

MERRIMACK RIVER
MONITORING PROGRAM
1974

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MANCHESTER, NEW HAMPSHIRE

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MERRIMACK RIVER MONITORING PROGRAM - 1974

I. INTRODUCTION

The fifth year of the Merrimack River Monitoring Program was initiated in April 1974. This program was developed to fulfill a requirement contained in a water-use permit issued to Public Service Company of New Hampshire by the New Hampshire Water Supply and Pollution Control Commission. The monitoring program was designed to detect both seasonal and temporal changes in the ecology of the Merrimack River and possible adverse effects caused by thermal discharges from the Merrimack Generating Station. Emphasis was placed on that section of the Merrimack River from Garvins Falls Dam in Concord to the Hooksett Dam in Hooksett, New Hampshire, a distance of 5.75 miles (Figure 1). This area of the river is generally referred to as Hooksett Pond. The Merrimack Generating Station is located near its center at river mile 84. Sampling stations were established and marked on transects located north and south of the mouth of the discharge canal. These were numbered N-1 to N-10, and S-1 to S-24, respectively. Stations N-1 through N-6 are separated by 500 foot intervals while N-6 to N-10 are 1000 feet apart. Stations south of the discharge canal (S-1 to S-24) are located at 500 foot intervals. The north stations, particularly N-10, were used to depict ambient river conditions as contrasted to the thermally affected zone south of the discharge. Station Zero-West was established at the mouth of the discharge canal (western extreme of Station Zero) and all samples taken at that location were within the direct influence of the thermal discharge. The portion of the river under study is fairly uniform, and has an average width of 500 to 700 feet. Much of the river is shallow, averaging less than ten feet in depth, although depths of over twenty feet are found in some sections.

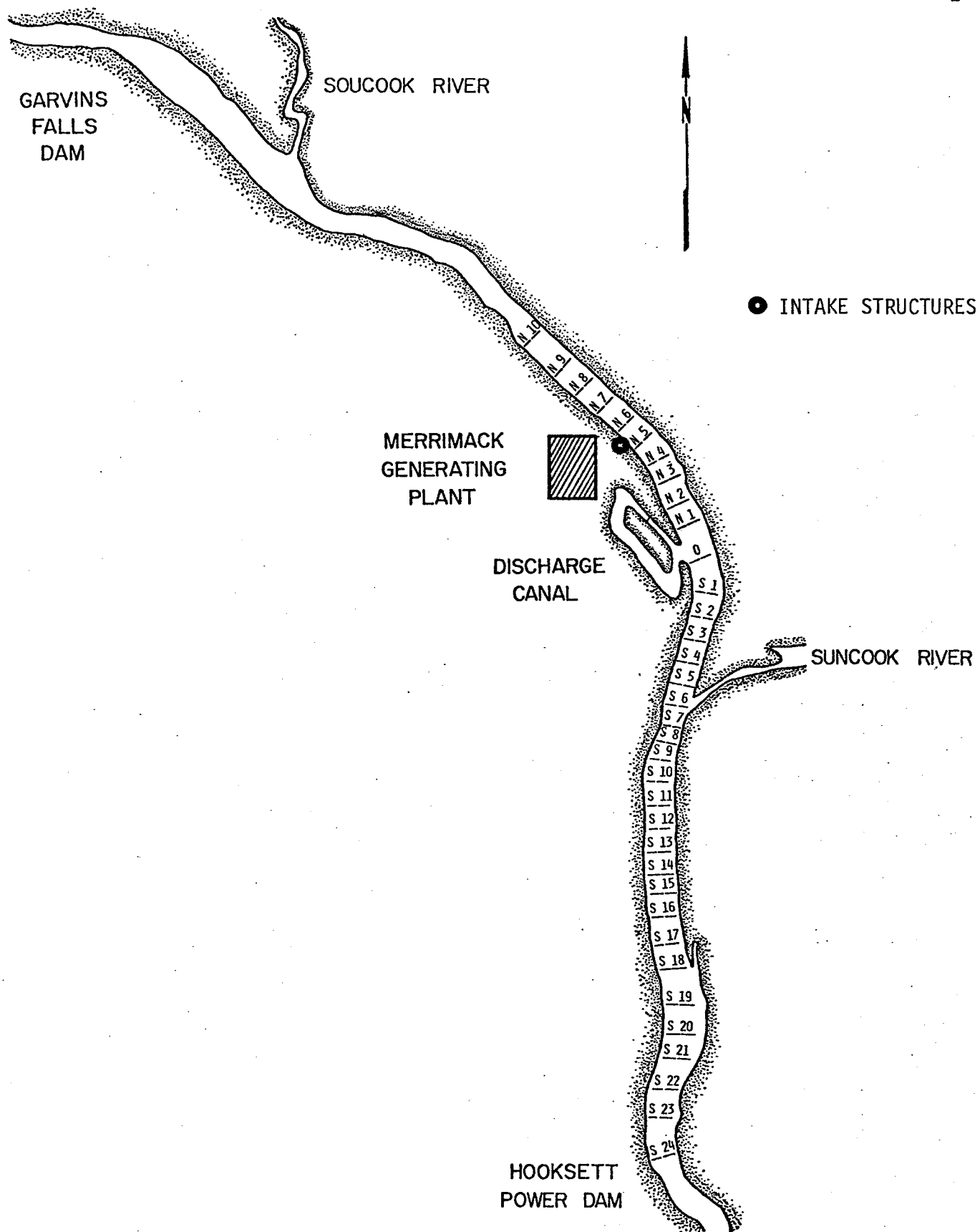


Figure 1. Location of sampling stations, Merrimack River Monitoring Program, Hooksett Pond, New Hampshire.

II. PHYSICAL STUDIES

A. METHODS

1. Flows

River flow measurements were obtained from gauging station data collected at Garvins Falls (Figure 1) hydroelectric station by Public Service Company of New Hampshire.

2. Depth of Visibility

Weekly Secchi Disc visibility measurements were taken at Stations N-10, Zero-West, S-4, and S-17. Depths at which the disc disappeared from view were recorded to the nearest one-half foot.

3. Temperature

Three types of temperature studies were conducted during the 1973-1974 project year: a) continuous monitoring of surface temperatures; b) weekly temperature profiles; and c) seasonal cross-sectional temperature profiles. Supplementary temperature data were also collected in conjunction with biological studies.

a. Continuous Monitoring

Surface temperature monitoring was conducted by personnel of the Public Service Company of New Hampshire at Stations N-10, Zero-West, and S-4. Instrumentation consisted of YSI thermivolt thermometers connected to Westinghouse (Hagen) signal converters and Sangamo digital

pulse recorders. These units were checked weekly. Temperature differences in degrees Fahrenheit between stations N-10 and S-4 were monitored at 15-minute intervals over each 24-hour period from April 1 to October 31.

b. Weekly Temperature Profiles

Through May of 1974, weekly temperature profiles were taken with a YSI field thermistor system at one data point each at Stations N-10, Zero-West, S-4, and S-17 in conjunction with biological samplings. In June 1974, following a request received from the New Hampshire Fish and Game Department, a mid-river and East profile were added to Station Zero, and a West and East profile to Station S-4. Periodic calibration of the field thermistor unit was accomplished with a precision grade mercury thermometer.

c. Seasonal Temperature Profiles

Thermal stratification in the Merrimack River was measured in July, August, and September of 1974 with a Martek Model 101 temperature, depth, and conductivity meter, and a YSI field thermistor unit. These instruments were checked periodically with a precision grade mercury thermometer. Temperatures were taken north and south of the generating station (Stations N-10, N-5, N-1, Zero, S-1 through S-10, S-14, S-18, S-22 and S-24) at six points across the river at one foot depth intervals. Ambient temperature was monitored at N-5 (intake structure) using a Rustrak Strip Chart Recorder with a 400 series YSI thermistor probe during these studies.

B. RESULTS AND DISCUSSION

1. Flows

Mean monthly flows, ± 1 standard deviation and flow ranges during the 1974 sampling period are represented in Figure 2. As might be expected, consistently high flows occurred during the early spring with a maximum daily mean of 22,100 c.f.s. recorded on April 11. Minimum flows were noted in August during which 52% of the daily means were less than 1000 c.f.s., with a low reading of 418 c.f.s. recorded on August 16. An abrupt reduction in flows occurred between May and June when monthly means fell from 8,238 c.f.s. to 2,911 c.f.s., respectively. Unlike 1972 and 1973 when low flow periods occurred in September, August was the month of lowest flow in 1974. In general, river flows for 1974 were comparable to 1971 values but were lower than those of 1972 (NAI, 1973) and 1973 (NAI, 1974).

2. Depth of Visibility

Weekly depth of visibility measurements taken during the 1974 sampling season are listed by station in Table 1. Depths of visibility were comparable for all stations and were lowest during the spring high flow period. As in 1970 (NAI, 1971) and 1972-1973, maximum readings were found to occur during late summer and early autumn when flows and productivity were generally at low levels. No large reduction in readings was recorded in periods of plankton bloom activity (August and October) noted during the sampling season. Measurements ranged from 3 1/2 feet in April to 9 1/2 feet in September.

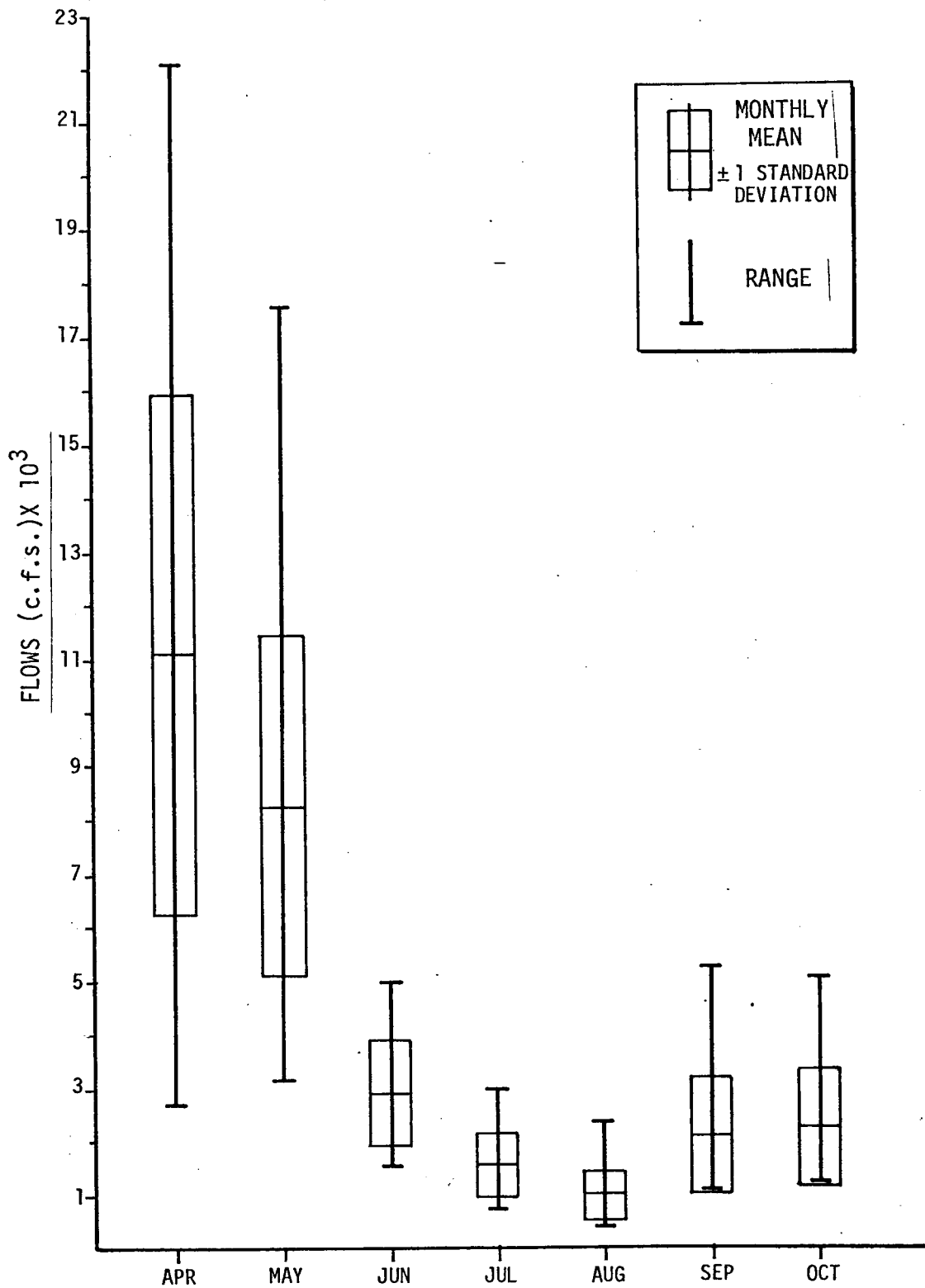


Figure 2. Mean monthly flows ± 1 standard deviation, and flow ranges, Hooksett Pond, Merrimack River, 1974.

TABLE 1. WEEKLY DEPTH OF VISIBILITY MEASUREMENTS (FEET) BY STATION,
HOOKSETT POND, MERRIMACK RIVER - APRIL THROUGH OCTOBER, 1974

SAMPLING DATES 1974	N-10 DEPTH OF VISIBILITY (ft)	ZERO-WEST DEPTH OF VISIBILITY (ft)	S-4 DEPTH OF VISIBILITY (ft)	S-17 DEPTH OF VISIBILITY (ft)
April 1	6.5	6.5(B)	7.0	7.5
April 10	4.5	4.5	4.5	4.5
April 15	3.5	4.0	4.0	4.0
April 23	5.0	4.5	5.0	5.0
April 29	5.5	4.0	6.0	5.5
May 6	5.5	5.0	6.0	5.5
May 13	4.5	4.0	4.0	4.5
May 21	5.5	5.0	5.5	5.5
May 28	4.5	4.0	4.5	4.5
June 3	6.5	5.5	7.0	6.5
June 10	7.0	5.5(B)	7.5	7.0(B)
June 17	6.0	4.0(B)	6.0	6.0(B)
June 24	7.5	5.0(B)	7.0	6.5
July 1	7.0	6.0	8.0	7.5
July 8	7.5	6.5(B)	8.0	7.5
July 15	8.0(B)	5.0(B)	8.0	7.0(B)
July 22	7.5	6.0	7.0	7.0
July 29	7.0	5.0(B)	---	8.0(B)
Aug 5	7.0	5.5(B)	8.0	7.0(B)
Aug 12	5.5	5.0(B)	5.5	5.5
Aug 19	7.0	4.5(B)	7.5	6.0(B)
Aug 26	8.0(B)	5.0(B)	7.0	6.5(B)
Sept 3	8.5(B)	5.5(B)	9.5	8.0(B)
Sept 9	8.5	6.5(B)	8.5	8.5(B)
Sept 16	6.5	6.0(B)	7.5	7.5
Sept 23	8.0	6.5(B)	8.0	7.5
Sept 30	6.5	6.5(B)	7.0	6.5
Oct 7	7.0	7.0(B)	7.0	7.0(B)
Oct 15	7.5	6.5(B)	7.5	6.5(B)
Oct 21	5.5	6.5	5.5	6.5
Oct 28	7.0	6.5	7.0	6.5

(B) signifies bottom

3. Temperature

a. Continuous Temperature Monitoring

In general, 1974 temperature differentials between Stations N-10 and S-4 increased from April to July, leveled off in August, and then increased again from September to October (Appendix I). Maximum ΔT 's generally occurred during the afternoons and minimum ΔT 's during the early morning hours. In April and May, differentials between the daily minimum and maximum ΔT 's of only 0.5°F were not uncommon. In August through October, however, differentials between the daily minimum and maximum ΔT 's of 12°F were observed, although differentials of 6°F were more common.

Monthly means of the minima and maxima daily ΔT 's are listed in Table 2. As indicated earlier, these monthly means also show a general increase in ΔT 's from April to July, a leveling off in August, and a continued increase during September and October. The volume of water flow decreased from spring levels during these summer and fall months and consequently the heated water composed a higher percentage of the total system, reducing the cooling effect from mixing with ambient water. Additionally, rainfall during 1974 was lower than in recent years, hence the discharge volumes in the Merrimack River were lower.

TABLE 2. MONTHLY MEANS OF DAILY ΔT (N-10 AND S-4) MINIMA AND MAXIMA ($^{\circ}\text{F}$) HOOKSETT POND, MERRIMACK RIVER, 1974

MEANS	MONTHS						
	APR	MAY	JUN	JUL	AUG	SEP	OCT
Minima	0.30	0.27	0.69	2.02	0.94	4.23	2.78
Maximum	1.47	1.46	6.66	9.52	7.58	9.16	12.16

b. Weekly Vertical Temperature Profiles

Weekly temperature data taken in conjunction with biological sampling are presented by Station in Table 3. Station N-10 showed a temperature range of 37.0 to 78.3°F during the season, with a maximum monthly mean of 75.0°F occurring during low flows in August. Temperatures at Station Zero-West ranged from 37.5 to 93.5°F, with a mean monthly peak of 82.8°F in July. Maximum mean surface-to-bottom Δt 's were evident at mid-stream at Station Zero due to the greater influence of the heated discharge at that station. In general, when compared to 1973, river temperatures in 1974 were lower during the spring and fall months and higher during the summer.

c. Seasonal Temperature Profiles

July 17, 1974 -- Figure 3.

Both Units I and II and all of the power spray modules were in operation during the survey. The weather was clear, sunny, and hot (maximum air temperature = 80.0°F) with intermittent light breezes and relative humidity of 68% at beginning of sampling at N-10 and 22% at end of sampling at S-24. Intake water temperature was continuously monitored and increased 3.0°F during the sampling period. The northern fringes of the plume failed to extend above Station Zero, due partially to the flows which averaged 1,138 cubic feet per second (c.f.s.) for that date.

Little or no thermal stratification was detected at any of the three stations sampled north of the effluent. Temperatures there ranged from 74.9 to 76.5°F. Water was discharged at a temperature of 100.0°F, cooling to 85.5°F before entering the river at Station Zero-West. The heated water immediately crossed the river and caused the littoral zone at Stations S-1 to S-3 East to bear the maximum thermal exposure. Water temperatures ranging from 75.4 to 85.5°F at Station Zero changed only slightly in transit to Station S-8, where the range was 77.3 to 84.0°F. The slight increase in surface temperature beginning at Station S-5

TABLE 3. MEAN MONTHLY SURFACE TEMPERATURES AND RANGES, MEAN MONTHLY SURFACE -TO- BOTTOM ΔT 's AND MEAN MONTHLY ΔT 's BETWEEN STATIONS - HOOKSETT POND-MERRIMACK RIVER-1974.

MONTH

STATION	APRIL		MAY		JUNE		JULY	
	WEST	MID	WEST	MID	WEST	MID	WEST	EAST
<u>MONTHLY SURFACE TEMPERATURE RANGES AND MEANS ($^{\circ}F$)</u>								
N-10	37.0-50.8 43.1		49.0-58.7 52.3		58.0-71.8 67.1		69.0-78.3 73.9	
Zero	37.5-64.3 46.1		50.5-65.7 56.8		59.4-87.0 77.8	*68.1-80.3 72.0	69.9-93.5 82.8	69.3-91.0 78.2
S-4	37.2-51.0 43.8		49.0-60.5 52.9		*72.9-74.0 73.4	*68.8-77.6 72.4	69.4-86.0 77.7	69.6-85.5 76.9
S-17	37.0-51.0 43.8		49.4-59.5 52.6		58.8-74.4 68.8		70.6-82.9 76.6	
<u>MEAN MONTHLY SURFACE-TO-BOTTOM ΔT'S</u>								
N-10	0.1		0.2		0.4		0.4	
Zero	6.9		6.2		8.9	*6.2	11.4	7.4
S-4	0.5		1.5		*0.9	*4.7	6.0	5.8
S-17	0.3		0.1		0.6		3.0	
<u>MEAN MONTHLY ΔT'S BY STATION</u>								
N-10	---		---		---		---	
Zero	¹ 4.6- 8.1 ²		4.5- 7.7		10.7-14.6	* 6.9-14.8	8.8-13.3	4.2- 7.6
S-4	0.7- 1.0		0.5- 1.6		* 3.5- 3.6	* 2.6- 5.6	5.1-7.3	2.9- 6.1
S-17	0.7- 0.8		0.3- 0.3		1.6- 1.9		2.6- 4.4	

Continued

TABLE 3. (Continued)

MONTH									
STATION	AUGUST		SEPTEMBER		OCTOBER				
	WEST	EAST	WEST	MID	EAST	WEST	MID	EAST	
<u>MONTHLY SURFACE TEMPERATURE RANGES AND MEANS (°F)</u>									
N-10		73.1-78.0 75.0		60.8-71.0 66.2			43.2-56.8 48.6		
Zero	73.1-87.0 82.2	73.3-86.6 79.8	73.8-85.5 79.8	62.1-83.9 74.9	61.5-84.2 70.2	61.1-72.5 67.9	45.6-71.1 62.5	43.5-69.5 54.3	43.1-67.0 52.3
S-4	75.4-82.2 79.4	73.4-83.0 77.6	75.1-83.0 78.1	62.0-79.0 69.0	62.4-79.9 69.0	64.3-73.8 68.7	44.1-61.1 52.4	43.8-61.4 51.1	45.0-60.0 52.7
S-17		76.2-80.0 78.0			63.8-75.2 69.0			45.0-57.7 50.5	
<u>MEAN MONTHLY SURFACE-TO-BOTTOM ΔT'S</u>									
N-10		0.7			0.1			0.3	
Zero	5.2	8.2	6.4	10.4	11.6	0.1	6.6	13.5	5.4
S-4	2.3	6.2	4.4	5.7	6.5	2.0	2.1	5.3	1.1
S-17		2.2			1.1			0.7	
<u>MEAN MONTHLY ΔT'S BY STATION</u>									
N-10		---			---			---	
Zero	7.3- 9.1	4.8- 8.6	5.2- 6.8	8.7-12.9	4.1-12.3	0.9- 0.8	11.9-14.4	4.3-13.2	3.7- 5.6
S-4	4.4- 4.9	2.6- 6.2	3.1- 4.5	2.8- 4.7	2.8- 7.2	2.5- 3.5	3.8- 4.2	2.5- 5.8	3.9- 4.5
S-17		3.0-4.2			2.8-3.7			1.9- 2.0	

1 Mean Δt of cross-sectional area

* Measurements from these points initiated in mid-June

2 Maximum Δt

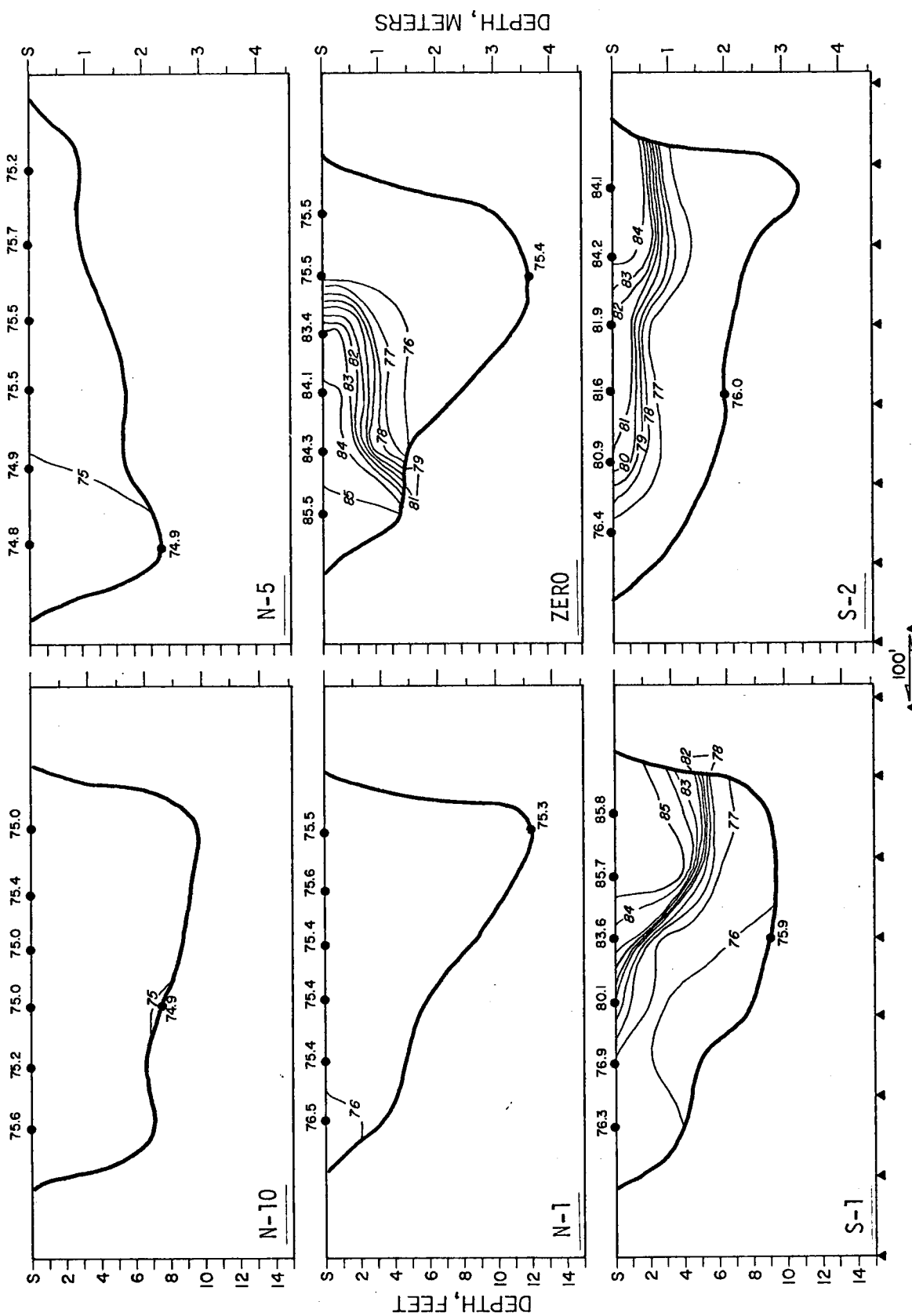


Figure 3. Isothermal cross-sections of Merrimack River sampling stations, July 17, 1974.

