorant		
93	10	06/03/93	JC SC	MC KM BM	14.0	15	7.7	8.3	14.7	24.8	81.38	95.99	7.8	8.0	40.0	0.0	•	180.0	•	230.0	9.0	22.0	calm	calm	clear	pt cloud	pile driver	no dock		
93	10	06/23/93	BM	KM HB BM	19.0	18	8.7	7.7	20.5	28.8	80.94	95.06	7.7	7.9	60.0	10.0	90.0	90.0	90.0	315.0	19.0	23.5	waves	waves	clear	clear	burette trouble	boating		
93	10	07/06/93	BM	BM	21.5	20.	8.6	8.1	23.9	29.2	85.65	105.31	7.8	8.0	10.0	0.0	90.0	215.0	90.0	315.0	27.0	33.0	calm	ripple	clear	clear	dock in	boating,birds		
93	10	07/22/93	BM WM	BM WM	21.0	18	7.0	7.9	28.1	28.4	91.33	99.46	7.8	7.9	0.0	0.0	75.0	220.0	75.0	335.0	21.0	24.5	calm	calm	clear	overcast	turbid problems	boats,birds		
93	10	08/03/93	BM	BM	22.0	21.	7.4	8.1	23.7	29.3	96.88	107.60	7.4	7.6	•	•	95.0	280.0	95.0	310.0	22.0	29.0	calm	calm	cloudy	pt cloud	fish,birds	boating,fishing		
93	10	08/19/93	BM	BM	21.5	21.	6.0	7.6	24.8	30.4	77.78	101.37	7.5	7.6	20.0	0.0	80.0	270.0	80.0	345.0	18.0	23.0	ripple	calm	foggy/haze	pt cloudy	birds	boats		
93	10	09/02/93	BM	BM	20.0	20	6.7	7.9	20.9	29.9	80.36	104.75	7.7	7.8	10.0	4.0	110.0	310.0	110.0	310.0	18.0	21.5	ripple	white caps	clear	clear	birds(28)	gulls, boat		
93	10	09/20/93	JC JD SB	BM	16.0	16	7.6	7.9	25.6	29.7	87.87	93.75	7.8	7.6	30.0	100.0	95.0	315.0	95.0	340.0	14.0	14.5	ripple	calm	clear	pt cloudy	birds	boats		
93	10	10/04/93	JD JC	KK BM	14.5	15	8.5	8.7	21.7	26.7	94.93	102.23	7.4	7.5	29.0	3.0	135.0	320.0	135.0	320.0	18.5	21.5	ripple	ripple	clear	pt cloudy	lots o' birds	great blue heron		
93	10	10/18/93	SC KK	KK MS	10.0	11	7.6	8.3	18.3	30.8	75.39	90.72	7.1	7.8	50.0	5.0	105.0	345.0	105.0	345.0	15.5	17.0	ripple	ripple	pt cloudy	clear	boating	boating		
93	10	11/09/93	JM MC BM	CM MC BM	6.5	7.	9.1	9.8	14.2	24.1	80.77	94.16	7.4	8.0	36.0	17.0	110.0	295.0	110.0	295.0	9.0	18.0	calm	calm	pt cloudy	clear	boating	a boat		
94	10	04/26/94	JC MM JM	JC KC MM JM	7.5	7.	9.8	10.4	10.6	20.8	87.00	97.78	7.3	7.9	21.0	20.0	30.0	140.0	30.0	235.0	4.5	7.0	RIPPLE	RIPPLE	SHOWERS	OVERCAST	NONE	NONE	225.00	225.00
94	10	05/10/94	JC KK BM	BM SC JC BS	13.0	15	9.6	9.5	4.8	7.8	93.03	99.01	7.3	7.5	120.0	80.0	35.0	187.0	35.0	200.0	12.0	20.0	CALM		OVERCAST		BIRDS		200.00	300
94	10	05/25/94	BM	SC KM	15.0	14	8.4	8.4	10.0	21.7	86.26	92.41	7.4	7.9	48.0	7.0	80.0	142.5	80.0	340.0	11.0	15.9	CALM	RIPPLE	SHOWERS	OVERCAST	DOCK IS IN	BOATING	90.00	140.00
94	10	06/09/94	BM KM MM	BM MS	18.7	17.	7.6	8.2	18.5	22.9	89.74	97.65	7.8	7.8	28.0	0.0	90.0	213.0	90.0	285.0	14.1	27.0	CALM	CALM	CLEAR	CLEAR	GULLS, BOATING	BOATING	210.00	18.00
94	10	06/23/94	BM	BM	20.5	19.	7.1	7.7	22.2	29.0	88.91	96.90	7.8	7.9	29.0	3.0	70.0	182.5	70.0	318.0	19.0	28.0	CALM	RIPPLE	CLEAR	PT CLOUDY	BOATING	BOATING	70.00	70.00
94	10	07/11/94	CM BM	CM BM	23.0	22.	7.3	7.7	24.7	28.8	87.15	108.41	7.8	7.9	20.0	1.0	90.0	267.0	90.0	310.0	26.0	31.0	RIPPLE	CALM	CLEAR	CLEAR	10 CORMORANTS	BOATING	100.00	160.00
94	10	07/25/94	CM BM	AR SL	24.5	22	6.4	7.0	24.7	29.8	88.09	94.98	7.7	8.5	10.0	1.0	90.0	250.0	90.0	318.0	23.0	30.0	CALM	RIPPLE	FOG	HAZE	GULLS	BOATING	100.00	
94	10	08/09/94	JC BM CM	BM KM JC	21.5	21	7.6	7.9	25.2	29.1	99.39	106.17	7.7	8.0	2.0	2.0	85.0	207.5	85.0	320.0	21.0	28.0	CALM				BOATING	BOATING	240.00	250.00
94	10	08/22/94	BM JC	JC BM	19.5	16	6.4	7.2	23.3	29.2	80.09	87.14	7.8	7.9	30.0	7.0	90.0	245.0	90.0	320.0	18.0	19.5	RIPPLE	RIPPLE	OVERCAST	SHOWERS	BOATING		145.00	165.00
94	10	09/07/94	KM HS BM	JC BM	18.5	17.	6.9	7.6	26.1	30.8	104.27	93.88	8.1	7.9	•	•	95.0	222.5	95.0	325.0	11.5	23.0	CALM	CALM	PT CLOUDY	PT CLOUDY	BOATING	BOATING	140.00	90.00
94	10	09/21/94	KM HS BM	MS BM	18.5	17	9.8	8.9	23.8	31.3	118.48	112.08	8.3	8.3	8.0	0.0	76.0	305.0	75.0	305.0	13.0	23.5	CALM	RIPPLE	CLEAR	CLEAR	GULLS (3)	BOATING	195	130
94	10	10/06/94	BM MM BS	BM	12.0	13	7.7	8.3	18.8	28.8	79.90	92.77	7.8	8.0	19.0	0.0	76.0	200.0	75.0	340.0	8.0	15.0	CALM	RIPPLE	CLEAR	PT CLOUDY	BIRDS	BIRDS	195	65
94	10	10/20/94	BM	BM SC SC	12.5	12	8.8	9.0	17.7	28.5	89.89	101.30	7.8	8.1	11.0	5.0	115.0	330.0	115.0	330.0	15.0	14.5			SHOWERS		BLUE HERON		65	195
94	10	11/07/94	BM	BM BS	10.0	10	8.0	8.0	18.8	28.9	79.71	88.35	7.8	7.8	33.0	2.0	75.0	170.0	75.0	300.0	8.0	10.0	WAVES	WAVES	PT CLOUDY	PT CLOUDY	BLUE HERON/WINDY	WINDY	65	130
95	10	04/18/95		JDM JAM	•	6.	•	10.6	•	23.2	•	104.83	•	7.8	•	1.0	•	•	•	115.0	•	14.0	•	RIPPLE	•	CLEAR	•	SEAGULLS	•	155
95	10	05/01/95		JDM JAM	•	10	•	10.5	•	22.4	•	104.86	•	7.4	•	3.0	•	•	•	205.0	•	11.0	•	RIPPLE	•	PT CLOUDY	•	SEAGULLS	•	108
95	10	05/15/95		JDM JAM	•	11	•	9.0	•	28.4	•	99.13	•	7.0	•	0.0	•	•	•	235.0	•	6.0	•	RIPPLE	•	DOWNPOUR	•	NONE	•	80
95	10	05/30/95		JDM JAM	•	17	•	7.7	•	23.0	•	81.21	•	7.4	•	4.0	•	•	•	200.0	•	25.0	•	RIPPLE	•	PT CLOUDY	•	BOATING	•	65
95	10	06/13/95	JDM JAM	JDM JAM	18.0	16	6.3	7.5	18.8	28.4	74.14	89.81	7.0	7.4	11.0	3.0	BSV	157.5	45.0	300.0	15.0	19.5	CALM	RIPPLE	OVERCAST	SHOWERS	BOATS IN THE AR	BOATING	75	70
95	10	06/27/95	JM JM	JM JM	21.0	21	7.7	8.3	22.4	28.2	88.14	108.20	7.2	7.8	NV	4.0	•	192.5	75.0	260.0	16.0	21.0	RIPPLE	CALM	PT CLOUDY	CLEAR	BOATING	BOATING	75	70
95	10	07/12/95	JM JM	JM JM	20.0	19	6.1	7.5	25.3	29.6	77.64	98.17	6.9	7.4	10.0	1.0	BSV	147.5	45.0	290.0	17.0	25.0	CALM	RIPPLE	MIST	PT CLOUDY	BOATING	NONE	140	100
95	10	07/27/95	JM JM BE	JAM JDM BE	24.0	24	6.5	6.8	24.0	28.9	88.31	85.09	7.4	7.4	TNTC	5.0	BSV	195.0	75.0	265.0	23.0	35.0	CALM	CALM	PT CLOUDY	PT CLOUDY	BOATING	BOATING	180	125
95	10	08/10/95	JDM JAM	JDM BE	21.0	24	5.3	6.7	22.8	29.2	87.83	83.08	7.2	7.4	11.0	2.0	BSV	227.5	65.0	300.0	15.0	28.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	BOATING	180	105
95	10	08/28/95	JM JM BE	JM JM BE	19.0	19	8.6	7.8	26.8	30.8	108.09	100.77	7.6	7.8	NV	NV	BSV	197.5	65.0	290.0	17.0	31.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	NONE	JET SKIS	105	130
95	10	09/11/95	JDM BTE	JJ BTE	15.5	17	8.8	7.8	27.8	31.8	101.84	97.48	8.0	7.3	6.0	0.0	BSV	170.0	60.0	200.0	14.0	21.0	CALM	CALM	CLEAR	CLEAR	BOATING	BOATING	90	140
95	10	09/26/95	JM JM BE	JAM ADM	14.0	14	7.9	8.1	28.9	30.8	90.22	94.87	7.1	7.6	8.0	5.0	BSV	212.5	75.0	315.0	14.0	15.0	CALM	RIPPLE	OVERCAST	SHOWERS	SEA GULLS	BOATING	115	100
95	10	10/10/95	JM JM	JM JM BE	12.0	15	8.8	7.9	23.2	30.2	84.10	94.05	7.1	7.8	23.0	0.0	BSV	245.0	80.0	285.0	10.0	18.0	CALM	CALM	CLEAR	CLEAR	BIRDS	BIRDS	90	300
95	10	10/26/95	JM BE	JM BM	11.0	13	7.9	7.7	11.4	27.4	76.87	86.40	6.4	7.1	TNTC	5.0	BSV	170.0	70.0	320.0	8.0	14.0	CALM	RIPPLE	OVERCAST	CLEAR	BIRDS	SMALL FISH	95	65
95	10	11/09/95	JM JM	JM JM	4.5	5.	10.7	9.4	5.3	18.4	85.81	81.29	7.1	7.0	0.0	83.0	BSV	157.5	100.0	305.0	2.0	4.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR			100	100

Site 11- CML

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH_H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ml	CFU/100ml	cm	cm	cm	cm	oc	oc							min	min
91	11	04/13/91	PH JC SD	PH JC SD	8.1	8.2	10.4	10.6	27.8	28.8	100.00	99.85	7.4	7.5	.	.	.	.	.	.	5.0	8.0	.	.	.	.	.	.		
91	11	04/28/91	SD PH	SD PH	8.0	8.8	9.1	9.1	25.1	23.8	90.00	90.41	7.6	7.5	.	.	.	.	.	.	7.5	8.4	.	.	.	.	.	.		
91	11	05/13/91	PH JC SD	PH JC SD	9.1	9.0	9.2	7.2	27.0	26.8	83.80	73.27	7.2	7.4	.	.	260.0	105.0	.	.	21.0	18.0	.	.	pt cloud	pt cloud	.	.		
91	11	05/27/91	PH JC SD	PH JC SD	11.8	12.6	8.5	8.2	28.8	28.0	93.23	91.38	7.6	7.5	.	.	.	.	.	.	13.0	16.0	.	.	overcast	overcast	.	.		
91	11	06/12/91	JC PH	JC PH	.	10.6	.	9.4	.	29.6	.	90.67	.	.	.	.	.	.	.	.	.	22.6	.	.	.	.	.	.		
91	11	06/26/91	JC SD MP	JC SD MP	13.0	13.2	7.1	7.4	30.7	29.8	81.40	84.34	7.8	7.7	.	.	.	180.0	.	.	26.0	26.0	.	.	.	.	.	.		
91	11	07/10/91	JC SD	JC SD	13.6	13.0	7.4	8.2	30.8	30.0	85.77	93.68	7.1	7.7	.	.	.	.	.	.	21.6	22.0	.	.	.	.	.	.		
91	11	07/29/91	PH	PH	.	12.0	.	8.6	.	29.6	.	96.79	.	7.7	.	.	.	.	.	.	.	24.0	.	.	.	.	.	.		
91	11	08/08/91	SD JC	SD JC	16.8	16.5	8.8	7.0	30.0	29.5	82.48	85.47	7.7	7.7	.	.	.	.	.	.	20.0	22.6	.	.	.	.	.	.		
91	11	08/20/91	JC SD	JC SD	18.6	17.0	7.0	8.7	27.2	26.6	84.24	80.68 *		7.8	.	.		128.0	.	.	18.0	19.0	calm	calm	clear	clear	broken PHmeter	broken PHmeter		
91	11	09/09/91	PH	PH	15.6	15.5	7.1	7.0	27.2	28.1	83.74	83.06	7.7	7.5	.	.	190.0	.	.	.	22.0	18.0	ripple	ripple	clear	clear	.	.		
91	11	09/23/91	JC DM	JC DM	14.6	14.0	7.8	7.7	28.8	27.9	90.02	88.50	7.6	7.8	.	.	.	180.0	.	.	14.0	17.0	ripple	ripple	overcast	overcast	.	.		
91	11	10/07/91	JC DM	JC DM	11.0	11.5	9.0	8.6	29.0	27.2	87.79	83.34	7.4	7.6	.	.	.	120.0	.	.	10.0	16.8	ripple	ripple	ptcloudd	ptcloudd	.	.		
91	11	10/22/91	SD SG	JC SD SG	9.0	10.5	9.0	8.3	28.6	28.5	85.25	87.74	7.2	7.8	.	.	.	.	.	.	11.0	12.0	ripple	ripple	clear	clear	BOATING	BOATING		
91	11	11/06/91	JC DM	PH	10.0	9.0	8.3	7.8	29.0	27.0	88.23	80.01	7.0	7.4	.	.	.	.	.	.	8.0	7.0	calm	calm	ptcloudd	ptcloudd	.	BOATING		
92	11	04/16/92	PH JC	PH	6.0	4.6	11.6	11.2	28.6	24.0	107.08	101.23	.	.	.	.	180.0	188.0	.	.	.	13.6	.	ripple	clear	clear	ph meter broken	ph meter broken		
92	11	05/13/92	SD SG	SD SG	8.0	7.6	9.8	10.0	25.0	24.0	88.96	87.14	7.0	7.4	.	.	.	.	.	.	.	.	.	calm	.	overcast	no disk	no disk		
92	11	06/17/92	JC PH	JC PH	11.6	12.0	8.8	8.2	27.0	24.5	85.38	80.42	7.0	7.8	.	.	bsv	bsv	.	.	.	.	calm	ripple	clear	clear	.	no disk		
92	11	06/29/92	CN DW	CN DW	13.7	14.2	10.2	8.5	31.1	31.4	118.02	99.94	7.9	8.1	3.0	3.0	bsv	bsv	.	.	19.5	20.0	calm	calm	clear	pt cloudy	strong lab outflow	strong lab outflow		
92	11	07/14/92	DO CN SG	DO CN SG	14.2	14.7	7.8	6.0	30.8	31.3	84.28	69.84	7.8	7.7	1.0	6.0	bsv	476.0		.	14.0	18.7	calm	ripple	overcast	showers	strong lab outflow	boating		
92	11	07/28/92	DO	CN DO	16.7	15.2	9.6	8.4	31.2	29.8	104.92	98.22	8.9	7.0	6.0	4.0	bsv	335.0	340.0	.	21.0	23.0	ripples	waves	pt cloudy	pt cloudy	boating	.		
92	11	08/12/92	DO SG	CN	16.0	14.7	8.4	8.7	29.0	30.4	89.24	102.04	7.8	7.8	8.0	0.0	bsv	425.0	256.0	.	17.0	28.0	calm	ripples	clear	clear	.	fishing boating		
92	11	08/26/92	DW CN		16.2	.	8.6	.	29.8	.	100.34	.	8.2	.	2.0	2.0	bsv	.	255.0	.	20.0	.	ripple	.	hazy	.	sailboats	.		
92	11	09/10/92	CN	CN JG	15.2	14.7	8.5	8.1	30.3	31.6	100.08	95.87	8.2	8.1	21.0	7.0	bsv	445.0	285.0	.	18.0	18.0	ripple	ripple	ptcloudy	ptcloudy	boating	.		
92	11	09/26/92	CN DO	CN	13.2	11.7	8.3	8.8	31.1	30.1	98.41	96.14	8.0	8.1	2.0	3.0	bsv	370.0	180.0	.	12.0	14.0	ripple	waves	ptcloudy	clear	boating	change dock		
92	11	10/11/92	JG DO	JG DO	12.3	12.2	7.9	7.8	31.6	30.8	88.80	90.81	7.8	7.8	8.0	1.0	bsv	495.0	290.0	.	12.0	15.0	calm	calm	overcast	overcast	boating	boating		
92	11	10/25/92	JG DO	JG AR DO	8.7	10.2	8.8	7.9	30.5	30.3	90.67	94.72	7.8	7.7	14.0	20.0	bsv	495.0	180.0	.	8.0	8.0	ripple	ripple	overcast	overcast	boating	boating		
92	11	11/08/92	JG	JG	12.7	7.7	8.8	8.5	32.1	29.2	101.91	95.51	7.9	7.8	.	0.0	bsv	500.0	290.0	.	0.0	-2.0	calm	calm	clear	clear	boating	boating		
93	11	04/21/93	JG	JG	6.5	6.5	9.8	10.7	22.8	18.3	77.74	98.43	7.4	7.3	0.0	0.0	230.0	316.0	230.0	490.0	9.0	12.5	calm	ripple	pt cloudy	pt cloudy	work barge	boats at dock		
93	11	05/06/93	JG	JG	9.8	11.0	8.8	7.5	23.3	22.7	89.11	78.22	7.3	7.3	0.0	0.0	180.0	280.0	180.0	620.0	13.5	22.0	calm	ripple	showers	pt cloudy	patrol boat	State Planning		
93	11	05/20/93	JG	JG	9.0	9.6	9.5	9.1	26.8	27.2	86.60	84.52	7.6	7.4	10.0	0.0	840.0	365.0	840.0	485.0	10.0	13.5	ripple	ripple	overcast	overcast	boat at dock	barge		
93	11	06/03/93	JG	JG	9.5	10.0	4.7	8.2	28.6	27.4	49.24	86.20	7.4	7.1	0.0	0.0	600.0	270.0	600.0	610.0	10.0	16.0	ripple	ripple	clear	pt cloudy	divers	boating		
93	11	06/23/93	JG	JG	12.6	14.6	8.6	8.7	29.1	28.3	72.07	77.08	7.4	7.1	20.0	0.0	200.0	335.0	200.0	610.0	11.0	24.0	waves	waves	clear	clear	barge	windy		
93	11	07/08/93	JG	JG	16.8	16.6	8.0	7.8	30.1	28.8	72.10	82.05	7.2	8.0	0.0	0.0	210.0	410.0	210.0	600.0	10.5	24.5	ripple	ripple	clear	clear	DO reading?	DO reading?		
93	11	07/22/93	JG	JG	14.5	16.6	7.1	6.1	30.8	30.4	84.06	82.83	7.4	7.1	0.0	0.0	180.0	410.0	185.0	635.0	17.0	29.0	ripple	waves	clear	pt cloudy	muddy coliform?	boats		
93	11	08/03/93	JJ JJ	JJ JJ	18.8	18.0	7.9	8.8	.	.	.	.	7.0	8.8	.	.	220.0	480.0	220.0	600.0	18.0	26.0	calm	calm	clear	clear,fog	lobstering	boats		
93	11	08/18/93	JG	JG	17.8	18.5	8.0	4.7	32.2	32.6	101.33	88.79	7.4	8.8	10.0	0.0	180.0	450.0	180.0	850.0	18.0	23.0	calm	ripple	foggy	pt cloudy	boating	sec BOD done		
93	11	09/02/93			18.6	18.6	7.9	7.8	28.3	31.2	98.34	101.35	7.8	8.8	.	.	236.0	430.0	235.0	600.0	16.0	20.0	calm	calm	clear	clear	tanker docking	dock repairs/boat painting		
93	11	09/20/93	JJ JJ	JJ JJ	10.8	12.0	8.2	8.4	31.8	32.7	90.83	96.50	7.2	7.2	13.0	8.8	210.0	535.0	210.0	635.0	8.0	12.0	ripple	white caps	clear	clear	noisy background	dock repair		
93	11	10/04/93	JJ JJ	JJ JJ	12.0	12.0	8.0	8.1	32.2	32.0	90.72	91.73	7.1	7.1	10.0	1.0	236.0	385.0	235.0	505.0	14.0	24.0	ripple	calm	overcast	clear	boating	boating		
93	11	10/16/93			9.8	9.6	.	.	32.9	31.0 *	.	.	.	.	6.0	2.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.
93	11	11/08/93	CC	CC	8.8	7.0	8.8	8.1	30.1	31.0	81.14	91.64	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
94	11	03/21/94	CN	CN	4.0	4.0	11.8	12.3	26.0	22.0	107.71	108.34	8.0	.	.	.	330.0	420.0	330.0	480.0	8.0	6.0	RIPPLE	RIPPLE	CLEAR	.	NONE	.	20.0	.
94	11	04/26/94	CN	CN	6.8	7.0	10.4	10.4	28.0	28.8	100.00	102.30	7.7	8.0	.	.	230.0	300.0	230.0	590.0	6.0	7.0	.	RIPPLE	.	SHOWERS	.	.	.	.
94	11	04/29/94	DW AP	DW	9.6	6.0	10.7	10.0	.	27.3	.	95.00	8.0	8.0	36.0	14.0	220.0	335.0	220.0	585.0	8.5	8.0	RIPPLE	.	DOWNPOUR	SHOWERS	NONE	OUTFLOW CML	84.0	100.0
94	11	05/10/94	JG AP	DW	8.0	11.0	9.3	8.8	28.0	23.8	84.77	94.59	8.1	7.9	7.0	8.0	215.0	260.0	215.0	530.0	13.5	21.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	FISHING	OUTFLOW CML	80.0	96.0
94	11	05/19/94	KC SW CN	XC CN	8.8	8.8	9.6	8.8	25.0	25.0	97.25	94.82	8.1	7.8	.	.	316.0	390.0	316.0	565.0	13.0	8.0	RIPPLE	WAVES	OVERCAST	OVERCAST	TOURISTS	NONE	.	20.0
94	11	05/25/94	JG AP	JJ JG	10.8	10.0	.	8.8	27.7	27.7	.	93.79	8.1	8.1	2.0	2.0	185.0	510.0	185.0	640.0	11.0	19.0	CALM	CALM	SHOWERS	OVERCAST	OIL SLICK	BOATING	45.0	60.0
94	11	06/06/94	JG AP	JG	10.8	12.0	8.2	8.4	30.2	29.4	88.83	93.50	8.1	7.8	61.0	4.0	185.0	435.0	185.0	480.0	12.0	22.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	FISHING	60.0	90.0
94	11	06/23/94	JG AP	JG	12.8	13.0	8.0	8.4	30.8	30.8	88.78	98.08	8.1	7.8	TNTC	9.0	170.0	435.0	170.0	610.0	17.0	24.5	CALM	RIPPLE	CLEAR	PT CLOUDY	BOATING	BOATING	.	60.0
94	11	07/11/94	JG	JG	18.0	18.0	7.8	7.7	31.6	31.8	95.58	94.55	8.0	7.8	8.8	0.0	210.0	470.0	210.0	500.0	20.0	24.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	60.0	100.0
94	11	07/26/94	JG	JG	14.0	14.8	7.6	7.8	31.1	31.3	89.01	88.02	7.8	7.8	6.0	1.0	200.0	475.0	200.0	500.0	17.0	22.5	CALM	CALM	FOG/OVERCAST	PT CLOUDY	DIESEL FUELING	BOATING	60.0	60.0
94	11	08/08/94	DW AP	DW DM	18.5	17.0	7.8	8.9	34.2	35.2	95.65	112.30	8.0	7.8	0.0	1.0	200.0	455.0	200.0	610.0	18.5	26.0	CALM	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	85.0	.
94	11	08/22/94	JG AP	JG	16.0	16.0	7.3	7.4	31.3	31.1	87.63	88.41	8.0	7.8	10.0	4.0	190.0	445.0	190.0	490.0	18.5	17.0	RIPPLE	RIPPLE	OVERCAST	OVERCAST	BOATING	BOATING	90.0	90.0
94	11	09/07/94	AP	AP JJ	14.8	16.5	7.3	7.3	31.1	33.2	88.53	88.50	8.1	8.1	4.0	1.0	195.0	427.5	195.0	545.0	11.0	20.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	BOAT WASHING	BOATING	60.0	130.0
94	11	09/21/94	AP	AP	14	16	7	7.4	32.1	31.8	82.89	88.08	8.0	8.1	0	1	215.0	387.5	215.0	495.0	12.5	21.0	CALM	RIPPLE	PT CLOUDY	CLEAR	GULLS/BOAT WA	BOATING	60.0	60.0
94	11	10/06/94	AP	AP	11.9	12.6	8.7	7.4	31.6	30.8	74.83	83.00	8.0	7.8	4.0	0.0	195.0	262.5	195.0	530.0	4.0	13.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	DOCK CONSTRU	DOCK CONSTRUCTION	.	.
94	11	10/20/94	AP	AP	11.8	12.0	8.4	8.2	31.7	31.9	83.83	82.00	8.1	8.0	3.0	0.0	262.5	367.5	305.0	505.0	13.0	16.0	CALM	RIPPLE	OVERCAST	OVERCAST	CRANE BOAT PR	WINDY/CONSTRUCTION	60.0	.
94	11	11/07/94	AP	AP	10.6	10.5	7.7	8.0	31.5	31.5	84.15	87.43	8.0	8.0	6.0	3.0	147.5	245.0	230.0	528.0	7.0	11.0	WHITECA	WHITECAP	PT CLOUDY	CLEAR	DOCK CONSTRU	.	60.0	80.0
95	11	04/16/95	JJ AP MA DS	DS MA AP	5.5	6.8	10.6	10.2	28.8	29.0	100.60	98.27	8.0	7.9	0.0	0.0	BSV	BSV	170.0	548.0	5.5	13.0	CALM	CALM	CLEAR	CLEAR	BOATS	BOATS	.	310.0
95	11	05/01/95	DS JJ AP	DS MA	5.8	8.0	10.1	10.6	28.4	29.8	97.08	107.30	8.0	8.0	1.0	0.0	BSV	435.0	270.0	535.0	.	5.0	RIPPLE	RIPPLE	OVERCASTE	OVERCASTE	SEAGULLS	SEAGULLS	102.8	160.0
95	11	05/15/95	JJ AP	MA DS AP	10.5	9.5	9.8	8.7	29.2	29.2	105.40	98.84	8.0	8.0	5.0	1.0	BSV	500.0	220.0	580.0	8.5	10.5	CALM	RIPPLES	SHOWERS	SHOWERS	NONE	NONE	100.0	235.0
95	11	05/30/95	JM JLI	DS MA	11.0	14.0	9.8	8.8	28.4	28.2	88.05	103.84	7.8	7.8	4.0	4.0	BSV	251.0	280.0	525.0	10.0	23.0	RIPPLE	RIPPLE	CLEAR	PT CLOUDY	SEAGULLS	BOATING	20.0	100.0
95	11	06/13/95	JJ AP	DS MA	12.0	13.0	8.8	8.8	29.0	30.1	98.27	100.49	7.9	7.8	11.0	12.0	BSV	307.5	200.0	545.0	14.0	17.0	CALM	CALM	OVERCASTE	OVERCASTE	BIRDS	BOATING	72.0	90.0
95	11	06/27/95	JJ AP	DS MA	14.0	16.8	8.8	8.7	30.2	29.8	102.48	104.21	7.8	7.8	3.0	0.8	BSV	305.0	280.0	410.0	14.0	17.0	RIPPLE	RIPPLE	CLEAR	CLEAR	LOBSTERING	WINDY!	90.0	90.0
95	11	07/12/95	JJ JI	DS MA	13.0	14.0	8.7	8.5	30.8	32.1	98.88	100.40	7.7	7.8	2.0	4.0	BSV	487.5	220.0	570.0	16.0	25.0	CALM	CALM	HAZE	HAZE	NONE	BOATING	96.0	90.0
95	11	07/27/95	JJ JI	AR AM	18.0	18.5	8.2	7.9	30.8	31.0	103.81	101.22	7.8	7.9	20.0	1.0	BSV	420.0	280.0	500.0	21.0	28.0	CALM	CALM	HAZE	HAZE	BIRD	BOAT	72.0	100.0
95	11	08/10/95	JJ JI	DS MA AP	17.5	19.0	7.4	7.4	30.8	30.8	92.78	95.00	7.8	7.8	0.0	0.0	BSV	415.0	240.0	570.0	18.0	28.0	CALM	CALM	CLEAR	CLEAR	NONE	BOATING	72.0	130.0
95	11	08/28/95	DS AP	JJ JI	15.0	16.5	7.4	8.1	32.0	31.8	89.11	88.47	7.8	7.8	3.0	0.0	BSV	415.0	270.0	560.0	15.0	28.0	CALM	CALM	CLEAR	CLEAR	BOATING	BOATING	60.0	102.0
95	11	09/11/95	DEB	JMM ASR	13.5	15.0	7.4	8.0	30.5	31.8	85.60	88.24	7.4	7.7	0.0	1.0	BSV	387.5	250.0	580.0	8.5	17.0	RIPPLE	RIPPLE	CLEAR	CLEAR	NONE	BOATING	120.0	230.0
95	11	09/24/95	AP CC	AP	13.5	13.5	7.8	7.8	31.4	32.0	88.44	81.13	8.0	7.8	3.0	2.0	220.0	470.0	265.0	585.0	14.0	15.0	RIPPLE	WAVES	OVERCAST	SHOWERS	NONE	NONE	120.0	90.0
95	11	10/10/95	AP	AP	13.0	13.5	7.6	7.5	31.8	30.8	87.77	88.93	.	.	3.0	0.0	BSV	390.0	280.0	575.0	7.0	17.0	RIPPLE	RIPPLE	CLEAR	CLEAR	.	.	40.0	60.0
95	11	10/24/95	AP	AP	11.0	12.0	7.4	7.7	29.8	31.0	80.73	86.82	8.0	7.8	8.0	1.0	237.5	346.0	260.0	600.0	8.0	16.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	.	.	60.0	80.0
95	11	11/08/95	AJM AP	AP	6.0	8.0	8.7	8.7	27.8	28.8	87.70	87.00	7.9	7.8	18.0	8.0	117.5	277.5	180.0	650.0	-2.0	1.5	WAVES	WAVES	PT. CLOUDY	CLEAR	NONE	NONE	125.0	140.0