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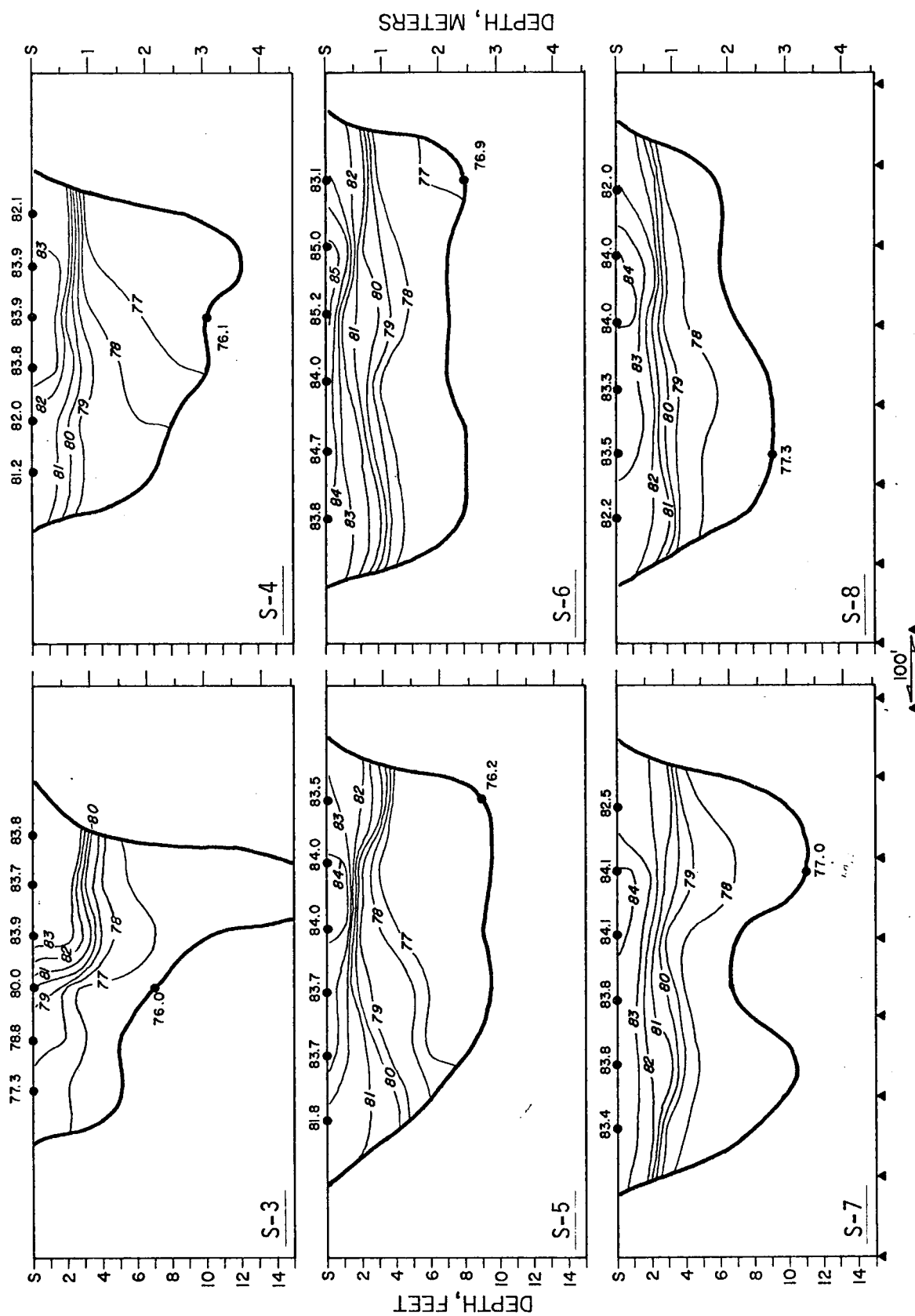


Figure 3. Isothermal cross-sections of Merrimack River sampling stations, July 17, 1974.

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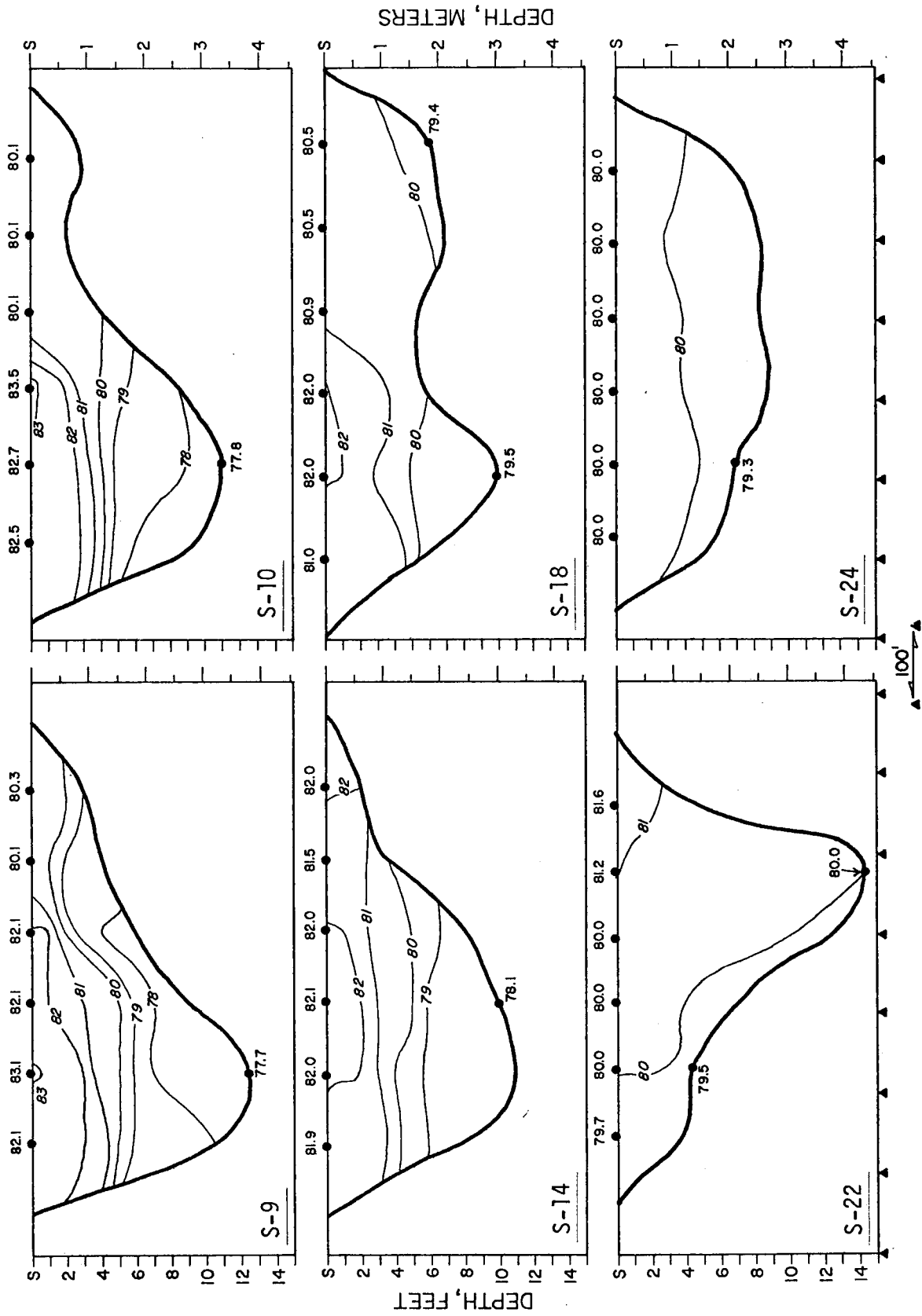


Figure 3. Isothermal cross-sections of Merrimack River sampling stations, July 17, 1974.

(Figure 3) may have been caused by changes in discharge volumes, Δt 's at Zero, or increasing ambient temperatures. Proceeding downstream from Station S-9, the heat content of the discharged water progressively dissipated until the surface-to-bottom differential was reduced to 0.7°F at Station S-24 (due in part to the change in monitored ambient temperatures), compared to a corresponding surface-to-bottom Δt of 10.1°F encountered at Station Zero.

August 22, 1974 -- Figure 4.

Both units and all power spray modules were operating on this date. Sunny, hazy, and hot (air temperature data not collected) weather conditions prevailed throughout the survey. Continuously monitored ambient water temperatures increased 3.5°F during the sampling period, while the flows averaged 1,060 c.f.s.

Thermal layering at Stations N-10 and N-5 was very slight when compared to conditions evident at Station N-1. With a surface-to-bottom Δt of 7.1°F , Station N-1 displayed a marked influence from the plume, whose northern boundary was visually sighted at Station N-2. Water temperatures of 103.8°F measured at the discharge weir had cooled to 84.0°F prior to entering the river at Station Zero. Again, the thermally-altered water mass appeared to cross the river and flow along the eastern shoreline of Stations S-1 and S-2 before returning to midstream. When compared to the July and September surveys, the heated water was more equally dispersed throughout the water column yet, failed to cool between Station Zero (temperature range of 77.0 to 84.0°F) and Station S-5 (temperature range of 77.9 to 83.9°F). Downstream from Station S-6, some surface temperatures, especially in shallow areas, actually increased over earlier values recorded at Station Zero. These temperatures probably reflected the influences of relatively low flow, ambient temperature changes, and solar heating. The 5.8°F vertical Δt measured at Station S-24 was not unlike the conditions found earlier at Station Zero, where a corresponding 7.0°F surface-to-bottom Δt had existed.

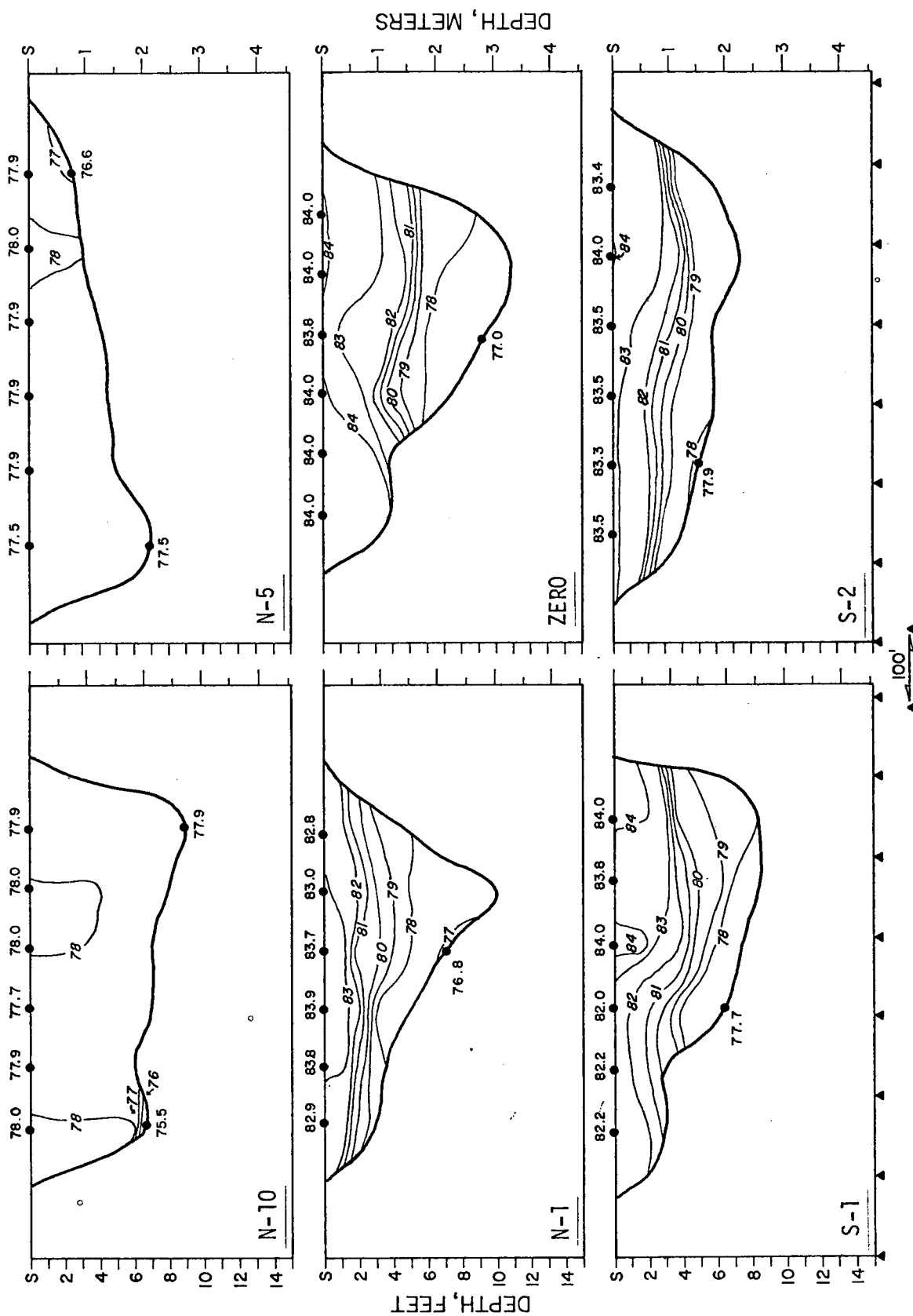


Figure 4. Isothermal cross-sections of Merrimack River sampling stations, August 22, 1974.

Continued

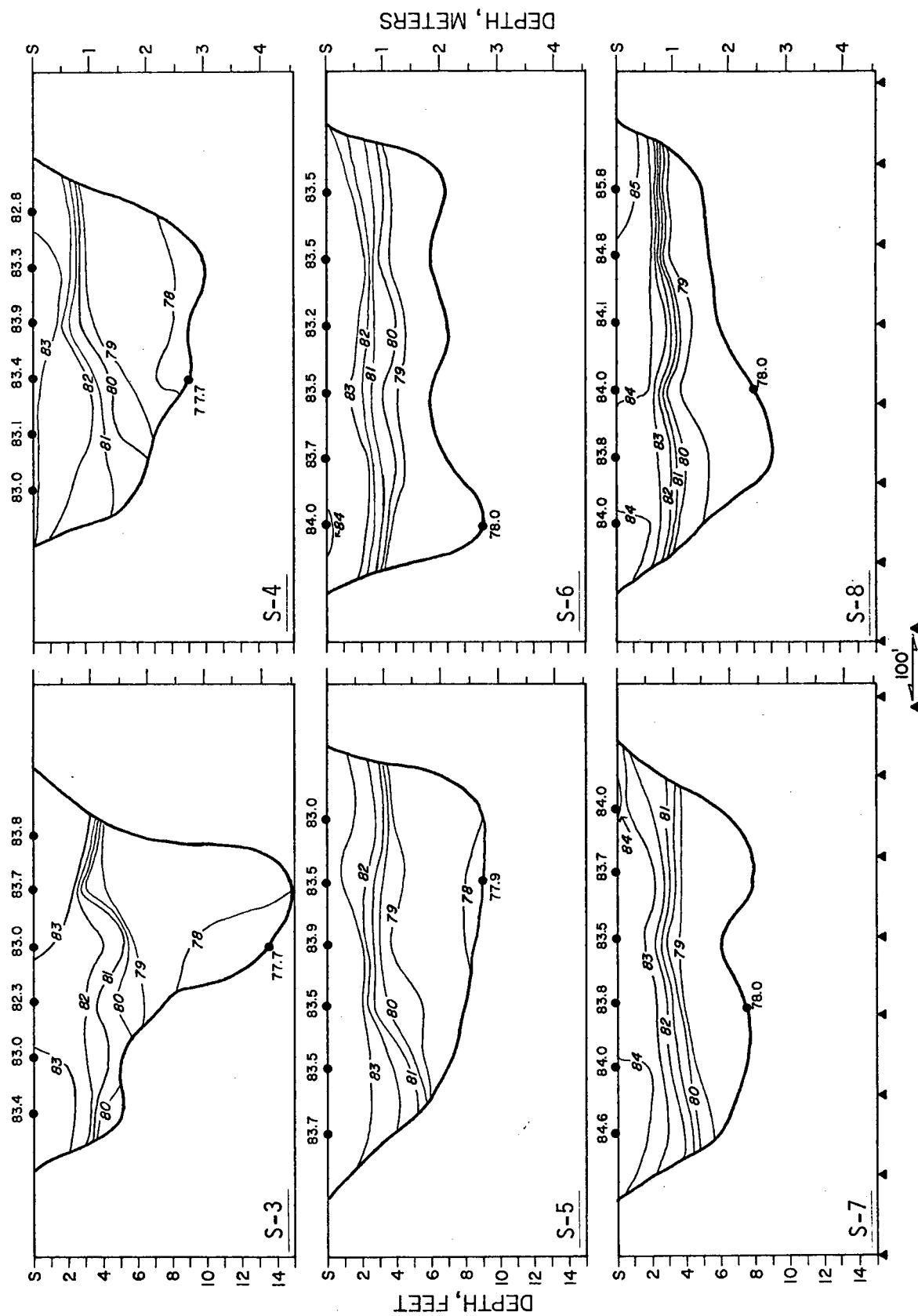


Figure 4. Isothermal cross-sections of Merrimack River sampling stations, August 22, 1974.

Continued

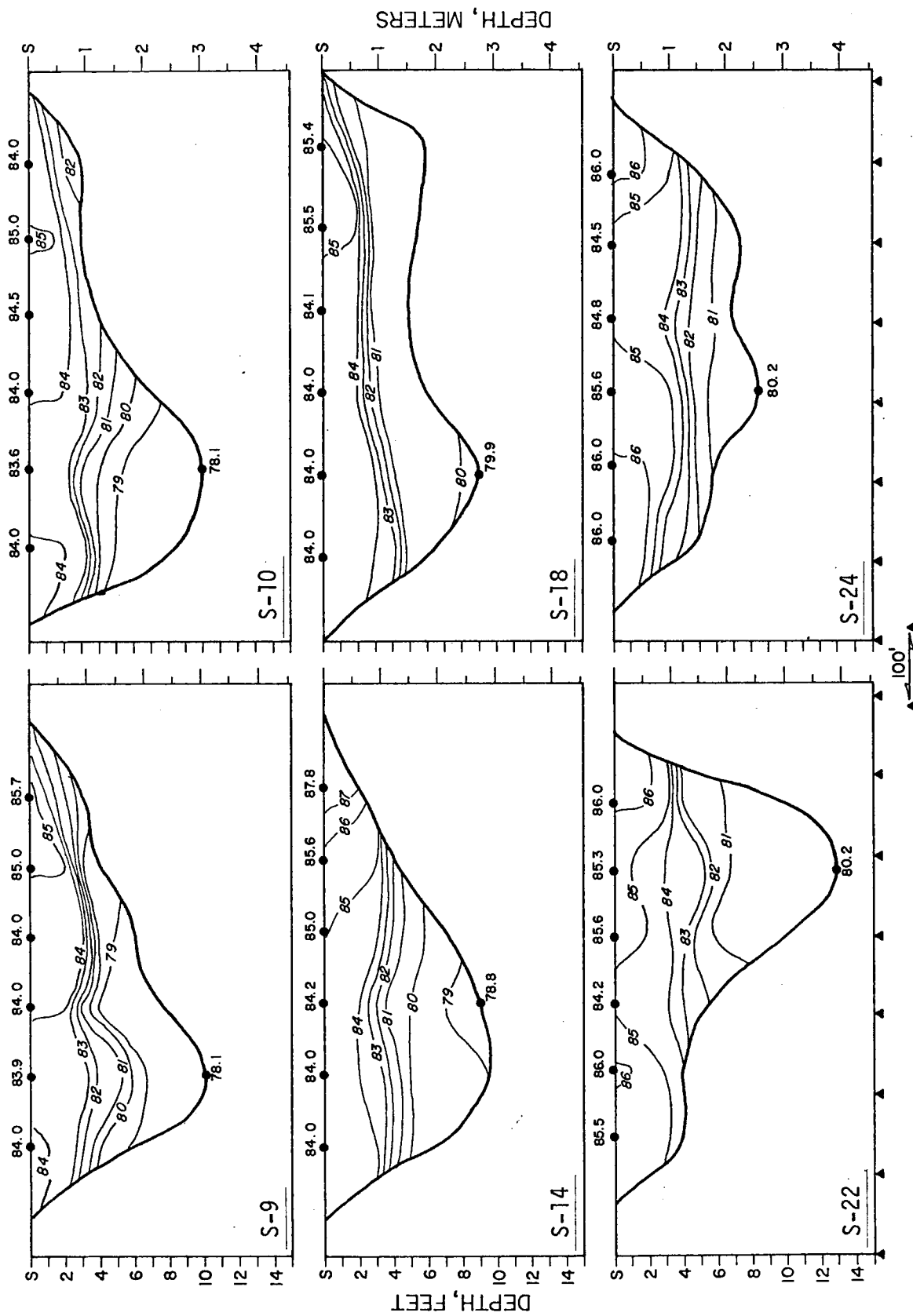


Figure 4. Isothermal cross-sections of Merrimack River sampling stations, August 22, 1974.

September 19, 1974 -- Figure 5.

During this sampling period, Unit I and approximately one-third of the power spray modules were not in use. The weather was cool (maximum air temperature = 70.5°F) with overcast skies that partially cleared during the afternoon. Relative humidity dropped from 97% to 72% during the thermal profile sampling. The ambient water temperature changed only 0.8°F throughout the survey. Flows averaged 1,423 c.f.s.

Temperatures at Stations N-10 and N-5 were quite uniform and ranged from 64.8 to 65.4°F. Station N-1 exhibited extensive stratification and yielded a 12.9°F surface-to-bottom Δt , with the upper edge of the plume sighted at Station N-2. The 89.0°F discharge water had cooled to 80.1°F before entering the river at Station Zero-West. As in July and August, Stations S-1 and S-2 East received the warmest portions of the effluent of all river stations. Even though rather noticeable cooling of the effluent occurred among the southern stations, the ambient water mass, which comprised most of the cross-sectional area of each profile, appeared to restrict vertical mixing with the less dense, heated layers above. As an example, Station Zero (maximum depth = 14 ft) included approximately 10.0°F of its 14.6°F surface-to-bottom Δt within the upper four feet; while at the same depth, Station S-6 (maximum depth = 10 ft) retained 8.0°F of its 9.1°F surface-to-bottom change. At Station S-24, only a 4.1°F vertical Δt remained compared to a corresponding 14.6 Δt measured earlier at Station Zero.

C. SUMMARY AND CONCLUSIONS

During the spring months, slightly lower depth of visibility readings resulted from high flows and associated sediment loads. Readings were highest in months of lowered productivity and reduced flows. No major between station differences were noted. Flows during the season ranged from 418 c.f.s. to 22,100 c.f.s. with August recording the lowest flows of the study year. Maximum ambient temperature was also recorded in August (75.0°F) although maximum Δt 's occurred in July.

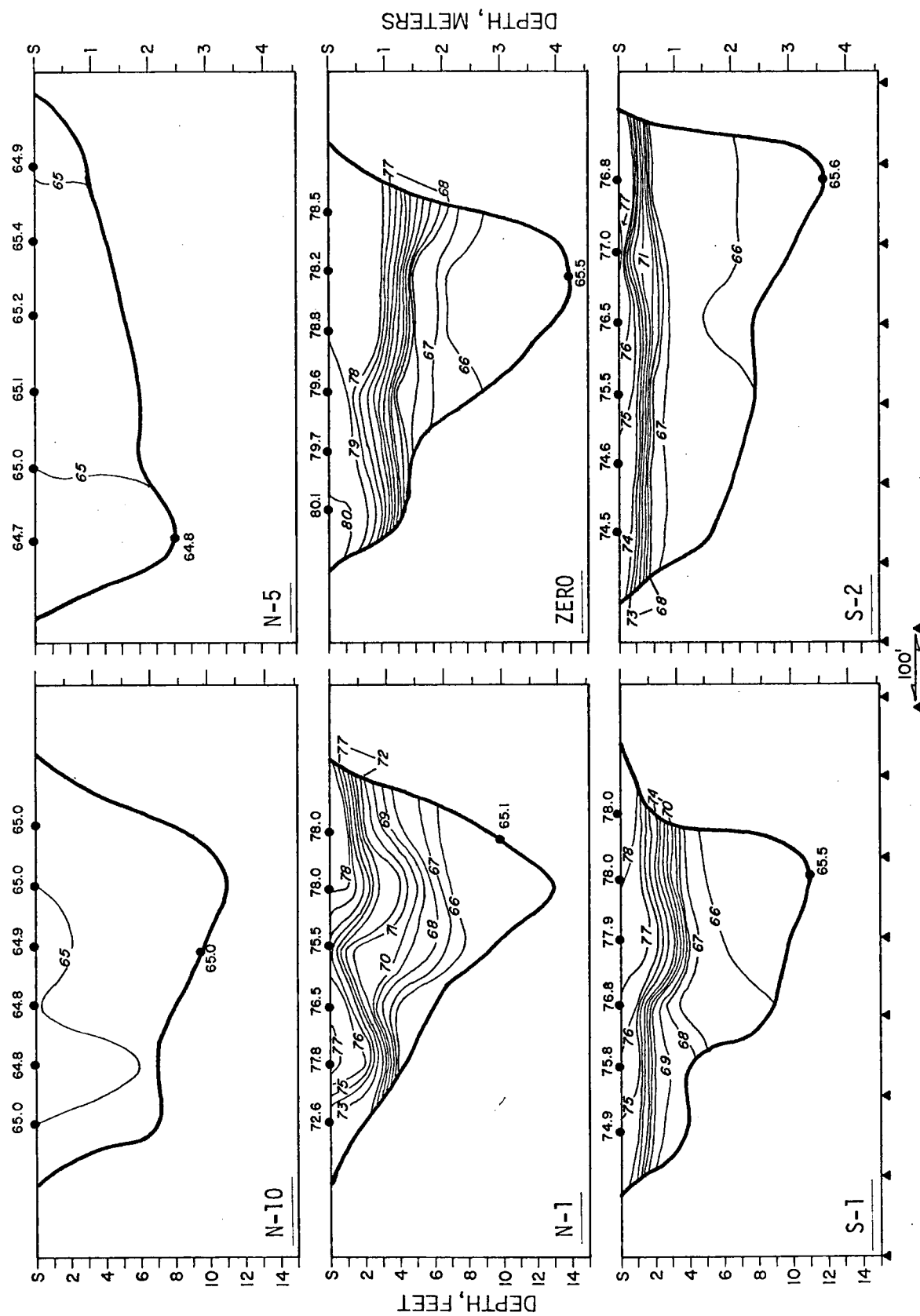


Figure 5. Isothermal cross-sections of Merrimack River sampling stations, September 19, 1974.

Continued

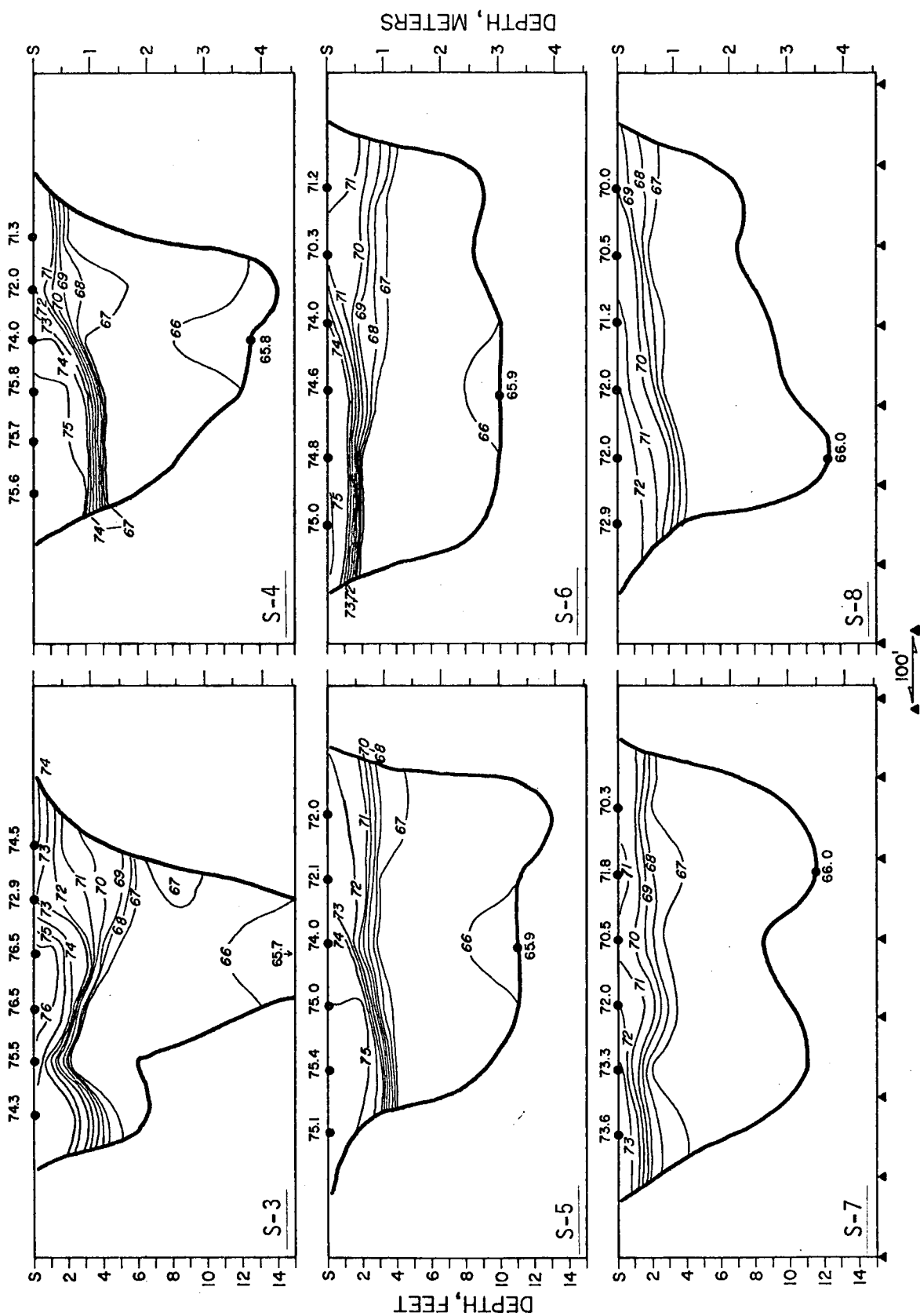


Figure 5. Isothermal cross-sections of Merrimack River sampling stations, September 19, 1974.

Continued

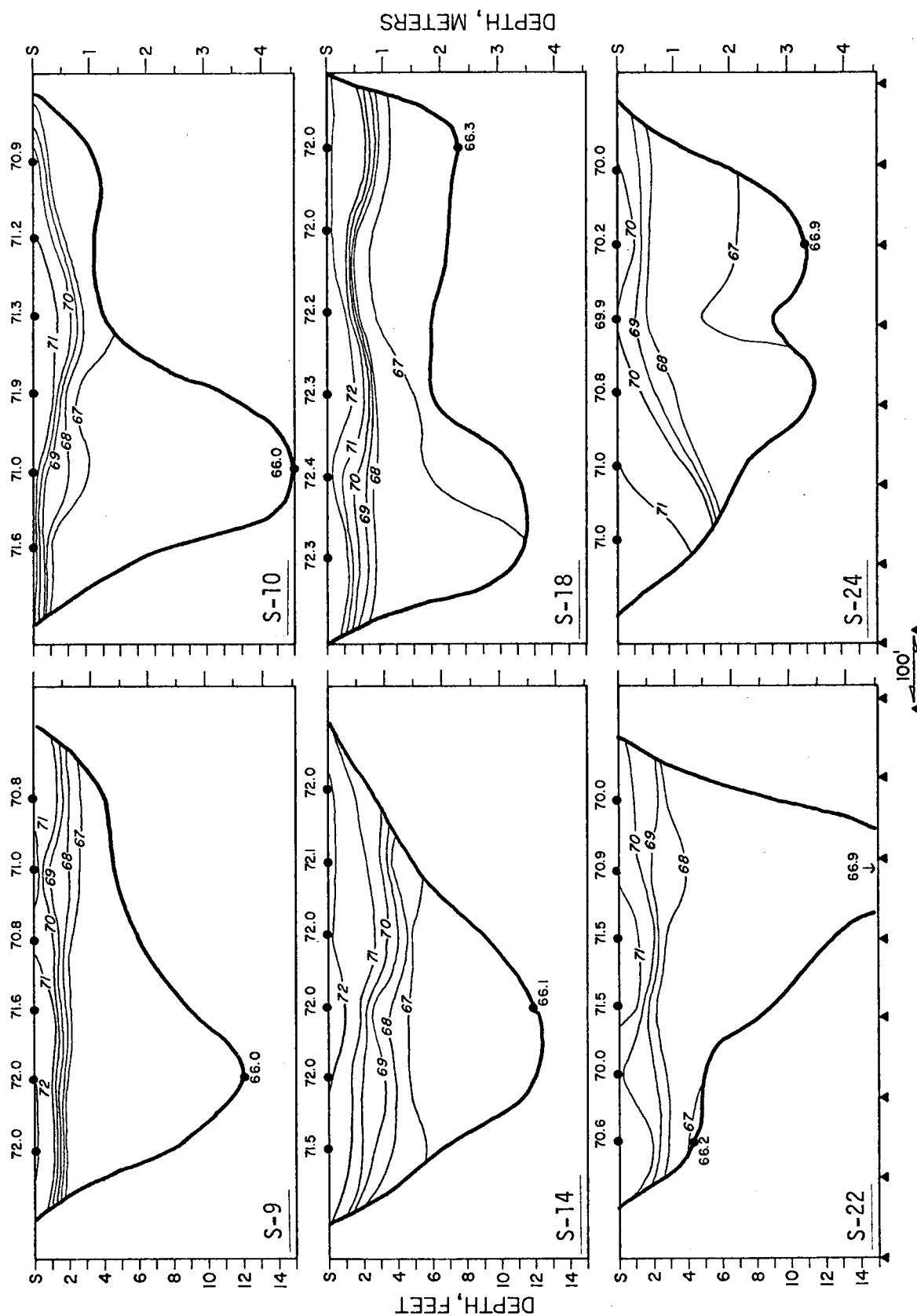


Figure 5. Isothermal cross-sections of Merrimack River sampling stations, September 19, 1974.

Temperature stratification extended to the southern-most stations with Δt 's decreasing with distance downstream. During periods of lowered river flows the thermal plume moved northward as indicated by increased stratification at Station N-1 and observation of Station N-2. Bottom temperatures were only slightly affected during the study period.

III. WATER QUALITY STUDIES

A. METHODS

1. Nutrients

Weekly surface water samples were taken at Stations N-10, Zero-West, S-4, and S-17 and analyzed for nutrient content. Nitrate, nitrite, poly-, ortho-, and total-phosphate analyses were performed in accordance with techniques presented in APHA (1971).

2. pH

Measurements of pH were taken weekly throughout the study period at Stations N-10, Zero-West, S-4 and S-17. The pH of water samples was determined with an Orion Research Model 401 specific ion meter in the laboratory.

3. Dissolved Oxygen

Weekly dissolved oxygen sampling was conducted as part of the monitoring activities at Stations N-10, Zero-West, S-4, and S-17. Surface samples were taken and analyzed using the azide modification of the iodometric method (APHA, 1971). A 24-hour dissolved oxygen survey was conducted from August 15 to 16, utilizing a Martek Mark II unit which was regularly calibrated with the iodometric method described above. Stations N-10, Zero-West, S-4, S-17, and S-24 were sampled at mid-channel and west and east littoral zones at 4-hour intervals throughout the 24-hour period.

B. RESULTS AND DISCUSSION

1. Nutrients

Monthly means of 1974 nutrient concentrations are listed by station in Table 4. Nitrate concentrations were noticeably higher when compared to the levels found during the 1972-1973 sampling periods (Table 5). Monthly means ranged from 0.139 to 0.403 mg/l (both measured at Station N-10) with a seasonal mean computed over all stations of 0.278 mg/l.

During August, the month of lowest flows, nitrate levels were depressed from peak June concentrations by an average of 52% over all stations. The lowest levels coincided with a bloom of mixed species of green algae, dominated by *Spirogyra* spp. Station N-10 appeared to experience the greatest percent decrease in nitrates during this period. Total phosphate levels also declined during the bloom, with a drop for all stations averaging 50% of June concentrations.

Beginning in October, a bloom of the colonial blue-green alga, *Anacystis aeruginosa* (Kuetz.), flourished and extended beyond the final sampling date of the 1974 season. However, no additional decrease in nutrient concentrations was evident when sampling ceased in late October.

In general, all nutrients with the exception of nitrite showed a trend toward increased concentrations when compared to 1972 and 1973 data, although historically there has been a downward trend in these parameters. Low flows during the 1974 season could account for the increased concentration noted. No major differences in nutrient concentrations were observed over the study season among the sampling stations.

TABLE 4. MEAN MONTHLY NUTRIENT CONCENTRATION (mg/L) BY STATION -
HOOKSETT POND - MERRIMACK RIVER - 1974.

MONTH		N-10 (mg/L)	ZERO-WEST (mg/l)	S-4 (mg/L)	S-17 (mg/L)
April	NO ₂	.002	.002	.002	.002
	NO ₃	.325	.329	.323	.332
	T-PO ₄ *	---	---	---	---
	O-PO ₄	---	---	---	---
May	NO ₂	.002	.003	.003	.002
	NO ₃	.308	.289	.322	.332
	T-PO ₄	.032	.044	.037	.032
	O-PO ₄	.006	.009	.008	.006
June	NO ₂	.004	.004	.004	.004
	NO ₃	.403	.401	.384	.384
	T-PO ₄	.056	.033	.052	.032
	O-PO ₄	.014	.016	.028	.014
July	NO ₂	.007	.007	.007	.007
	NO ₃	.296	.317	.320	.317
	T-PO ₄	.037	.031	.039	.054
	O-PO ₄	.026	.022	.030	.042
August	NO ₂	.010	.011	.012	.011
	NO ₃	.139	.173	.214	.232
	T-PO ₄	.021	.020	.018	.018
	O-PO ₄	.015	.020	.018	.016
September	NO ₂	.010	.010	.009	.010
	NO ₃	.187	.155	.171	.162
	T-PO ₄	.046	.052	.050	.067
	O-PO ₄	.033	.035	.028	.043
October	NO ₂	.006	.008	.007	.007
	NO ₃	.233	.247	.230	.246
	T-PO ₄	.060	.058	.058	.053
	O-PO ₄	.038	.035	.036	.030

* difficulties in laboratory analyses necessitated
elimination of questionable data

T-PO₄ = Total Phosphate

O-PO₄ = Ortho Phosphate

TABLE 5. SEASONAL MEANS (APRIL-OCTOBER) OF NUTRIENT CONCENTRATIONS (mg/L) AT NORTHERN STATIONS 1967-1974 - HOOKSETT POND - MERRIMACK RIVER.

	YEARS						
	1967 ¹	1968 ¹	1970 ²	1971 ³	1972	1973	1974
NO ₂	.028	.040	.036	.007	.007	.006	.006
NO ₃	1.840	1.660	2.400	.393	.149	.174	.261
T PO ₄	.440	.660	.920	.004	.037	.034	.042
O PO ₄	---	---	.480	.006	.028	.016	.022

T-PO₄ = Total Phosphate

O-PO₄ = Ortho Phosphate

¹ taken at Station N-4

² taken at Station N-6

³ taken at Station N-10 from 1971-1974

2. pH

Mean monthly pH values by station are listed in Table 6. No among station or seasonal differences were noted. During periods of peak productivity for plankton populations in August (*Spirogyra* spp.) and October (*Anacystis aeruginosa*) when higher values would be expected, pH showed no change and remained below neutrality. In general, 1974 pH values were comparable to those noted in 1973 but lower than in 1971 and 1972 (Table 7). Prior to 1971 (NAI, 1967, 1968, and 1970) sampling techniques were not consistent with later years but findings were generally comparable (range of means 6.27 - 6.66).

3. Dissolved Oxygen

a. Surface Dissolved Oxygen

Monthly means and ranges of 1974 weekly surface dissolved oxygen levels are listed by station in Table 8. As in previous years, concentrations at Station Zero-West were slightly reduced when compared to ambient levels at Station N-10. A seasonal low of 6.7 mg/l was recorded at Station Zero-West on July 8. A maximum concentration of 13.8 mg/l was noted at Station N-10 on April 1. The most marked decrease in mean monthly levels (2-3 mg/l) occurred between May and June and was partially attributable to a diminution of flows during the same period (Figure 2). A slight increase in dissolved oxygen concentrations was detected in August during a period of high productivity by green algae. In general, as the season progressed, the dissolved oxygen levels at the thermally-altered stations became more consistent with ambient concentrations apparently in response to changes in temperature, flows, and biological oxygen demand. The 1974 concentrations were quite similar to the levels monitored during each of the sampling periods from 1971 - 1973 (Table 9).

TABLE 6. MEAN MONTHLY AND SEASONAL pH VALUES BY STATION - HOOKSETT
POND - MERRIMACK RIVER - 1974

MONTH	N-10	ZERO-WEST	S-4	S-17
April	6.10	5.98	6.08	5.99
May	6.88	6.82	6.61	6.59
June	6.62	6.79	6.77	6.74
July	6.42	6.62	6.55	6.50
August	6.35	6.41	6.46	6.41
September	6.44	6.45	6.45	6.47
October	6.39	6.42	6.39	6.42
Mean for Sampling Period	6.46	6.50	6.47	6.44

TABLE 7. MEAN (APRIL-OCTOBER) pH VALUES BY STATION - HOOKSETT POND -
MERRIMACK RIVER - 1971-1974.

YEAR	STATION			
	N-10	ZERO-WEST	S-4	S-17
1971	7.12	7.07	7.02	7.07
1972	7.05	7.05	6.96	7.01
1973	6.21	6.12	6.13	6.36
1974	6.46	6.50	6.47	6.44

TABLE 8. MEAN MONTHLY SURFACE DISSOLVED OXYGEN CONCENTRATIONS (mg/L) AND MONTHLY RANGES -
HOOKSETT POND-MERRIMACK RIVER, 1974.

STATION	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	MEAN AND RANGE FOR THE SAMPLING PERIOD
N-10	12.6	11.3	8.4	7.7	7.8	8.1	10.4	9.5
	Range	11.3-13.8	10.8-11.9	7.4-9.8	6.7-9.1	6.9-8.8	9.6-11.2	6.7-13.8
Zero-West	11.6	9.8	7.6	7.1	7.4	7.9	9.0	8.6
	Range	10.2-13.6	9.2-10.8	6.7-8.7	7.4-7.5	7.3-8.7	7.2-9.8	6.7-13.6
S-4	12.3	11.0	8.0	7.4	7.9	8.1	9.9	9.2
	Range	11.3-13.1	10.7-11.4	7.3-9.4	7.1-8.1	7.4-8.8	9.0-11.0	7.1-13.1
S-17	12.4	10.7	8.2	8.0	8.1	8.0	10.2	9.4
	Range	11.2-13.6	9.8-11.2	6.8-10.0	7.7-9.1	7.2-8.8	9.5-11.0	6.8-13.6

TABLE 9. SEASONAL MEANS OF WEEKLY SURFACE DISSOLVED OXYGEN CONCENTRATIONS (ppm) BY STATION, 1971-1974.
HOOKSETT POND - MERRIMACK RIVER.

YEARS	STATION			
	N-10	ZERO-WEST	S-4	S-17
1971	9.4	8.3	9.3	9.2
1972	9.8	9.0	9.4	9.6
1973	9.2	8.6	9.0	9.2
1974	9.5	8.6	9.2	9.4

b. 24-hour Dissolved Oxygen Study

Results of the 1974 24-hour dissolved oxygen survey are listed in Table 10. Weather conditions for both days were sunny and hot with clear skies and intermittent breezes. Daytime air temperatures reached the high 70's and low 80's; early morning temperatures fell to the mid 40's. Ambient river temperatures measured at Station N-10 during the survey ranged from 70.0 to 76.8°F. Flows averaged 487 cubic feet per second (c.f.s.) during the 24-hour period with the lowest 1974 daily mean (418 c.f.s.) recorded on August 16.

Peak dissolved oxygen concentrations (9.6 mg/l) and temperatures (89.2°F) were reached during the late afternoon and early evening of August 15. The most marked variation in dissolved oxygen levels among stations occurred during the 1600 sampling when concentration differentials between Stations N-10 and Zero and N-10 and S-4 averaged 1.6 and 0.9 mg/l, respectively. In general, the most pronounced vertical gradients of dissolved oxygen occurred at Station Zero and S-4, with the upper, thermally-affected layers unable to maintain the higher concentrations present in the deeper, ambient temperature waters.

The lowest and most consistent levels of dissolved oxygen were detected during the morning of August 16, corresponding with the overnight lull in photosynthetic activity. A minimum concentration of 6.1 mg/l was recorded at Station S-4 during the 0400 sampling period. In addition, surface-to-bottom differences in dissolved oxygen concentrations were minimal at the thermally-affected stations and were comparable to the variations detected at Station N-10 during the same period.

c. SUMMARY AND CONCLUSIONS

During the period of algae bloom activity (August) decreases in nitrate and total phosphorous concentrations were noted. Slight

TABLE 10. | MEANS AND RANGES OF TEMPERATURE AND DISSOLVED OXYGEN PROFILES
24-HOUR DISSOLVED OXYGEN STUDY, AUGUST 15-16, 1974
HOOKSETT POND-MERRIMACK RIVER - 1974.