Site 12 - Sewage Treatment Plant

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oc	oC	PPM	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm	cm	cm	cm	ºc	ºc							min	min
92	12	04/14/92	RD CB CY	RD	7.5	8.0	8.8	12.4	4.3	3.5	82.07	102.21	7.5	7.4	*	*	bsv	bsv	*	*	1.5	2.5	ripple	calm	snow shower	overcast	foam	*	*	*
92	12	05/01/92	AR CY CB	CY CD	11.5	10.5	9.1	9.1	4.1	3.9	85.83	83.78	7.8	7.3	*	*	BSV	BSV	*	*	12.0	18.0	ripple	ripple	pt cloudy	pt cloudy	gr plastic erosion	warm H2O outflow	*	*
92	12	05/15/92	AR JF	KM	14.0	17.5	7.8	9.7	1.8	1.5	76.21	102.87	7.5	7.3	*	*	bsv	bsv	*	*	12.0	15.0	ripple	ripple	overcast	clear	marsh hawk	swan, cormorant	*	*
92	12	06/01/92	CY AF	AF CY	18.8	15.0	8.9	9.0	3.8	3.0	72.10	91.14	7.2	7.1	*	*	20	80	*	*	8.0	10.0	calm	ripple	downpour	overcast	tp outflow	2 ducks2 ducks	*	*
92	12	06/03/92	JF RC RM	JF CB RC	22.8	25.0	6.4	8.2	8.8	5.5	77.33	101.88	6.7	7.3	*	*	bsv	85	*	*	20.0	32.0	calm	ripple	clear	clear	no hilde sample	1 duck	*	*
92	12	06/15/92	KB JF	KB JF	19.0	23.0	6.5	8.0	3.7	4.2	71.77	95.70	7.0	7.1	*	*	*	*	*	*	29.0	22.0	calm	calm	clear	pt cloudy	tern, canoe, ducks	*	*	*
	12	06/30/92	JF RC RM	JF CB RC	22.8	25.0	6.4	9.2	8.8	5.5	77.3	102.5	6.7	7.3	2.0	23.0	*	85	*	*	26.0	32.0	CALM	RIPPLE	CLEAR	CLEAR	*	*	*	*
92	12	07/13/92	JF RN RC SC	RM JF CB RC	22.5	25.0	7.5	6.5	8.1	5.8	90.73	81.41	7.1	7.0	450.0	280.0	bsv	bsv	*	*	24.0	33.0	calm	ripple	overcast	pt cloudy	*	*	*	*
92	12	07/26/92	SC CS JF	RM CB JF SC	21.0	23.5	4.4	8.8	3.9	7.3	52.80	105.85	7.2	7.1	30.0	480.0	bsv	bsv	*	*	22.0	25.0	calm	ripple	clear	pt cloudy	foamy h2o	outflow	*	*
92	12	08/13/92	RC CB RM JF	RM JF CB RC	21.0	22.0	8.3	8.2	5.1	4.7	72.90	90.51	7.8	7.8	0.0	200.0	bsv	bsv	*	*	22.0	25.0	calm	ripple	overcast	PTCLOUD	ducks	*	*	*
92	12	08/27/92	RC SC CB JF	RC SC KC JF	22.0	25.0	8.4	8.4	3.3	4.8	88.14	104.44	7.0	7.2	1850.0	40.0	bsv	bsv	*	*	21.0	30.0	CALM	calm	FOG	clear	*	outflow	*	*
92	12	09/11/92	RC JF SC RM	AF JF	21.0	20.0	5.7	8.0	3.3	5.1	85.33	80.78	7.1	7.0	870.0	4870.0	bsv	bsv	*	*	20.0	24.0	*	*	overcast	*	FISHING	*	*	*
92	12	09/26/92	RC RM SC CS	RM RC SC	17.0	18.0	7.2	8.4	3.2	2.8	70.13	80.51	8.4	8.0	100.0	20.0	bsv	bsv	*	*	5.0	18.0	*	ripple	clear	ptcloud	*	boating	*	*
92	12	10/12/92	RC KW SC	RC SC	18.0	14.5	8.3	8.8	4.3	4.8	88.40	89.85	7.4	7.2	100.0	330.0	*	*	*	*	14.0	18.0	*	*	*	*	*	*	*	*
92	12	10/26/92	RC	CS	12.0	11.0	8.3	10.8	5.8	1.3	88.03	89.14	7.2	7.0	*	80.0	bsv	bsv	*	*	7.0	11.0	ripple	*	ptcloudy	clear	*	*	*	*
92	12	11/08/92	RC CS	RM RD MA SA	13.0	10.0	10.1	10.0	3.4	5.5	90.14	81.06	7.0	7.1	30.0	30.0	*	bsv	*	*	15.0	*	calm	*	clear	*	*	*	*	*
93	12	04/21/93	CB RD KB	CB RC KW	12.0	12.0	7.8	11.0	2.4	2.7	71.61	104.12	7.3	7.1	70.0	100.0	bsv	bsv	20.0	22.0	18.0	31.0	ripple	ripple	pt cloudy	pt cloudy	dead raccoon	dead animals	*	*
93	12	05/08/93	AS CB RM	KB CB KW	14.5	19.0	8.4	9.1	3.1	3.7	64.15	100.40	7.3	7.3	40.0	500.0	*	40.0	*	40.0	21.0	32.0	calm	calm	overcast	pt cloudy	humid	dead animal	*	*
93	12	05/20/93	CB RC	AS SC	17.0	17.0	9.6	9.1	3.5	3.2	50.31	80.22	*	7.1	100.0	300.0	30.0	75.0	30.0	75.0	16.0	18.0	ripple	ripple	overcast	pt cloudy	birds nesting	boating fishing	*	*
93	12	06/03/93	AS SC RC	RC KB	18.5	18.0	6.6	7.5	1.8	5.1	68.53	83.44	6.8	6.8	100.0	100.0	*	*	*	*	20.0	21.0	ripple	calm	clear	clear	foam	ducks	*	*
93	12	06/23/93	KB	KB FB	20.0	21.5	5.1	9.2	1.4	7.0	50.78	100.57	6.8	6.8	10.0	500.0	*	*	*	*	30.0	27.0	ripple	ripple	hhh	humid	boating	foam	*	*
93	12	07/08/93	CS RC	RC CS	26.0	25.0	7.0	10.8	10.0	17.0	100.30	145.54	7.3	7.4	10.0	30.0	*	*	*	*	30.0	38.0	calm	ripple	hhh	hhh	*	buggy muddy	*	*
93	12	07/22/93	KB RM	RC RN	23.0	23.0	8.2	8.1	17.7	23	101.09	107.47	8.8	7.3	10.0	80.0	*	*	*	*	20.0	24.0	calm	ripple	pt cloudy	overcast	rain yesterday	boating	*	*
93	12	08/03/93	RC	KB CS	25.0	28.0	8.3	10.4	10.5	18.1	111.26	140.82	7.2	7.8	130.0	600.0	*	*	*	*	28.0	32.0			clear	clear	foam	boats	*	*
93	12	08/19/93	JF SC	HP JF	22.0	23.5	4.7	8.8	1.8	8.8	54.49	84.13	7.1	7.3	0.0	2300.0	*	*	*	*	20.0	33.0	calm	ripple	overcast	clear	quiet	ducks,boats	*	*
93	12	09/02/93	SC HP AR	JN KF JF	23.0	24.5	5.1	8.4	8.8	22.5	58.08	88.87	6.8	7.0	0.0	80.0	*	BSV	*	*	30.5	38.5	calm	ripple	clear	clear	foam in outflow	birds	*	*
93	12	09/20/93	AR JJ	KB AF	17.0	18.5	8.4	7.5	25.4	20.2	78.83	88.47	7.1	7.4	80.0	800.0	bsv	bsv	bsv	bsv	18.0	18.5	ripple	ripple	pt cloudy	pt cloudy	muddy	crickets, birds	*	*
93	12	10/04/93	SC AR	AR JJ	17.0	15.0	7.8	8.2	3.4	1.3	83.02	82.31	7.2	7.1	*	150.0	20.0	80.0	20.0	80.0	22.0	22.0	calm	ripple		clear	windy	transformer out at stp	*	*
93	12	10/18/93	RC KB CB	KB CS	15.5	18.0	8.8	10.0	4.4	5.4	70.13	104.81	7.3	7.1	*	*	30.0	90.0	30.0	350.0	18.5	21.0		ripple	pt cloudy	pt cloudy	plane	pollin	*	*
93	12	11/08/93	KF SC HP	SC RC MF	13.0	8.5	4.5	9.4	0.3	1.8	42.98	81.87	7.0	7.4	*	*	bsv	*	bsv	*	11.0	17.0	calm	ripple	pt cloudy	clear	ducks/gulls	boating	*	*
94	12	04/26/94	DC KF RC	RM RC PK KF	11.5	11.0	5.1	10.8	0.7	0.8	47.19	80.02	7.4	7.0	*	*	*	*	*	*	10.0	8.0	RIPPLE	RIPPLE	OVERCAST	OVERCAST	BIRDS	BIRDS	150.0	45.0
94	12	05/10/94	DC KF HP AT	HP AF JF	14.0	15.0	5.6	10.5	1.0	0.2	54.09	104.72	6.9	7.3	10.0	30.0	*	*	*	*	21.0	20.0	RIPPLE	RIPPLE	OVERCAST	CLEAR	NONE	FOAM	180.0	330.0
94	12	05/25/94	KF RC DC SS	KF RC HP DF	15.0	10.0	6.2	8.7	1.2	0.8	82.23	77.72	6.8	6.9	20.0	100.0	0.0	0.0	0.0	0.0	13.0	11.0	CALM	RIPPLE	SHOWERS	DOWNPOUR	*	BIRDS	*	*
94	12	06/08/94	RC HP AF	DF RC HP	17.5	21.0	4.7	10.3	0.6	4.0	49.51	118.40	7.1	6.9	90.0	220.0	0.0	6.0	0.0	0.0	17.0	27.0	RIPPLE	CALM	CLEAR	CLEAR	BIRDS	BIRDS	60.0	*
94	12	06/23/94	SD RM	SD PC DC	18.5	23.5	3.3	4.8	1.1	3.1	36.30	57.83	7.3	7.1	0.0	500.0	0.0		0.0	*	25.0	20.0	CALM	RIPPLE	CLEAR	OVERCAST	WATER SMELLS	FOUL ODOR	*	*
94	12	07/11/94	CS KF RM SD	CS PC SD	22.0	27.0	4.1	7.3	0.3	0.3	47.16	85.85	7.1	7.8	10.0	100.0	5.0	5.0	5.0	5.0	24.0	30.5	CALM	CALM	CLEAR	CLEAR	NONE	NONE	60.0	80.0
94	12	07/25/94	CS JN	JN CS	24.0	28.0	3.6	6.8	1.8	11.4	43.38	80.72	6.9	7.4	1690.0	1.0	*	*	*	*	28.0	33.0		RIPPLE		PT CLOUDY	*	SWANS/DUCKS	*	60.0
94	12	08/08/94	PC KF SD	KF MD SD	22.5	25.5	6.8	8.3	7.0	12.8	82.08	121.37	7.1	7.8	*	*	*	*	*	*	22.0	28.0	CALM	CALM	CLEAR	CLEAR	FOAM ON OUTFLO	BREEZY	*	90.0
94	12	08/22/94	KF DC CS	RM AR	22.0	20.5	7.7	8.0	1.4	2.3	88.08	80.32	7.4	7.4	*	*	*	10.0	*	10.0	10.0	17.0	CALM	RIPPLE	SHOWERS	SHOWERS	*	CROWS/BLUEJAYS	*	100.0
94	12	09/07/94	AR JJ	AF PC DF DC	21.0	20.0	5.3	8.0	1.4	2.4	59.57	80.48	7.2	7.8	0.0	0.0	*	*	*	*	18.0	25.0	CALM	RIPPLE	PT CLOUDY	PT CLOUDY	MOSQUITOS	*	70.0	*
94	12	09/21/94	JN PC DC CS	RM HP SD	20.5	21.0	4.8	8.8	1.1	2.4	54.07	101.52	6.9	7.0	*	*	*	*	*	*	18.0	24.0	CALM	RIPPLE	CLEAR	CLEAR	*	GULLS	*	*
94	12	10/08/94	MG SS KR SD	KF DC SS	17.0	14.0	10.5	8.1	8.8	2.4	172.03	80.80	7.1	7.1	*	*	*	*	*	*	13.0	14.0	CALM	RIPPLE	*	*	PIPE FLOWING FRO	BIRDS, FOLIAGE	135.0	*
94	12	10/20/94	SS RL BB	RL SS SD	16.0	13.0	7.0	10.8	8.8	0.0	71.24	85.35	7.1	7.1	*	*	*	*	*	*	15.0	15.0	*	CALM	*	OVERCAST	*	FALLEN LEAVES ON WATER		*
94	12	11/07/94	SS AF		16.0	*	*	*	8.0	*	*	*	7.3	*	*	*	0.5	*	0.5	*	10.0	*	RIPPLE	*	CLEAR	*	SWANS (3)	*	60.0	*
95	12	04/18/95	AF AP	AP	11.5	11.0	4.4	10.0	0.5	0.0	42.32	80.33	7.2	7.4	*	0.0	*	*	3.0	45.0	19.0	18.0	RIPPLE	RIPPLE	CLEAR	CLEAR	SEWER DISCHARGE	*	120.0	*
95	12	05/01/95	AF KF	AF JF	13.0	13.0	4.8	8.7	0.5	0.0	43.08	82.48	7.3	7.3	NV	33.0	*	*	*	65.0	9.5	12.0	CALM	RIPPLE	OVERCASTE	PT CLOUDY	SEWER DISCHARGE	*	75.0	60.0
95	12	05/15/95	AF AR	PC AF SS	14.5	13.0	4.1	8.7	0.9	0.8	40.40	82.88	6.9	7.0	0.0	0.0	*	*	*	*	*	18.0	WHT CAP	RIPPLE	SHOWERS	SHOWERS	SEWAGE DISCHARG	*	*	*
95	12	05/30/95	AF KF	AF OP	18.0	17.0	4.4	8.8	0.3	1.0	46.78	83.50	*	*	*	190.0	BSV	45.0	3.0	60.0	22.0	25.0	RIPPLE	RIPPLE	BREEZY	PT CLOUDY	BIRDS	NONE	120.0	100.0
95	12	06/13/95	AF AC	AC AF	18.8	18.5	8.0	8.7	0.8	1.2	86.80	85.74	6.9	7.1	8.0	570.0	*	*	*	90.0	18.5	18.0	CALM	CALM	OVERCAST	SHOWERS	OUTFLOW DISCHAR	POLLEN SEEN ON W	150.0	150.0
95	12	06/27/95	AF AC	AF AC JO	21.0	24.0	4.0	7.8	0.9	3.8	45.06	86.00	7.1	7.8	470.0	TNTC	*	BSV	*	50.0	21.0	22.0	RIPPLE	*	CLEAR	CLEAR	*	*	55.0	120.0
95	12	07/12/95	AF	AF AC JAM	22.0	25.0	5.2	6.7	0.8	0.8	58.07	85.24	7.3	6.8	1.0	850.0	BSV	70.0	5.0	65.0	18.5	28.0	CALM	CALM	CLEAR	CLEAR	NONE	NONE	50.0	80.0
95	12	07/27/95	OP AF	AF	23.5	28.0	1.8	3.7	1.2	7.4	22.60	50.12	6.8	6.4	50.0	TNTC	*	*	*	50.0	28.0	34.0	CALM	CALM	PT CLOUDY	CLEAR	NONE	NONE	100.0	50.0
95	12	08/10/95	AF OP	AF OP	23.0	26.5	3.4	7.0	1.4	3.2	40.13	80.07	6.8	6.9	10.0	NV	*	*	<5.0	80.0	21.0	31.0	CALM	CALM	CLEAR	CLEAR	NONE	NONE	130.0	80.0
95	12	08/28/95	JMM JAM	JMM AF	21.5	22.0	3.8	8.0	0.8	10.8	43.40	75.44	7.2	7.3	0.0	80.0	BSV	82.5	*	90.0	21.5	24.0	CALM	RIPPLE	CLEAR	CLEAR	FISHING	NONE	80.0	45.0
95	12	09/11/95	AF JM	JF	19.5	20.0	4.4	11.7	0.8	22.2	48.27	146.10	7.1	7.4	10.0	10.0	BSV	BSV	<5.0	50.0	10.0	24.0	CALM	RIPPLE	CLEAR	CLEAR	NONE	*	90.0	75.0
95	12	09/26/95	AF JM	AM AF	18.5	15.5	4.6	8.4	0.5	23.8	48.43	73.78	7.4	7.3	0.0	70.0	BSV	BSV	10.0	60.0	15.0	14.0	CALM	RIPPLE	SHOWERS	OVERCAST	NONE	NONE	80.0	80.0
95	12	10/10/95		AF AC	*	16.5	*	8.3	*	1.5	*	80.41	*	7.3	NA	40.0	*	82.5	*	100.0	*	22.0	*	RIPPLE	*	CLEAR	*	*	*	80.0
95	12	10/26/95	AF GC DB	AF AC	16.0	13.0	6.6	9.8	0.0	0.4	55.07	91.74	6.9	6.8	0.0	30.0	*	50.0	*	85.0	12.0	13.5	CALM	RIPPLE	OVERCASTE	CLEAR	SEWAGE DISCHARG	GULLS	*	55.0
95	12	11/08/95	AF RP	AC	14.0	6.0	6.4	11.0	0.0	0.0	62.39	83.09	7.1	7.2	0.0	160.0	BSV	55.0	10.0	70.0	4.0	-2.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	NONE	WIND	60.0	*