1200 - 15 AUGUST 1974

STATION		WEST D.O (ppm) TEMP. (°F)		MID-RIVER D.O (ppm) TEMP. (°F)		EAST D.O (ppm) TEMP. (°F)	
N-10	R *	8.8- 8.9	74.8-75.6	8.7- 8.8	74.8-74.8	8.8- 9.0	74.8-75.0
	M	8.9	75.3	8.8	74.8	8.9	74.9
Zero	R	6.9- 7.5	88.3-88.8	7.2- 8.6	75.8-87.8	7.1- 8.3	75.8-88.7
	M	7.2	88.7	7.7	82.9	7.5	84.5
S-4	R	7.9- 8.3	76.8-84.3	6.5- 8.0	75.8-85.0	6.8- 7.8	75.8-84.6
	M	8.0	81.6	7.5	79.1	7.3	79.5
S-17	R	6.8- 8.6	79.7-82.6	8.0-8.2	82.4-83.0	7.5- 8.0	80.8-81.1
	M	8.0	82.0	8.1	82.8	7.8	81.0
S-24	R	8.2- 8.4	82.0-83.3	7.4- 8.3	78.6-81.0	7.6- 8.4	78.8-80.8
	M	8.3	82.6	8.0	80.3	8.1	80.2

1600 - 15 AUGUST 1974

STATION		WEST D.O (ppm) TEMP. (°F)		MID-RIVER D.O (ppm) TEMP. (°F)		EAST D.O. (ppm) TEMP. (°F)	
N-10	R	9.2- 9.6	76.3-76.5	9.1- 9.3	76.5-76.5	9.2- 9.3	76.5-76.8
	M	9.4	76.5	9.2	76.5	9.3	76.6
Zero	R	7.0- 7.3	88.5-89.0	7.1- 9.2	76.8-88.7	7.4- 9.0	76.5-88.4
	M	7.1	88.7	7.9	83.9	8.0	83.6
S-4	R	8.0- 8.4	76.0-84.3	8.2- 9.1	75.5-84.0	7.9- 8.4	76.5-84.2
	M	8.2	81.4	8.7	79.1	8.2	80.6
S-17	R	7.6- 9.0	80.9-82.5	8.5- 8.7	82.5-82.5	7.8- 8.5	81.8-82.0
	M	8.7	82.3	8.6	82.5	8.3	81.9
S-24	R	7.5- 7.9	81.0-81.3	8.3- 8.9	81.1-82.0	8.1- 8.7	81.5-81.9
	M	7.7	81.0	8.6	81.6	8.6	81.7

2000 - 15 AUGUST 1974

STATION		WEST D.O (ppm) TEMP. (°F)		MID-RIVER D.O (ppm) TEMP. (°F)		EAST D.O (ppm) TEMP. (°F)	
N-10	R	8.8- 9.4	76.5-76.5	9.4- 9.6	76.5-76.5	9.0- 9.5	76.5-76.5
	M	9.2	76.5	9.5	76.5	9.2	76.5
Zero	R	6.9- 7.9	88.5-88.5	7.0- 8.9	77.5-88.5	7.1- 9.3	76.5-87.5
	M	7.2	88.5	7.8	83.9	8.2	81.7
S-4	R	7.6- 8.1	76.5-84.5	7.2- 8.5	76.5-84.5	7.3- 8.2	76.5-84.5
	M	7.8	81.2	8.1	79.4	7.8	81.5
S-17	R	7.3- 8.5	80.5-80.5	8.0- 8.5	80.5-80.5	7.9- 8.5	80.5-80.5
	M	8.0	80.5	8.2	80.5	8.3	80.5
S-24	R	8.2- 8.5	80.5-80.5	7.6- 8.3	80.5-80.5	7.8- 8.3	80.5-80.5
	M	8.4	80.5	8.1	80.5	8.0	80.5

2400 - 15 AUGUST 1974

STATION		WEST D.O (ppm) TEMP. (°F)		MID-RIVER D.O (ppm) TEMP. (°F)		EAST D.O (ppm) TEMP. (°F)	
N-10	R	8.0- 8.6	75.2-76.2	8.4- 8.5	75.2-75.2	8.3- 8.5	75.2 75.2
	M	8.5	76.0	8.5	75.2	8.4	75.2
Zero	R	6.9- 7.3	89.2-89.2	7.0- 8.5	77.2-88.2	7.1- 8.4	77.2-88.2
	M	7.1	89.2	7.7	83.3	7.6	75.9
S-4	R	7.7- 8.3	77.2-85.2	7.5- 8.6	77.2-85.2	7.1-8.3	77.2-85.2
	M	7.9	82.9	8.2	79.8	7.8	80.3
S-17	R	7.5- 7.9	81.2-81.2	7.7- 7.9	81.2-81.2	7.3- 7.7	81.2-81.2
	M	7.8	81.2	7.7	81.2	7.5	81.2
S-24	R	7.2- 7.8	79.2-81.2	7.7- 8.0	81.2-81.2	7.5 - 7.7	81.2-81.2
	M	7.5	79.5	7.8	81.2	7.6	81.2

Continued

TABLE 10. (Continued)

0400 - 16 AUGUST 1974

STATION		WEST		MID-RIVER		EAST	
		D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)
N-10	R	7.6- 8.1	73.4-74.4	7.6- 8.0	73.6-74.4	7.5- 7.8	74.3-74.9
	M	7.8	73.9	7.8	74.3	7.6	74.6
Zero	R	7.3- 7.7	79.4-79.9	7.1- 7.7	76.4-81.9	7.1- 7.7	76.4-81.4
	M	7.5	79.7	7.4	79.6	7.4	78.8
S-4	R	6.9- 7.6	77.4-80.4	7.0- 7.9	77.4-81.4	6.1-7.9	76.9-80.9
	M	7.2	79.0	7.5	78.8	7.0	78.3
S-17	R	6.3- 7.3	78.9-79.6	7.0- 7.3	79.4-79.6	6.5- 6.8	78.9-78.9
	M	6.8	79.4	7.2	79.4	6.7	78.9
S-24	R	6.2- 7.0	78.4-79.2	7.1- 7.3	78.9-79.4	6.9- 7.1	79.2-79.2
	M	6.7	78.8	7.2	79.2	7.0	79.2

0800 - 16 AUGUST 1974

STATION		WEST		MID-RIVER		EAST	
		D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)
N-10	R	7.6- 7.7	70.1-70.2	7.5- 8.0	70.2-70.2	7.6- 8.3	70.0-70.2
	M	7.6	70.2	7.8	70.2	7.8	70.2
Zero	R	7.6- 7.9	78.0-78.0	7.2- 7.9	74.0-78.0	7.6- 7.9	76.0-77.0
	M	7.8	78.0	7.6	76.6	7.7	76.2
S-4	R	7.5- 7.8	75.0-76.0	7.6- 7.9	74.0-75.8	7.4- 8.0	75.0-75.0
	M	7.7	75.8	7.7	75.2	7.7	75.0
S-17	R	6.5- 7.6	75.0-75.5	6.9- 7.6	75.2-75.5	6.7- 7.3	74.5-74.5
	M	7.1	75.3	7.3	75.4	7.0	74.5
S-24	R	7.2- 7.4	76.0-76.0	7.0- 7.6	76.0-76.0	7.2- 7.6	76.0-76.0
	M	7.3	76.0	7.3	76.0	7.4	76.0

1200 - 16 AUGUST 1974

STATION		WEST		MID-RIVER		EAST	
		D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)	D.O (ppm)	TEMP. (°F)
N-10	R	7.6- 8.0	73.0-75.0	7.6- 7.8	73.0-74.8	7.4-7.9	73.0-74.0
	M	7.7	74.0	7.7	74.0	7.7	73.4
Zero	R	6.6- 6.6	87.5-88.8	6.7- 7.1	78.0-87.2	6.8- 7.1	81.0-87.0
	M	6.6	88.6	6.9	83.8	7.0	86.1
S-4	R	7.0- 7.8	78.5-82.0	6.6- 7.5	77.2-83.0	6.8- 7.6	77.5-83.0
	M	7.5	81.0	7.2	79.5	7.1	80.2
S-17	R	7.2- 7.8	78.8-80.8	7.2- 8.2	78.0-82.5	6.3- 7.8	78.0-80.0
	M	7.6	79.5	7.5	79.2	6.9	79.2
S-24	R	7.2- 7.2	79.5-80.8	6.8- 8.0	78.8-80.5	6.4- 7.5	78.5-79.5
	M	7.2	80.3	7.5	79.4	6.9	79.1

* R = Range

M = Mean

increases in dissolved oxygen concentrations in response to photosynthetic activity were recorded during this period. Increases noted in nutrient concentrations are likely linked to decreased 1974 flows. With the exception of dissolved oxygen concentrations, no significant among station differences were noted for the parameters monitored. Dissolved oxygen concentrations recorded during the study year were well above concentrations generally considered to be critical (5.0 mg/l) for a warm-water fishery.

IV. BIOLOGICAL STUDIES

A. METHODS

1. Chlorophyll *a*

Weekly 5-liter surface water samples were obtained from Stations N-10, Zero-West, S-4, and S-17. Chlorophyll *a* determinations were made using the trichromatic method (APHA, 1971).

2. Plankton

Metered plankton nets (#20 mesh) were used weekly to collect single surface plankton samples at Station N-10, Zero-West, S-4, and S-17. In addition, at Stations N-10 and S-4, single sub-surface (6') samples were also taken. Samples were preserved in a 5% formalin solution. Plankton in each sample were identified and enumerated in the laboratory by examining 45 Whipple Disc fields (3 primaries - 15 fields each) of a Sedgewick-Rafter cell at 125x for phytoplankton and 9 vertical strips (3 for each primary) at 50x for zooplankton.

3. Periphyton

Periphyton accumulators (25 mm x 75 mm glass slides) were suspended approximately two feet below the surface of the water at Stations N-10, Zero-West, S-4, and S-17. At both Stations N-10 and S-4, an additional accumulator was placed at six feet, which is below the level of significant thermal influence. Samples were collected weekly (short-term) and monthly (long-term) to determine the effects of the heated discharge upon the periphyton community. Biota were identified to

major groups (green, bluegreen, diatoms) and percent composition of each was determined based on cellular counts of the groups.

4. Aquatic Plants

Aquatic plants were sampled qualitatively on June 11 and August 14, 1974, at the discharge canal and Stations N-10 through S-24. Relative abundance of each species was noted during the course of observations. In cases where field identifications were not possible, type specimens were returned to the laboratory for more detailed classification. General habitat types were noted at each survey station.

5. Aquatic Insects

Qualitative samples were taken on June 18 and August 9, 1974, from the east and west banks at Stations N-10, Zero, S-4, and S-17. Collections were made by two field personnel working for 20 minutes at each station. Substrate types at each sample location were noted. Organisms were preserved in 10% buffered formalin for identification and enumeration.

6. Benthic Invertebrates

Stations N-10, Zero-West, S-4, and S-17 were sampled with a Ponar grab in June, August, and October. Duplicate samples were taken at mid-river and near the east and west banks at each station. Samples were sieved using a #30 mesh (0.595 mm) screen and preserved with a 10% formaldehyde solution to which rose bengal stain was added to facilitate sorting. Upon return to the laboratory, benthic samples were sorted, represerved in ethanol, and then identified and enumerated.

7. Fish Surveys

a. Electrofishing

Fish were collected by shocking 1000-foot sections along both the east and west banks of the river at the following stations: N-9 and N-10; N-6 and N-7; Zero and S-1; S-4 and S-5; S-17 and S-18. A 220 V pulsating DC generator mounted in a 17-ft boat was used for collecting. Fish collected during the study (June, August, and September) were identified, weighed and counted.

b. Immature Fish Seining

Seining activities were conducted when flows permitted at Stations N-10, Zero, S-2, and S-17 from late May through September. Numbers, species, and size ranges of immature fish collected in each haul of a 15-foot long, 1/4-inch stretch mesh seine at each station were recorded.

Since the number of hauls varied with the area to be sampled, the number of each fish species captured by seining was converted to catch per haul. Typically, three hauls were taken at N-10 West; two were taken at N-10 East; and one was taken at each of Stations N-7, Zero, S-2, and S-17.

c. Fyke Netting

Four fyke netting stations (N-10 East, N-10 West, S-3 East, and S-2 West) were sampled monthly from May through October to monitor populations of smallmouth bass (*Micropterus dolomieu*), yellow perch (*Perca flavescens*) and pumpkinseed sunfish (*Lepomis gibbosus*). Nets were set twice per week for two day periods for a total of 16 net-days each month. Captured fish were weighed, measured, and counted. Where possible, scale samples from ten fish per "inch-class" of each of these species were taken for aging. Age determinations were used to verify findings of length/frequency analyses.

The distribution of the major species as revealed by monthly fyke netting was analyzed statistically using parametric 2-way analysis of variance in a randomized block design (Sokal and Rohlf, 1969) after the catch data was transformed to $X_i = \text{Log } (X_i + 1.0)$. This transformation was necessary to remove the effect of heterogeneous variance usually associated with this type of data (Kempthorne, 1952).

Length-weight equations of the form $\text{Log } \Delta t \text{ (ounces)} = \text{Log } e + n \text{ Log } \text{TL (inches)}$, which describe the general pattern of weight accretion as length increases and thus provide an index of robustness, were computed for pumpkinseed, yellow perch, and smallmouth bass captured by fyke netting. This technique is described in detail by Lagler (1956).

B. RESULTS AND DISCUSSION

1. Chlorophyll a

Monthly means of chlorophyll a concentrations are listed by station in Table 11. In general, the lowest concentrations of chlorophyll a occurred in April when productivity was low. Peak levels for all stations were reached during August and reflected the presence of an extensive population of green algae dominated by *Spirogyra* spp. During the period of highest concentrations for all stations (August 12), a maximum of 47.58 mg/m^3 was collected from Station N-10. In general, results of a two-way analysis of variance fixed-effects model (Sokal and Rohlf, 1969) showed significant chlorophyll a concentration differences between stations and seasons ($p < .001$). Using Tukey's Method (Guenther, 1964), it was found that Station Zero-West had significantly less chlorophyll a ($\alpha = .05$) over the season than did Stations N-10, S-4, and S-17 which were not significantly different from each other. For all months except August, Station S-17 exhibited slightly higher mean monthly chlorophyll a levels than did Station N-10. All stations experienced their greatest monthly increase in chlorophyll a between July and August, with the sharpest decline in levels occurring between August and September. This marked fluctuation encompassed the period during which the green algae, notably *Spirogyra* spp., flourished and declined. The greatest percent reduction of mean chlorophyll a concentrations among stations occurred during June with Station N-10 possessing nearly twice as much as Station Zero-West. Concentrations at Station S-4 were most reduced from N-10 values during September.

It is interesting to note that while peak chlorophyll a values were reached in September of 1972 (13.35 mg/m^3) and 1973 (15.99 mg/m^3), in 1974, highest mean chlorophyll a concentrations were noted in August (23.45 mg/m^3). In general, productivity levels in 1974 exhibited a one-month "shift" (i.e., June of 1974 was comparable to July of 1972 and 1973) from June through August. This appeared to be directly related

TABLE 11. MEAN MONTHLY CONCENTRATIONS (mg/m^3) OF CHLOROPHYLL α
BY STATIONS - HOOKSETT POND - MERRIMACK RIVER - 1974

MONTH	CHLOROPHYLL α (mg/m^3)			
	STATIONS			
	N-10	ZERO-WEST	S-4	S-17
APRIL	1.76	1.43	1.85	1.77
MAY	2.46	2.30	2.36	2.47
JUNE	4.92	2.50	4.59	5.69
JULY	9.42	6.06	9.44	10.93
AUGUST	23.45	16.51	22.24	21.48
SEPTEMBER	5.67	4.51	5.20	6.44
OCTOBER	2.21	1.82	2.19	2.32

to 1974 river flows (Figure 2) which reached their lowest point in August as compared to September in 1972 and 1973. The extremely high chlorophyll a values recorded in August of 1974 could be related to increased retention time of waters impounded behind Hooksett Dam during periods of high temperature, in combination with increased nutrient availability.

2. Plankton

Major groups of plankton considered were diatoms (Bacillariophyceae), green algae (Chlorophyta), bluegreen algae (Cyanophyta), and zooplankton.

Station differences in abundances and percentage composition were tested using a two-way analysis of variance (Table 1, Appendix II). In the case of abundance testing a $\log_e (x + 1)$ transformation was applied to the data. Percentage composition data were transformed using the $\arcsin \sqrt{p}$ transformaton.

Near-Surface Samples

Mean monthly numbers of diatoms per 100 liters of water are shown by station in Figure 6. Dominant forms collected were *Asterionella* sp., *Melosira* spp. and *Tabellaria* spp. Diatoms dominated during the spring and early summer months, but were replaced in dominance by unusually high numbers of green algae in late summer.

Station differences in both abundance and percentage composition were statistically significant for diatoms as well as for other Chrysophyta, with Station Zero-West showing lower numbers and percentages of these organisms. Tukey's Method for Multiple Comparisons (Guenther, 1964) showed Zero-West to have significantly fewer diatoms than N-10 and S-4. Examination of Figure 6 shows a reduction in abundance at Zero-West

DIATOMS GREENS BLUEGREENS ZOOPLANKTON

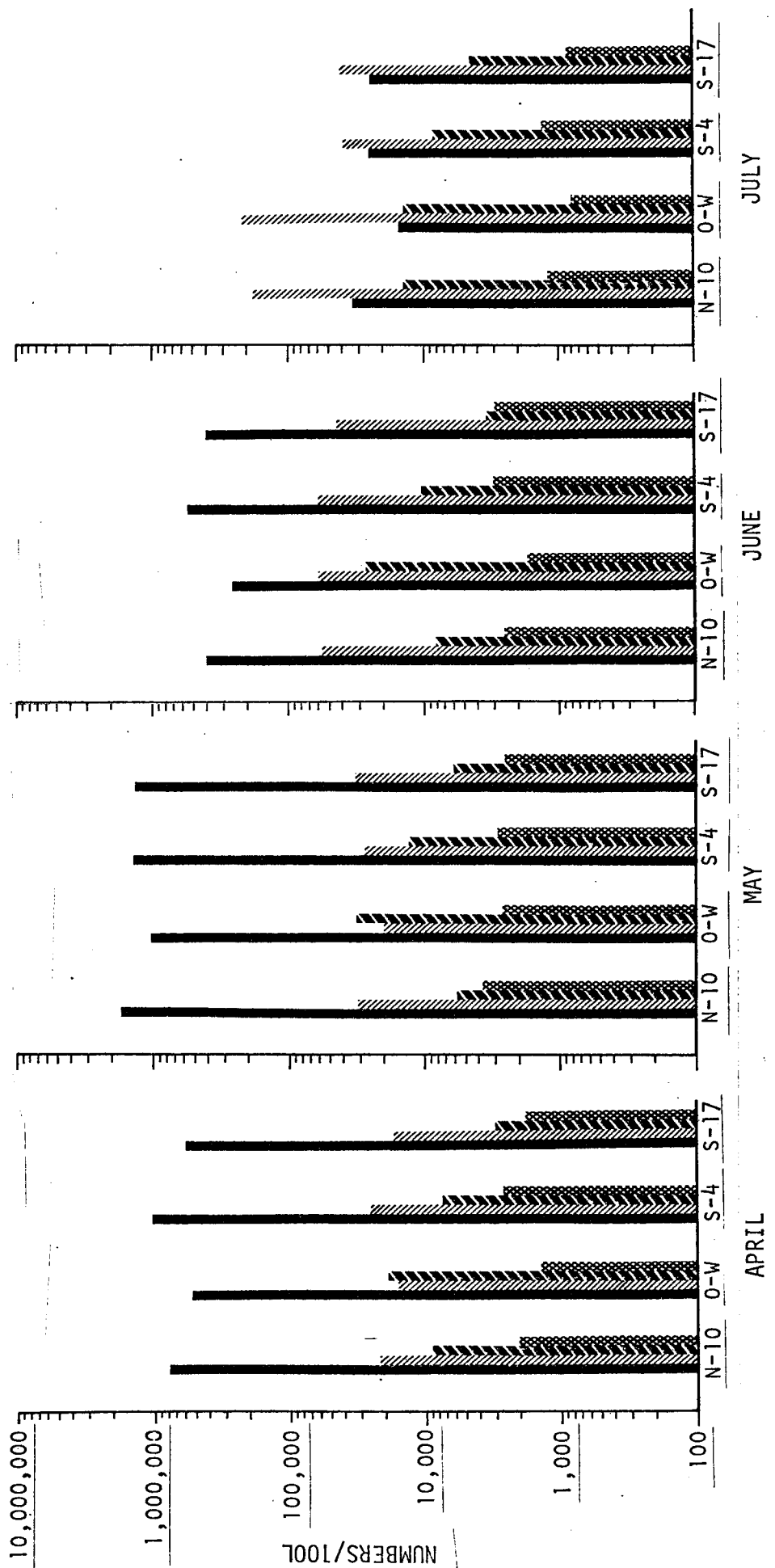


Figure 6. Mean monthly abundance of plankton organisms in surface plankton samples - Hooksett Pond, Merrimack River, 1974.

Continued

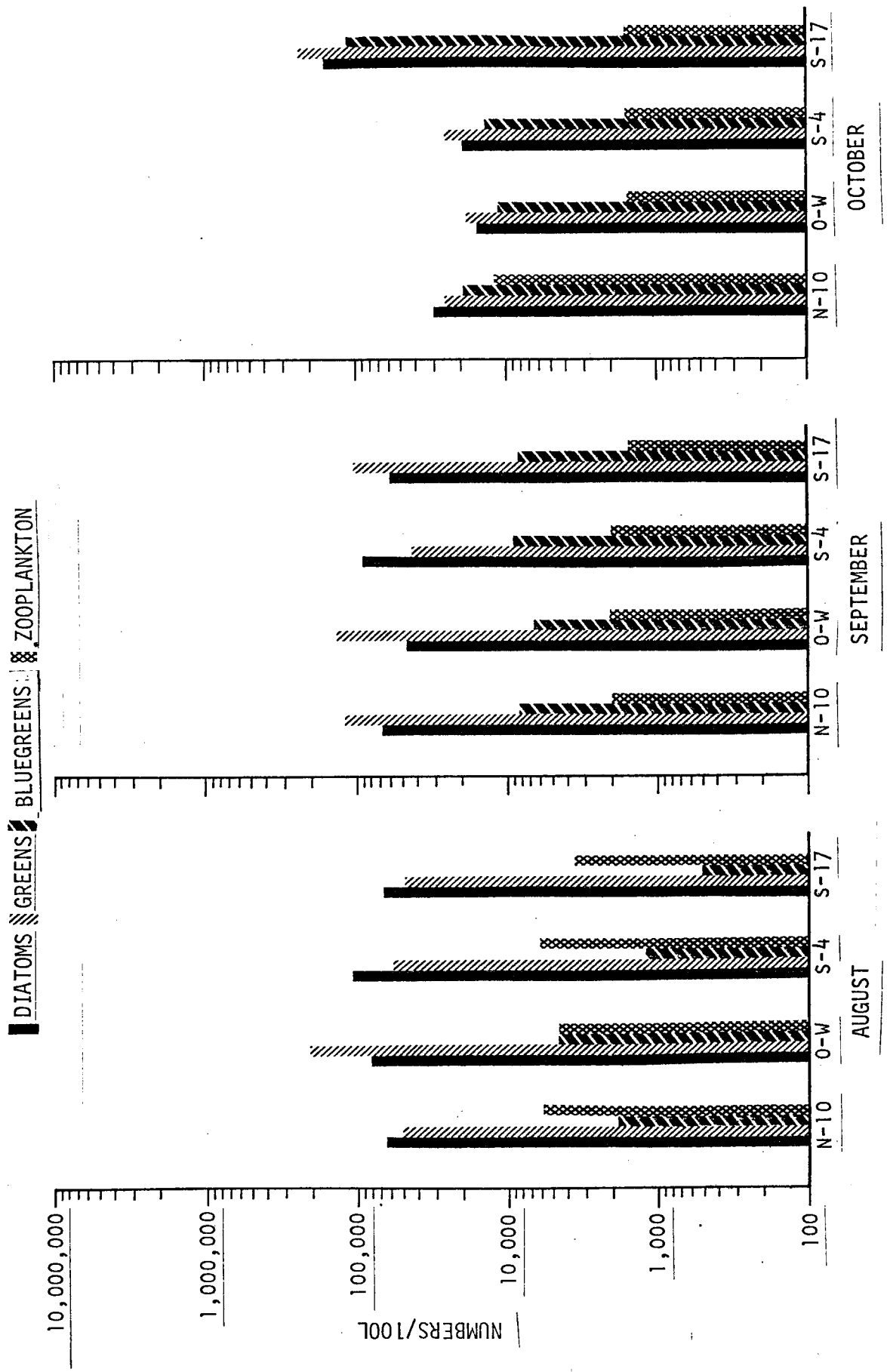


Figure 6. (Continued)

occurring in all months with the exception of August, with peak declines occurring in July, a month of low flows (Figure 2) and peak river temperatures.