Site 13 - Marina Falls Landing

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML		cm				oC							MIN	MIN
92	13	04/17/92	SD AF KS	KS	7.8	7.0	12.2	12.4	1.8	1.8	101.86	103.83	7.3	7.3			bsv	bsv	*	*	3.8	2.8	ripple	ripple	snow	rain	snow plow	scattered foam	*	*
92	13	05/01/92	RC RD	RC RD	11.0	14.0	10.8	10.6	1.8	1.7	99.78	103.81	7.1	7.8	*	*	bsv	220	*	*	18.0	21.0	calm	calm	pt cloudy	clear	*	foamy h2o	*	*
92	13	05/15/92	CS		8.0	15.0	9.9	9.9	1.7	0.6	79.93	101.03	7.6	7.4	*	*	bsv	165	*	*	13.0	10.0	ripple	ripple	pt cloudy	clear	ducks	construction	*	*
92	13	06/01/92	CY SC	CY SC	10.5	18.0	9.9	9.2	5.5	3.0	93.14	94.98	6.9	7.1	*	*	bsv	120	*	*	10.8	11.0	waves	calm	downpour	overcast	*	ducks	*	*
92	13	06/16/92	RC AF KC	RC	21.0	21.8	7.6	6.3	3.9	2.1	88.23	84.88	7.1	7.3	*	*	90	120	*	*	22.8	27.0	ripple	ripple	pt cloudy	pt cloudy	fishing, boating	fishing, boating	*	*
92	13	06/30/92	JF CS	JF RC RM	22.0	24.8	7.6	7.1	6.2	2.8	88.81	85.80	6.9	7.3	70.0	70.0	100	135	*	*	28.0	*	ripple	ripple	clear haze	pt cloudy	no hide sample		*	*
92	13	07/13/92	JF RM RC SC	RM JF CB RC	23.9	26.0	7.4	7.4	4.7	3.0	89.10	90.83	7.3	7.3	600.0	400.0	100	70	*	*	24.0	31.0	calm	ripple	fog	clear	oil on H2O	boating	*	*
92	13	07/28/92	SC CB JF	RM RC JF SC	21.9	23.0	7.2	8.2	6.1	4.6	83.51	90.25	7.8	7.1	670.0	200.0	120	90	*	*	22.0	27.0	calm	ripple	clear	pt cloudy	br on H2O	boating	*	*
92	13	08/13/92	RC KC CB RM JF	KC JF RC RM	21.9	22.0	12.2	6.4	2.8	2.9	130.31	82.80	7.8	7.8	0.0	100.0	130	140	*	*	18.8	21.0	ripple	ripple	overcast	ptcloudy	boating		*	*
92	13	08/27/92	RC SC KC CB JF	RC SC KC JF	22.0	24.0	10.1	8.4	4.8	3.6	120.00	102.01	6.7	7.2	80.0	40.0	bsv	170	*	*	22.0	20.0	calm	calm	hazy	clear		foam on h2o	*	*
92	13	09/11/92	RC JF SC RM	CB	18.5	19.5	9.0	9.3	4.1	6.9	98.69	93.88	7.0	7.0	720.0	390.8	bsv	215	*	*	20.0	24.0	ripple	*	overcast	*	fishing		*	*
92	13	09/26/92	RM RC SC CS	SC RM RC CS	14.0	18.8	8.5	9.1	7.5	1.8	88.30	97.37	6.7	8.5	130.0	100.0	30	170	*	*	6.0	10.0	*	*	clear	*	swans geese	birds	*	*
92	13	10/12/92	RM CS	KW RC	12	16	8.5	11.8	6.8	1.7	81.90	116.83	7.1	7.3	260.0	230.0	bsv	100	*	*	10	21	ripple	*	overcast	ptcloud	boating	boating	*	*
92	13	10/24/92	RC CS SC	CS	8.8	9.8	12.8	10.9	4.3	0.0	100.62	84.77	6.9	7.1	70.0	80.0	126	140	*	*	8.0	11.0	*	ripple	ptcloudy	clear	*	swans	*	*
92	13	11/09/92	AR RM	AR RM	3.8	4.8	13.8	12.8	0.1	4.7	103.10	98.61	7.3	7.3	30.0	60.0	148	85	*	*	-2.0	8.0	calm	calm	clear	clear	docks gone	boats gone	*	*
93	13	04/21/93	RC KW KS CS	CB SC	13.0	12.0	11.1	10.8	1.0	2.0	108.43	101.81	*	*	70.0	90.0	*	*	*	*	0.0	26.0	ripple	*	overcast	pt cloudy	NO DOCKS IN	people	*	*
93	13	05/06/93	KS CS	KS KW AS	10.8	*	8.9	8.2	2.4	3.4	85.64	*	7.8	7.0	180.0	47.0	*	*	*	*	31.0	20.0	calm	calm	overcast	clear, pt cloudy	birds	ducks, geese	*	*
93	13	05/20/93	SC RC CS	RC AS	10.5	10.0	8.8	9.2	1.9	1.8	82.47	78.31	*	*	360.0	180.0	*	*	*	*	11.0	18.0	ripple	ripple	overcast	overcast	swans cormorants	fish, birds, boats	*	*
93	13	06/03/93	CB SC RC AS	CS RC	16.5	17.5	8.8	9.1	0.0	2.2	88.86	90.60	7.6	7.1	280.0	310.0	106.0	120.0	118.0	310.0	21.0	28.0	*	ripple	*	clear	oil sheen, brown h2o	geese	*	*
93	13	06/23/93	CB AS	JF KD AS	26.0	23.6	8.5	7.4	8.2	4.7	107.76	89.58	7.3	6.9	1700.0	430.0	40.0	80.0	80.0	330.0	30.0	28.0	ripple	ripple	clear	clear	cranes swans	boating	*	*
93	13	07/08/93	CS RC	RC CS	26.8	26.0	7.4	6.4	6.7	3.2	84.60	82.44	7.3	7.4	600.0	1100.0	100.0	80.0	170.0	310.0	30.0	35.0	ripple	ripple	clear	clear	boating	boats	*	*
93	13	07/22/93	CS	KS CS	22.8	22.0	8.9	7.6	9.8	4.6	100.72	89.18	7.1	7.6	1500.0	1000.0	120.0	120.0	170.0	320.0	28.0	37.0	ripple	ripple	pt cloudy	overcast	busy	brown green h2o	*	*
93	13	08/03/93	RC RM	RC CS	26.8	24.5	9.9	9.1	6.1	6.4	111.00	103.93	7.8	7.1	500.0	220.0	130.0	90.0	100.0	315.0	27.0	33.0	*	calm	clear	*	boating	boating	*	*
93	13	08/18/93	KS AS	JF RC	22.0	24.0	6.8	7.3	8.4	7.4	79.23	86.96	7.3	7.4	900.0	320.0	95.0	120.0	85.0	370.0	27.0	27.5	calm	calm	overcast	clear	midges	16 boats	*	*
93	13	09/02/93	RM HP CS	CS HP	23.8	26.0	7.4	7.0	14.2	0.8	94.27	89.91	7.8	7.3	510.0	260.0	100.0	100.0	100.0	320.0	20.5	30.5	calm	ripple	clear	clear	DES spit	swans,	*	*
93	13	09/20/93	KS JN	MS JN RM	18.8	19.0	9.1	9.1	9.9	13.8	90.60	90.09	7.3	7.0	430.0	400.0	120.0	90.0	120.0	356.0	17.0	15.0	ripple	calm	pt cloudy	pt cloudy	geese	boating	*	*
93	13	10/04/93	AR SC	JJ AR	16.0	14.0	9.8	9.9	1.3	2.7	90.32	90.98	7.3	7.2	*	130.0	190.0	106.0	100.0	320.0	22.0	21.0	ripple	*	clear	*	cormorants	ducks	*	*
93	13	10/18/93	KE JN AR CS	KS CS	11.6	13.0	9.9	10.8	3.8	1.1	90.27	106.92	7.3	7.3		*	110.0	130.0	100.0	370.0	20.0	18.0	calm	waves	pt cloudy	clear	birds!	pollen, boats	*	*
93	13	11/09/93	JF HP KF	SC RC MF	6.8	8.0	12.5	12.0	3.2	1.8	102.00	97.90	6.8	7.0		*	bsv	130.0	bsv	130.0	10.0	10.0	calm	calm	clear	clear	docks removed	ducks/geese	*	*
94	13	04/26/94	RM PC SD	SD KS JN DC	11.0	11.0	11.4	10.8	0.7	0.0	104.20	98.43	7.4	6.8		*	112.0	207.5	112.0	350.0	10.6	18.0	RIPPLE	RIPPLE	OVERCAST	OVERCAST	BIRDS	BIRDS	65.0	330.0
94	13	05/10/94	SS AF	SS MT SC	12.8	14.5	10.5	9.7	1.3	0.0	98.98	95.96	7.8	7.1	180.0	100.0	130.0	186.0	130.0	320.0	15.0	20.0	RIPPLE	RIPPLE	PT CLOUDY	CLEAR	SWANS	FOAM/SWANS	60.0	110.0
94	13	05/25/94	DF AF SD	PC AF HP SD	17.5	17.5	9.9	9.0	1.8	0.0	101.07	94.50	7.3	6.9	160.0	70.0	100.0	75.0	100.0	355.0	13.0	18.0	RIPPLE	CALM	SHOWERS	DOWNPOUR	BIRDS	NONE	*	*
94	13	06/08/94	CS DF SD	DC KF SD AF	20.0	21.0	8.0	7.8	5.1	1.6	90.22	86.12	7.6	7.4	280.0	650.0	100.0	140.0	100.0	295.0	28.0	28.0	CALM	RIPPLE	CLEAR	CLEAR	DUCKS	SWANS	120.0	*
94	13	06/23/94	JF RM SD	SD PC KF SS	22.6	26.5	7.2	8.0	4.2	2.4	86.32	90.29	7.4	7.5	400.0	320.0	90.0	100.0	90.0	340.0	28.0	28.0	CALM	CALM	CLEAR	CLEAR	BIRDS	SWANS	*	*
94	13	07/11/94	DC AF JN	KF DC AF	26.0	26.5	7.0	7.3	9.8	8.0	89.08	84.95	7.8	7.1	340.0	260.0	100.0	112.5	100.0	330.0	28.0	28.8	RIPPLE	CALM	CLEAR	CLEAR	WATER MURKY, GREE	SWANS	120.0	*
94	13	07/26/94	CS JN	CS RM PC	20.0	20.0	8.1	7.8	1.4	3.2	70.02	91.22	7.8	*	10.0	0.0	100.0	90.0	100.0	345.0	27.0	34.0	CALM	RIPPLE	OVERCAST	PT CLOUDY	DEAD FISH	*	*	*
94	13	08/09/94	PC SD	KF MD SD	23.0	26.0	7.5	7.8	7.1	0.8	81.10	86.10	7.4	7.4	*	*	92.0	90.0	100.0	300.0	20.0	30.0	CALM	RIPPLE	CLEAR	CLEAR	DUCKS	BOAT PAINTING(INSIDE	90.0	*
94	13	08/22/94	KF DC CS	AF CS	21.0	21.0	7.5	8.0	9.3	2.1	89.87	91.11	7.0	7.3	*	*	120.0	100.0	120.0	336.0	10.0	20.0	RIPPLE	CALM	OVERCAST	SHOWERS	BIRDS	*	*	90.0
94	13	09/07/94	AR JJ	CS DF	10.0	10.0	8.5	8.0	8.1	2.1	84.20	87.58	7.0	7.3	0.0	0.0	130.0	100.0	130.0	360.0	14.0	34.0	CALM	RIPPLE	OVERCAST	CLEAR	BOATS/GEESE	SWAN/DUCKS	40.0	60.0
94	13	09/21/94	KF HP SS	DF HP SD	10.5	10.0	7.8	10.0	10.1	1.9	90.00	110.45	7.6	7.0	*	*	116.0	102.5	120.0	320.0	21.0	27.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	VERY QUIET	*	*
94	13	10/06/94	SL JN RL SC AF	SL RL RO AF J	12.0	13.0	11.1	9.4	2.4	1.9	104.00	90.50	6.7	7.1	*	*	*	162.5	*	340.0	9.0	10.0	CALM	RIPPLE	CLEAR	PT CLOUDY	*	*	100.0	60.0
94	13	10/20/94	AF RO	RL SS AF	10.5	12.0	10.7	10.0	5.0	0.0	90.00	100.70	6.9	6.9	*	*	147.5	130.0	165.0	350.0	17.0	14.0	CALM	RIPPLE	SHOWERS	OVERCAST	FOG AND BIRDS	GEESE AND OTHER BIR	20.0	*
94	13	11/07/94	RL HH SD		11.0	*	9.8	*	4.8	*	91.70	*	7.8	*	*	*	*	*	*	*	10.0	*	CALM	*	CLEAR	*	WINDY	GEESE AND DUCKS	*	*
95	13	04/16/95	BS DS MA	BS MA	11.0	9.0	11.1	11.8	1.4	0.6	101.06	100.37	7.7	7.6	0.0	10.0	BSV	202.5	120.0	335.0	15.0	12.0	WAVES	RIPPLES	CLEAR	CLEAR	BIRDS	BIRDS	105.0	126.0
95	13	05/01/95	DS SS	DS BS	12.0	11.0	10.4	10.4	3.3	0.0	99.77	96.00	7.4	7.0	30.0	*	BSV	146.0	118.0	310.0	12.6	19.0	RIPPLE	RIPPLE	OVERCAST	CLEAR	BOATS AND BIRDS	BOATS AND BIRDS	65.0	66.0
95	13	05/15/95	BS JM	BS DS	12.0	13.0	9.8	10.2	1.3	0.4	90.10	97.40	7.7	8.1	0.0	0.0	97.5	142.5	100.0	340.0	11.0	10.0	RIPPLE	RIPPLE	SHOWERS	SHOWERS	BOATS DUCKS SWAN	BOATS AND BIRDS	160.0	120.0
95	13	05/30/95	BS AA MM	BS MM	10.0	10.0	8.7	9.3	1.3	1.2	82.84	90.44	7.0	7.2	120.0	110.0	BSV	120.0	118.0	300.0	21.0	24.5	RIPPLE	RIPPLE	OVERCAST	OVERCAST	BOATS AND BIRDS	BIRDS POLLEN IN WAT	120.0	120.0
95	13	06/13/95	SS MM	BS JM	20.0	19.0	7.3	7.0	6.0	3.2	83.40	86.90	7.5	7.6	0.0	230.0	BSV	117.5	85.0	335.0	21.6	18.0	RIPPLE	CALM	OVERCASTE	SHOWERS	BIRDS	NONE	97.0	112.0
95	13	06/27/95	BS MM	BS MM	22.0	25.0	7.5	7.0	7.2	3.0	80.40	84.00	7.1	6.8	810.0	830.0	112.5	186.0	120.0	295.0	19.6	23.0	RIPPLE	RIPPLE	CLEAR	CLEAR	SWANS	NONE	97.0	106.0
95	13	07/12/95	BS JM	BS DS	21.8	28.5	6.5	8.0	7.0	0.2	89.07	89.94	7.6	7.4	230.0	840.0	BSV	87.5	85.0	330.0	21.0	30.5	CALM	CALM	OVERCAST	CLEAR	BOATING	BOATING	80.0	110.0
95	13	07/27/95	BS DS	BS DS	20.5	20.0	8.4	7.1	4.8	2.2	91.44	93.00	7.2	7.7	220.0	130.0	BSV	115.0	125.0	300.0	20.0	35.0	CALM	RIPPLE	CLEAR	CLEAR	BOATING	*	*	*
95	13	08/10/95	BS MM	BS	27.0	26.0	7.2	7.5	2.6	1.7	93.77	91.92	7.8	7.0	NV	NV	BSV	132.5	95.0	330.0	22.0	31.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	95.0	106.0
95	13	08/29/95	SS	BS AR	21.5	22.6	7.4	7.0	4.2	0.4	90.50	92.50	7.4	7.4	440.0	400.0	BSV	180.0	105.0	325.0	22.0	22.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	65.0	116.0
95	13	09/11/95	JJ JJ	JF	17.0	20.0	8.1	11.7	11.0	7.0	90.73	134.58	6.9	7.0	340.0	120.0	*	90.0	60.0	290.0	15.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS, SWAINS, GEESE DUCKS UPSTREAM, PU		140.0	70.0
95	13	09/26/95	JJ JJ MM MY	MM JJ SS	10.0	15.6	8.3	9.9	20.2	20.0	83.90	110.27	7.8	8.2	600.0	TNTC	67.5	77.5	110.0	260.0	15.0	12.0	CALM	CALM	SHOWERS	OVERCAST	BIRDS	BIRDS	205.0	106.0
95	13	10/10/95	MM JM	MM SS	14.0	15.0	8.8	9.2	4.4	2.4	87.80	92.00	7.4	7.1	1100.0	60.0	BSV	197.5	110.0	340.0	10.0	10.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	BIRDS	131.0	106.0
95	13	10/24/95	DS OC	*	12.0	*	10.0	*	6.9	*	102.10	*	7.4	*	30.0	*	115.0	*	145.0	*	10.0	*	CALM	*	CLEAR	*	*	*	120.0	*
95	13	11/06/95	MM DS	MM DB	6.8	5.0	12.3	12.0	2.2	0.0	101.07	101.97	7.6	7.1	100.0	80.0	BSV	197.5	110.0	310.0	2.5	1.0	RIPPLE	RIPPLE	CLEAR	CLEAR	FOAM	FOAM	120.0	120.0

Site 14 - Fowler's Dam

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L (°C)	WTEMP-H (°C)	DO-L (mg/l)	DO-H (mg/l)	SAL-L (ppt)	SAL-H (ppt)	SAT-L (%)	SAT-H (%)	pH-L	pH-H	FECAL-L (CFU/100ML)
82	14	04/17/82	AF RC	CS CS LI	8.5	5.8	11.8	11.8	3.2	3.8	87.75	88.75	7.8	7.8	.
82	14	05/01/82	RM SC KS	SC KM	11.5	14.0	10.5	8.8	3.3	2.8	98.88	98.80	7.5	7.5	.
82	14	05/18/82	KS AF	KS AF	17.0	19.0	8.7	8.2	2.8	1.8	91.79	100.84	7.5	7.3	.
82	14	06/01/82	KM	KM	18.0	18.9	8.8	8.7	2.8	2.8	88.88	88.88	7.3	7.2	.
82	14	06/16/82	KS AF JF	KC AF JF	21.0	24.9	8.5	7.1	8.3	3.2	73.34	88.88	8.7	8.8	.
82	14	06/30/82	JF RC RM	JF CS	22.0	25.0	8.8	7.8	3.5	3.7	83.67	88.88	7.3	8.8	10.0
82	14	07/13/82	JF RM RC SC	RM JF CD RC SC	24.0	28.0	8.9	7.8	3.3	6.7	83.88	100.84	7.4	7.6	24.8
82	14	07/28/82	SC CS JF	RM JF RC SC CS	22.0	24.5	.	7.8	3.5	3.2	.	83.00	7.3	7.5	0.0
82	14	08/13/82	RC KC CS RM JF	KC JF RC RM	21.0	23.0	8.8	8.7	4.5	4.1	78.50	104.02	7.3	7.7	0.8
82	14	08/27/82	RC CS KC SC RM JF	RC SC KC JF	24.0	28.8	.	7.8	3.2	3.8	.	82.30	7.6	7.4	30.0
82	14	09/11/82	RC JF SC RM CS	.	20.0	22.0	8.3	8.3	3.2	2.8	83.34	88.82	7.3	7.4	10.0
82	14	09/26/82	RM RC SC CS	RM RC	18.0	19.0	8.8	8.8	2.5	2.8	88.88	107.38	8.2	7.8	60.0
82	14	10/12/82	.	.	14.0	15.0	8.8	.	3.5	3.0	94.47	.	7.3	7.2	180.0
82	14	10/26/82	RC	RM RC 1P	9.0	9.8	11.5	11.0	5.8	0.7	100.48	99.02	7.5	7.4	30.0
82	14	11/06/82	RM AR EW	RM AR	4.0	4.6	8.8	10.7	2.0	1.4	74.87	83.83	7.8	7.3	60.0
83	14	04/23/83	AS RC	CS CS	14.0	13.0	10.0	10.1	1.8	0.3	103.00	88.47	7.5	7.1	80.0
83	14	05/06/83	RC CS	SC RC CS	18.0	18.0	9.8	8.8	3.4	2.3	102.84	108.48	7.0	8.8	11.0
83	14	05/20/83	RC	RC KW AS	16.5	17.0	8.8	8.8	3.1	1.8	87.04	85.88	7.6	7.8	60.0
83	14	06/03/83	SC RC CS AS	RC SC	16.0	18.6	8.8	8.8	2.1	2.1	88.82	83.20	7.8	7.2	10.0
83	14	06/23/83	JF HP	HP AS	21.5	22.5	7.1	8.8	3.2	2.2	82.11	88.88	7.8	7.2	10.0
83	14	07/06/83	CS RC	RC CS	26.0	26.8	7.2	8.3	2.7	1.8	88.70	100.13	7.3	7.3	10.0
83	14	07/22/83	CS	RC	28.9	23.6	7.9	7.8	1.6	2.1	86.20	88.88	7.2	7.3	0.0
83	14	08/03/83	AS	CS AS	24.5	27.8	7.0	8.1	2.7	3.2	85.44	100.71	7.4	7.2	40.0
83	14	08/18/83	HP KS	JF HP	21.0	24.5	8.1	8.8	1.3	2.3	88.18	84.04	8.8	8.8	.
83	14	09/02/83	SC HP	CS JF	22.5	25.8	7.4	7.6	0.4	1.3	88.88	92.87	7.2	7.7	100.0
83	14	09/20/83	KS JN RC	KS JN HP RM	19.0	16.0	7.2	8.2	0.8	0.3	78.33	81.83	7.3	7.1	30.0
83	14	10/04/83	AR SC	SC MA MA	13.6	14.8	8.8	8.4	0.3	0.0	84.98	82.63	7.1	7.1	.
83	14	10/19/83	AR KN RM JH	KB CS	11.0	10.0	10.7	10.1	1.3	1.3	98.22	101.34	7.2	6.9	.
83	14	11/06/83	KF SC HP	CS RC	8.5	8.5	12.0	12.0	0.5	0.5	98.41	112.85	7.0	7.1	.
84	14	04/26/84	JH PC SD	SD DC KS	10.0	10.8	9.4	3.5	8.8	0.7	84.06	29.84	7.6	6.9	.
84	14	05/10/84	AF SS SD	HP AF	13.0	10.0	8.8	8.3	0.0	0.0	94.07	84.86	7.1	6.9	100.0
84	14	05/25/84	AF DF HP SD	PC HP DF HP	10.0	10.0	8.2	8.2	0.0	0.0	87.00	87.20	7.3	6.9	20.0
84	14	06/08/84	RC HP JN CS	DC KF SD	18.0	23.0	9.6	8.0	1.1	0.8	104.65	83.85	7.8	7.6	40.0
84	14	06/23/84	AF JF	AF HP	23.0	28.0	8.5	8.8	0.3	2.0	78.29	100.48	7.7	7.3	10.0
84	14	07/11/84	AF JN	CS DC SD	26.0	28.0	8.8	7.8	0.8	8.7	100.00	102.16	8.2	7.4	10.0
84	14	07/25/84	CS JH	CS RM PC	28.0	28.8	6.3	6.8	4.8	2.5	78.15	88.32	7.6	7.2	32.0
84	14	08/08/84	RM SD	KF MD SD	23.0	28.8	5.9	6.2	1.8	1.8	68.83	77.30	7.2	7.0	.
84	14	08/22/84	DC CS	AR	22.0	22.0	7.4	7.3	0.1	2.1	84.48	84.70	7.4	7.5	.
84	14	09/07/84	AR JJ	AF PC DF	17.0	18.8	6.8	6.3	0.8	0.7	62.82	88.82	8.3	7.1	0.0
84	14	09/21/84	KF HP SS	DF HP SD	18.0	22.8	7.3	7.3	0.8	0.0	77.88	84.84	7.2	7.2	.
84	14	10/06/84	BL JN KL RO AF	BL RL RO AF JH	13.8	18.8	8.1	8.1	0.0	0.2	88.77	81.73	6.8	7.1	.
84	14	10/20/84	SS AF	SS RL AF	14.0	.	8.6	9.3	0.8	1.0	84.20	.	6.8	6.5	.
84	14	11/07/84	RL HP SD	.	12.8	.	8.1	.	0.0	.	75.62	.	7.2	.	.
85	14	04/18/85	AF AP	AF	10.0	12.0	11.0	10.8	0.8	0.8	98.20	101.03	7.3	7.2	NV
85	14	05/01/85	AF SH	AF JJ	10.0	13.0	10.2	10.4	0.8	0.0	98.81	98.17	7.4	6.9	.
85	14	05/15/85	AF OP	SG PC	14.0	13.5	8.5	8.7	0.0	0.4	82.41	83.72	7.6	6.8	.
85	14	05/30/85	AF RP	AF RP	18.0	20.5	7.8	8.1	0.3	1.1	82.99	88.07	7.6	7.4	.
85	14	06/13/85	AF AC	AF AC	19.0	19.0	8.8	7.4	0.3	0.8	74.83	80.38	7.1	6.8	0.0
85	14	06/27/85	AF AC	AF AC JO	22.5	24.0	7.8	8.8	1.2	2.0	81.00	107.26	7.1	7.3	0.0
85	14	07/12/85	AF	AF AC	22.0	28.0	6.2	6.4	1.1	1.8	80.08	78.48	7.4	7.4	0.0
85	14	07/27/85	AF OP	AF	26.0	30.0	6.6	7.2	1.4	3.2	80.77	87.13	8.8	7.4	13.0
85	14	08/19/85	AF OP	AF OP	21.0	26.5	7.7	6.0	1.0	2.4	87.47	99.79	7.2	.	NV
85	14	08/28/85	AF BP OP	AF JMM	18.0	22.0	7.8	8.8	0.0	0.8	81.48	78.10	.	7.1	0.0
85	14	09/11/85	AF JM	AF	17.0	19.8	6.6	6.3	0.2	0.0	67.22	69.18	7.3	7.1	0.0
85	14	09/26/85	AF JM	AF AC	15.5	16.8	6.3	7.8	0.0	0.0	63.43	76.62	7.2	7.0	10.0
85	14	10/10/85	.	AF AC	.	16.0	.	7.8	.	0.2	.	78.47	.	7.2	NA
85	14	10/26/85	AF	AF AC	12.0	12.8	9.4	8.8	0.0	0.0	89.61	80.81	7.3	7.2	30.0
85	14	11/09/85	AF RP	AF RP	5.0	5.0	11.7	11.6	0.0	0.0	92.12	81.35	7.3	7.1	400.0

DATE	FECAL-N (CFU/100ML)	LP-L (cm)	LP-H (cm)	DEPTH-L (cm)	DEPTH-H (cm)	ATEMP-L (°c)	ATEMP-H (°c)	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
04/17/82	.	240	240	.	.	3.0	2.5	calm	calm	sleet	overcast	.	got off on h2o	.	.
05/01/82	.	180	260	.	.	10.0	20.0	ripple	ripples	pt cloudy	clear	muskrat	.	.	.
05/18/82	.	240	233	.	.	14.0	17.0	ripple	ripple	pt cloudy	clear	swan	.	.	.
06/01/82	.	180	150	.	.	11.0	18.0	calm	calm	downpour	drizzle	.	.	.	.
06/16/82	.	105	160	.	.	23.0	20.0	ripple	calm	overcast	pt cloudy	ducks,pollen	pollen	.	.
06/30/82	133.0	180	125	.	.	21.0	30.0	calm	calm	clear	overcast	no hide sample	ducks	.	.
07/13/82	78.0	170	130	.	.	26.0	28.0	calm	ripple	overcast	clear	.	.	.	.
07/28/82	30.0	110	120	.	.	18.0	.	ripple	ripples	clear	pt cloudy	.	beach swimming	.	.
08/13/82	0.0	206	190	.	.	21.0	24.0	calm	calm	overcast	ptcloudy	green algae	green algae foam	.	.
08/27/82	30.0	210	190	.	.	22.0	27.0	calm	.	hazy	.	buggy	swimmers	.	.
09/11/82	10.0	210	300	.	.	20.0	24.0	ripple	.	overcast	ptcloudy	fishing	fishing	.	.
09/26/82	10.0	210	210	.	.	10.0	18.0	calm	ripple	clear	ptcloudy	.	.	.	.
10/12/82	130.0	125	150	.	.	18.0	20.0	.	.	.	.	.	.	.	.
10/26/82	840.0	150	140	.	.	6.0	16.0	calm	ripple	ptcloudy	clear	.	swans	.	.
11/06/82	60.0	135	160	.	.	-2.5	4.5	ripple	ripple	clear	clear	geese ducks swans	Construction	.	.
04/23/83	80.0	210.0	200.0	370.0	280.0	20.0	31.0	calm	calm	pt cloudy	clear	.	.	.	.
05/06/83	420.0	185.0	190.0	380.0	370.0	26.0	22.0	calm	ripple	pt cloudy	clear	flies	quiet	.	.
05/20/83	340.0	206.0	120.0	325.0	310.0	15.0	18.0	ripple	calm	overcast	overcast	birds	boating	.	.
06/03/83	20.0	186.0	156.0	300.0	300.0	17.0	21.0	calm	calm	clear	pt cloudy	feces on dock	.	.	.
06/23/83	80.0	140.0	17.0	380.0	280.0	30.0	26.0	ripple	calm	clear	clear	fish,ducks	swimming	.	.
07/06/83	30.0	180.0	170.0	330.0	240.0	30.0	30.0	calm	calm	clear	clear	hhh	hhh	.	.
07/22/83	10.0	180.0	160.0	380.0	320.0	23.0	27.0	ripple	ripple	pt cloudy	pt cloudy	busy	debris in h2o	.	.
08/03/83	10.0	180.0	170.0	280.0	280.0	34.0	32.0	calm	ripple	clear	pt cloudy	busy	hot	.	.
08/18/83	10.0	330.0	230.0	406.0	350.0	20.0	27.5	ripple	ripple	hazy	clear	DES split	.	.	.
09/02/83	200.0	210.0	220.0	280.0	265.0	26.5	31.0	oily	ripple	clear	clear	DES split	.	.	.
09/20/83	30.5	220.0	180.0	310.0	260.0	14.0	18.5	ripple	calm	pt cloudy	cloudy	pollen	fish jumping	.	.
10/04/83	0.0	220.0	230.0	320.0	335.0	21.0	20.0	ripple	ripple	clear	pt cloudy	ducks	heron	.	.
10/19/83	.	120.0	90.0	320.0	350.0	10.5	21.0	ripple	ripple	clear	clear	none	quiet	.	.
11/06/83	.	180.0	210.0	360.0	300.0	13.0	9.0	calm	calm	pt cloudy	clear	ducks	none	.	.
04/26/84	.	200.0	265.0	300.0	605.0	8.0	10.0	RIPPLE	CALM	OVERCAST	OVERCAST	.	BIRDS	.	90.0
05/10/84	40.0	.	160.0	.	176.0	16.0	16.5	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	.	FISHING	105.0	110.0
05/25/84	30.0	240.0	170.0	355.0	340.0	13.0	10.0	RIPPLE	RIPPLE	SHOWERS	SHOWERS	NONE	.	120.0	.
06/08/84	0.0	217.5	185.0	318.0	310.0	17.0	21.0	RIPPLE	CALM	CLEAR	CLEAR	DUCKS	LILY PADS BLOOMING	120.0	120.0
06/23/84	20.0	217.5	210.0	330.0	325.0	21.0	21.0	.	RIPPLE	.	CLEAR	.	NONE	.	.
07/11/84	0.0	186.0	177.5	330.0	360.0	29.0	20.0	RIPPLE	CALM	CLEAR	CLEAR	NONE	DUCKS/SWIMMERS	.	60.0
07/25/84	30.0	187.5	145.0	330.0	310.0	26.0	.	CALM	CALM	OVERCAST	PT CLOUDY	DUCKS	SWIMMERS	.	60.0
08/08/84	.	186.0	86.0	220.0	320.0	24.0	20.0	RIPPLE	RIPPLE	CLEAR	CLEAR	SWIMMING	CROWS FLYING	60.0	90.0
08/22/84	.	207.5	230.0	335.0	330.0	18.0	18.5	CALM	RIPPLE	SHOWERS	SHOWERS	.	AIR THERM. SEPERATE	.	90.0
09/07/84	0.5	170.0	166.0	226.0	345.0	18.0	24.0	CALM	RIPPLE	OVERCAST	PT CLOUDTY	MOSQUITOS	.	40.0	.
09/21/84	.	200.0	177.0	380.0	335.0	18.0	27.0	CALM	RIPPLE	CLEAR	CLEAR	FECEES ON DOCK?	SOME BUGS	60.0	.
10/06/84	.	142.5	178.0	340.0	350.0	8.0	19.0	CALM	RIPPLE	CLEAR	PT CLOUDY	.	.	120.0	.
10/20/84	.	132.5	165.0	370.0	345.0	15.0	15.0	RIPPLE	.	OVERCAST	.	BROWN WATER	.	45.0	.
11/07/84	.	140.0	.	330.0	.	8.0	.	CALM	.	CLEAR	.	VERY WINDY/DUCK	.	.	.
04/18/85	0.0	236.0	228.0	330.0	376.0	19.0	15.0	CALM		CLEAR	.	.	.	60.0	60.0
05/01/85	4.0	210.0	162.5	380.0	400.0	8.0	12.0	CALM	RIPPLE	PT CLOUDY	.	.	.	.	60.0
05/15/85	0.0	182.5	180.0	.	380.0	10.0	10.0	CALM	RIPPLE	RAIN	DOWNPOUR	.	.	65.0	45.0
05/30/85	0.0	120.0	152.0	465.0	600.0	21.0	27.0	RIPPLE	WAVES	PT CLOUDY	PT CLOUDY	VERY WINDY SECCI D	NONE	120.0	130.0
06/13/85	0.0	130.0	165.0	450.0	450.0	18.0	18.0	CALM		OVERCAST	SHOWERS	.	BIRDS OIL SLICK SEEN	110.0	170.0
06/27/85	10.0	130.0	140.0	410.0	380.0	17.5	19.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	NONE	85.0	85.0
07/12/85	0.0	140.0	147.8	435.0	445.0	15.0	26.0	CALM	CALM	HAZE	CLEAR	NONE	THREE SWAINS SEEN,	80.0	110.0
07/27/85	13.0	186.0	175.0	430.0	370.0	24.0	32.0	CALM	RIPPLE	PT CLOUDY	CLEAR	NONE	NONE	80.0	45.0
08/19/85	NV	180.0	182.8	370.0	370.0	29.0	31.0	CALM	CALM	CLEAR	CLEAR	NONE	NONE	100.0	100.0
08/28/85	10.0	80.0	168.0	350.0	340.0	17.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	RIVER REAL LOW	NONE	90.0	90.0
09/11/85	1.0	147.5	158.0	276.0	245.0	13.0	.	RIPPLE	RIPPLE	CLEAR	CLEAR	NONE	DUCKS SEEN	100.0	45.0
09/26/85	40.0	165.0	140.0	345.0	345.0	13.6	18.0	CALM	RIPPLE	SHOWERS	SHOWERS	.	.	45.0	100.0
10/10/85	20.0	.	140.0	.	376.0	.	22.0	.	CALM	.	CLEAR	.	DUCKS	.	85.0
10/26/85	30.0	145.0	155.0	380.0	300.0	5.0	19.0	CALM	CALM	OVERCAST	CLEAR	.	.	45.0	70.0
11/09/85	140.0	107.5	107.5	460.0	450.0	-1.0	1.0	RIPPLE	RIPPLE	CLEAR	OVERCASTE	NONE	NONE	80.0	60.0

Site 15 - Patten Yacht Yard

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-	FECAL-	LP-L	LP-H	DEPTH	DEPTH	ATEMP-L	ATEMP-	WATER-	WATER-H	WEATHER-	WEATHER-H	ACTIVITIES-	ACTIVITIES-H	TIME-L	TIME-H
					oC	oC	ppm	ppm	ppt	ppt	%	%			CFU/10	CFU/10	cm	cm	cm	cm	0C	0c								
93	15	04/21/93	jj,students	TEAM 4	8.5	8.0	11.0	10.4	13.5	27.5	102.31	98.85	7.7	7.9	10.0	0.0	115.0	415.0	420.0	817.0	14.5	18.0	ripple	waves	pt cloudy	pt cloudy	oil	*	*	*
93	15	05/06/93	JF AS SM	MV DV BS SS	12.0	10.0	9.1	10.6	7.9	28.8	86.72	114.65	7.4	7.7	30.0	*	120.0	370.0	350.0	860.0	18.0	24.0	ripple	ripple	overcast	pt cloudy	light shower	1 do test	*	*
93	15	05/20/93	JH JU	JF SH	12.0	9.0	9.2	9.8	25.8	30.7	100.03	100.97	7.6	7.7	10.0	*	145.0	320.0	450.0	610.0	11.5	20.0	calm	ripple	pt cloudy	pt cloudy	foam oil	*	*	*
93	15	06/03/93	MH HF DH	JH MH SS	12.5	9.0	9.1	9.8	26.8	29.8	100.64	100.35	8.0	7.6	10.0	0.0	135.0	365.0	375.0	720.0	10.0	20.0	calm	ripple	clear	pt cloudy	birds	big ship	*	*
93	15	06/23/93	LB AS	JT	16.5	12.5	8.1	9.3	29.5	31.1	98.80	105.78	7.8	7.8	30.0	0.0	180.0	395.0	375.0	720.0	17.0	25.0	whitecaps	whitecaps	clear	clear	boats	big boats	*	*
93	15	07/08/93	MV JS BS EB	HF JG EB	17.5	16.5	8.8	9.0	33.5	31.8	111.51	109.83	*	7.9	0.0	10.0	175.0	445.0	380.0	510.0	27.0	28.0	ripple	ripple	clear	clear	no ph	boats	*	*
93	15	07/22/93	CT SM	JT KS MV	18.5	14.5	8.0	9.4	30.1	31.9	99.99	110.69	8.2	7.1	0.0	20.0	195.0	265.0	375.0	657.0	19.0	23.0	calm	ripple	clear	overcast	*	boating	*	*
93	15	08/03/93	MV SS JH	MH BS	18.5	17.0	*	8.1	32.3	30.6	*	100.59	7.6	8.5	*	*	340.0	435.0	380.0	600.0	22.0	32.0	calm	ripple	overcast	pt cloudy	no DO	ph meter	*	*
93	15	08/19/93	DH RR HF	JH TE	18.0	17.0	7.9	8.3	29.7	32.3	99.45	104.20	7.9	8.0	0.0	10.0	210.0	475.0	390.0	600.0	20.0	21.0	ripple	ripple	overcast	pt cloudy	fish, boats	h2o current	*	*
93	15	09/02/93	HF	HF	16.0	15.5	3.3	3.7	32.3	31.1	40.63	44.75	7.8	7.9	0.0	0.0	315.0	460.0	420.0	815.0	16.0	23.5	calm	waves	clear	clear	boating	boating	*	*
93	15	09/20/93	CT JS JT	JT JS MV	13.5	12.5	8.0	8.4	30.1	32.7	92.30	96.57	7.9	8.0	3.0	3.0	320.0	460.0	405.0	635.0	12.0	18.0	calm	ripple	clear	clear	boating	boating	*	*
93	15	10/04/93	JH TF	JF MM	13.0	13.0	8.5	7.9	31.4	31.9	97.90	91.29	8.0	7.8	20.0	50.0	370.0	540.0	430.0	840.0	15.0	20.0	waves	whitecaps	pt cloudy	clear	birds	boating	*	*
93	15	10/18/93	JS JC	KS AS	11.0	10.0	8.9	8.4	30.9	32.7	97.94	91.58	7.7	7.9	8.0	4.0	280.0	415.0	415.0	670.0	14.0	18.0	waves	ripple	pt cloudy	clear	boating	boating	*	*
93	15	11/09/93	JG DH RR	JT BA	8.0	7.5	8.7	8.2	29.4	31.4	88.66	83.75	7.6	7.7	4.0	1.0	390.0	610.0	380.0	610.0	13.0	2.0	ripple	ripple	pt cloudy	clear	none	none	*	*
94	15	04/26/94	JH SH JT	MH JT MR. MA	7.0	7.0	10.8	10.5	22.2	30.8	100.57	105.59	7.5	6.9	15.0	21.0	195.0	365.0	390.0	545.0	6.0	9.0	CALM	RIPPLE	SHOWERS	OVERCAST	NONE	BOATING	150.0	150.0
94	15	05/10/94	MV BH LR JT	DH RR JT	11.5	9.0	9.3	9.9	20.3	24.7	98.59	100.02	7.8	7.7	18.0	5.0	117.0	370.0	410.0	600.0	14.0	15.0	CALM	RIPPLE	OVERCAST	PT CLOUDY	NONE	BOATING	240.0	120.0
94	15	05/25/94	KS MM AL JT	MV KS PT	12.5	10.5	10.2	11.5	24.3	26.4	111.01	121.48	7.5	7.7	5.0	8.0	173.0	435.0	390.0	665.0	11.0	17.0	RIPPLE	*	SHOWERS	SHOWERS	BOATING	BOATS	300.0	150.0
94	15	06/09/94	JS MH JG	MV SS SH	14.0	12.5	7.9	9.7	26.8	30.4	90.05	109.82	7.5	7.5	4.0	1.0	230.0	402.5	400.0	730.0	18.0	25.0	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	BOAT FISHIN	90.0	40.0
94	15	06/23/94	BA JT	DH MH RR JT	16.0	13.5	7.7	9.1	29.2	30.8	92.32	105.48	7.7	7.8	7.0	1.0	205.0	510.0	360.0	620.0	15.0	23.0	CALM	WAVES	CLEAR	PT CLOUDY	OIL SLICK	BOATING	180.0	630.0
94	15	07/11/94	JH SH TS	KS JH	17.5	17.0	*	3.3	28.6	32.5	*	40.85	7.8	7.8	*	4.0	222.5	525.0	410.0	825.0	22.0	27.0	RIPPLE	*	CLEAR	CLEAR	BOATING	*	90.0	360.0
94	15	07/25/94	JG EB	JH KS EB	19.0	15.0	6.6	9.8	23.5	30.7	84.00	117.05	7.9	7.8	3.0	6.0	260.0	435.0	415.0	600.0	25.0	25.0	RIPPLE	RIPPLE	FOG	PT CLOUDY	BOATING	BOATING	120.0	180.0
94	15	08/09/94	MH KS	MV TE	18.0	17.0	8.4	8.0	29.8	31.6	105.81	99.98	7.4	7.8	4.0	0.0	207.5	320.0	390.0	390.0	25.0	25.0	CALM	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	480.0	240.0
94	15	08/22/94	JH SH	JT JS	17.0	14.0	7.4	7.5	31.8	30.8	92.48	87.64	7.6	7.8	8.0	9.0	240.0	375.0	400.0	375.0	20.0	17.0	RIPPLE	RIPPLE	OVERCAST	SHOWERS	BOATING	BOATING	210.0	180.0
94	15	09/07/94	SS	SS	14.5	15.0	7.5	8.2	30.8	31.9	88.73	98.71	8.0	8.0	5.0	2.0	300.0	320.0	400.0	660.0	12.5	23.0	*	WAVES	*	PT CLOUDY	*	BOATING	80.0	60.0
94	15	09/21/94	MH AH	JG CT DS	16.0	15.0	7.8	8.4	32.1	32.1	95.90	101.25	7.3	8.0	3.0	3.0	282.0	275.0	450.0	275.0	16.0	23.0	CALM	RIPPLE	CLEAR	CLEAR	BOATING	BOATING	120.0	240.0
94	15	10/06/94	JT JS	JH JS JG	12.0	12.0	12.8	7	28.9	33.4	142.01	80.02	8.0	7.9	7.0	0.0	185.0	345.0	375.0	680.0	6.0	15.0	CALM	RIPPLE	CLEAR	PT CLOUDY	TUGBOATS	BOATING(AT	150.0	55.0
94	15	10/20/94	MV KS JT	MH JS JG JT	12.0	12.0	8.8	8.8	30.8	32.9	98.66	100.28	7.5	7.9	2.0	2.0	261.0	340.0	429.0	680.0	15.0	18.0	CALM	RIPPLE	OVERCAST	OVERCAST	NONE	BOATING	*	*
94	15	11/07/94	JF	JT KS	11.0	*	9.7	8.8	30.8	31.7	108.53	*	8.0	7.5	0.0	0.0	*	*	*	*	8.0	14.0	WHITEC	WHITECAPS		CLEAR	TOO WINDY	TOO WINDY	120.0	180.0
95	15	04/18/95	PZ JP JT	JG	8.0	6.0	10.5	10.5	24.7	29.5	103.68	102.21	8.0	7.9	1.0	0.0	205.0	490.0	380.0	630.0	8.0	10.0	CALM	WAVES	CLEAR	CLEAR	BOAT	BOAT	75.0	270.0
95	15	05/01/95	DAS JMS	MMH AWP JBJ	8.0	8.2	10.6	10.6	2.0	33.9	91.00	113.55	8.0	8.0	0.0	1.0	224.0	542.5	*	607.0	8.0	13.0	RIPPLE	CALM	OVERCAST	PT CLOUDY	NONE	BOAT	210.0	102.0
95	15	05/15/95	SS JT	JG JMS BOS	12.0	8.0	9.1	10.5	28.5	30.6	99.39	107.89	7.6	8.0	2.0	2.0	155.0	415.0	375.0	720.0	10.0	6.0	CALM	RIPPLE	SHOWERS	DOWNPOUR	NONE	BOATING	180.0	140.0
95	15	05/30/95	BM MM JT	HC JG	13.0	10.5	8.3	9.5	25.9	30.3	92.24	102.99	7.1	8.0	5.0	0.0	155.0	440.0	400.0	795.0	16.5	27.0	RIPPLE	WAVES	CLEAR	PT CLOUDY	NONE	BOATING	240.0	120.0
95	15	06/13/95	JG BM ME	MH JG	14.5	11.5	7.7	9.7	27.3	28.6	89.07	108.25	8.1	8.0	3.0	8.0	177.5	400.0	380.0	640.0	16.0	20.0	CALM	CALM	OVERCAST	PT CLOUDY	BOATING	BOATING	140.0	130.0
95	15	06/27/95	JP MH JG	JT SS JG	17.0	15.0	8.3	9.0	27.7	31.1	101.20	107.77	8.1	8.0	2.0	1.0	235.0	455.0	410.0	600.0	15.0	18.0	CALM	WAVES	CLEAR	CLEAR	BOATING	BOATING	255.0	240.0
95	15	07/12/95	MM JT	JT JP PZ	16.0	14.0	7.9	9.8	30.0	30.3	95.63	114.40	7.7	7.4	1.0	0.0	193.0	*	365.0	*	16.0	21.0	CALM	WAVES	HAZE	HAZE	BOATING	BOATING	210.0	300.0
95	15	07/27/95	JT MS		21.0	*	8.8	*	38.1	*	120.74	*	7.7	*	10.0	na	265.0	*	480.0		22.0	*	CALM		HAZE	*	SEAGULLS	*	240.0	*
95	15	08/10/95	MH JG	JT JG	18.0	17.0	6.8	7.8	27.9	17.4	84.84	89.35	7.6	7.8	0.0	3.0	320.0	308.0	380.0	700.0	17.0	*	RIPPLE	WAVES	CLEAR	CLEAR	NONE	SWIMMING	140.0	140.0
95	15	08/28/95	JT	JT	17.0	15.0	7.3	6.1	31.0	30.3	90.68	96.50	7.4	7.8	6.0	0.0	252.5	332.5	440.0	610.0	15.0	23.0	CALM	CALM	CLEAR	CLEAR	NONE	NONE	120.0	120.0
95	15	09/11/95	BM MM JT	JG	14.0	13.5	3.9	7.4	31.1	30.3	45.77	85.49	7.4	6.6	4.0	1.0	237.5	485.0	410.0	850.0	9.0	19.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	BOATS	165.0	80.0
95	15	09/26/95	MM DK KD JG	JP PZ JT	14.0	*	7.9	8.1	31.1	31.1	92.70	*	8.4	8.1	3.0	5.0	298.5	440.0	406.0	835.0	15.0	14.0	RIPPLE	CALM	SHOWERS	SHOWERS	BOAT	NONE	177.0	270.0
95	15	10/10/95	JG	BM JG	13.5	13.5	7.5	7.5	30.7	31.4	86.87	87.27	7.6	7.3	2.0	1.0	280.0	425.0	420.0	700.0	8.0	18.0	CALM	RIPPLE	CLEAR	CLEAR	BOAT	BOAT	50.0	120.0
95	15	10/26/95	MM JT JS	JG	11.5	11.0	7.7	7.8	27.2	29.6	83.57	85.09	7.8	7.8	10.0	3.0	202.5	385.0	371.0	895.0	5.5	15.0	CALM	RIPPLE	OVERCAST	CLEAR	BIRDS/BOA	NONE	330.0	60.0
95	15	11/09/95	JG	JT	8.0	7.0	6.8	7.8	20.8	29.4	84.71	77.68	7.6	7.6	3.0	0.0	155.0	*	450.0	*	1.0	3.0	WAVES	WHITECA	PT CLOUDY	PT CLOUDY	NONE	BOAT	70.0	180.0