Green algae (Figure 6) collected during the study were represented by *Mougeotia* spp., *Microspora* spp., *Pediastrum* spp., *Staurostrum* spp., and *Spirogyra* spp. During the summer months, particularly in late July and August, *Spirogyra* spp. reached bloom conditions as is reflected in Figure 6 and in chlorophyll *a* values shown in Table 11. Results of two-way analyses of variance did not reveal any significant difference among stations in abundance or percentage composition of green algae.

Bluegreen algae were represented by *Oscillatoria* spp. and *Anacystis* spp. During October, *Anacystis aeruginosa* reached a near bloom condition (Figure 6) which was maintained well into November following termination of regular sampling activities. Tukey's method showed bluegreen algae to be highest at Station Zero-West, and significantly greater than abundances recorded at Stations N-10 and S-17 over the season. This is probably the result of *Oscillatoria* spp. which grows in the discharge canal and which is likely introduced into the river at Zero-West as a result of canal discharge.

Dominant zooplankton organisms encountered in the 1974 sampling season were Rotifera and Ciliophora. Examination of Figure 6 indicates a lower abundance and percentage of zooplankton organisms at Station Zero-West than at N-10 throughout most of the year. However, results of analyses of variance did not show these differences to be statistically significant. Numbers of zooplankton were highest in August which coincided with periods of high productivity for the green algae.

Sub-surface

Results of sub-surface samplings at Stations N-10 and S-4 are shown in Figure 7. Differences in abundance of plankton across Stations

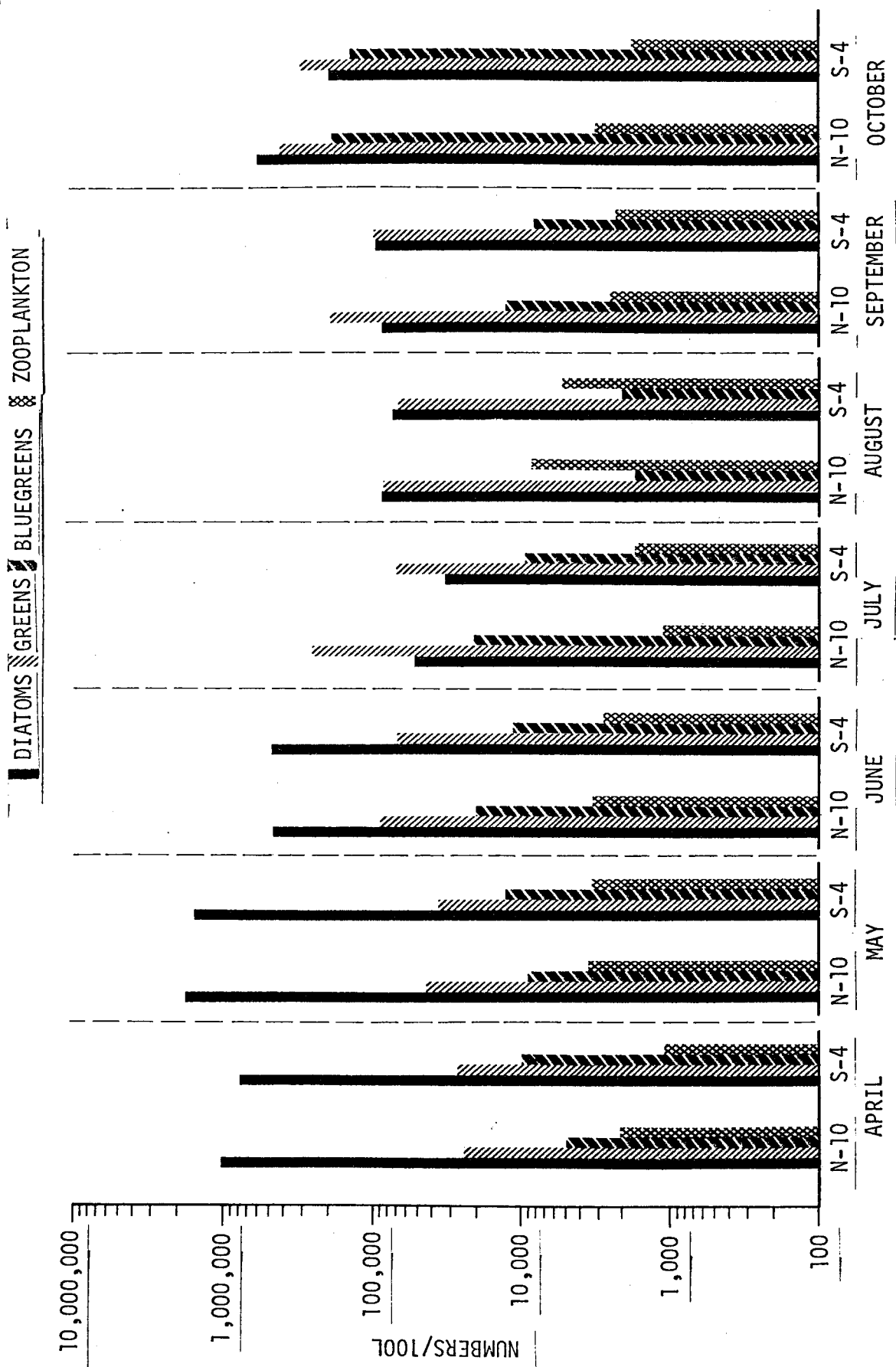


Figure 7. Mean monthly abundance of plankton organisms in sub-surface plankton samples - Hooksett Pond, Merrimack River, 1974.

N-10 and S-4 and between surface and bottom depths were tested for significance in a 3-way fixed-effects analysis of variance (AOV) with one observation per cell. Results of the AOV were verified with a "t" test designed to determine significant differences in means using matched pairs. No statistically significant station differences were noted for any of the plankton groups studied. Green algae were found to occur in greater abundance in the deeper tows at both N-10 and S-4 than in the near-surface samples.

Summary

As in 1971 and 1973, diatoms in surface samples showed significant reductions from N-10 levels at Station Zero-West over the season. As in past years, a gradual recovery in planktonic abundance to N-10 levels was accomplished by the stations south of the discharge canal. No significant among station differences which could be directly related to the operation of the Merrimack Station were noted for green algae or zooplankton. These findings are comparable to past years although some non-statistically significant reductions have been noted in earlier studies. As in 1973, bluegreen algae occurred in higher abundances at Station Zero-West than at N-10. Of particular interest in 1974 studies has been the responses of the plankton communities to low flows, increased nitrate concentrations and possibly longer retention time behind the Hooksett Dam. Members of both the green and bluegreen algae showed higher abundances during 1974 than in past years.

3. Periphyton

a. Weekly Sampling

Weekly periphyton slides were examined to determine potential impacts of the thermal plume on initial periphyton colonization. During 1974, diatoms were the dominant organisms at both depths (Figures 8 to 11).

Analysis of variance tests (Table 2, Appendix II) of abundance data indicated significant ($p < .001$) station differences over season. Tukey's Test showed that this was due to significantly ($\alpha = .05$) lower diatom abundance at Station Zero-West than S-4, S-17, and N-10 over the season. Green and bluegreen algae abundance did not vary significantly ($\alpha = .05$) among stations. Comparisons of periphyton abundance at the 6-foot depth (Station N-10 and S-4) using a parametric paired t-test showed Station N-10 to have a greater abundance of diatoms ($p < .05$) for the season than did Station S-4. Significant ($p < .05$) differences between weeks was also noted.

Analysis of variance of percentage composition data (Figure 8) was examined using a parametric 2-way analysis of variance (arc sin transformation) revealed significant among station differences ($p < .001$) for diatoms. Tukey's Method showed Station Zero-West to have a lower percentage of diatoms than N-10 and S-17 ($\alpha = .05$) over the season. An examination of percentage composition data (Figure 8) for the months of July and August during peak temperatures and low flow periods, points out these station differences. Results of a paired t-test showed 6-foot depth slides at Station N-10 to have a significantly higher percentage of diatoms ($p < .001$) than did Station S-4.

b. Monthly Sampling

As was true with the weekly slides, monthly slides were dominated by the diatoms (Figure 9). Results of a 2-way analysis of variance (log transformation) and the application of Tukey's method showed Station Zero-West to have significantly less abundance ($p = .05$) than Station N-10 over the season (Table 3, Appendix II). An examination of Figure 9 shows that this reduced abundance occurred in all months with the exception of May. The most pronounced reduction in diatoms occurred during July and August during periods of high temperature and low flows. The parametric paired "t" test, used for determining significant differences in means using matched pairs, showed that at the 6-foot depth (Figure 10) Station N-10 also had significantly more diatoms ($p < .05$) than did

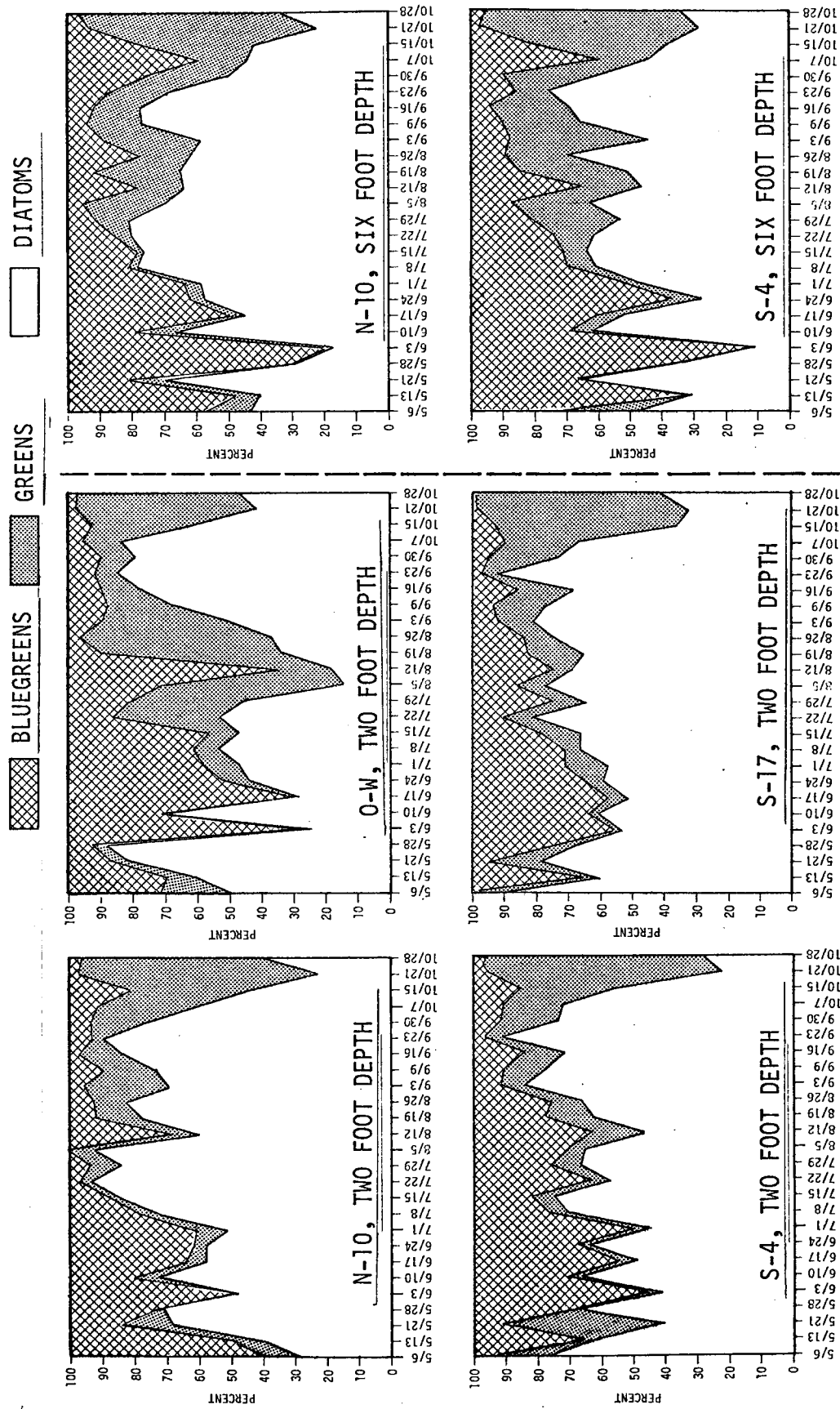


Figure 8. Percent composition of diatoms, green, and bluegreen algae on weekly periphyton slides at Stations N-10, O-W, S-4 and S-17 at the two foot depth and at N-10 and S-4 at 6 foot depth.

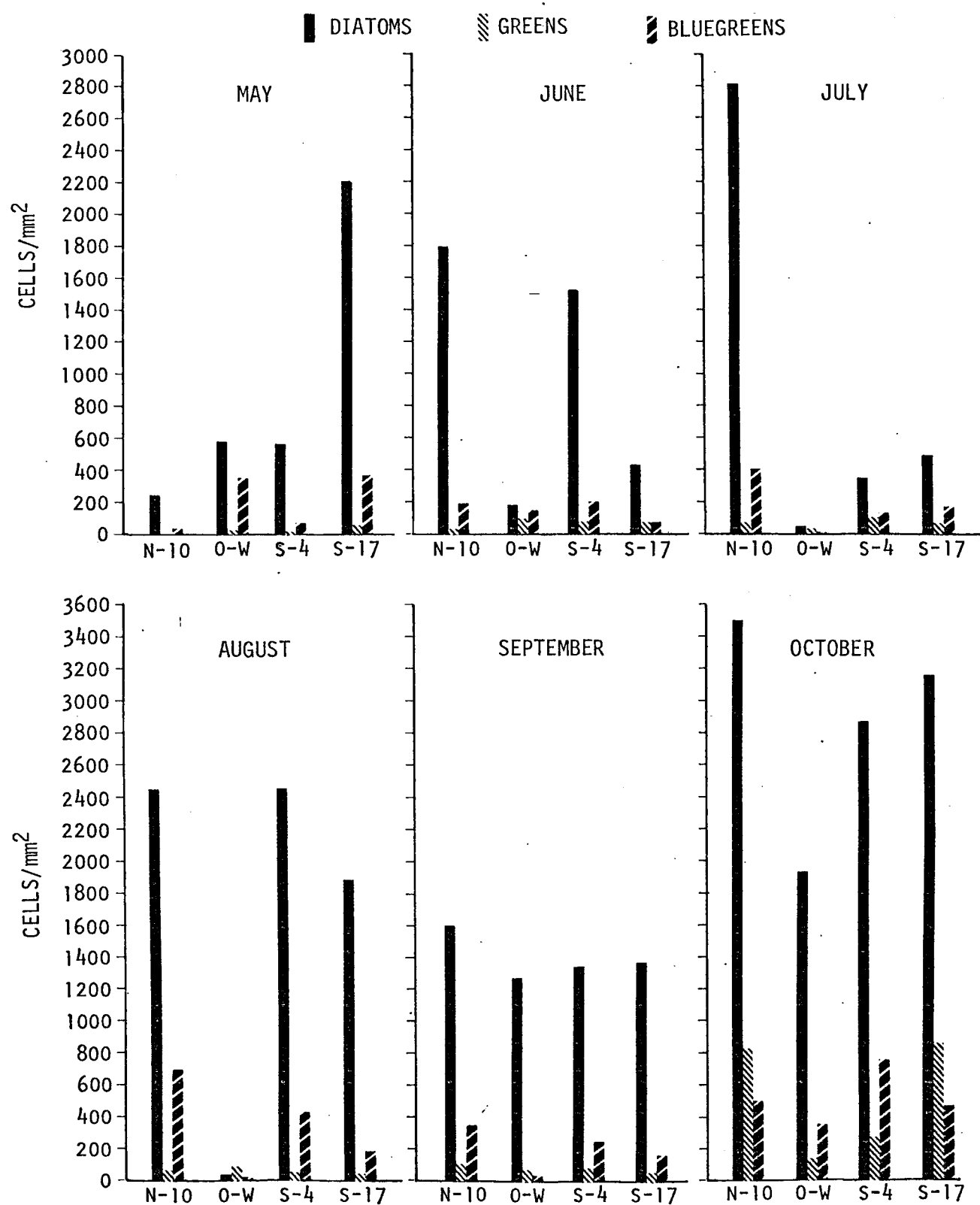


Figure 9. Abundance of periphyton collected monthly per square millimeter of slide surface at 2 foot depth.

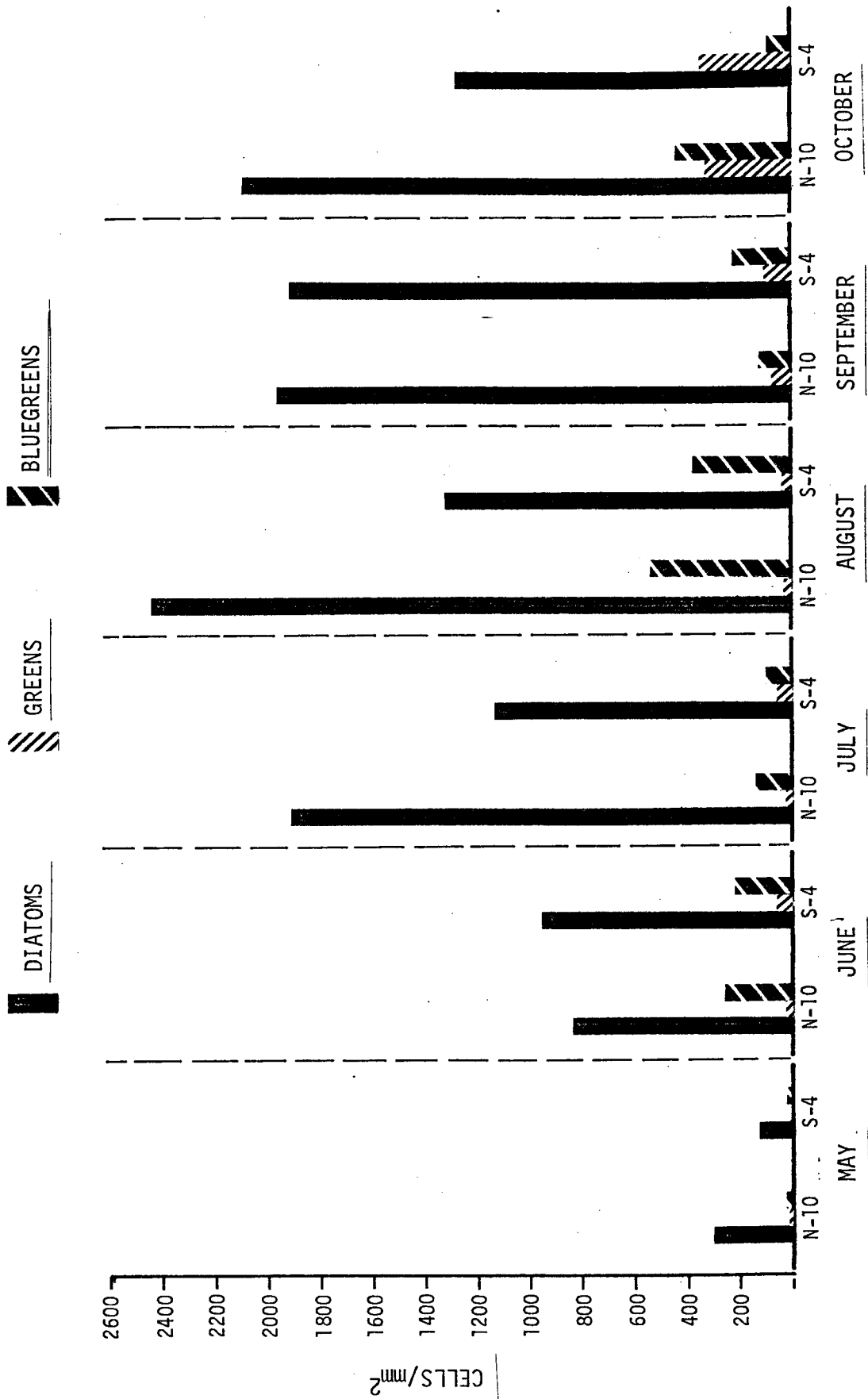


Figure 10. Abundance of periphyton organisms collected monthly per square millimeter of slide surface at 6 foot depth.

Station S-4. No other significant among station differences in abundance were noted for other periphyton groups studied, although examination of Figures 9 and 10 does indicate some reduction of blue green algae at Station Zero-West at both depths during the summer months.

Percentage composition data were examined by 2-way analysis of variance technique (arc sin transformation) for among station differences. No significant differences for any of the three periphyton groups was noted. It is felt this lack of significance is largely due to a reversal in trends for both diatoms and green algae which occurred in the months of September and October. Examination of Figure 11 shows a consistent reduction of diatoms from May to August at Station Zero-West, but then increased during the cooler fall months. Green algae, on the other hand, occurred in higher percentages at Station Zero-West for all months with the exception of May, September and October when reductions were noted. Percentage composition of bluegreen algae were generally inconsistent although a trend toward higher percentages of this group during the cooler spring months at Station Zero-West was indicated. Percentage composition data at the 6-foot depth are also shown in Figure 11. Only the green algae showed a consistent trend with slightly higher percentage of this group being found at Station S-4 than at Station N-10.

In summary, both weekly and monthly periphyton slides showed statistically significant reductions in diatom abundance over the season at Station Zero-West and S-4 (6-foot depth). Percentage composition data showed statistically significant differences at these stations only on the weekly slides. Results for 1974 were generally comparable to past years in that diatoms continued to be less abundant in both weekly and monthly slides at Station Zero-West; and also at Station S-4 (6-foot depth) than at N-10 since the inception of the 6-foot depth program in 1972. Productivity in terms of diatom abundance was higher on monthly slides at Station N-10 during July, August and September by approximately two-fold in 1974 than in the same months of 1972 and 1973. Green and bluegreen algae abundances have been comparable during these years.