Site 10 - Exeter

YEAR	SITE	DATE	SAMPLER-L	SAMPLER-H	WTEMP-L	WTEMP-H	DO-L	DO-H	SAL-L	SAL-H	SAT-L	SAT-H	pH-L	pH-H	FECAL-L	FECAL-H	LP-L	LP-H	DEPTH-L	DEPTH-H	ATEMP-L	ATEMP-H	WATER-L	WATER-H	WEATHER-L	WEATHER-H	ACTIVITIES-L	ACTIVITIES-H	TIME-L	TIME-H
					°C	°C	ppm	ppm	ppt	ppt	%	%			CFU/100ML	CFU/100ML	cm	cm	cm	cm	°c	°c							min	min
94	10	04/26/94	CM	-	10.0	10.5	10.0	10.3	1.0	0.0	96.22	93.90	8.0	7.5	117.0	90.0	87.0	167.5	97.0	310.0	8.0	8.0	RIPPLE		SHOWERS		BIRDS	-	600.0	-
94	10	05/10/94	CM CK CJ LD	CM TK GM KT	14.0	19.0	9.8	8.1	1.2	0.2	93.22	88.70	7.3	7.1	200.0	110.0	100.0	123.5	100.0	307.0	19.0	19.0	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	BIRDS	CREW/BIRDS	340.0	420.0
94	10	05/26/94	CM CB SS CW	CM BW	10.0	10.0	8.3	8.2	1.6	0.3	88.81	87.14	7.8	7.3	400.0	200.0	96.0	118.0	98.0	337.0	11.3	17.0	RIPPLE	RIPPLE	SHOWERS	OVERCAST	BIRDS	BOATING	360.0	180.0
94	10	06/09/94	CM	BW	18.5	23.0	13.2	8.2	0.8	1.8	141.84	108.58	7.8	7.8	110.0	300.0	85.0	106.0	86.0	270.0	17.0	20.0	RIPPLE	RIPPLE	CLEAR	CLEAR	FISH JUMPING	CANOES	120.0	100.0
94	10	06/23/94	BW	BW	23.5	26.5	8.8	13.1	2.8	6.1	183.14	104.88	7.8	8.6	TNTC	TNTC	30.8	37.8	80.0	300.0	22.0	28.5	RIPPLE	RIPPLE	CLEAR	OVERCAST	GULLS	NONE	90.0	100.0
94	10	07/11/94	CM JW AS	CM MA LD YT	28.0	28.6	9.8	11.2	1.9	3.3	118.84	148.50	7.8	8.1	380.0	100.0	40.5	47.5	60.0	284.0	25.0	29.0	RIPPLE	RIPPLE	CLEAR	CLEAR	OUTFLOW FROM PIP	GULLS	120.0	120.0
94	10	07/26/94	CM JW	CM HB AD	26.5	29.5	7.8	9.3	2.8	10.8	88.02	120.30	7.8	8.8	600.0	300.0	48.8	34.5	87.0	287.0	29.0	32.5	CALM	CALM	OVERCAST	CLEAR	BOATING	SWIMMING	170.0	120.0
94	10	08/09/94	BP	BP	33.0	27.0	14.3	19.0	7.2	11.3	173.88	253.70	9.1	8.8	200.0	130.0	38.0	36.0	70.0	300.8	22.0	27.0	CALM	RIPPLE	CLEAR	CLEAR	BITING BUGS	BREEZY	80.0	180.0
94	10	08/23/94	BP	BP	21.0	20.8	8.3	7.7	1.0	0.0	93.80	86.26	7.8	7.4	-	-	70.0	90.0	70.0	300.0	18.0	16.0	RIPPLE	CALM	SHOWERS	SHOWERS	CONSTRUCTION	NO BIRDS	80.0	180.0
94	10	09/07/94	CM	BW	18.0	19.8	7.8	8.8	1.8	1.8	77.97	107.18	7.6	7.5	-	-	76.0	88.5	80.0	320.0	14.0	21.0	CALM	RIPPLE	PT CLOUDY	PT CLOUDY	GULLS BOATS	-	120.0	138.0
94	10	09/21/94	CM	BW	18.0	19.8	8.2	16.4	1.9	7.2	87.88	174.01	7.7	8.8	-	-	62.5	38.0	87.0	285.0	18.0	20.5	CALM	RIPPLE	CLEAR	CLEAR	BIRDS BOATS	BOATING	120.8	135.0
94	10	10/06/94	AK JJ	CM	11.0	13.0	10.3	9.8	0.7	0.7	94.23	83.81	7.3	7.3	110.0	80.0	85.0	81.5	85.0	330.0	7.0	14.0	CALM	RIPPLE	CLEAR	CLEAR	WATER BUGSY	BOATING	201.0	120.0
94	10	10/20/94	CM MK	BW	11.0	11.6	7.4	7.7	0.8	4.5	87.88	72.83	7.3	7.0	-	-	72.5	76.8	80.0	320.0	10.0	16.0	CALM	CALM	OVERCAST	OVERCAST	BIRDS BOATING	WATER LIGHT TAN COLORE	120.0	138.0
94	10	11/07/94	CM AG	BW	8.0	8.0	8.3	11.2	0.6	0.6	72.37	87.80	7.2	7.2	-	-	30.0	60.0	85.0	280.0	6.0	8.0	WHITECAPS	RIPPLE	PT CLOUDY	PT CLOUDY	BIRDS	AT DUSK	120.0	150.0
95	10	04/18/95	PS BW	CM SK AS LP PG	10.0	11.0	10.8	11.2	0.5	1.9	86.42	103.16	7.8	8.0	0.0	30.0	BSV	172.5	70.0	278.0	11.0	11.0	CALM	RIPPLE	CLEAR	CLEAR	BIRDS	LAND RECREATION	160.0	450.0
95	10	05/01/95	PS	CM SK AS CL	12.5	12.8	11.4	10.7	0.0	-	107.84	-	7.8	8.0	NV	NV	BSV	188.0	58.0	270.0	13.0	12.5	RIPPLE	RIPPLE	OVERCAST	PT CLOUDY	FISHING	BOATS	135.0	380.0
95	10	05/15/95	PS	BW	14.0	13.8	9.4	9.8	0.0	0.0	92.04	84.89	7.8	7.4	NV	NV	BSV	87.5	60.0	318.0	17.0	10.0	RIPPLE	CALM	SHOWERS	SHOWERS	BOATING	BOATING	135.0	180.0
95	10	05/30/95	AS TK MO LP	MH CM PG	18.8	18.0	8.3	8.8	1.3	0.3	88.07	93.51	7.6	8.0	340.0	80.0	BSV	82.5	60.0	245.0	23.0	24.5	RIPPLE	RIPPLE	PT CLOUDY	PT CLOUDY	FISHING/BIRDS	FISHING/BIRDS	400.0	280.0
95	10	06/13/95	PS	CM	18.5	18.0	8.1	11.8	0.6	0.8	87.79	123.84	7.2	7.3	1120.0	NA	BSV	67.5	78.0	73.0	21.0	18.8	CALM	RIPPLE	OVERCAST	SHOWERS	BOATING	BIRDS	120.0	100.0
95	10	06/27/95	JJ JJ	JJ AM	22.0	22.8	8.4	7.5	2.2	8.8	87.80	87.32	7.8	7.3	TNTC	780.0	45.0	85.0	80.0	170.0	20.0	20.0	RIPPLE	RIPPLE	CLEAR	CLEAR	WHOY	BOATS	180.0	240.0
95	10	07/12/95	CM	CM	21.8	24.8	8.1	8.1	13.8	14.8	73.83	108.42	7.5	7.7	580.0	180.0	42.5	48.0	88.0	280.0	20.0	28.8	RIPPLE	RIPPLE	FOG	PT CLOUDY	BOATS	CONSTRUCT BOATS BIRDS	100.0	100.0
95	10	07/27/95	AJM CC	CM	27.8	28.5	7.2	8.8	0.0	0.8	88.71	100.28	7.4	7.7	1800.0	160.0	22.5	84.5	70.0	245.0	25.0	35.0	CALM	RIPPLE	PT CLOUDY	PT CLOUDY	NONE	DOG IN H2O BOATS KIDS BIR	105.0	180.0
95	10	08/10/95	CM AND FRIEND	CM AND FRIEND	23.8	28.0	8.2	18.7	6.1	7.8	88.56	202.30	7.8	8.8	NV	NV	38.5	32.5	54.0	285.0	21.0	35.0	RIPPLE	RIPPLE	CLEAR	CLEAR	5 BOATS IN WATER	CONSTRUCTION	1260.0	840.0
95	10	08/28/95	-	BW	-	23.5	-	18.4	-	18.0	-	208.84	-	8.8	NA	120.0	-	40.0	-	285.0	-	18.0	-	RIPPLE	-	CLEAR	-	BOATS AND ROWING	-	120.0
95	10	09/11/95	PS	PS	-	-	11.1	9.8	-	-	-	-	-	-	210.0	60.0	77.5	83.5	100.0	300.0	13.5	22.5	RIPPLE	RIPPLE	CLEAR	CLEAR	BOATING	8 BOATS	75.0	75.0
95	10	09/26/95	CM	CM	13.0	14.5	8.6	11.7	8.8	10.7	88.06	120.70	7.4	7.8	1400.0	440.0	44.0	88.0	72.0	311.0	16.0	10.0	CALM	RIPPLE	OVERCAST	OVERCAST	BOATS CONSTRUCTI	BOATS	105.0	105.0
95	10	10/10/95	CM	CM	13.8	19.0	10.6	9.8	0.7	8.7	100.51	88.81	7.8	7.3	250.0	60.0	BSV	100.0	81.0	306.0	12.0	18.0	RIPPLE	RIPPLE	CLEAR	CLEAR	CONSTRUCTION	FISHING KYACKS	105.0	105.0
95	10	10/26/95	PS SC	PS	12.5	13.0	9.8	9.8	9.8	0.7	92.71	91.88	7.2	7.2	400.0	60.0	BSV	67.5	108.0	318.0	15.0	21.0	CALM	CALM	OVERCAST	OVERCAST	BOATS CONSTRUCTI	NONE	105.0	105.0
95	10	11/09/95	PS	CM	4.0	3.5	9.8	12.1	0.8	9.8	75.63	91.69	7.8	7.8	190.0	0.0	BSV	112.5	105.0	295.0	4.0	-1.0	RIPPLE	WHITECA	PT CLOUDY	CLEAR	BOAT	CONSTRUCTION	105.0	105.0

Appendix C

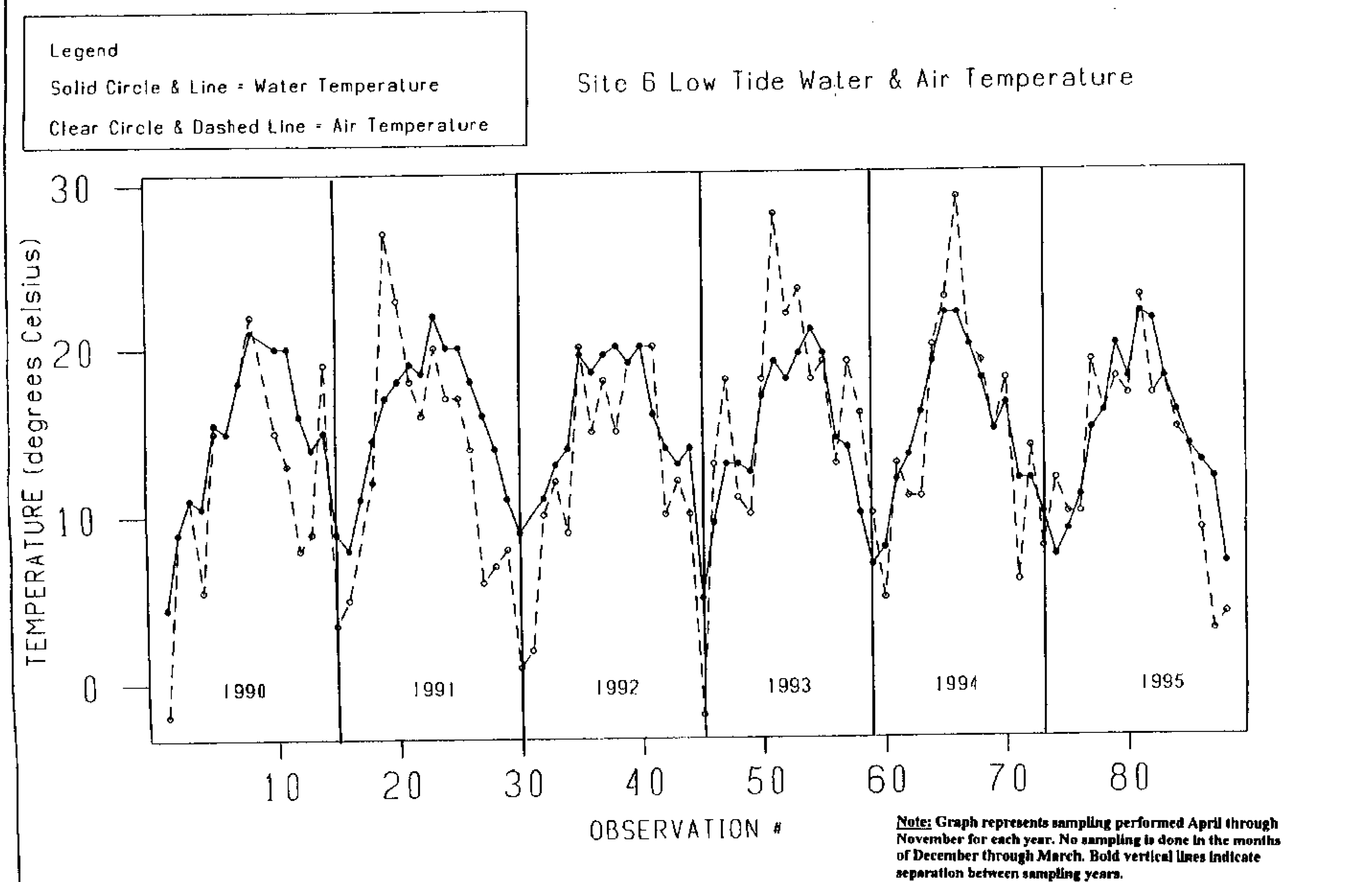
Time Series Plot Explanation

The following appendix consists of graphs known as Time Series Plots because the data is depicted over time (i.e. the data is plotted starting with the first sampling taken through the last ever sample taken). These plots are intended to give an overall representation of the data collected to date. You will notice that each graph shows a general pattern depending on the parameter involved. The best way to look at these graphs is to try to distinguish a common pattern within a sampling season and compare to other seasons and then look for any unusual observations which alter the general pattern. These observations are either outliers or indicate that some outside influence caused a change in the process.

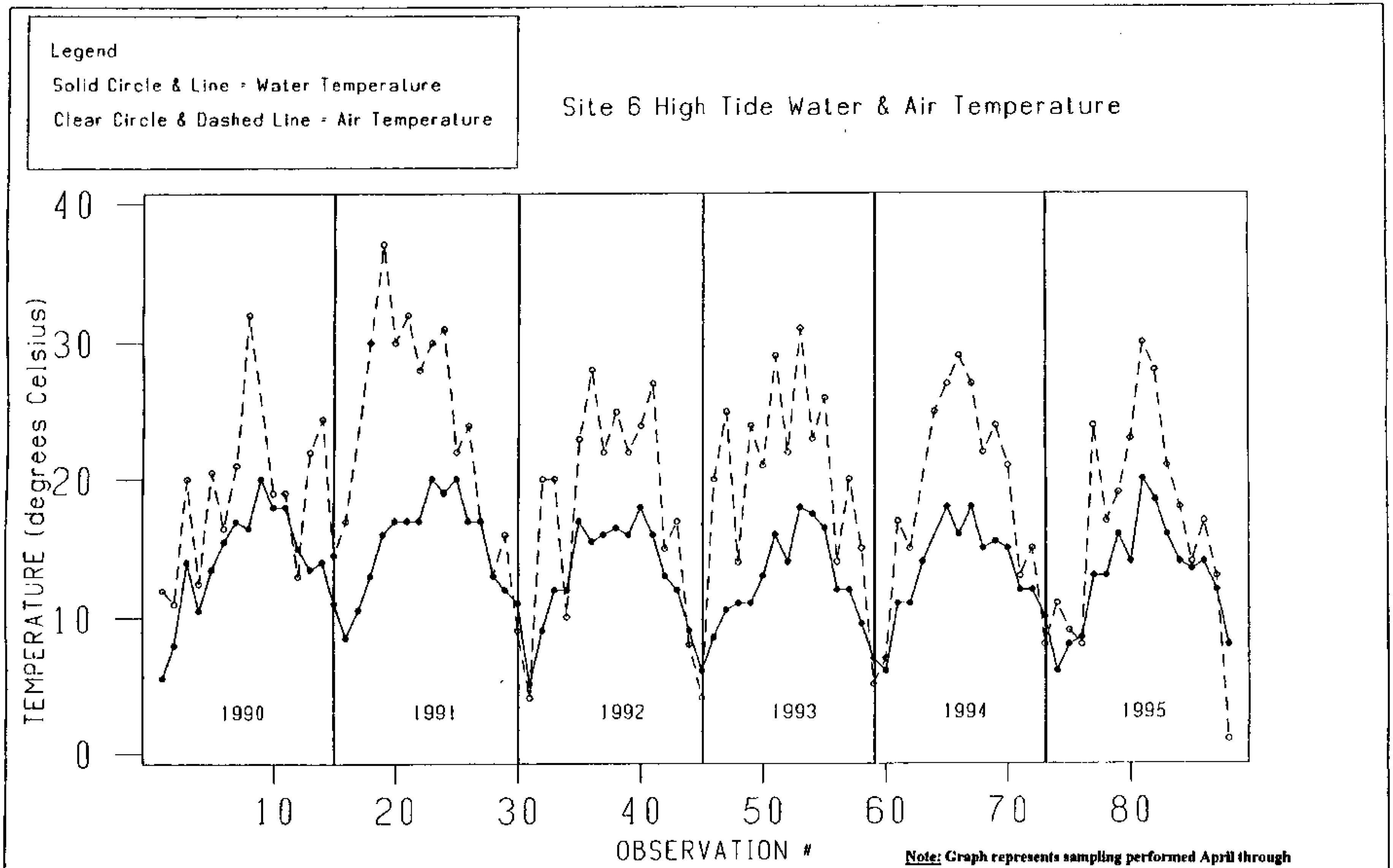
Sampling years are separated by a bold line. It should be noted that the GBW only samples during the months of April though November. No sampling is performed during the months of December through March.

The observation # refers to the location in time at which the particular sample was taken. Missing observations are not depicted on the graphs. The observations are connected by either solid or dashed line for a visual aid not to imply that continuity exist between observations.

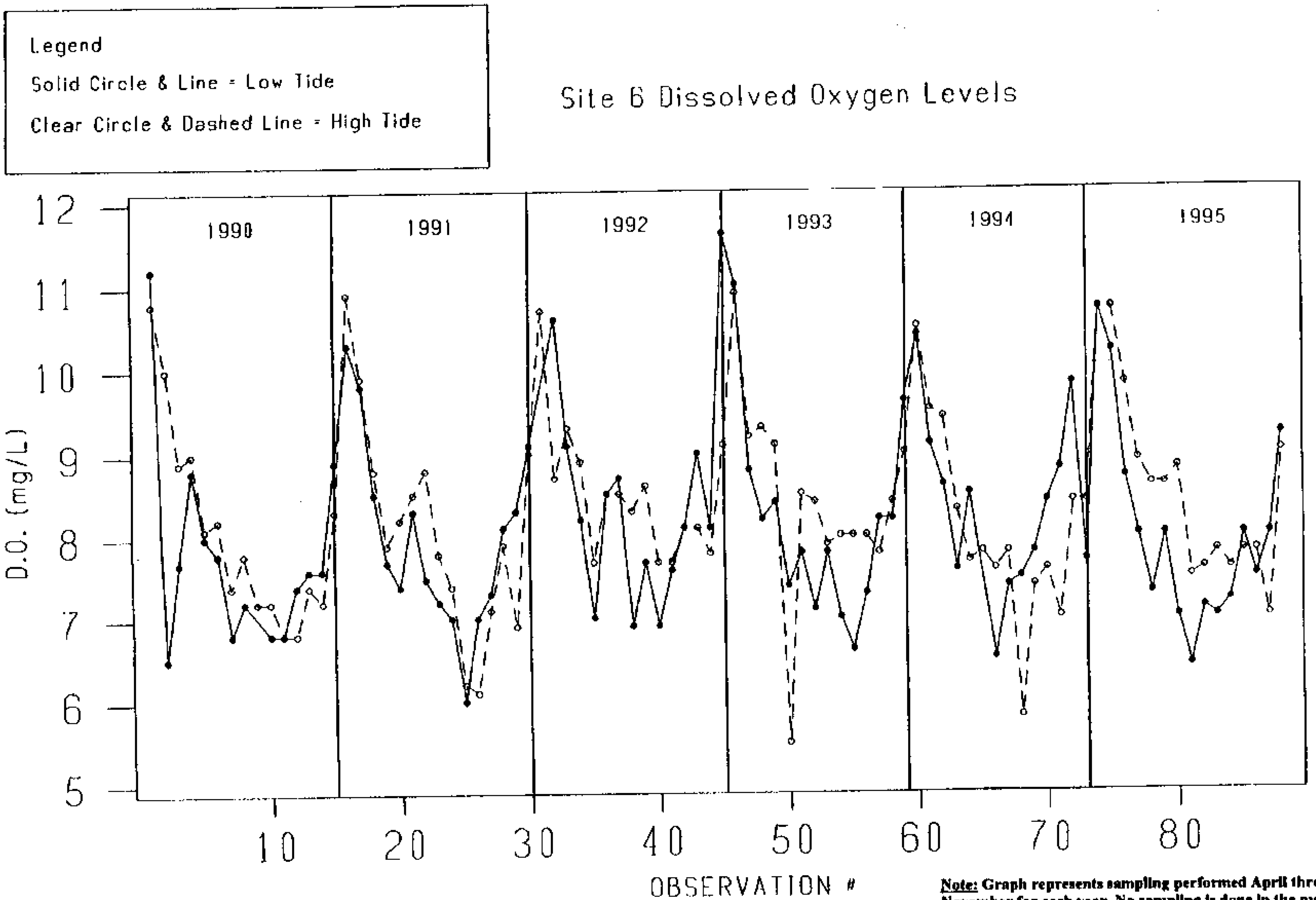
Joanne Morrill and Audrey Fortin check the hydrometer reading.



Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.