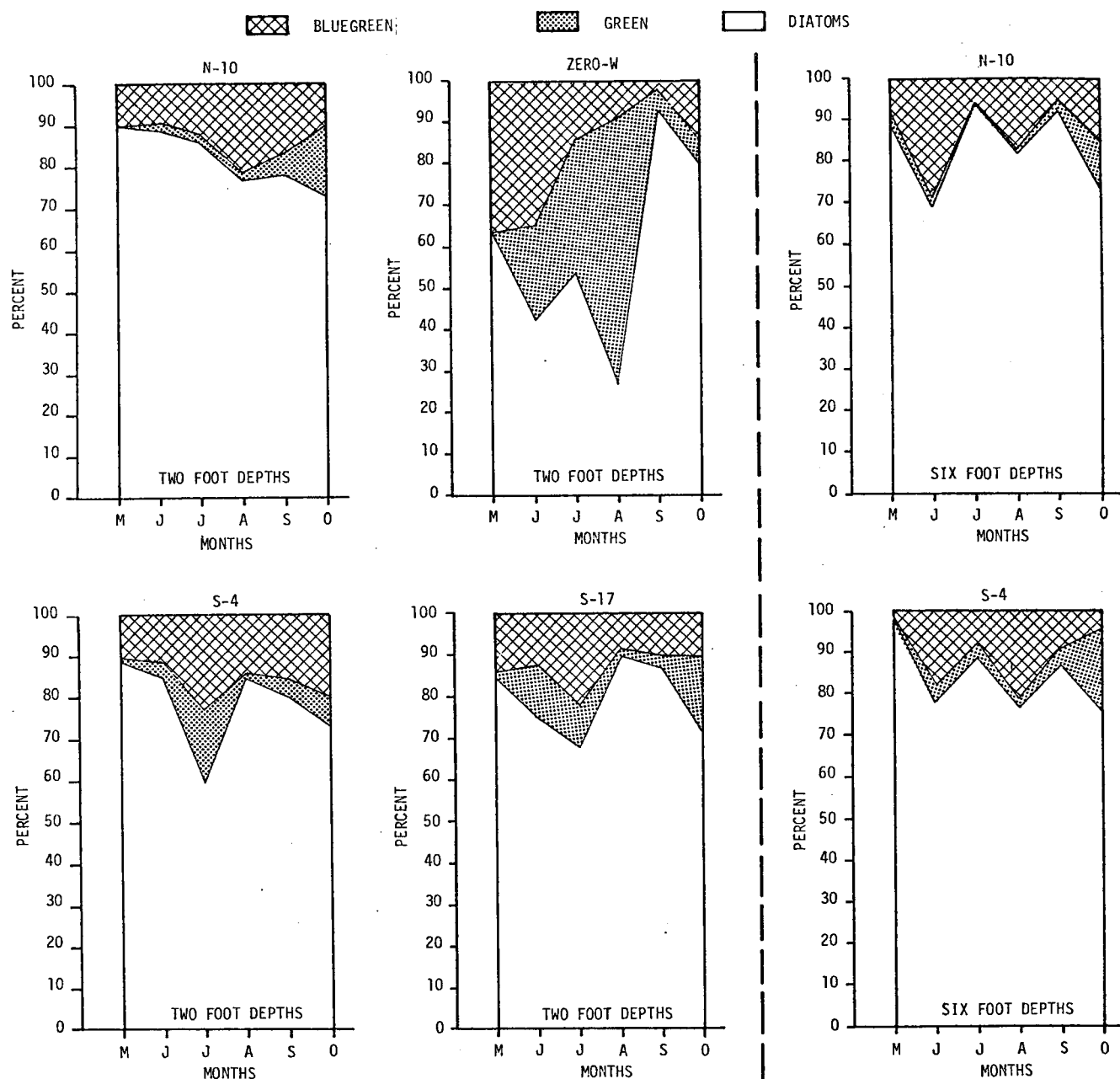


Figure 11. Percent composition of diatoms, green and bluegreen algae on monthly periphyton slides at Stations N-10, O-W, S-4, S-17 at 2 foot depth and N-10 and S-4 at 6 foot depth.

4. Aquatic Vascular Plants

Results of the June 11 and August 14, 1974, aquatic vascular plant surveys are shown in Tables 12 and 13. Of the northern stations sampled in June, Stations N-4 and N-5 East, a shallow, slowly-flowing area, supported the most diverse aquatic plant communities. The habitat bordering the discharge weir, where maximum temperatures were recorded, (96.5°F) supported three genera, *Eleocharis* sp. (predominantly), *Sagittaria cristata* and *Ludwigia* sp., while Station Zero-West (85.0°F) possessed only a small *Potamogeton* spp. population. Conditions such as depth, current velocity, sediment type, and access to sunlight appeared to limit habitation by aquatic vascular plants at Stations Zero through S-7. In contrast, the highest diversity existed in shallow, open areas, such as is found at Stations S-21 and S-22 East, where the current was sluggish and sediments were allowed to accumulate. The genera most frequently encountered throughout the survey included *Potamogeton* spp. and *Anacharis canadensis*.

Station N-5 East displayed the most diverse community north of the generating station during the August survey. Despite a temperature of 102.2°F, the three genera observed in June at the discharge weir were still flourishing. No aquatic vascular plants were observed at Station Zero-West (89.9°F) during the August survey and few were present southward to Station S-7. Maximum diversity for all stations in the study area existed along the eastern shoreline at Stations S-12 and S-22. The two most common genera of the June survey were joined by *Pontedaria cordata* f. *taenia* and *Sagittaria* spp. to dominate the survey area during August.

The overriding trend revealed by the 1970-1974 aquatic vascular plant surveys was that habitat characteristics (e.g., sediment, depth, and current velocity) appeared to be most responsible for abundance and distribution. Only at the areas of maximum thermal influence (Station Zero-West and the discharge weir) were changes in diversity readily apparent. *Eleocharis* sp. was very abundant at Station Zero-West during the 1970-1971 sampling seasons, but disappeared after the dredging

TABLE 12. RELATIVE ABUNDANCE OF AQUATIC VASCULAR PLANTS -- HOOKSETT POND -- MERRIMACK RIVER -- JUNE 11, 1974.

STATIONS	SURFACE TEMP. (°F)	<i>Potamogeton</i> sp.	<i>Anacharis canadensis</i>	<i>Pontederia cordata</i> f. <i>taenia</i>	<i>Scirpus</i> sp.	<i>Eleocharis</i> sp.	<i>Sagittaria cristata</i>	<i>Sagittaria</i> sp. Submerged Rosettes	<i>Nymphaea</i> sp.	<i>Ludwigia</i> sp.	<i>Fontinalis</i> sp.
N-10 E	71.5										
W	71.8	P	P								
N-9 E	71.2										
W	71.2	P	VA								
N-8 E	71.2	P	VA								
W	71.2	P	A								
N-7 E	71.2	P	VA			P					
W	71.1	VA	VA			VA					
N-6 E	71.5	VA	VA			P					
W	71.2	P	A								
N-5 E	71.5		VA	VA	A	VA	A				
W	71.1	P	P								
N-4 E	72.0	P	VA	P	P		P				
W	71.1	P	P								
N-3 E	72.0	P	VA								
W	71.1	P	VA								
N-2 E	72.0	A	P								
W	71.2	P	VA								
N-1 E	72.0										
W	71.2	P	VA								
Discharge Weir	96.5					VA	P			P	
Zero E	72.0	P			P	P					
W	85.5	P									
S-1 E	82.5										
W	77.0	P									
S-2 E	83.0			P		P					
W	76.0	P		A	P		P				
S-3 E	79.5		P								
W	74.1										
S-4 E	76.5										
W	75.9										
S-5 E	75.0	P	P	A			P	P			
W	76.1										
S-6 E	74.0	P		P			P				
W	75.5										
S-7 E	74.5	P		P				A			
W	75.5	P	P								
S-8 E	73.5	P		VA		A	A	P			
W	75.0	P									
S-9 E	73.9			VA		A	VA				
W	74.5										P
S-10 E	73.9	P						VA			
W	74.5										
S-11 E	73.9	P						A			
W	74.5										
S-12 E	73.9	P	P					VA			
W	74.0	P									P
S-13 E	74.0	P	VA					VA			P
W	74.0										
S-14 E	74.5	P	P		A	P		VA			
W	74.0										
S-15 E	75.0	P	A					VA			
W	74.0										P
S-16 E	75.0		P					VA			
W	74.0										
S-17 E	75.0	P						P			
W	74.0										
S-18 E	74.5				A			P			
W	74.0										P
S-19 E	74.0	P						VA			
W	74.0										
S-20 E	74.5	P	P					A			
W	73.9										
S-21 E	74.0	VA		A	P		P	A	A		
W	73.9	A		P							
S-22 E	75.1	A		P		A	P	VA			
W	73.5	A		VA	P		P				
S-23 E	74.0	P									
W	74.0	P		A			P	P			
S-24 E	74.1	P									
W	74.0		VA	VA	VA		VA	VA			

TABLE 13. RELATIVE ABUNDANCE OF AQUATIC VASCULAR PLANTS -- HOOKSETT POND -- MERRIMACK RIVER -- AUGUST 14, 1974

STATIONS	SURFACE TEMP. (°F)	<i>Potamogeton</i> sp.	<i>Anacharis canadensis</i>	<i>Fontedaria cordata</i> f. <i>taenia</i>	<i>Scirpus</i> sp.	<i>Eleocharis</i> sp.	<i>Sagittaria cristata</i>	<i>Sagittaria</i> sp. Submerged Rosettes	<i>Nymphaea</i> sp.	<i>Vallisneria</i> sp.	<i>Ludwigia</i> sp.	<i>Callitriche</i> sp.
N-10 E	77.2						P					
W	75.8	P	VA							P		
N-9 E	77.2	P	VA					P				
W	76.2	A	VA									
N-8 E	77.2	P	P									
W	75.5	A	A							P		
N-7 E	81.7	P	VA			A		P				
W	76.0	VA	VA	P		A		P		P		
N-6 E	80.2		VA	VA								
W	75.2	P	P							P		
N-5 E	78.5		VA	A	A	P	A					
W	75.2											
N-4 E	77.7	P	A					P				
W	75.3	P	P	P								
N-3 E	78.2		VA					P				
W	75.2	P	VA									
N-2 E	86.0	P	A									
W	76.0	P	VA									
N-1 E	89.9							P				
W	75.7	P	VA	P								
Discharge Weir	102.2					VA					P	
Zero E	86.9	A			P	P	P					
W	89.9											
S-1 E	87.1	P	P				P					
W	80.0	A										
S-2 E	85.7	A		P								
W	79.2			A	A		P					
S-3 E	86.0	A										
W	79.9		P									
S-4 E	83.1	P						P				
W	81.5											
S-5 E	82.5		A									
W	81.0											
S-6 E	82.0	P	P	A			P	P				
W	80.0	P										
S-7 E	81.5		A	P			P					
W	81.0											
S-8 E	81.4	P		A			A					
W	81.2											
S-9 E	81.2	A	VA	P			P	A				
W	80.1											
S-10 E	81.5	P	VA	VA			P					
W	80.0	P										
S-11 E	81.5	VA	VA	P				A				
W	80.2	P										
S-12 E	81.0	A	VA	P	P	P		VA		P		
W	80.0							VA				
S-13 E	81.5	A	A	P	P			VA				
W	80.5											
S-14 E	81.8	A	A	P	P			VA				
W	80.2											
S-15 E	81.2	VA	A	P				VA				
W	80.1							VA				
S-16 E	80.5	P	P					VA				
W	80.0											
S-17 E	78.8	P						P				P
W	80.1	A										
S-18 E	80.2	P	P	P	A		P					
W	79.3											
S-19 E	80.0	P			A			A				
W	79.4											
S-20 E	80.2	P	P					A				
W	80.1	P										
S-21 E	80.2	VA	P					A				
W	80.0	A		P								
S-22 E	80.2	A	P	A	A	P		A	VA			
W	80.0	VA	VA	P			P					
S-23 E	80.5	A		A				P				
W	80.2	VA	VA	VA				P				
S-24 E	79.8	P	P					A				
W	81.5	VA	VA	VA				A		P		

operations of 1972, perhaps as a result of substrate modification. At present, no other plant has succeeded in re-establishing itself at this station. Successful habitation of the discharge weir area (where temperatures sometimes exceeded 100°F), noted during the 1972-1974 surveys, was accomplished by *Eleocharis* sp., *Sagittaria* sp., and *Ludwigia* sp.

In general, there is little evidence to suggest that thermal discharges have caused any significant changes to the aquatic vascular plant communities in the Hooksett Pond study area.

5. Aquatic Insects

Aquatic insects collected on June 18 and August 9 are listed by station in Tables 14 and 15, respectively. Some of the commonly encountered orders included Diptera (flies and midges), Coleoptera (beetles), Trichoptera (caddisflies), and Ephemeroptera (mayflies). The substrates from which the insects were collected during both surveys included submerged limbs and rocks. The stations showed variable habitat types with respect to amount and kind of vegetation, sediment type, and depth. Water temperatures during both collections were comparable due to the shutdown of Unit #2 and two-thirds of the power spray module system during the August sampling.

During the June survey, Stations N-10 West and Zero-West yielded the highest diversity of insects and N-10 East the least with 87% of the sample comprised of dipterans. Station S-17 West produced the most individuals and S-4 East the least.

The habitat at the discharge weir yielded only four insect larvae including three microcaddisflies (Hydroptilidae) and one dipteran. Proffitt (1969) collected two types of larval insects, *Tendipes* sp. (a dipteran) and *Psychomyia* sp. (a trichopteran), that appeared to greatly favor the conditions that existed in the discharge canal and the area immediately downstream of the Indianapolis Power and Light Company power

TABLE 14. RESULTS OF AQUATIC INSECT SURVEY -- HOOKSETT POND, MERRIMACK RIVER,
JUNE 18, 1974.

STATION	TEMPERATURE (°F)*			STATION	NUMBERS	TAXA	TEMPERATURE (°F)*			TAXA	NUMBERS
	S	M	B				S	M	B		
EAST N-10	70.1	69.9	69.8	WEST N-10	46	DIPTERA Chironomidae larvae COLEOPTERA Dubiraphia sp. adult Ancyrionyx sp. larva TRICHOPTERA Psychomyiidae larva EPHEMEROPTERA Ephemereilla sp. nymphs	68.2	69.1	69.0	DIPTERA Chironomidae larvae Chironomidae pupa Pentaneura sp. larvae COLEOPTERA Dubiraphia sp. adult Ancyrionyx sp. larvae TRICHOPTERA Polycentropus sp. larvae Psychomyiid sp. larva Hydroptila sp. adult Leptoceridae larva NEUROPTERA Sisyra sp. larva EPHEMEROPTERA Ameletus sp. nymphs Ephemereilla sp. nymphs Stenonema sp. larva	7 1 2 1 2 6 1 1 1 1 1 3 11 1
Zero	70.2	70.2	70.2	Zero	24	DIPTERA Chironomidae larvae Chironomidae pupa Pentaneura sp. larvae TRICHOPTERA Athripsodes sp. larvae Cheumatopsyche sp. larvae Hydroptila sp. pupa Leptoceridae larvae EPHEMEROPTERA Ephemereilla sp. nymphs Ameletus sp. nymphs Stenonema sp. nymphs	78.3	77.1	74.3	DIPTERA Chironomidae larvae Chironomidae pupa Tendipes sp. larva Pentaneura sp. larva COLEOPTERA Dubiraphia sp. larvae Dubiraphia sp. adults TRICHOPTERA Athripsodes sp. larvae Polycentropus sp. larvae ODONATA Amphagrion sp. nymph EPHEMEROPTERA Ephemereilla sp. nymphs Ameletus sp. nymphs Stenonema sp. nymphs	6 1 1 1 1 4 2 9 4 1 2 16 10

Continued

TABLE 14. (CONTINUED)

STATION	TEMPERATURE (°F)*			TAXA	NUMBERS	STATION	TEMPERATURE (°F)*			TAXA	NUMBERS
EAST	S	M	B			WEST Dis- charge Weir	S	M	B		
S-4	71.1	71.6	71.8	DIPTERA Chironomidae larvae Tipulidae pupa COLEOPTERA Hydroporus sp. larva TRICHOPTERA Athripsodes sp. larvae Psychomyia sp. larva Hydroptila sp. adult EPHEMEROPTERA Ephemerella sp. nymphs	2 1 1 4 1 1 4	S-4	71.3	71.1	70.9	DIPTERA Chironomidae larvae COLEOPTERA Ancyronyx sp. larva TRICHOPTERA Hydroptila sp. adult Athripsodes sp. larva COLLEMBOLA EPHEMEROPTERA Ephemerella sp. nymph Ameletus sp. nymphs	26 1 1 1 1 1 1 2
S-17	74.1	74.1	74.1	DIPTERA Chironomidae larvae COLEOPTERA Dubiraphia sp. adults TRICHOPTERA Athripsodes sp. larvae Oxyethira sp. larva Hydroptilidae larva EPHEMEROPTERA Stenonema sp. nymphs Ephemerella sp. nymphs Ameletus sp. nymphs	30 2 7 1 1 6 13 5	S-17	73.5	73.5	73.5	DIPTERA Probezzia sp. larva Chironomidae larvae Pentaneura sp. larva COLEOPTERA Dubiraphia sp. adults Ancyronyx sp. larva TRICHOPTERA Athripsodes sp. larvae PLECOPTERA Isoptera sp. nymphs ODONATA Coenagrionidae naiad EPHEMEROPTERA Stenonema sp. nymph Ameletus sp. nymph Ephemerella sp. nymphs	1 81 1 10 1 15 2 1 1 1 5

* S = Surface
M = Mid-depth
B = Bottom

TABLE 15. RESULTS OF AQUATIC INSECT SURVEY -- HOOKSETT POND, MERRIMACK RIVER,
AUGUST 9, 1974.

STATION	TEMPERATURE (°F)*			NUMBERS	STATION	TEMPERATURE (°F)*			TAXA	NUMBERS
	S	M	B			S	M	B		
EAST N-10	75.0	75.1	75.1	74 4 1 2 1 1 1 1	WEST N-10	75.1	75.0	74.9	DIPTERA Chironomidae larvae COLEOPTERA Dubiraphia sp. adult Dubiraphia sp. larva Ancyronyx sp. larva TRICHOPTERA Oecetis sp. larva Oxyethira sp. larva EPHEMEROPTERA Stenonema sp. nymphs Choroterpes sp. nymphs	45 1 1 1 1 1 1 2 2
Zero	77.4	77.4	77.4	51 1 2 2 1 2 2 1 1 1 1 2	ZERO	79.0	78.9	78.0	DIPTERA Chironomidae larvae COLEOPTERA Dineutus sp. larvae TRICHOPTERA Oxyethira sp. larva Hydroptilidae adults Hydroptilidae larva	3 2 1 2 1
					Discharge Weir	83.0	83.5	84.0	DIPTERA Chironomidae larvae TRICHOPTERA Cheumatopsyche sp. larva	33 1

Continued

TABLE 15. (CONTINUED)

STATION	TEMPERATURE (°F)*			TAXA	NUMBERS	STATION	TEMPERATURE (°F)*			TAXA	NUMBERS
EAST S-4	75.9	76.0	75.8	DIPTERA Chironomidae larvae <i>Corynoneura</i> sp. larva COLEOPTERA <i>Ancyronyx</i> sp. adults <i>Dubiraphia</i> sp. adults HEMIPTERA <i>Plea striola</i> TRICHOPTERA Psychomyiidae larva EPHEMEROPTERA <i>Ameletus</i> sp. nymph	29 1 5 2 1 1 1	WEST S-4	76.8	76.7	76.6	DIPTERA Chironomidae larvae Tipulidae larva COLEOPTERA <i>Dubiraphia</i> sp. adult <i>Dubiraphia</i> sp. larva <i>Ancyronyx</i> sp. larvae HEMIPTERA <i>Plea striola</i> TRICHOPTERA <i>Oecetis</i> sp. larva Psychomyiidae larva	23 1 1 1 2 1 1 1
S-17	76.1	76.1	76.1	DIPTERA Chironomidae larvae Chironomidae pupae COLEOPTERA <i>Dubiraphia</i> sp. larva TRICHOPTERA <i>Oxyethira</i> sp. larva	36 1 1 1	S-17	76.0	76.1	76.2	DIPTERA Chironomidae larvae Chironomidae pupa COLEOPTERA <i>Dubiraphia</i> sp. adults <i>Ancyronyx</i> sp. larvae <i>Dineutus</i> sp. larva	21 1 26 2 1

* S = Surface
M = Mid-depth
B = Bottom

generating station on the White River in Petersburg, Indiana. These larvae were found to be very abundant in discharge waters of 95°F, but were less prominent when a temperature of 104°F was reached. A water temperature of 104°F was taken at the Merrimack Station discharge weir on July 15, 1974.

No single order dominated all stations in June. However, 48% of all insects collected during the survey were dipterans. At the four stations where fifty or more insects were collected, only at N-10 East and S-17 West did the dipterans predominate, comprising 87% and 65%, respectively, of the total sample. Ephemeropterans (mayflies) constituted one-third or more of the total specimens collected at Station N-10 West, Zero-West, Zero-East, and S-17 East. Trichopterans (caddisflies) demonstrated varied presence among the sampling points. Representatives from the other orders made up only a small portion of the samples.

In August, the most diverse sample was found at Station Zero-East, while the greatest number of organisms occurred at Station N-10 East. The station with the least diversity and lowest numbers was Zero-West. All stations were dominated by dipterans except Zero-West where trichopterans were in slightly greater abundance. Nearly equal numbers of dipterans and coleopterans were collected from Station S-17 West. In total, 69% of all insects gathered during the August survey were dipterans. As in June, the habitat at the discharge weir appeared to support only dipterans and trichopterans. Most of the other orders found in June were present in August, but to a lesser extent.

Approximately equal numbers of insects were collected during both surveys. However, the June sampling yielded a more balanced insect fauna distributed among the orders encountered. The August samples exhibited less diversity with a predominance of dipterans. With the possible exception of Station Zero-West and the discharge weir, insect distribution appeared to be more responsive to habitat characteristics

and seasonal population changes than by thermal and/or chemical influences. Results of the 1974 surveys were generally comparable to those of 1972 and 1973. In both of these years dipterans were the dominant organisms encountered (34.4% - 82.0%). In general, Station Zero-West supported a reduced abundance and diversity of insect fauna comprised of representatives of the Orders Diptera, Coleoptera and Trichoptera.

Two factors that may have affected insect community structure at some stations in 1972 and 1973 were the 1972 dredging activities and the severe flooding of 1973. These occurrences resulted in modifications of river sediment types through scouring and deposition.

6. Benthic Macroinvertebrates

Results of the 1974 benthic invertebrate surveys are presented in Tables 16 to 18. Total numbers collected during each survey revealed that August was least productive ($\Sigma = 8,530$) and October the most ($\Sigma = 10,791$). June collections yielded numbers intermediate ($\Sigma = 9,146$) to the other two sampling dates. Abundance of 1974 benthos was greater than that of 1972 but much less than in 1973. As in the years 1970-1973, oligochaetes and dipterans were dominant.

During August, Station N-10 yielded the highest number of individuals among all stations sampled. At Station Zero-West, dipterans dominated during June and August, but in October, the oligochaetes were the most abundant and comprised 697 of the 968 individuals collected. Numbers of invertebrates increased at Station S-4 and decreased at Station S-17 from the June to October samplings. Ranges of total numbers collected during each of the surveys were quite uniform among stations (40 to 1191 individuals).

Oligochaetes and dipterans together comprised as much as 99.1% (at Station S-17 in June) and as little as 70.4% (at Station S-17 in October) of a station's benthic fauna. In general, the percentage

TABLE 16. RESULTS OF BENTHIC INVERTEBRATE SURVEY -- HOOKSETT POND - MERRIMACK RIVER,
JUNE 4, 1974.