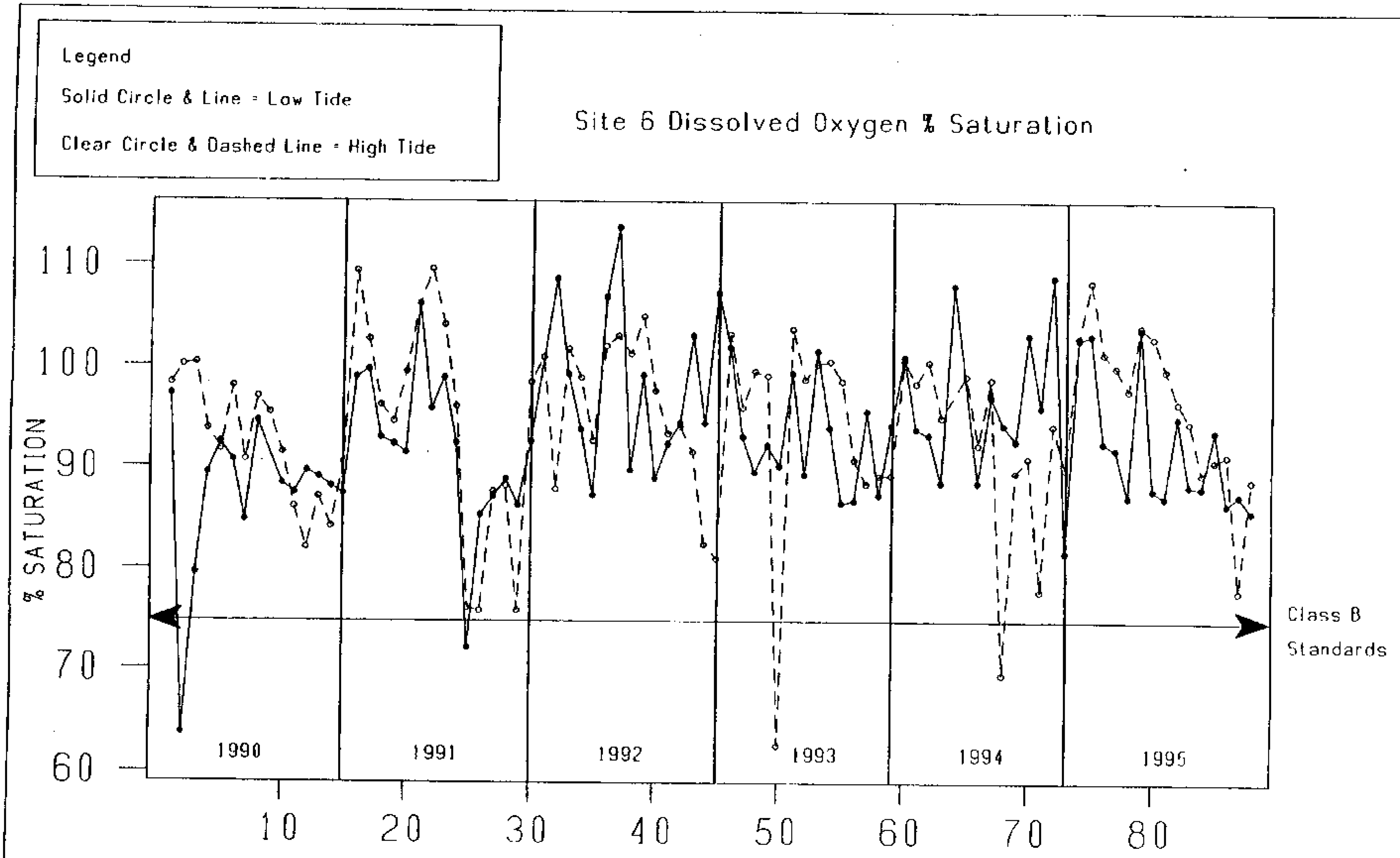


Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.

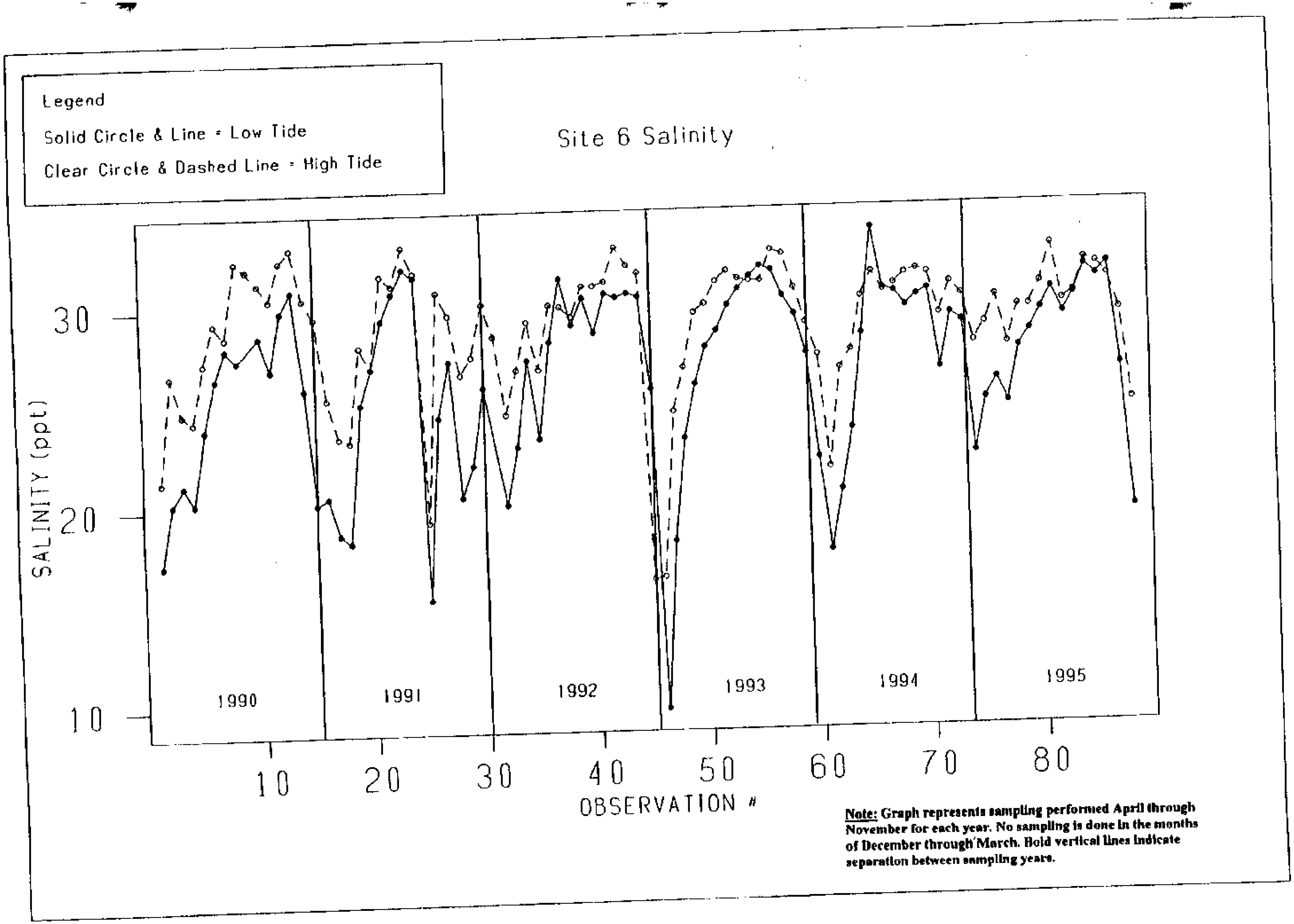


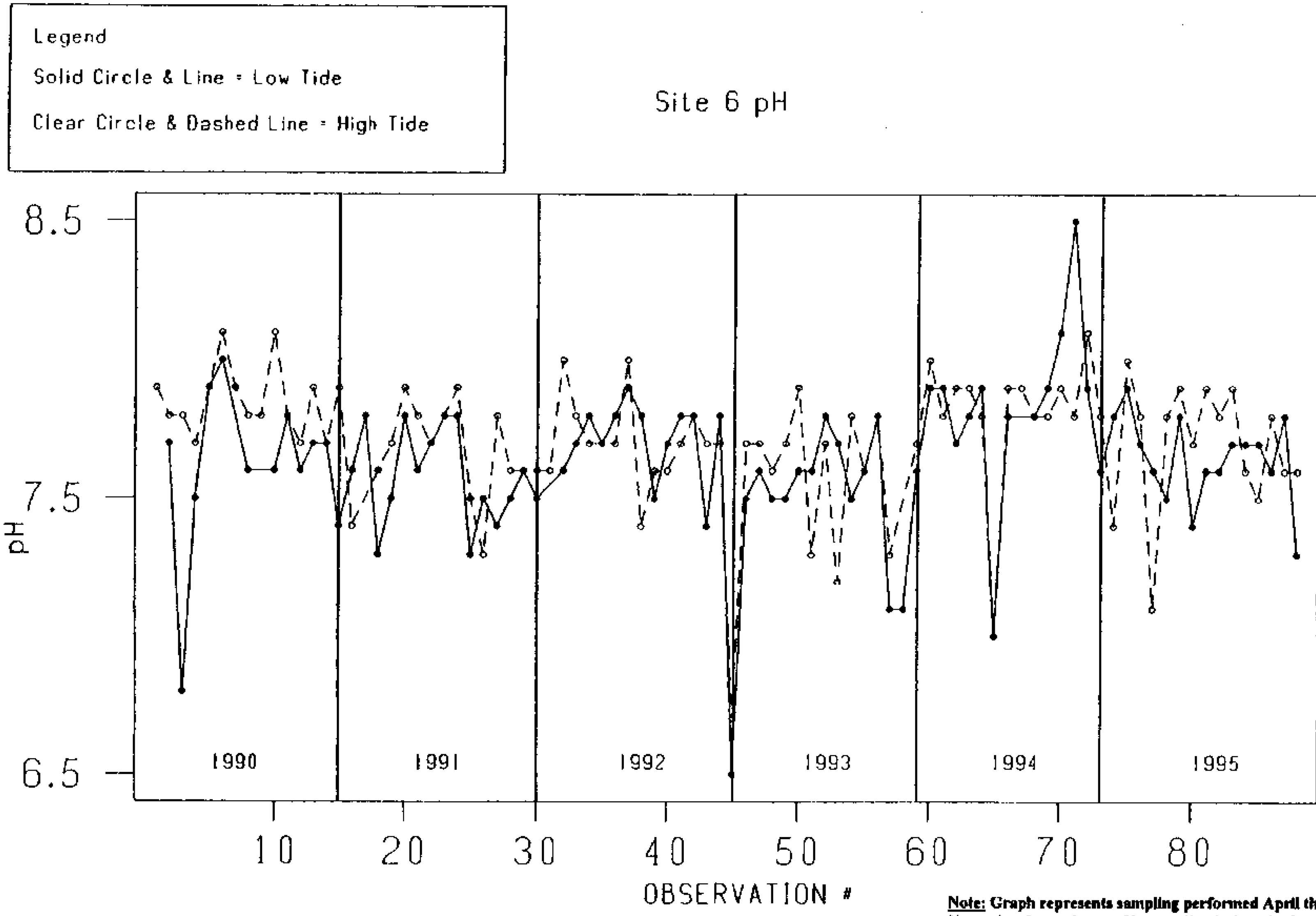
Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.

Site 6 Dissolved Oxygen % Saturation



Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.


Legend
Solid Circle & Line = Low Tide
Clear Circle & Dashed Line = High Tide
Site 6 Salinity
SALINITY (ppt)
30
20
10
1990
1991
1992
1993
1994
1995
10
20
30
40
50
60
70
80
OBSERVATION #
Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.



Note: Graph represents sampling performed April through November for each year. No sampling is done in the months of December through March. Bold vertical lines indicate separation between sampling years.

Appendix D

Corrected Data For 1995

Table 1: Low Tide Water Temperature (°C)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	16	16	5.6	5.6	1.3	1.3	24.5	24.5
2	15.9	15.9	4.9	4.9	5.0	5.0	24.0	24.0
3	17.0	17.0	4.9	4.9	5.5	5.5	24.5	24.5
4	*	*	*	*	*	*	*	*
5	15.8	15.8	5.6	5.6	1.0	1.0	25.0	25.0
6	15.2	15.1	4.4	4.4	4.5	4.5	22.0	22.0
7	15.3	15.3	4.2	4.2	6.5	6.5	22.5	22.5
9	16.0	16.0	5.3	5.3	3.0	3.0	24.0	24.0
10	15.9	15.9	5.3	5.3	4.4	4.4	24.5	24.5
11	11.9	11.9	3.4	3.4	4.0	4.0	18.0	18.0
12	18.1	18.2	4.3	4.3	7.5	7.5	26.0	26.0
13	17.1	17.1	6.1	6.1	3.0	3.0	26.0	26.0
14	17.5	17.5	5.7	5.7	4.0	4.0	25.0	25.0
15	14.0	14.1	3.3	3.4	7.0	7.0	19.0	19.0
16	17.5	17.5	6.0	6.0	9.0	9.0	26.5	26.5

Table 2: High Tide Water Temperature (°C)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	17.1	17.1	5.0	5.0	5.3	5.3	24.5	24.5
2	16.0	16.0	4.3	4.3.	5.2	5.2	22.5	22.5
3	18.5	18.5	6.2	6.2	4.5	4.5	29.5	29.5
4	18.0	18.0	5.8	5.8	3.5	3.5	27.5	27.5
5	18.1	18.1	6.1	6.1	3.0	3.0	28.0	28.0
6	13.6	13.6	3.7	3.7	5.0	5.0	20.0	20.0
7	14.8	14.8	3.8	3.8	6.0	6.0	21.0	21.0
9	17.3	17.4	5.8	5.8	2.0	2.0	26.5	26.5
10	16.2	16.2	4.8	4.8	5.4	5.4	26.0	26.0
11	12.0	12.0	3.5	3.5	4.0	4.0	18.5	18.5
12	18.6	18.8	5.8	5.8	6.0	6.0	28.0	28.0
13	18.4	18.3	6.1	6.1	4.0	4.0	28.0	28.0
14	19.4	19.4	6.2	6.2	4.5	4.5	29.0	29.0
15	12.5	12.6	3.3	3.3	6.0	6.0	17.0	17.0
16	19.2	19.3	6.8	6.8	9.0	9.0	29.5	29.5

Table 3: Low Tide Dissolved Oxygen (mg/l)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	6.9	6.9	1.6	1.8	4.2	4.2	11.3	13.4
2	7.9	8.0	1.4	1.4	5.7	5.7	11.4	11.7
3	8.0	8.0	1.7	1.7	4.6	4.6	12.0	12.0
4	*	*	*	*	*	*	*	*
5	7.0	7.0	1.6	1.6	4.2	4.2	10.9	10.9
6	8.1	8.1	1.2	1.2	6.0	6.0	11.6	11.6
7	7.9	7.9	1.1	1.1	5.8	5.8	11.6	11.6
9	7.9	7.9	1.6	1.6	4.6	4.6	11.3	11.3
10	8.0	8.0	1.1	1.1	6.0	6.0	11.2	11.2
11	8.3	8.3	1.3	1.3	4.7	4.7	11.9	11.9
12	6.6	6.7	1.7	2.2	3.3	3.3	10.1	16.5
13	9.1	9.2	1.8	1.8	6.1	6.1	13.8	13.8
14	8.1	8.3	1.5	1.6	5.9	5.9	11.8	12.0
15	8.5	8.6	1.5	1.7	3.3	3.3	11.0	12.8
16	8.7	9.4	1.0	2.1	7.4	7.4	10.6	14.3

Table 4: High Tide Dissolved Oxygen (mg/l)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	8.2	8.2	1.2	1.3	5.4	5.4	12.9	12.9
2	8.3	8.3	1.1	1.1	6.5	6.5	11.4	11.4
3	8.8	8.9	1.6	1.6	5.6	5.6	12.6	12.6
4	8.7	9.0	1.3	1.4	6.5	6.5	12.0	12.5
5	8.3	8.5	1.3	1.3	6.0	6.0	12.0	12.0
6	8.2	8.2	1.1	1.1	5.5	5.5	10.9	10.9
7	7.9	8.0	1.1	1.1	5.3	5.3	10.9	10.9
9	8.3	8.5	1.4	1.4	5.6	5.6	11.9	11.9
10	8.4	8.5	1.0	1.0	7.0	7.0	11.2	11.2
11	8.2	8.2	1.3	1.3	4.7	4.7	12.3	12.3
12	8.8	8.8	1.6	1.5	4.8	4.8	12.4	12.4
13	9.0	9.0	1.6	1.6	7.0	5.4	12.5	12.5
14	8.5	8.4	1.7	1.6	3.3	3.3	12.8	12.8
15	8.5	8.6	1.7	1.9	3.3	3.3	10.8	11.5
16	9.2	10.8	1.2	3.2	7.7	7.7	11.2	19.0

Table 5: Low Tide Salinity (ppt)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	21.0	21.0	6.9	6.9	3.5	3.5	31.0	31.0
2	25.3	25.3	5.6	5.6	7.3	7.3	32.5	32.5
3	10.4	10.4	6.3	6.3	0.0	0.0	25.0	25.0
4	*	*	*	*	*	*	*	*
5	10.5	10.5	7.2	7.2	0.1	0.1	24.3	24.3
6	26.1	26.1	4.8	4.8	9.7	9.7	33.4	33.4
7	26.4	26.4	4.8	4.8	9.7	9.7	33.1	33.1
9	8.9	8.9	5.4	5.4	0.0	0.0	20.0	20.0
10	18.5	18.5	6.8	6.8	0.3	0.3	28.9	28.9
11	29.5	29.3	2.5	2.5	23.3	22.8	34.2	34.2
12	4.3	4.5	5.4	5.4	0.0	0.0	25.4	25.4
13	4.7	4.7	3.1	3.1	0.1	0.1	14.2	14.2
14	*	*	*	*	*	*	*	*
15	27.6	27.6	5.8	5.8	7.9	7.9	33.5	33.5
16	1.9	1.9	1.7	1.7	0.5	0.5	7.2	7.2

Table 6: High Tide Salinity (ppt)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	25.7	25.7	6.0	6.0	7.6	7.6	32.9	32.9
2	26.8	26.8	4.6	4.6	10.9	10.9	33.1	33.1
3	9.0	9.0	7.5	7.5	1.1	1.1	28.5	28.5
4	23.7	23.7	6.8	6.8	1.2	1.2	31.9	31.9
5	22.4	22.4	6.6	6.6	4.4	4.4	32.3	32.3
6	28.7	28.7	3.6	3.6	16.2	16.2	32.9	32.9
7	28.4	28.4	3.8	3.8	13.9	13.9	33.9	33.9
9	13.8	13.8	7.5	7.5	0.0	0.0	27.2	27.2
10	25.5	25.5	6.4	6.4	3.5	3.5	33.2	33.2
11	28.7	28.7	3.2	3.2	19.3	19.3	33.2	33.2
12	6.0	6.0	5.9	5.8	0.0	0.0	23.0	23.0
13	3.0	3.0	2.7	2.7	0.0	0.0	13.8	13.8
14	*	*	*	*	*	*	*	*
15	30.9	30.9	2.0	2.0	24.7	24.7	33.4	33.4
16	3.4	3.4	3.9	3.9	0.2	0.2	11.3	11.3

Table 7: Low Tide % Saturation

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	76.5	77.4	9.4	10.8	48.6	48.6	96.2	123.5
2	91.4	91.9	8.0	9.0	72.5	72.5	112.3	127.0
3	85.3	85.5	10.2	9.7	48.4	48.4	104.7	104.7
4	*	*	*	*	*	*	*	*
5	73.4	73.5	10.2	10.1	52.8	52.8	101.5	101.5
6	93.3	93.3	8.3	8.2	63.8	63.8	113.7	113.7
7	91.0	91.6	7.8	8.8	70.1	70.1	119.4	125.6
9	82.6	82.6	8.7	8.7	52.5	52.5	95.7	95.7
10	88.9	88.9	9.4	9.4	67.0	67.0	115.5	115.5
11	90.9	91.1	10.7	10.7	49.2	49.2	118.6	118.6
12	71.3	73.8	18.5	23.6	36.3	36.3	111.3	172.0
13	94.3	96.0	8.4	11.6	76.0	76.0	111.0	139.3
14	85.6	86.3	11.3	11.2	60.9	60.9	109.8	109.8
15	95.4	97.1	13.6	15.9	40.6	40.6	111.5	142.2
16	91.1	100.6	14.0	28.2	67.7	67.7	119.9	173.8

Table 8: High Tide % Saturation

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	97.4	98.5	9.6	10.6	56.4	56.4	116.2	125.6
2	97.5	98.0	7.3	7.8	83.5	83.5	113.7	121.4
3	95.4	98.0	7.0	13.0	65.3	65.4	118.5	151.5
4	101.2	107.5	9.9	14.3	80.5	80.5	117.2	141.9
5	97.9	101.7	10.4	15.2	75.6	75.6	118.2	152.5
6	93.4	93.8	9.6	9.0	62.7	62.7	109.6	109.6
7	92.4	92.4	9.5	9.5	62.9	62.9	113.7	113.7
9	91.8	94.7	11.2	14.5	67.1	67.1	116.2	131.5
10	98.7	99.4	7.6	8.9	84.1	84.1	113.1	134.0
11	90.0	90.0	10.7	10.8	55.2	55.2	112.4	112.4
12	93.4	97.2	11.0	15.1	57.6	57.6	118.5	145.5
13	94.9	94.9	9.3	8.7	57.8	62.9	115.6	115.6
14	91.5	92.3	14.6	13.8	29.8	29.8	112.9	112.9
15	96.0	97.2	18.3	18.3	40.9	40.9	117.0	121.5
16	93.0	121.9	10.9	49.0	72.8	72.8	108.6	253.7

Table 9: Low Tide pH

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	7.3	7.3	0.3	0.3	6.5	6.5	8.2	8.2
2	7.7	7.7	0.3	0.3	6.7	6.7	8.4	8.4
3	7.3	7.3	0.3	0.3	5.9	5.9	8.1	8.1
4	*	*	*	*	*	*	*	*
5	7.3	7.3	0.2	0.2	7.0	7.0	7.8	7.8
6	7.6	7.6	0.3	0.3	6.5	6.5	8.5	8.5
7	7.6	7.6	0.4	0.4	5.6	5.6	8.3	8.3
9	7.2	7.2	0.3	0.3	6.6	6.6	7.8	7.8
10	7.6	7.6	0.4	0.4	6.9	6.9	10.0	10.0
11	7.6	7.6	0.4	0.4	6.0	6.0	8.2	8.2
12	7.1	7.1	0.3	0.3	6.4	6.4	7.6	7.6
13	7.2	7.2	0.4	0.4	5.7	5.7	7.9	7.9
14	7.2	7.2	0.4	0.4	6.2	6.2	8.2	8.2
15	7.7	7.7	0.2	0.2	7.3	7.3	8.2	8.2
16	7.7	7.7	0.5	0.5	7.2	7.2	9.1	9.1

Table 10: High Tide pH

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	7.6	7.7	0.4	0.2	5.6	7.0	8.2	8.2
2	7.7	7.7	0.3	0.3	6.5	6.5	8.4	8.4
3	7.3	7.3	0.4	0.4	6.2	5.9	8.4	8.4
4	7.9	7.9	0.3	0.3	6.9	6.9	8.5	8.5
5	7.8	7.8	0.2	0.2	7.2	7.2	8.4	8.4
6	7.7	7.7	0.2	0.2	6.7	6.7	8.1	8.1
7	7.6	7.6	0.4	0.4	6.3	6.3	8.1	8.1
9	7.3	7.3	0.4	0.4	6.4	6.4	8.7	8.7
10	7.7	7.7	0.3	0.3	6.9	6.9	8.5	8.5
11	7.6	7.6	0.4	0.4	6.8	6.8	8.1	8.1
12	7.2	7.2	0.3	0.3	6.0	6.0	7.8	7.8
13	7.2	7.2	0.2	0.2	6.6	6.6	7.6	7.6
14	7.2	7.2	0.2	0.2	6.9	6.9	7.7	7.7
15	7.8	7.8	0.4	0.4	6.9	6.9	9.5	9.5
16	7.8	7.8	0.8	0.8	7.0	7.0	9.5	9.5

Table 11: Low Tide Air Temperature (°C)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	13.5	13.9	13.5	6.8	-7.0	-7.0	25.2	25.2
2	15.2	15.2	15.2	7.2	-2.0	-2.0	36.0	36.0
3	15.4	15.4	15.4	6.7	0.0	0.0	28.0	28.0
4	*	*	*	*	*	*	*	*
5	14.5	14.5	14.5	6.7	-6.0	-6.0	25.0	25.0
6	14.0	14.0	14.0	6.7	-2.0	-2.0	29.0	29.0
7	14.2	14.2	14.2	6.5	-2.0	-2.0	26.0	26.0
9	12.7	12.7	12.7	7.1	-8.0	-8.0	30.0	30.0
10	14.2	14.2	14.2	7.2	-8.0	-8.0	32.0	32.0
11	13.5	13.6	13.5	5.4	0.0	0.0	25.0	25.0
12	18.7	18.7	18.7	7.0	1.5	1.5	30.5	30.5
13	18.8	18.3	18.8	8.2	-2.0	-2.0	30.0	30.0
14	17.9	17.9	17.9	7.2	-2.5	-2.5	34.0	34.0
15	15.8	15.8	15.8	5.4	6.0	6.0	27.0	27.0
16	16.0	16.0	16.0	7.1	5.0	5.0	29.0	29.0