STATION	TEMP. (°F) *			Nematoda																					
	S	M	B	Tubificidae	Naididae	Stylaria sp.	Nais sp.	Stauria sp.	Oligochaeta	Helobella sp.	Dina sp.	Isopoda	Argulus sp.	Hydracarina	Ephemera sp. nymphs	Baetidae nymphs	Gomphus sp. nymphs	Atheropoda sp. larva	Chamaetopseus sp. larva	Hydropsychidae adult	Trichoptera sp. larvae				
N-10 W ⁺ a ⁺	60.0	59.7	59.7	196	12	2	14	3	110				1					1			27	3			
b				165	25	3			12												10				
N-10 M a	61.0	59.7	59.8	1										5							1				
b																									
N-10 E a	59.7	59.0	59.5	365	17	7	17	19	24						1						11				
b				660	21	11	17	15	22												15	10			
Zero-W a	67.4	65.5	61.0	7												1									
b				6																					
Zero-M a	60.2	60.0	60.0											3											
b																	1				1				
Zero-E a	59.9	60.0	60.0	1	240	27	37	6	33																
b					176	46	34	76	24	21															
S-4 W a	62.6	62.5	62.3	122	36	5	48	2	26						1				1			2			
b				86	41	3	28	3	27																
S-4 M a	65.2	60.6	60.5																						
b				1																					
S-4 E a	60.4	60.3	60.1	95	6	8	21	4	21											1					
b				75	18	27	28	5	21												3				
S-17 W a	62.0	61.8	61.8	1	489	206	73	27	58	161	2														
b				125	78	8	2	5	32																
S-17 M a	61.5	61.0	60.9	1																					
b				1																					
S-17 E a	62.2	62.1	62.0	1	295	178	214	310	66																
b				8	277	61	99	94	161	194	1	2	1									1			

Continued

TABLE 16. (CONTINUED)

STATION	TEMP. (°F)*																				
	S	M	B	<i>Eprocladius</i> sp. larvae	(Trib.) <i>Tanytarsini</i> larvae	<i>Cryptochironomus</i> sp. larvae	<i>Tendipes</i> sp. larvae	<i>Pentaneura</i> sp. larvae	<i>Chironomidae</i> larvae	<i>Chironomidae</i> pupae	<i>Procladius</i> sp. larvae	<i>Allochironomus</i> sp. larvae	<i>Amnicolidae</i>	<i>Camptoloma</i> <i>decaum</i>	Gastropoda	Unionidae	Sphaeriidae	<i>Pistidium</i> sp.	<i>Sphaerium</i> sp.		
N-10 W ⁺ a ⁺	60.0	59.7	59.7	1	16	1			323	2			1	12							
b				1		2		35						2							
N-10 M a	61.0	59.7	59.8					9	9	1		23					1				
b												26									
N-10 E a	59.7	59.0	59.5		6	1	2	410	1	1		1	2	5	1						
b						2	3	237	4	1		1		14							
Zero-W a	67.4	65.5	61.0					12	1			62	1				1				
b								9				56									
Zero-M a	60.2	60.0	60.0					10				48					1				
b								13			1	36					4				
Zero-E a	59.9	60.0	60.0	1	19	2		1	252	1			4	3							
b					12	2		102	1	1		1		7						2	
S-4 W a	62.6	62.5	62.3		2	2		1	28	1			6								
b					4	1	1	16	1				5								
S-4 M a	65.2	60.6	60.5					6				22									
b								5				32	1				1			2	
S-4 E a	60.4	60.3	60.1		2	6	1	74					11	1							
b					1	8	1	62					11	2							
S-17 W a	62.0	61.8	61.8		2	1	62	106	1					8							
b							2	43						2		1					
S-17 M a	61.5	61.0	60.9			3		8				47									
b						1		16				56	1			1		2	1	1	
S-17 E a	62.2	62.1	62.0	1	20	1	1	117	3	2							1				
b				1	31	1		94					1	1		1	1	1	2	2	

S = Surface
M = Mid-depth
B = Bottom

+ W = West
M = Midstream
E = East

+ Duplicate Samples

* S = Surface
M = Mid-depth
B = Bottom

+ W = West
M = Midstream
E = East

+ Duplicate Samples

TABLE 17. RESULTS OF BENTHIC INVERTEBRATE SURVEY -- HOOKSETT POND -- MERRIMACK RIVER,
AUGUST 13, 1974.

STATION	TEMP. (°F)		Porteria	Curtistia foremani	Turbellaria	Prostoma rubrum	Nematoda	Plumatellidae	Tubificidae	Naididae	Stylaria sp.	Stauria sp.	Mata sp.	Oligochaeta	Helobdella stagnalis	Glossiphoniidae	Pisobdella sp.	Dina sp.	Hirudinea	Hyalella azteca	Amphipoda	Hydracarina
	S	M																				
N-10 W ⁺ a ⁺	74.0	73.6	73.5						119	7	8	29	139			1						
b								86	6	12	29	167									1	
N-10 M a	74.2	73.7	73.6				1	1			2	10	2									
b						23				38	31	3										
N-10 E a	74.4	74.2	74.2	4		2	1		208	142	43	2	66	199			1					
b				74	9	1			114	220	65	6	25	182	4		1	2				
Zero-W a	81.8	81.7	81.2	1			1		2	2		6	13							1		6
b									10	11	3	13	67								1	
Zero-M a	81.3	74.4	73.5					1	1	1	17	3	1									3
b					3				80	2	12	7										
Zero-E a	81.8	82.0	79.9						42	15	15	6	44									
b								276	5	3	1	1	41									
S-4 W a	79.9	78.5	78.5				1		107	45	4	35	136									
b								105	23			13	116									
S-4 M a	80.0	75.3	75.0					2	3	3	3	3	2									
b								1	1	13												
S-4 E a	79.4	79.7	78.0	26	9			39	11	31	6	283										
b								65	40	10	1	19	247									
S-17 W a	80.0	78.8	77.0	1				297	26	10		29	259				4					
b				3				203	10	18		37	189					7				
S-17 M a	82.0	78.0	76.0	1		1		9	6	39	2	4	6			1						
b								2	2	15	1	11	4									
S-17 E a	83.7	82.5	82.5	56	1		14	16	3	141	2	4	57		2		3	2			1	
b				4			15	30	2	9		8	36				12	7				

Continued

TABLE 17. (Continued)

STATION	TEMP. (°F)*																										
	S	M	B	Baetidae nymphs	Baetis sp. nymphs	Ephoron sp. nymphs	Ephemerella sp. nymphs	Ameletus sp. nymphs	Comptosia sp. nymphs	Sialia sp. larvae	Psychomyiidae larvae	Psychomyiidae pupa	Psychomyia sp. larvae	Psychomyia sp. pupae	Phyllocentrpus sp. larvae	Oxyethira sp. larvae	Ochrotrichia sp. larvae	Hydroptilidae larvae	Hydroptilidae pupae	Hydroptilidae adults	Chamaetypus sp. larvae	Hydropsychidae larvae	Leptocella sp. pupa	Dytiscidae larvae	Berosus sp. larva	Publiphila sp. adults	
N-10 W a [†]	74.0	73.6	73.5					2																			
N-10 W b								2																			
N-10 M a	74.2	73.7	73.6			1	2	1		1										1	2						
N-10 M b						1	2													1	2						
N-10 E a	74.4	74.2	74.2					1		1																	
N-10 E b								3			2													1			3
Zero-W a	81.8	81.7	81.2			1	1	2	1										1								
Zero-W b																											
Zero-M a	81.3	74.4	73.5																	2							
Zero-M b						2																					
Zero-E a	81.8	82.0	79.9					31																			
Zero-E b								15																			
S-4 W a	79.9	78.5	78.5			1		1	1																		
S-4 W b																											
S-4 M a	80.0	75.3	75.0			4	1																				
S-4 M b						4	1																				
S-4 E a	79.4	79.7	78.0					3																			
S-4 E b								1																			
S-17 W a	80.0	78.8	77.0			1		8																			
S-17 W b								2																			
S-17 M a	82.0	78.0	76.0			2					1																
S-17 M b						2																					
S-17 E a	83.7	82.5	82.5																								
S-17 E b																									1		2

Continued

TABLE 17. (Continued)

STATION	TEMP. (°F)*																										
	S	M	B	Dabryphila sp. larvae	Cryptochironomus sp. larvae	Tanytarsini	Pentaneura sp. larvae	Procladius sp. larvae	Tendipes sp. larvae	Chironomidae pupae	Chironomidae larvae	Probaetia sp. larvae	Atlaudemylia sp. larvae	Chaoborinae larvae	Ribarius sp. larvae	Lygurus sp. larvae	Amnicolidae	Phya sp.	Perrhecia sp.	Compeloma detum	Unionidae	Etipto complanatus	Sphaeriidae	Pisidium sp.	Sphaerium sp.		
N-10 W ⁺ a ⁺	74.0	73.6	73.5	1	11	6				1	55	1				1				1				2			
N-10 W ⁺ b				18	15					4	134	2															
N-10 M a	74.2	73.7	73.6																								
N-10 M b				2	6	1		1		2	9	2								1				3			
N-10 E a	74.4	74.2	74.2	1	9	112	1	88	14	5	296	1															
N-10 E b				2		54	2	79	10	4	156																
Zero-W a	81.8	81.7	81.2		2	35				2	13																
Zero-W b				4	49	7				8	27						1										
Zero-M a	81.3	74.4	73.5		1	1			1	3	1																
Zero-M b				3	3		1			4	15	2	3				1										
Zero-E a	81.8	82.0	79.9		3	2		1		1	20	1		1													
Zero-E b					8	6				1	89	6															
S-4 W a	79.9	78.5	78.5		10	1			1		11	1															
S-4 W b				9						6		2															
S-4 M a	80.0	75.3	75.0	1	3	2	1		6	2																	
S-4 M b					4	2		1	21				1														
S-4 E a	79.4	79.7	78.0		5	1		1	3	3	350	1															
S-4 E b					12	6		5	1	4	116	1															
S-17 W a	80.0	78.8	77.0		14	5				2	54																
S-17 W b				7	4	1		1		1	48																
S-17 M a	82.0	78.0	76.0		4	9		1	1	3	11	1															
S-17 M b				4	4	3			2	3	9		1														
S-17 E a	83.7	82.5	82.5	1	4	6					12	3															
S-17 E b					2	2					12	7															

* S = Surface
M = Mid-Depth
B = Bottom

+ W = West
M = Midstream
E = East

+ Duplicate Samples

(Continued)

TABLE 18. RESULTS OF BENTHIC INVERTEBRATE SURVEY -- HOOKSETT POND -- MERRIMACK RIVER,
OCTOBER 11, 1974.

STATION	TEMP (°F) *			Hydra sp.	Curtisia foremani	Turbellaria	Prostoma rubrum	Nematoda	Tubificidae	Naididae	Stylaria sp.	Stauria sp.	Nais sp.	Oligochaeta	Helobdella stagnalis	Placobdella sp.	Glossiphoniidae	Dina sp.	Hirudinea	Angulus sp.	Hydrelia aotea	Hydracarina
	S	M	B																			
N-10 W ⁺ a ⁺	52.0	52.0	52.0	1	2			5	91	10	27		15	184				2				
b							4	18				1		28	1							1
N-10 M a	52.0	52.0	52.2			33	1		4					1								
b						33								1								
N-10 E a	52.5	52.5	52.6			3	3	139	18	5	5	1	11	130	2	1		1	1			1
b						3	3	143	9	8	1	1	3	215	2	1						
Zero-W a	66.0	66.2	66.0				2	17					1	103								
b								198	5	1	1		2	369								
Zero-M a	65.4	54.7	53.0			2				1	3	4	2	3								
b						2		1	1	1	5	1	2	1	1		1					
Zero-E a	52.6	52.7	52.8				1	158	12	2	2		16	260							1	
b							1	82	4				1	92								
S-4 W a	58.0	58.1	58.6				2	135	40	2			91	114								
b							1	205	26				33	61								
S-4 M a	63.0	57.0	54.4					3		1	1		4	6				1				1
b								1	1	1	2		5	5								1
S-4 E a	58.0	58.0	58.0				1	40	97	17	2	44	92	2				1				
b				11	1			27	72	7		17	95								2	
S-17 W a	55.4	55.4	55.4				1	288	269				26	132								
b				9	1			95	73			1	28	49			1					
S-17 M a	55.1	55.1	55.1				1	14	2	8			2	10								
b				6	1	1		26	8	8		4	4	3								
S-17 E a	55.8	55.8	55.8				20	10	9	6			8	19								
b				1			12	25	17	4			14	49								

Continued

TABLE 18. (CONTINUED)

STATION	TEMP (°F) *			Paraleptophlebia sp. nymph	Baetis sp. nymph	Stenonema sp. nymph	Comptosia sp. nymph	Dolichopus sp. nymph	Neuroclipeus sp. larva	Psychomyia sp. larva	Phyllocnistropus sp. larva	Oxyethira sp. larva	Agrylodes sp. larva	Hydroptilidae adult	Hydroptilidae larva	Athripsodes sp. larva	Leptoceridae larva	Elmidae larva	Procladius sp. larva	Cryptochironomus sp. larva	Tribelos sp. larva	Tendipes sp. larva	(Tribel) Tanytarsini larva	Pentaneura sp. larva
	S	M	B																					
N-10 W ⁺ a [†]	52.0	52.0	52.0							2	1	1							7	30	1			
N-10 M a	52.0	52.0	52.2											1	3					16	15	1	6	2
N-10 E a	52.5	52.5	52.6																5	6		1		
Zero-W a	66.0	66.2	66.0								1									15				
Zero-M a	65.4	54.7	53.0	1	1				1						4	1				6				
Zero-E a	52.6	52.7	52.8												1					5				
S-4 W a	58.0	58.1	58.6	1			1											1		2	27	21	1	1
S-4 M a	63.0	57.0	54.4											1	1					3	3		3	
S-4 E a	58.0	58.0	58.0												1					6	4	1	13	
S-17 W a	55.4	55.4	55.4							1	1									7	8		5	
S-17 M a	55.1	55.1	55.1			1							1		1					5	4			
S-17 E a	55.8	55.8	55.8												1					3	8		3	1

Continued

TABLE 18. (CONTINUED)

STATION	TEMP (°F) *			Chironomidae larvae	Chironomidae pupae	Chironomidae adult	Proberta sp. larvae	Alzateomyia sp. larvae	Dipteran adult	Copepoda dectum	Amnicolidae	Lygus sp.	Phya sp.	Ternia sp.	Helioia sp.	Elyptio complanatus	Unioidea	Sphaeriidae	Pseidium sp.	Sphaerium sp.
	S	M	B																	
N-10 W ⁺ a ⁺	52.0	52.0	52.0	292		14				8	8		1	1	1			4	1	
b				34		6				3								1		
N-10 M a	52.0	52.0	52.2							2		7			1		1	26	6	2
b				1		1				1		1					51	2	2	2
N-10 E a	52.5	52.5	52.6	228		17				3		2								1
b				253		4				1		1								1
Zero-W a	66.0	66.2	66.0	42														15		
b				50														16		
Zero-M a	65.4	54.7	53.0	11		1	3			1		7						13		3
b				11			2			1		3						32	2	
Zero-E a	52.6	52.7	52.8	655		24				4		1		1						1
b				660		14				1		2						1		
S-4 W a	58.0	58.1	58.6	554		8				1								7		
b				549		14				1								2		
S-4 M a	63.0	57.0	54.4	14		1		1			2					1		10	1	4
b				17		5				1	1							24	4	5
S-4 E a	58.0	58.0	58.0	235		5				4	23	42	2						2	1
b				161		4				4			1					1	4	1
S-17 W a	55.4	55.4	55.4	184		1				4	4		10					4		1
b				38						3			1					4	1	2
S-17 M a	55.1	55.1	55.1	26						1	164				1			43	5	21
b				20						1	108							79	8	24
S-17 E a	55.8	55.8	55.8	11		5					9							2	1	3
b				15						1	1							2		1

+ Duplicate Samples

+ W = West
M = Midstream
E = East

* S = Surface
M = Mid-depth
B = Bottom

composition of oligochaetes decreased and that of the dipterans increased from June to October samplings. When combined, oligochaetes and dipterans exhibited a gradual reduction in percentage composition later in the season. However, the presence of all other benthic invertebrates combined at each station throughout the season was usually less than 10% of the total sample.

It is apparent from the data in Tables 16 to 18 that at each station the total numbers were lower for collections in mid-channel than for samples collected at either bank. Greater numbers for samples collected at shore stations than from the deeper, more rapidly flowing mid-channel stations, are probably attributable to the more suitable substrate. Sediment analysis at mid-channel yielded coarser, less organically enriched substrate than shore sample locations.

During June collections, productivity, as measured by abundance of benthic invertebrates, was lower at Station S-4 than at N-10 or S-17. During August and October, however, numbers at S-4 were more comparable to N-10 and S-17. Fewer chironomids, oligochaetes, and *Campeloma decisum* were found at the east and west banks combined at Station Zero-West than the shore stations combined at the other locations. However, the substrate at Station Zero-West is a coarse sand and would not be expected to support a diverse or abundant benthic fauna. This substrate is likely the result of past canal construction activities and the velocity of water out of the discharge canal.

A 4-way analysis of variance, $\text{Log}_e (x + 1)$, (Sokal and Rohlf, 1969) and Tukey's Method (Guenther, 1964) for Multiple Comparisons ($\alpha = .05$) were performed on benthic data for the chironomids, oligochaetes and *Campeloma decisum* for 1972, 1973, and 1974 samples (Table 4, Appendix II). Results of the statistical tests showed that oligochaetes and chironomids were less abundant in 1972 than in 1973 and 1974 and that significantly more chironomids were collected on the East bank than on the West. Both chironomids and oligochaetes increased in abundance from June to October. Significant among station differences for chironomids

and oligochaetes were noted with more chironomids found at Stations S-4 and N-10 than at Zero-West and S-17, and more oligochaetes at S-4, S-17 and N-10 than at Zero-West.

Unlike the chironomids and oligochaetes, *Campeloma decisum* was found in greater abundance in June samplings than in those for August, while October collections were not significantly different from either previous month. The east banks were found to be significantly more productive than the west, with no other significant differences noted.

In general, significant monthly and annual differences in abundances for organisms tested likely reflect normal fluctuations in the macrobenthic community and cannot be related to the Merrimack Station. Differences between stations noted appear to be related more to habitat type, primarily substrate, than to thermal influences, although it is difficult to separate these factors, particularly at Station Zero-West.

7. Fish Surveys

Results of each fisheries program are discussed separately in the following section. A complete list of fish species encountered is presented in Appendix III.

a. Electrofishing

Electrofishing during June, August, and September, 1974, produced a total of 1,363 specimens representing 19 species. No species new to this study were encountered. In addition, many more fallfish (*Semotilus corporalis*) and common shiners (*Notropis cornutus*) than could be enumerated were occasionally observed during electrofishing activities; these occurrences are noted in Table 19.

TABLE 19a. CATCH PER ELECTROFISHING STATION DURING JUNE, 1974.
HOOKSETT POND, MERRIMACK RIVER.

STATION	TEMPERATURE (°F)			Lepomis gibbosus	Lepomis auritus	Perca flavescens	Morone americana	Micropterus dolomieu	Micropterus salmoides	Ictalurus nebulosus	Ictalurus natalis	Esoc niger	Notemigonus crysoleucas	Semotilus corporalis	Notropis cornutus	Catostomus commersoni	Anguilla rostrata	Salmo gairdneri	Lepomis macrochirus	Etheostoma nigrum	Notropis hudsonius	NUMBER OF SPECIES	TOTAL NUMBER
	S	M	B																				
N-9/N-10	East	67.4	67.4	67.4	2	1	2							11	2	3		1				6	11
	West	68.3	68.3	68.2	1		1			1					6	1						6	21
N-6/N-7	East	67.3	67.4	67.4	3		9						1			2						4	15
	West	68.0	68.5	68.5				1								1	1					3	3
Zero/S-1	East	78.0	68.1	67.4	7	8	2						1				1					5	19
	West	75.5	69.2	69.2	6																	1	7
Old Canal	----	82.8	82.6	81.8	28	2				2									1			4	33
S-4/S-5	East	71.0	68.0	68.0	9	2											6					3	17
	West	78.0	69.5	69.3	4	1	1	1														4	7
S-17/S-18	East	72.1	71.1	70.5	4	1	3		2							1						5	11
	West	71.5	71.6	71.8	2												1					2	3
TOTAL					66	15	16	0	2	2	3	0	2	11	8	8	9	1	1	0	0	N/A	146+

TABLE 19b. CATCH PER ELECTROFISHING STATION DURING AUGUST, 1974.
HOOKSETT POND, MERRIMACK RIVER.

STATION	TEMPERATURE (°F)			<i>Lepomis gibbosus</i>	<i>Lepomis auritus</i>	<i>Perca flavescens</i>	<i>Morone americana</i>	<i>Micropterus dolomieu</i>	<i>Micropterus salmoides</i>	<i>Ictalurus nebulosus</i>	<i>Ictalurus natalis</i>	<i>Esox niger</i>	<i>Notemigonus crysoleucas</i>	<i>Semotilus corporalis</i>	<i>Notropis cornutus</i>	<i>Catostomus commersoni</i>	<i>Anguilla rostrata</i>	<i>Salmo gairdneri</i>	<i>Lepomis macrochirus</i>	<i>Etheostoma nigrum</i>	<i>Notropis hudsonius</i>	TOTAL NUMBER OF SPECIES	TOTAL NUMBER
	S	M	B																				
N-9/N-10	East	76.9	76.5	76.5	1	1		4	2					1		2	1					7	12
	West	77.0	77.0	77.0	1		2	2	1							7						5	13
N-6/N-7	East	77.1	77.0	77.0				1	5	2						2	1					6	16
	West	78.1	78.0	78.0	1	3	2			1						5						5	12
Zero/S-1	East	84.4	75.6	75.4	64	14	5	12	8	2												6	105
	West	79.4	78.1	78.1	8			2	1													3	11
Old Canal	----	79.8	78.8	78.5	51	2		3	10				1									5	67
S-4/S-5	East	78.3	75.9	75.8	32	5	5	5	2							1				1		7	51
	West	78.2	77.7	77.7		2																1	2
S-17/S-18	East	77.0	76.6	76.5	10	3	2		1							1	1					6	18
	West	78.0	77.7	77.5	1	4		1			1										6	5	13
TOTAL					169	34	21	0	30	30	5	1	1	1	0	18	3	0	0	1	6	N/A	320+

TABLE 19c. CATCH PER ELECTROFISHING STATION DURING SEPTEMBER, 1974
HOOKSETT POND, MERRIMACK RIVER

STATION	TEMPERATURE. (°F)			TOTAL NUMBER OF SPECIES			
	S	M	B				
N-9/N-10	East	70.4	70.3	70.2	9	59+	
	West	70.3	70.0	70.0	9	74+	
N-6/N-7	East	69.9	69.0	69.0	12	111	
	West	70.0	69.7	69.7	8	37	
Zero/S-1	East	80.0	69.1	70.8	8	127	
	West	73.2	68.8	68.8	6	92	
Old Canal	----	81.1	81.1	81.1	3	83	
S-4/S-5	East	72.8	68.2	68.0	10	101	
	West	80.0	68.3	68.2	5	75	
S-17/S-18	East	71.4	70.3	69.2	7	100	
	West	74.0	70.0	70.0	5	20	
TOTAL					0	N/A	879+

The June electrofishing sample, which yielded 146 specimens, was comprised mainly of pumpkinseeds, yellow perch, and redbreast sunfish (*Lepomis auritus*) (Table 19a). Pumpkinseeds were most abundant in the old canal and at Stations Zero/S-1 and S-4/S-5. These were the warmest areas of Hooksett Pond at the time of the sampling (Table 19a). Yellow perch and white suckers (*Catostomus commersoni*) were more abundant at Station N-6/N-7. The greatest number of species (6) was found at Station N-9/N-10.

Electrofishing during August yielded 320 specimens of which the majority were again pumpkinseeds (Table 19b). The increased yield over the June sampling was primarily due to an increased catch of pumpkinseeds at Station Zero/S-1, in the old canal, and at the southern stations (Table 19b). The proportion of smallmouth (*Micropterus dolomieu*) and largemouth bass (*M. salmoides*) present in the samples also increased substantially over the June sampling. This was especially evident at Station Zero/S-1 and in the old canal (Table 19b). The catch of yellow perch, white suckers, and redbreast sunfish was about the same as in the June sampling. White suckers were again more abundant at the northern stations, but yellow perch were more evenly distributed than they were at the time of the June sampling (Table 19a, b). As in June, however, the centrarchids were more abundant in the warmer areas of Hooksett Pond. The greatest number of species (7) was found at Stations N-9/N-10 and S-4/S-5.