Table 12: High Tide Air Temperature (°C)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	21.8	21.3	7.1	7.3	2.0	0.5	35.0	35.0
2	20.5	20.4	6.7	6.8	3.5	3.5	31.0	31.0
3	20.3	20.3	7.4	7.4	-2.0	-2.0	32.0	32.0
4	21.2	21.2	7.8	7.8	4.0	4.0	37.0	37.0
5	19.3	19.3	7.6	7.6	1.0	1.0	34.0	34.0
6	20.2	20.0	7.4	7.4	4.0	4.0	37.0	37.0
7	22.1	22.1	7.6	7.6	0.0	0.0	37.0	37.0
9	18.8	18.8	7.4	7.4	-4.0	-4.0	32.0	32.0
10	20.6	20.6	7.3	7.3	5.0	5.0	34.0	34.0
11	17.0	17.3	6.8	6.6	-2.0	-2.0	28.0	28.0
12	22.8	23.1	8.4	8.4	2.5	2.5	39.5	39.5
13	22.3	22.2	8.4	8.1	2.5	2.5	39.5	39.5
14	21.1	21.1	7.5	7.5	2.5	2.5	36.0	36.0
15	20.0	20.0	6.2	6.2	2.0	2.0	32.0	32.0
16	20.1	20.1	7.9	7.9	8.0	8.0	32.5	32.5

Table 13: High Tide Light Transparency (cm)

Site #	1995 Reported Mean	Corrected 1995 Mean	1995 Reported Std. Dev.	Corrected 1995 Std. Dev.	1995 Reported Min	Corrected 1995 Min	1995 Reported Max	Corrected 1995 Max
1	157.7	157.7	59.6	60.0	75.0	75.0	385.0	385.0
2	166.5	166.5	69.2	69.6	75.0	75.0	460.0	460.0
3	99.1	99.1	24.2	24.4	45.0	45.0	195.0	195.0
4	65.5	65.3	25.6	26.0	4.0	4.0	120.0	120.0
5	71.2	71.2	27.4	27.6	18.5	18.5	135.0	135.0
6	249.8	247.0	53.0	55.9	140.0	140.0	355.0	355.0
7	277.7	277.8	89.7	90.3	115.0	115.0	570.0	570.0
9	134.1	126.2	41.0	47.6	13.0	13.0	228.0	205.0
10	213.1	213.2	67.4	68.2	60.0	60.0	345.0	345.0
11	368.6	368.6	108.2	109.5	120.0	120.0	535.0	535.0
12	46.3	46.7	35.9	38.1	5.0	5.0	90.0	90.0
13	135.5	135.5	47.1	47.7	60.0	60.0	287.5	287.5
14	176.9	175.4	52.7	52.1	17.0	17.0	300.0	300.0
15	407.7	407.7	79.9	81.4	265.0	265.0	610.0	610.0
16	74.0	74.0	37.6	39.0	34.5	34.5	157.5	157.5

Appendix E

Note: In a set of bacterial data, the average value is calculated by computing the geometric mean, rather than the arithmetic mean. This is the conventional manner by which bacterial averages are reported (1). Unlike the arithmetic mean, the geometric mean more accurately reflects the nature (or "middle road") of a data set that has a great deal of variability in the observations (as is often the case with bacterial data). For example, consider a set of bacterial data comprised of 10 observations, with eight of the observations equaling two colonies per 100 ml and two observations equaling 500 colonies per 100 ml (indicative of a relatively clean water with occasionally high bacterial levels, perhaps caused by wildlife defecating near the site). The **arithmetic mean** of this data set would be 102 colonies per 100 ml, which does not reflect the fact that most of the observations are quite low. The **geometric mean** of this data set would be six colonies per 100 ml; thus, the geometric mean is a better representation of the bacterial data set. For sites which indicate minimal variability, we also look at the **median** (the middle number when all observations are ordered in increasing order) as an average measure of the bacterial counts. **Appendix E** contains a table of comparisons of fecal coliform geometric means and medians.

In order to calculate geometric means for the GBW data, some adjustments to the data were necessary. First, on several of the sample dates, there were no fecal coliforms detected (0 colonies per 100 ml of water sample). Zero values cannot be used in calculating geometric means, so these observations were changed to have fecal coliform counts of one colony per 100 ml. According to "Standard Methods" for fecal coliform procedures a colony count between 20-60 is preferred, if a 100 ml of sample produced a too numerous to count (TNTC) then 60 was entered as the count. When a 10 ml or 1 ml water samples were used as the dilution and count was TNTC, 600 and 6000 respectively were reported since these would be the calculations for colonies per 100 ml. The second adjustment to the data relates to those samples for which coliforms were TNTC the number of colonies on the plate. In the case of high values, the adjustment utilizes the minimum number of colonies known to be present. By these methods we are prevented from overestimating high counts that could not be documented. When calculating the medians for the GBW data, adjustments to those observations which were too numerous to accurately count were calculated using the same manner implemented for the determination of geometric means. Zero values for calculating the median were not changed.

Table of Fecal Coliform Geometric Means vs. Medians

		Low Tide		High Tide	
Site Name	Site #	Geometric Mean	Median	Geometric Mean	Median
Peninsula	1	40	44	4	3
JEL	2	3	3	3	2
Lamprey River	3	185	230	89	95
Depot Road	4	*	*	4	2
PCC	5	140	200	6	9
Fox Point	6	4	4	4	3
Cedar Point	7	6	5	8	8
Neal	9	201	215	30	50
Clark	10	19	25	3	3
CML	11	4	4	2	1
STP	12	16	10	97	100
Marina Falls Land.	13	122	225	124	160
Fowlers Dock	14	14	16	17	20
Patten Yacht Yard	15	4	4	2	2
Exeter Docks	16	234	295	93	105

Appendix F

Water quality indicators and number of sampling days

Table 1: Low Tide Water Temperature (°C)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	1	16.0	5.49	24.5	1.3
JEL	2	Great Bay	89	2	15.8	4.98	24.0	5.0
Lamprey River	3	Lamprey River	87	10	17.0	5.00	25.0	5.5
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	15.6	5.58	25.0	1.0
Fox Point	6	Little Bay	88	2	15.1	4.40	22.0	4.5
Cedar Point	7	Little Bay	85	1	15.1	4.17	22.5	6.5
Neal	9	Cocheco River	73	0	15.2	5.88	24.0	-1.0
Clark	10	Upper Piscataqua River	67	4	16.0	5.32	24.5	4.4
CML	11	Lower Piscataqua River	74	2	11.9	3.43	18.0	4.0
STP	12	Lamprey River	59	1	18.2	4.13	26.0	7.5
Marina Falls Land.	13	Lamprey River	58	0	17.0	5.93	26.5	3.0
Fowlers Dock	14	Lamprey River	58	1	17.2	5.64	25.0	4.0
Patten Yacht Yard	15	Lower Piscataqua River	43	0	13.9	3.51	21.0	7.0
Exeter Docks	16	Squamscott River	29	2	16.8	6.02	27.0	4.0

Table 2: High Tide Water Temperature (°C)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	2	17.0	5.13	26.5	5.3
JEL	2	Great Bay	89	2	15.8	4.52	23.5	5.2
Lamprey River	3	Lamprey River	87	2	18.3	6.15	29.5	4.0
Depot Road	4	Great Bay	80	2	18.1	5.90	29.5	3.5
PCC	5	Winnicut River	88	0	18.0	6.14	29.5	3.0
Fox Point	6	Little Bay	88	1	13.5	3.76	20.0	5.0
Cedar Point	7	Little Bay	85	0	14.6	3.84	21.0	6.0
Neal	9	Cocheco River	73	0	16.7	6.27	27.5	-1.0
Clark	10	Upper Piscataqua River	67	0	16.1	4.95	26.0	5.0
CML	11	Lower Piscataqua River	74	1	12.2	3.59	19.0	4.0
STP	12	Lamprey River	59	1	18.6	5.91	29.0	6.0
Marina Falls Land.	13	Lamprey River	58	3	18.3	6.29	29.0	4.0
Fowlers Dock	14	Lamprey River	58	2	19.1	6.25	30.0	4.5
Patten Yacht Yard	15	Lower Piscataqua River	43	3	12.2	3.35	17.0	6.0
Exeter Docks	16	Squamscott River	29	1	18.3	6.70	29.5	3.5

Table 3: Low Tide Dissolved Oxygen (mg/l)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	0	6.9	1.75	13.4	4.2
JEL	2	Great Bay	89	1	7.9	1.38	11.7	5.7
Lamprey River	3	Lamprey River	87	11	7.9	1.78	13.5	4.6
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	7.0	1.67	10.9	4.2
Fox Point	6	Little Bay	88	3	8.1	1.18	11.6	6.0
Cedar Point	7	Little Bay	85	2	7.9	1.11	11.6	5.8
Neal	9	Cocheco River	73	1	7.9	1.57	11.7	4.6
Clark	10	Upper Piscataqua River	67	4	7.9	1.20	11.2	5.3
CML	11	Lower Piscataqua River	74	4	8.4	1.26	11.9	4.7
STP	12	Lamprey River	59	2	6.2	2.23	16.5	1.9
Marina Falls Land.	13	Lamprey River	58	0	9.0	1.89	13.8	5.3
Fowlers Dock	14	Lamprey River	58	3	8.3	1.71	12.0	5.2
Patten Yacht Yard	15	Lower Piscataqua River	43	2	8.4	1.64	12.8	3.3
Exeter Docks	16	Squamscott River	29	1	9.3	1.79	14.3	6.1

Table 4: High Tide Dissolved Oxygen (mg/l)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	4	8.3	1.24	12.9	5.4
JEL	2	Great Bay	89	1	8.3	1.07	11.4	6.5
Lamprey River	3	Lamprey River	87	3	8.9	1.60	13.0	5.6
Depot Road	4	Great Bay	80	4	9.0	1.33	12.5	6.5
PCC	5	Winnicut River	88	0	8.6	1.30	12.0	6.0
Fox Point	6	Little Bay	88	0	8.3	1.12	10.9	5.5
Cedar Point	7	Little Bay	85	2	8.0	1.11	10.9	5.3
Neal	9	Cocheco River	73	1	8.6	1.56	13.6	5.6
Clark	10	Upper Piscataqua River	67	0	8.4	1.00	12.2	6.7
CML	11	Lower Piscataqua River	74	2	8.3	1.28	12.3	4.7
STP	12	Lamprey River	59	1	8.7	1.67	12.4	3.7
Marina Falls Land.	13	Lamprey River	58	2	9.0	1.71	12.9	5.4
Fowlers Dock	14	Lamprey River	58	2	8.4	1.63	12.8	3.3
Patten Yacht Yard	15	Lower Piscataqua River	43	1	8.7	1.61	11.5	3.3
Exeter Docks	16	Squamscott River	29	0	10.8	2.82	19.0	7.5

Table 5: Low Tide Salinity (ppt)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	0	21.3	6.73	31.0	3.5
JEL	2	Great Bay	89	2	25.6	5.32	32.5	7.3
Lamprey River	3	Lamprey River	87	10	10.9	6.82	27.1	0.0
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	10.5	7.45	26.0	0.1
Fox Point	6	Little Bay	88	2	26.4	4.63	33.4	9.7
Cedar Point	7	Little Bay	85	2	26.6	4.57	33.1	9.7
Neal	9	Cocheco River	73	0	8.9	5.40	20.0	0.0
Clark	10	Upper Piscataqua River	67	4	19.0	6.85	28.9	0.3
CML	11	Lower Piscataqua River	74	4	29.5	2.33	34.2	22.8
STP	12	Lamprey River	59	1	3.7	5.06	25.4	0.0
Marina Falls Land.	13	Lamprey River	58	0	5.1	4.43	29.2	0.1
Fowlers Dock	14	Lamprey River	58	1	1.6	1.50	6.6	0.0
Patten Yacht Yard	15	Lower Piscataqua River	43	0	27.3	6.51	38.1	2.0
Exeter Docks	16	Squamscott River	29	2	2.3	3.16	13.6	0.0

Table 6: High Tide Salinity (ppt)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	2	26.0	5.70	32.9	7.6
JEL	2	Great Bay	89	2	27.0	4.41	33.1	10.9
Lamprey River	3	Lamprey River	87	3	9.6	8.22	29.6	1.1
Depot Road	4	Great Bay	80	3	24.1	6.61	32.0	1.2
PCC	5	Winnicut River	88	0	22.8	6.43	32.3	4.4
Fox Point	6	Little Bay	88	0	28.8	3.38	32.9	16.2
Cedar Point	7	Little Bay	85	1	28.5	3.56	33.9	13.9
Neal	9	Cocheco River	73	1	14.1	7.60	27.8	0.0
Clark	10	Upper Piscataqua River	67	0	25.8	5.97	33.2	3.5
CML	11	Lower Piscataqua River	74	2	29.0	2.97	33.2	19.3
STP	12	Lamprey River	59	1	6.0	6.45	23.5	0.0
Marina Falls Land.	13	Lamprey River	58	2	3.4	4.31	28.0	0.0
Fowlers Dock	14	Lamprey River	58	1	1.6	1.29	5.7	0.0
Patten Yacht Yard	15	Lower Piscataqua River	43	1	30.4	2.71	33.9	17.4
Exeter Docks	16	Squamscott River	29	2	4.1	5.22	16.7	0.0

Table 7: Low Tide % Saturation

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	1	77.11	11.560	123.47	48.57
JEL	2	Great Bay	89	2	91.56	8.694	127.01	72.49
Lamprey River	3	Lamprey River	87	13	85.08	9.910	109.16	48.37
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	73.22	10.180	101.49	52.83
Fox Point	6	Little Bay	88	3	93.07	7.921	113.73	63.83
Cedar Point	7	Little Bay	85	3	91.75	8.514	125.56	70.15
Neal	9	Cocheco River	73	2	81.70	8.950	98.09	52.48
Clark	10	Upper Piscataqua River	67	4	88.60	9.850	115.48	67.02
CML	11	Lower Piscataqua River	74	6	91.82	10.170	118.62	49.24
STP	12	Lamprey River	59	2	67.74	24.090	172.03	22.59
Marina Falls Land.	13	Lamprey River	58	0	93.99	11.920	139.31	63.96
Fowlers Dock	14	Lamprey River	58	3	85.09	11.780	109.80	57.22
Patten Yacht Yard	15	Lower Piscataqua River	43	2	94.78	15.950	142.01	40.63
Exeter Docks	16	Squamscott River	29	2	96.55	21.390	173.8	67.66

Table 8: High Tide % Saturation

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	4	98.66	10.260	125.63	56.37
JEL	2	Great Bay	89	2	97.43	7.878	121.37	81.00
Lamprey River	3	Lamprey River	87	4	98.20	12.320	151.46	65.35
Depot Road	4	Great Bay	80	6	107.73	14.130	141.87	80.50
PCC	5	Winnicut River	88	0	103.18	15.810	152.51	75.61
Fox Point	6	Little Bay	88	1	94.28	8.803	109.56	62.68
Cedar Point	7	Little Bay	85	3	92.82	9.033	113.65	62.87
Neal	9	Cocheco River	73	3	94.68	14.890	131.50	67.13
Clark	10	Upper Piscataqua River	67	0	98.54	8.660	133.98	81.29
CML	11	Lower Piscataqua River	74	3	91.44	10.440	112.38	55.20
STP	12	Lamprey River	59	1	95.74	16.460	146.18	50.12
Marina Falls Land	13	Lamprey River	58	3	95.58	9.740	134.58	62.86
Fowlers Dock	14	Lamprey River	58	3	91.28	13.140	112.93	29.84
Patten Yacht Yard	15	Lower Piscataqua River	43	3	97.50	16.370	121.48	40.85
Exeter Docks	16	Squamscott River	29	2	119.83	44.500	253.70	72.83

Table 9: Low Tide pH

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	4	7.3	0.35	8.2	6.5
JEL	2	Great Bay	89	6	7.7	0.30	8.4	6.7
Lamprey River	3	Lamprey River	87	9	7.3	0.30	8.1	5.9
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	7.4	0.15	7.8	7.0
Fox Point	6	Little Bay	88	5	7.6	0.27	8.5	6.5
Cedar Point	7	Little Bay	85	2	7.6	0.37	8.3	5.6
Neal	9	Cocheco River	73	1	7.2	0.29	7.9	6.6
Clark	10	Upper Piscataqua River	67	4	7.5	0.46	10.0	6.4
CML	11	Lower Piscataqua River	74	7	7.7	0.40	8.2	6.0
STP	12	Lamprey River	59	3	7.1	0.24	7.6	6.4
Marina Falls Land.	13	Lamprey River	58	2	7.3	0.36	7.9	5.7
Fowlers Dock	14	Lamprey River	58	2	7.3	0.32	8.2	6.2
Patten Yacht Yard	15	Lower Piscataqua River	43	1	7.8	0.26	8.4	7.1
Exeter Docks	16	Squamscott River	29	2	7.6	0.37	9.1	7.2

Table 10: High Tide pH

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	4	7.7	0.24	8.3	7.0
JEL	2	Great Bay	89	7	7.7	0.30	8.4	6.5
Lamprey River	3	Lamprey River	87	2	7.3	0.35	8.4	5.9
Depot Road	4	Great Bay	80	3	7.8	0.26	8.5	6.9
PCC	5	Winnicut River	88	0	7.8	0.24	8.4	7.2
Fox Point	6	Little Bay	88	4	7.7	0.24	8.1	6.7
Cedar Point	7	Little Bay	85	1	7.6	0.34	8.1	6.3
Neal	9	Cocheco River	73	0	7.4	0.40	8.7	6.4
Clark	10	Upper Piscataqua River	67	0	7.7	0.32	8.5	6.9
CML	11	Lower Piscataqua River	74	7	7.7	0.36	8.1	6.8
STP	12	Lamprey River	59	2	7.2	0.29	7.8	6.0
Marina Falls Land.	13	Lamprey River	58	5	7.3	0.29	8.2	6.6
Fowlers Dock	14	Lamprey River	58	2	7.2	0.23	7.7	6.8
Patten Yacht Yard	15	Lower Piscataqua River	43	1	7.8	0.40	9.5	6.8
Exeter Docks	16	Squamscott River	29	1	7.8	0.65	9.5	7.0

Table 11: Low Tide Air Temperature (°C)

Site Name	Site #	Location	# of Sampling Days	# of Miss Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	0	14.1	6.60	25.2	-7.0
JEL	2	Great Bay	89	2	15.2	7.01	36.0	-2.0
Lamprey River	3	Lamprey River	87	9	15.1	6.64	28.0	0.0
Depot Road	4	Great Bay	*	*	*	*	*	*
PCC	5	Winnicut River	88	1	14.5	6.55	25.0	-6.0
Fox Point	6	Little Bay	88	2	13.9	6.47	29.0	-2.0
Cedar Point	7	Little Bay	85	1	14.1	6.40	26.0	-2.0
Neal	9	Cocheco River	73	0	12.5	6.93	30.0	-8.0
Clark	10	Upper Piscataqua River	67	4	14.1	6.89	32.0	-8.0
CML	11	Lower Piscataqua River	74	8	13.2	5.60	25.0	-2.0
STP	12	Lamprey River	59	2	18.4	6.75	30.5	1.5
Marina Falls Land.	13	Lamprey River	58	0	17.9	7.70	30.0	-2.0
Fowlers Dock	14	Lamprey River	58	1	17.2	7.42	34.0	-2.5
Patten Yacht Yard	15	Lower Piscataqua River	43	0	14.5	5.75	27.0	1.0
Exeter Docks	16	Squamscott River	29	1	16.0	6.36	29.0	4.0

Table 12: High Tide Air Temperature (°C)

Site Name	Site #	Location	# of Sampling Days	# of Miss. Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	3	21.0	7.75	35.0	-1.0
JEL	2	Great Bay	89	1	19.8	7.08	31.0	1.0
Lamprey River	3	Lamprey River	87	5	19.9	7.64	32.0	-2.0
Depot Road	4	Great Bay	80	2	20.7	8.30	37.0	0.0
PCC	5	Winnicut River	88	0	19.1	7.63	34.0	0.0
Fox Point	6	Little Bay	88	3	19.5	7.57	37.0	1.0
Cedar Point	7	Little Bay	85	0	21.6	7.78	37.0	0.0
Neal	9	Cocheco River	73	1	18.3	7.42	32.0	-4.0
Clark	10	Upper Piscataqua River	67	0	20.3	7.59	35.0	4.0
CML	11	Lower Piscataqua River	74	5	17.3	6.85	28.0	-2.0
STP	12	Lamprey River	59	2	22.1	8.65	39.5	-2.0
Marina Falls Land.	13	Lamprey River	58	3	21.5	8.29	39.5	1.0
Fowlers Dock	14	Lamprey River	58	4	20.6	7.71	36.0	1.0
Patten Yacht Yard	15	Lower Piscataqua River	43	2	18.8	6.49	32.0	2.0
Exeter Docks	16	Squamscott River	29	0	19.6	8.54	35.0	-1.0

Table 13: High Tide Light Transparency (cm)

Site Name	Site #	Location	# of Sampling Days	# of Miss. Obs.	Mean	Std. Dev.	Max	Min
Peninsula	1	Oyster River	88	2	155.5	55.83	385.0	75.0
JEL	2	Great Bay	89	1	166.4	64.19	460.0	75.0
Lamprey River	3	Lamprey River	87	5	96.9	23.91	195.0	45.0
Depot Road	4	Great Bay	80	23	63.9	24.39	120.0	4.0
PCC	5	Winnicut River	88	9	73.7	28.82	135.0	18.5
Fox Point	6	Little Bay	88	13	253.1	59.39	355.0	100.0
Cedar Point	7	Little Bay	85	2	277.6	84.23	570.0	115.0
Neal	9	Cocheco River	73	47	126.6	36.17	205.0	13.0
Clark	10	Upper Piscataqua River	67	9	208.5	63.36	345.0	60.0
CML	11	Lower Piscataqua River	74	16	375.5	103.60	545.0	120.0
STP	12	Lamprey River	59	39	52.0	29.91	92.50	5.0
Marina Falls Land.	13	Lamprey River	58	6	131.2	44.39	287.50	60.0
Fowlers Dock	14	Lamprey River	58	1	170.5	47.12	300.0	17.0
Patten Yacht Yard	15	Lower Piscataqua River	43	4	413.5	76.60	610.0	265.0
Exeter Docks	16	Squamscott River	29	0	77.8	39.43	172.50	32.5

Appendix G

Minitab Statistical Analysis Printouts for Water Quality Indicator Methods during the QA/QC session

Note: Statistical sign tests were performed to determine if different methods for measuring dissolved oxygen, pH and salinity differed from the methods used by the Great Bay Watch monitors. All tests were performed at a 95% confidence level. This means that based on the results we want to be 95% confident that the differences between the two methods was not different from zero. Or, in other words, there is only a 5% chance that we would accept that the differences were zero when they really were not. Each of the following tests give what is called a p-value. If this value is higher than 0.05 we are 95% confident that the two methods did not differ.

Sign Test for Median for Salinity Test One

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
sal1diff	27	0	7	20	0.0000	0.5000

Sign Test for Median for Salinity Test Two

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
sal2diff	27	10	1	16	0.3269	0.2000

Sign Test for Median for Salinity Test 3

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
sal3diff	27	14	2	11	0.6900	-0.1000

Sign Test for Median for pH Test

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
pHdiff	27	10	3	14	0.5413	0.02000

Sign Test for Median for Dissolved Oxygen Test

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
DOdiff	27	17	1	9	0.1686	-0.1000

Appendix H

Minitab Statistical Analysis Printouts for Field Split Sampling Data

Note: Statistical sign tests were performed to determine if QA/QC split samplings differed from volunteer samplings. All tests were performed at a 95% confidence level. This means that based on the results we want to be 95% confident that the differences between the QA/QC values and the volunteer values were not different from zero. Or, in other words, there is only a 5% chance that we would accept that the differences were zero when they really were not. Each of the following tests give what is called a p-value. If this value is higher than 0.05 we are 95% confident that the QA/QC values did not differ from the volunteer values.

Sign Test for Median of Low Tide Air Temperatures

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
AIRLDIFF	14	4	7	3	1.0000	0.00000

Sign Test for Median of Low Tide Water Temperatures

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
WATLDIFF	14	5	8	1	0.2187	0.00000

Sign Test for Median of Low Tide Dissolved Oxygen Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
DOLDIFF	14	4	0	10	0.1796	0.1000

Sign Test for Median of Low Tide Salinity Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
SALLDIFF	14	8	1	5	0.5811	-0.3500

Sign Test for Median of Low Tide pH Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
pHLDIFF	14	7	3	4	0.5488	-0.05000

Sign Test for Median of High Tide Air Temperatures

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
AIRHDIFF	19	6	9	4	0.7539	0.00000

Sign Test for Median of High Tide Water Temperatures

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
WATHDIFF	19	5	9	5	1.0000	0.00000

Sign Test for Median of High Tide Dissolved Oxygen Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
DOHDIFF	18	1	9	4	5	0.4240	-0.05000

Sign Test for Median of High Tide Salinity Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
SALHDIFF	19	9	1	9	1.0000	0.00000

Sign Test for Median of High Tide pH Values

Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
pHHDIFF	18	1	8	6	4	0.3877	0.00000

Sign Test for Median of Low Tide Water Depth

Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
DPLDIFF	13	1	5	7	1	0.2187	0.00000

Sign Test for Median of High Tide Water Depth

Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
DPHDIFF	18	1	5	8	5	1.0000	0.00000

Sign Test for Median of Low Tide Turbidity

Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
TBLDIFF	13	1	6	6	1	0.1250	0.00000

Sign Test for Median of High Tide Turbidity

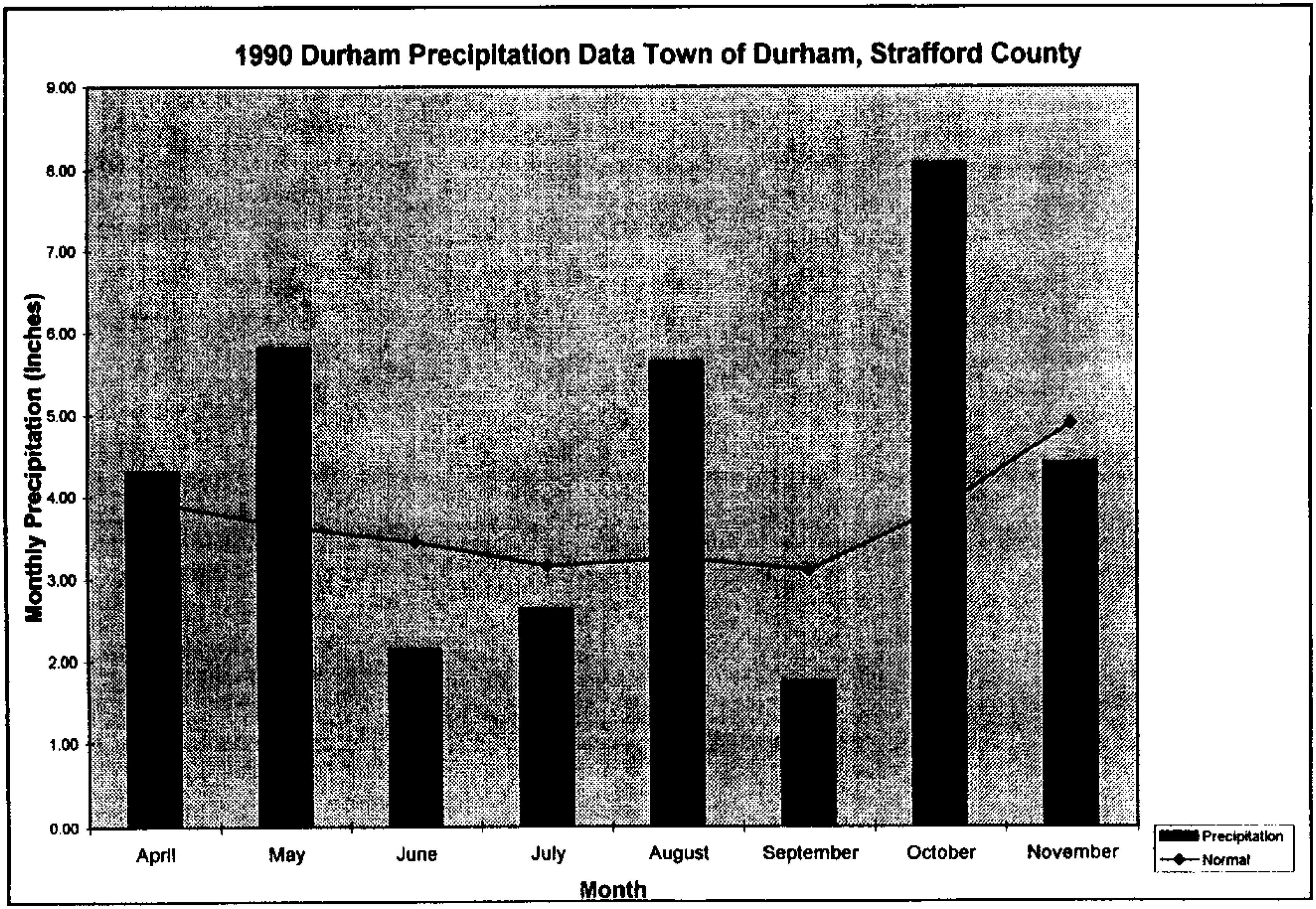
Sign test of median = 0.00000 versus N.E. 0.00000

	N	N*	BELOW	EQUAL	ABOVE	P-VALUE	MEDIAN
TBHDIFF	16	3	9	6	1	0.0215	-1.750

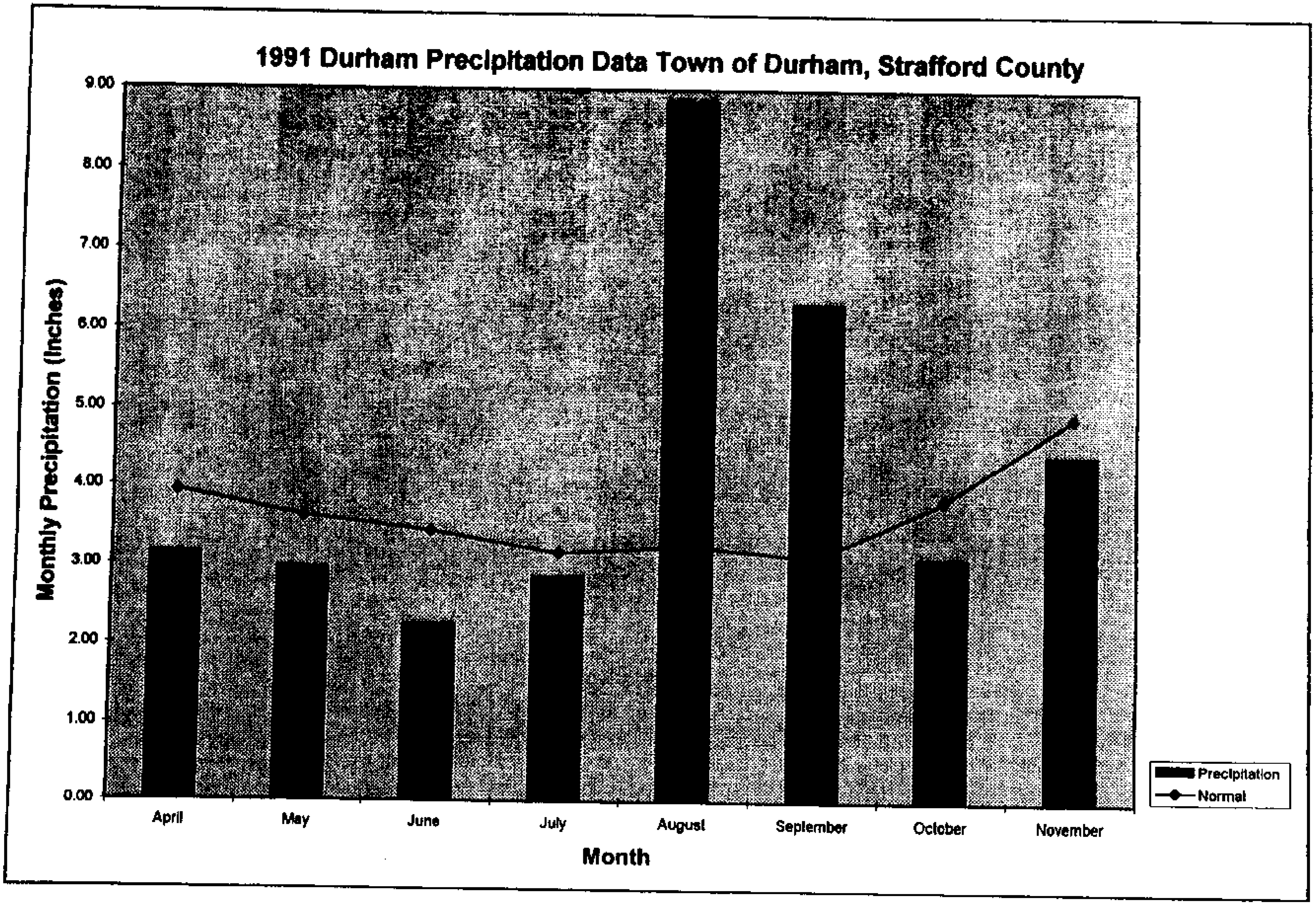
Appendix I

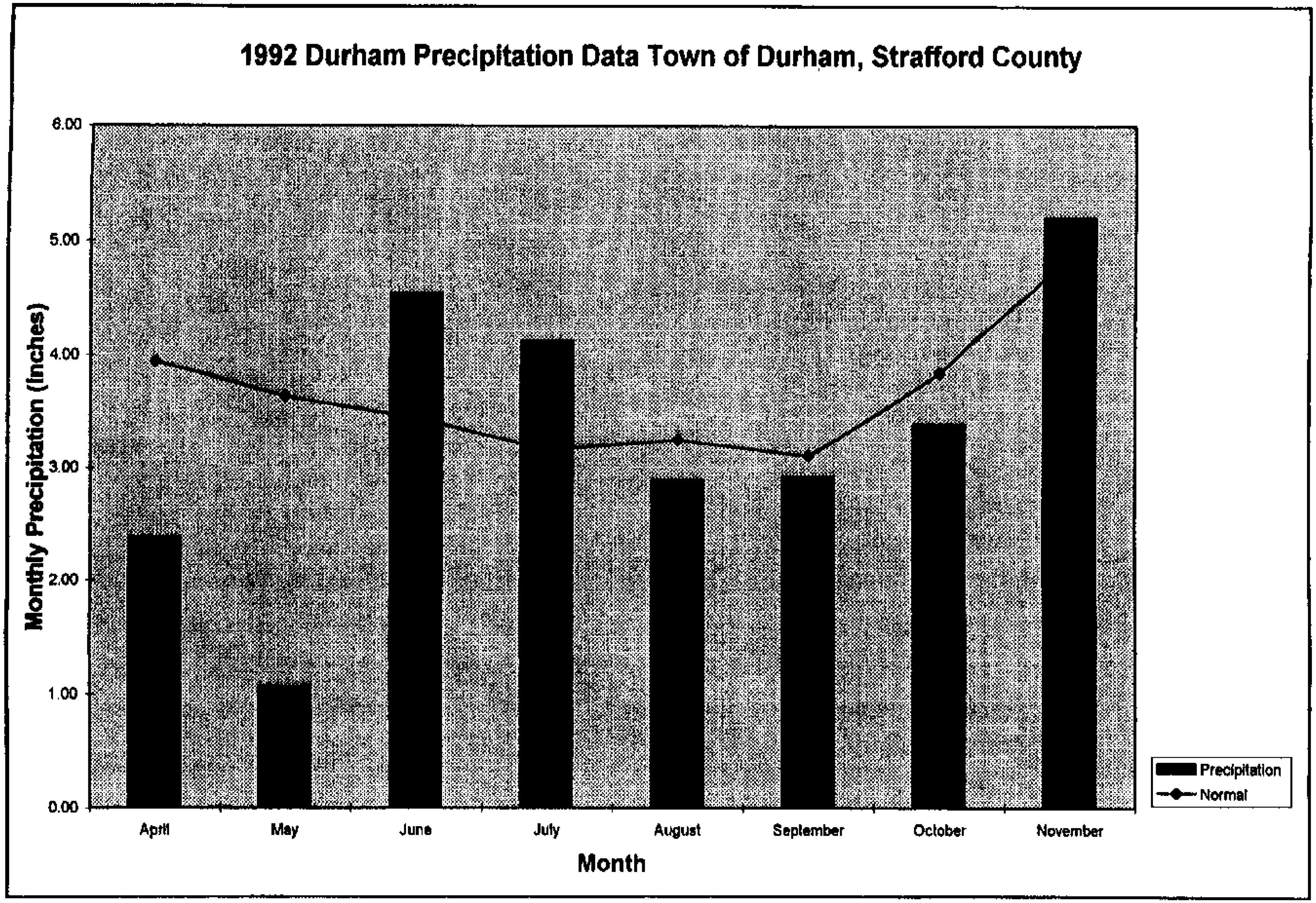
Graphs of Monthly precipitation 1990-1995

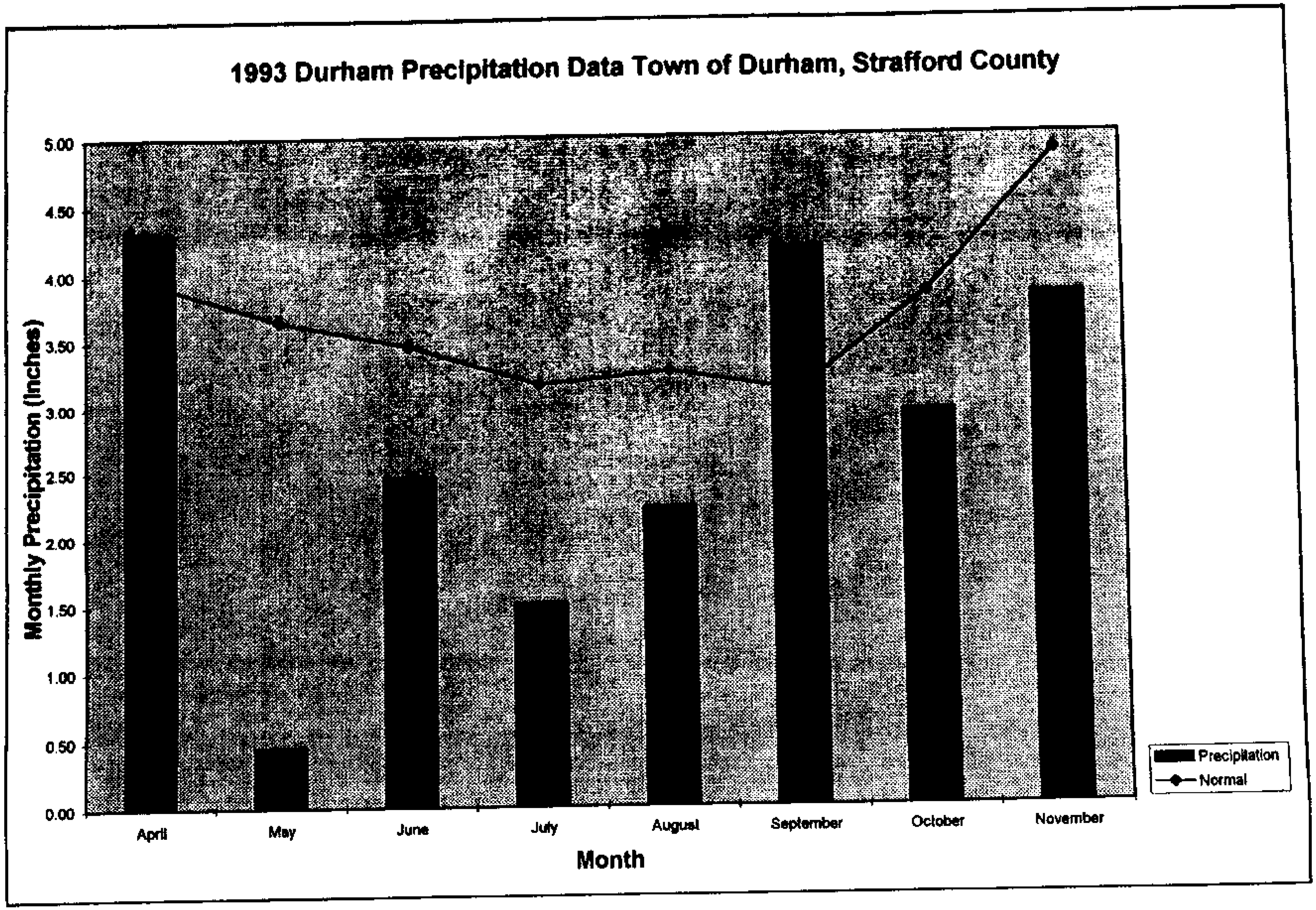
1990 Precipitation Data



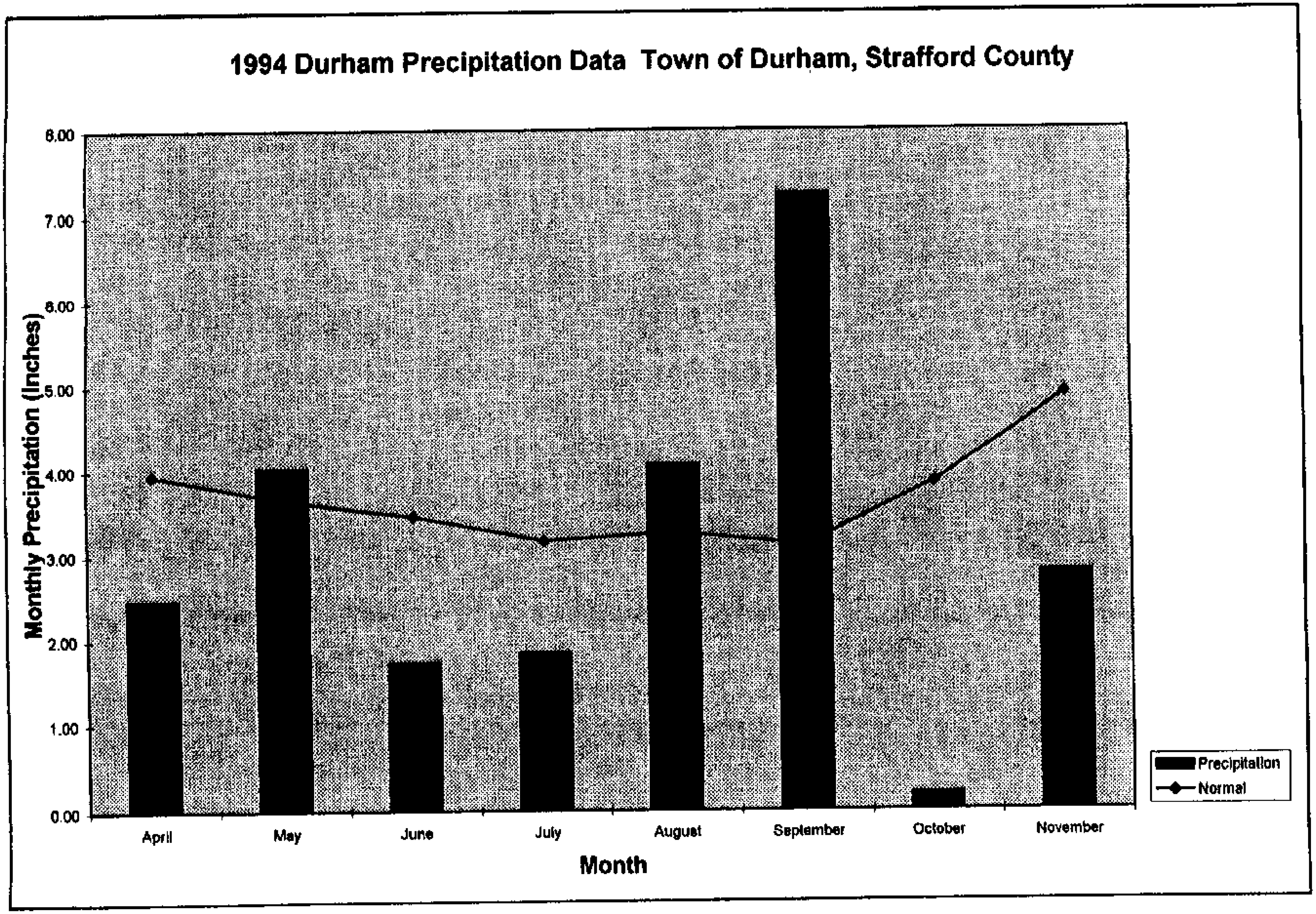
1991 Precipitation Data

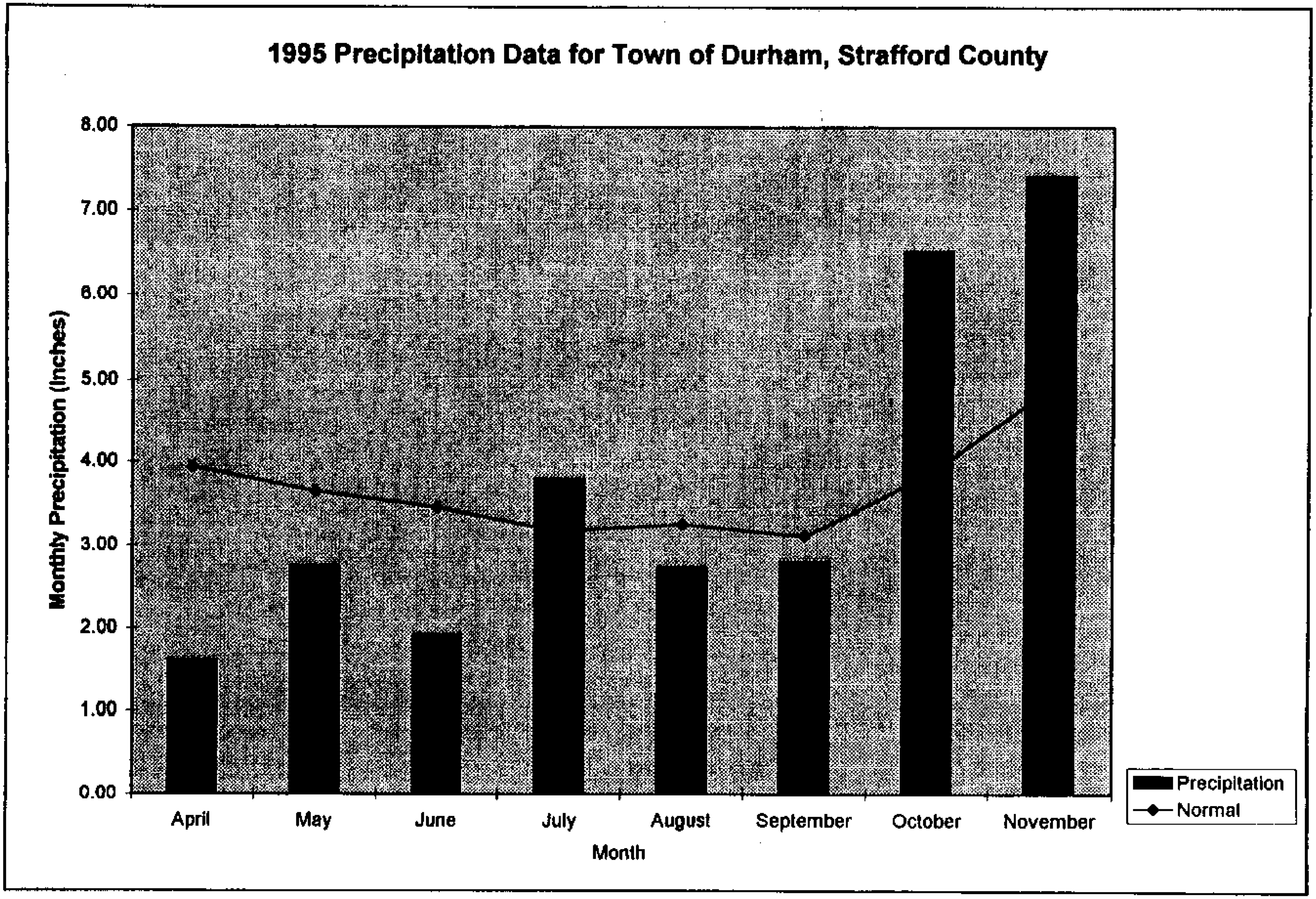



1992 Durham Precipitation Data Town of Durham, Strafford County
Monthly Precipitation (inches)
6.00
5.00
4.00
3.00
2.00
1.00
0.00
April
May
June
July
August
September
October
November
Month
Precipitation
Normal


1993 Durham Precipitation Data Town of Durham, Strafford County
Monthly Precipitation (Inches)
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
April
May
June
July
August
September
October
November
Month
Precipitation
Normal

1994 Durham Precipitation




1995 Precipitation Data for Town of Durham, Strafford County
Monthly Precipitation (Inches)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
April
May
June
July
August
September
October
November
Month
Precipitation
Normal