Electrofishing during September yielded 879 specimens not including large numbers of small fallfish and common shiners which were present at Stations N-9/N-10 and N-6/N-7 (Table 19c). Pumpkinseeds, redbreast sunfish, yellow perch, white suckers, and largemouth and smallmouth bass again were the most abundant species. Pumpkinseeds were abundant at all stations but were particularly so at Stations Zero/S-1, S-4/S-5, S-17/S-18, and in the old discharge canal (Table 19c). Smallmouth bass, redbreast sunfish, and yellow perch were distributed in a similar manner. White suckers were more abundant at the northern stations, as they were in June and August (Table 19c). Largemouth bass,

which were more abundant during September than in any of the preceding months, were more uniformly distributed than the other abundant species during September. Station N-6/N-7 yielded the greatest number of species (12) during September. This was also the most species recorded during the season for an electrofishing sample.

Catch per electrofishing station within the temperature ranges experienced during 1974 is plotted in Figure 12. The vertical axis, catch per station, was obtained by dividing the total number of a species captured within each 2°F temperature class by the number of stations sampled within that class over the season (represented by the numbers at the bottom of the figure). This was done to remove the bias exerted by unequal electrofishing effort expenditure in the 2°F classes (Figure 12). From these figures it appears that a definite temperature-related distribution pattern existed in Hooksett Pond for all of the major fish species. Examination of these distributions (Figure 12) reveals a bimodality for all the species plotted except for smallmouth bass; smallmouth catch per unit effort levels were greatest when temperatures were warmer than 79°F. Modes, in °F, for the distributions, along with preferred temperatures as presented by Ferguson (1958) are listed in the following table:

SPECIES	LOW MODE	HIGH MODE	PREFERRED	
			FIELD	LABORATORY
<i>Micropterus salmoides</i>	69-71	81-83	81-82	86-90
<i>M. dolomieu</i>	N/A	83-85	71	83 ¹
<i>Lepomis gibbosus</i>	69-71	81-83	N/A	91
<i>L. auritus</i>	69-71	83-85	N/A	N/A
<i>Perca flavescens</i>	69-71	83-85	67-70	75-76
<i>Catostomus commersoni</i>	69-71	N/A	N/A	N/A

These substantial differences from previously published temperature preferenda reinforce the conclusion drawn in previous years: Habitat

¹Stauffer et al. (1975) also found 83° F to be the ultimate preferred temperature for smallmouth bass under laboratory conditions.

RANGE OF FIELD TEMPERATURES ENCOUNTERED DURING EACH MONTH

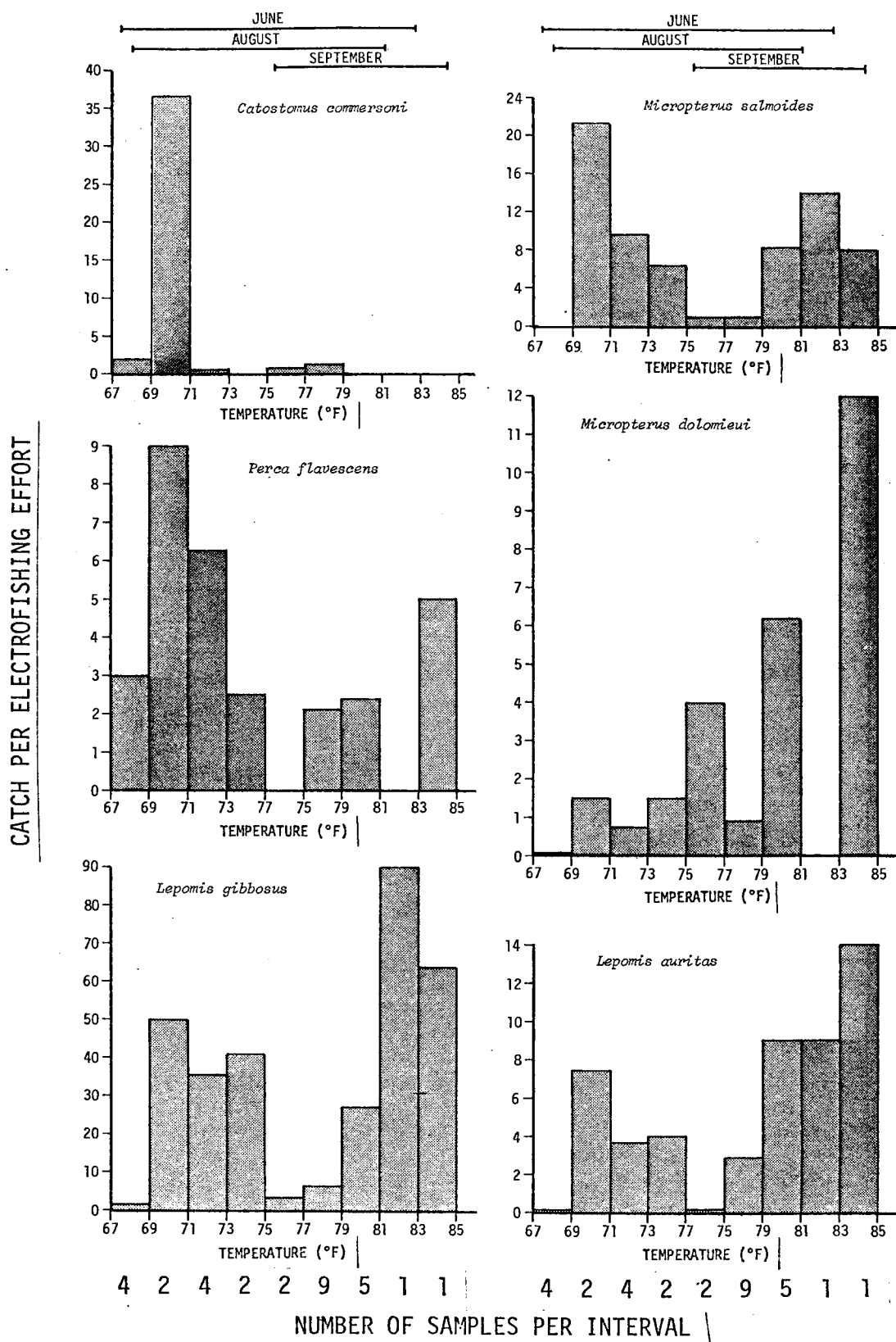


Figure 12. Catch per unit of electrofishing effort per 2°F interval. Horizontal axis in °F; lower row represents number of samples in each 2°F interval.

availability, rather than temperature, appears to be the major factor in determining the distribution of these fishes in Hooksett Pond.

b. Immature Fish Seining

Seining yielded a total of 7,155 specimens representing 13 species. The total catch, by location, was distributed as indicated in Table 20.

TABLE 20. NUMBERS OF INDIVIDUALS CAPTURED BY SEINING, 1974

	NORTH		Zero	SOUTH		TOTAL
	N-10	N-7		S-2	S-17	
East	1919	1134	585	547	377	4670
West	2116	113	246	108	10	2485
TOTAL	4035	1247	831	655	387	7155
	5282			1042		

The two stations north of the discharge yielded considerably more specimens than did the southern stations or Station Zero. However, after converting the data to a catch-per-unit-of-effort-basis, this trend toward overwhelming abundance at the northern stations (Table 20) remained evident only for spottail shiners (*Notropis hudsonius*) (Table 21). Spottails, which had the highest average catch rate overall, were especially abundant at Stations N-10 and N-7 during July and August. Pumpkinseeds, which were generally second in total abundance (Table 21), were, on the average, most abundant at southern stations and at Station Zero, near the discharge. The fewest fish were captured at northern stations. Especially high concentrations of juvenile pumpkinseeds were encountered during August and September (Table 21). Before this time, juvenile centrarchids were generally too small to be vulnerable to the seine.

Juvenile white suckers were the third most abundant species in seine hauls (Table 21). Greatest numbers were encountered at southern stations during June and July. This difference in abundance among stations was especially noticeable in July when white suckers were only captured at Station S-17.

Juveniles of the other important species, including smallmouth bass, largemouth bass, and yellow perch, were encountered far less frequently than were the young of the three previously mentioned species. Young yellow perch were only captured in any quantity at Station S-17 during June and July; hardly any were present in samples from other locations and time periods (Table 21). Juvenile smallmouth bass were most abundant at Stations Zero and S-2, especially during August and September (Table 21). During July, when water temperatures were generally warmest, juvenile smallmouth bass were more evenly distributed among northern and southern stations.

Larval and post-larval fishes were observed at most stations from May through July (Table 21). No larvae were identified. Larvae became large enough to be captured by the seine and included in the catch/effort statistics beginning in July. No larvae were observed after July at any station (Table 21). This was expected since the major species all spawn during the spring and early summer.

Generally, the distribution of juvenile fishes as revealed by seine samples is similar to that described in earlier years (NAI, 1974). Most species, with the exception of juvenile spottail shiners, were considerably more abundant at Station Zero and the southern stations than at locations north of the discharge. Spottails were consistently more abundant north of the discharge, especially during their July-August abundance peak. Highest diversity was also usually recorded at the southern stations. In previous years, the abundance of juvenile fishes in the area under the direct influence of the discharge (Station Zero to Station S-2) became virtually devoid of juvenile fishes when the

annual temperature maxima (85-90°F) were reached during July (NAI, 1974). During 1974, highest temperatures (92.8°F surface; 92.9°F bottom) were recorded concurrent with a high catch of juvenile pumpkinseeds and smallmouth bass at Station Zero East on July 15. This trend of high centrarchid abundance at Station Zero East remained evident throughout July and August. This tends to add credence to the argument expressed in previous years and earlier in the present report that available habitat, more than temperature, determines in large part the distribution of juvenile fishes in Hooksett Pond.

To further illustrate any temperature-related trends in relative abundance, catch per unit of effort for seine hauls in various temperature ranges was computed for the six most abundant species in the same manner as was described for the electrofishing data (page 79). These data are presented in Figure 13. Modal temperatures, based on the seine data for the six species are listed below:

SPECIES	MODE (°F)
<i>Lepomis gibbosus</i>	89.0-92.9
<i>Perca flavescens</i>	69.0-72.9
<i>Micropterus dolomieu</i>	89.0-92.9
<i>Catostomus commersoni</i>	77.0-80.9
<i>Notropis hudsonius</i>	77.0-80.9
<i>Semotilus corporalis</i>	57.0-60.9; 69.0-72.9*

* bimodal distribution

Generally, the modes for these distributions do not agree with those plotted for the same species captured by electrofishing (Figure 12) or their published temperature preferenda (page 79). This is probably the result of three factors. First, seine data are more strongly influenced by recruitment and growth since such data represent primarily young-of-the-year fishes. Because the catch data for a species are affected by

RANGE OF FIELD TEMPERATURES ENCOUNTERED DURING EACH MONTH

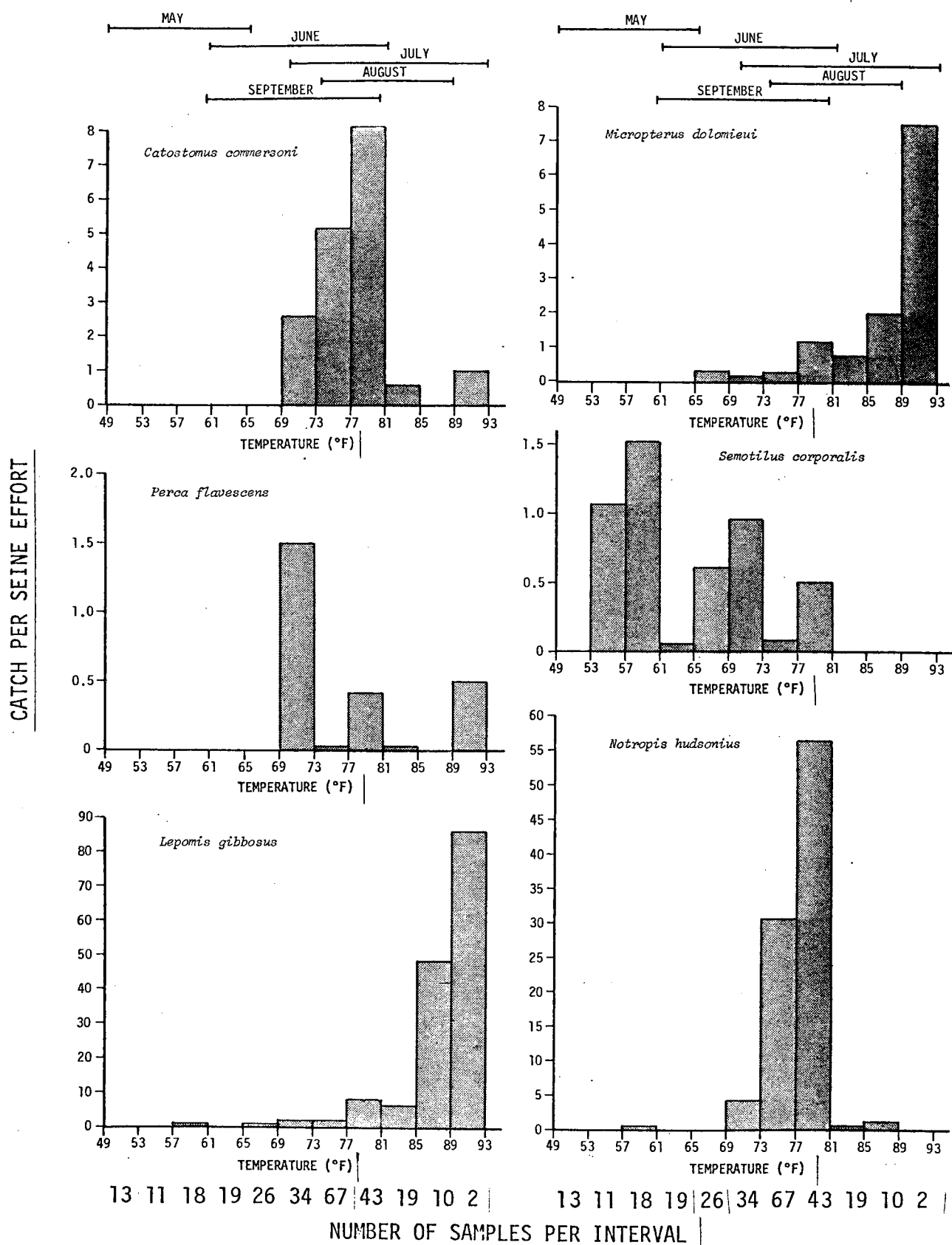


Figure 13. Catch per unit of seine effort per 4°F interval. Horizontal axis in °F; lower row represents number of hauls in each 4°F interval.

the species' relative catchability as much as by its availability, distributional modes contain a component which represents the ability of the gear to capture that species. This may make a given species seem more abundant at certain times (and temperature conditions) than at others even though the abundance peak may only be an artifact of sampling bias. Secondly, the seining took place in May and July as well as in June, August, and September; no electrofishing was performed during May or July. Since July is an important month due to the recruitment of juvenile centrarchids to the catchable portion of their populations (Table 21), an important month was overlooked in the electrofishing program. For this reason the electrofishing program has been altered to include July sampling in 1975. Finally, Neill and Magnuson (1974) demonstrated a significant temperature preference decrease with age for bluegill sunfish (*Lepomis macrochirus*). This factor can obviously affect the distribution of fishes in Merrimack River electrofishing and seine catches since the capture of more adults by electrofishing than seining causes electrofishing temperature preference results to appear lower than seining results (Figures 12 and 13) due to the preponderance of small individuals in seine catches. In conclusion, the two sets of data cannot be compared directly because: a) different sized individuals were present in the samples; and b) no July electrofishing samples were taken.

c. Fyke Netting

Fyke netting during 1974 yielded 2,200 specimens representing fourteen species (Table 22). Seven margined madtoms (*Noturus insignis*), a species not encountered in previous years, were captured during 1974. The only species present in previous years which were not captured during the 1974 program was the walleye (*Stizostedion vitreum*) and the tadpole madtom (*Noturus gyrinus*). However, only 1 of each of these was taken during 1973 and none were captured during 1972 (NAI, 1974; 1973) which indicates the relative scarcity of walleyes and tadpole madtoms in

TABLE 22. MONTHLY MERRIMACK RIVER FYKE NET CATCH TOTALS, BY STATIONS

SPECIES	MAY 20-24				JUNE 17-21				JULY 20-24				AUGUST 26-30				SEPTEMBER 16-20				OCTOBER 21-25				SEASON TOTALS				GRAND TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
<i>Anguilla rostrata</i> ✓	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3
<i>Catostomus commersoni</i> ✓	3	38	11	4	0	6	7	5	47	2	83	0	33	5	1	2	10	8	58	6	54	59	75	28	147	118	235	45	545
<i>Esox niger</i> ✓	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	0	3	0	0	1	8	3	1	13
<i>Ictalurus natalis</i> ✓	0	1	1	4	0	0	0	0	0	1	2	0	0	6	1	0	0	4	1	0	0	5	0	1	0	17	5	5	27
<i>I. nebulosus</i>	0	5	8	2	0	3	7	6	3	2	124	3	5	13	42	1	26	26	167	3	1	14	7	3	35	63	355	18	471
<i>Lepomis auritus</i> ✓	0	0	2	8	0	0	2	1	1	1	6	0	0	9	7	10	0	1	2	2	0	0	0	8	1	11	19	29	60
<i>L. gibbosus</i> ✓	3	3	14	13	0	1	18	22	0	10	54	12	3	6	123	8	0	19	99	54	1	13	58	29	7	52	366	138	563
<i>Micropterus dolomieu</i> ✓	1	0	2	4	0	0	4	7	1	0	12	15	0	1	24	10	2	9	11	14	0	1	0	1	4	11	53	51	119
<i>M. salmoides</i> ✓	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	2	1	0	3
<i>Morone americana</i> ✓	1	0	0	0	0	1	1	0	3	0	3	1	11	1	8	0	2	3	66	0	0	0	1	2	17	5	79	3	104
<i>Notemigonus crysoleucas</i> ✓	0	0	0	0	0	0	0	0	0	0	3	1	0	0	2	0	1	0	1	2	1	5	0	0	2	5	6	3	16
<i>Noturus insignis</i> ✓	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	1	0	6	0	1	7
<i>Perca flavescens</i> ✓	1	12	1	1	0	6	2	24	0	4	28	13	0	3	17	3	0	20	26	7	0	21	50	34	1	66	124	82	271
<i>Semotilus corporalis</i> ✓	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	0	1	0	0	1	0	1	1	0	1	4	2	1	8
<i>Semotilus</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	1	2	0	3	6
TOTAL																													2216

1 = N-10 W

2 = N-10 E

3 = S-2 W

4 = S-3 E

Hooksett Pond. The high incidence of fungus on yellow perch observed during 1972 (NAI, 1973) did not recur in 1974.

Pumpkinseeds, white suckers, brown bullheads, yellow perch, smallmouth bass, and white perch (*Morone americana*) were the most frequently captured species during 1974 (Table 22). As in 1973, (NAI, 1974) pumpkinseeds were the most abundant species south of the discharge. In 1972, brown bullheads were the most abundant species both north and south of the discharge (NAI, 1973). Results of analysis of variance tests are presented in Table 23 a-e. In general, a significant north-south difference shown in Tables 23 a-e indicates that the mean catch per net, averaged over the season, differed significantly between stations north and south of the discharge. Similarly, east-west significance indicates that the mean catch on one bank of the river, on the average, was greater than that of the other. Significance of the east/west x north/south interaction term indicates a general inconsistency in the pattern of the catch rates at the four stations with peak catches occurring at different locations at different times. Mobility is suggested by significance of the interaction term because the greatest numbers do not occur consistently at any north/south or east/west location. Finally, significance of among-month variation is expected; it represents the contributions of recruitment and mortality to the mean catch from month to month.

Monthly differences were significant ($p < .05$) for all five species analyzed, as was expected (Table 23 a-e). For brown bullheads, smallmouth bass, and pumpkinseeds the highest mean catch occurred in September although July and August catches were also fairly high (Tables 23 a,b,c; 22). For yellow perch and white suckers, greatest mean catches occurred in October although yellow perch were fairly abundant in July and September as well. June and August represented low months for white sucker catches. Generally, the observed increase through the season is probably the result of recruitment and reflects the growth of smaller, more abundant young fish which became more vulnerable to the

TABLE 23a. ANALYSIS OF VARIANCE FOR MERRIMACK RIVER FYKE NET CATCHES
OF *L. gibbosus* (AFTER LOG TRANSFORMATION)

SOURCE OF VARIATION	DEGREES OF FREEDOM	MEAN SQUARE	F
Month (Block)	5	2.16559	2.96344*
N/S	1	36.95041	50.56369**
E/W	1	0.82945	1.13503 NS
N/S x E/W	1	2.12521	2.90818 NS
Error and Subsample	39	0.73077	
TOTAL	48 <i>47 sub!</i>		

TABLE OF MEANS

MONTH	LOCATION				
	N	S	E	W	$\bar{X}$
May	0.6931	1.8619	1.2926	1.2624	1.2775
June	0.1732	1.9624	1.3996	0.7361	1.0678
July	0.8664	2.0784	1.7886	1.1562	1.4722
August	0.9344	2.9621	1.6114	2.2850	1.9482
September	1.1462	3.6103	2.7962	1.9603	2.3782
October	0.1732	2.040;	1.1513	1.0621	1.1067
$\bar{X}$	0.6933	2.4192	1.6733	1.4103	$\bar{\bar{X}} = 1.54184$

* = .05

** = .01

TABLE 23b. ANALYSIS OF VARIANCE FOR MERRIMACK RIVER FYKE NET CATCHES OF *I. nebulosus* (AFTER LOG TRANSFORMATION)

SOURCE OF VARIATION	DEGREES OF FREEDOM	MEAN SQUARE	F
Month (Block)	5	2.66139	2.58507*
N/S	1	3.55662	3.45462 NS
E/W	1	1.76119	1.71146 NS
N/S x E/W	1	18.4574	17.92549**
Error and subsample	39	1.02952	
TOTAL	48		

TABLE OF MEANS

MONTH	LOCATION				
	N	S	E	W	$\bar{X}$
May	0.5756	1.0691	0.8502	0.7945	0.8224
June	0.4479	1.1968	1.1249	0.5198	0.8223
July	0.7225	2.4687	0.7225	2.4687	1.5956
August	1.3438	1.1135	1.0691	1.3882	1.2287
September	2.0352	2.6607	1.6686	5.0273	2.3480
October	1.2129	1.0955	1.3862	0.9222	1.1542
$\bar{X}$	1.0563	1.6007	1.1369	1.5201	$\bar{\bar{X}} = 1.3286$

* = .05

** = .01

TABLE 23c. ANALYSIS OF VARIANCE FOR MERRIMACK RIVER FYKE NET CATCHES OF *C. commersoni* (AFTER LOG TRANSFORMATION)

SOURCE OF VARIATION	DEGREES OF FREEDOM	MEAN SQUARE	F
Month (Block)	5	5.29142	4.28895*
N/S	1	0.02426	0.01967 NS
E/W	1	4.18747	3.39415 NS
N/S x E/W	1	2.56743	2.08103 NS
Error and subsample	39	1.23373	
TOTAL	48		

TABLE OF MEANS

MONTH	LOCATION				
	N	S	E	W	$\bar{X}$
May	1.8283	1.4420	2.0016	1.2687	1.6351
June	0.4864	1.1410	1.1077	0.5198	0.8137
July	1.8654	2.1871	0.7226	3.3299	2.0262
August	1.8117	0.4479	0.7226	1.5371	1.1298
September	1.4041	2.2499	1.4259	2.2281	1.8270
October	3.3204	2.9767	2.8316	3.4656	3.1486
$\bar{X}$	1.7861	1.7408	1.2310	2.0582	$\bar{\bar{X}} = 1.7637$

* = .05

TABLE 23d. ANALYSIS OF VARIANCE FOR MERRIMACK RIVER FYKE NET CATCHES
OF *P. flavescens* (AFTER LOG TRANSFORMATION)

SOURCE OF VARIATION	DEGREES OF FREEDOM	MEAN SQUARE	F
Month (Block)	5	1.77925	2.51183*
N/S	1	11.25309	15.88641**
E/W	1	4.77131	6.73584*
N/S x E/W	1	8.31093	11.73286*
Error and Subsample	39	0.70835	
TOTAL	48		

TABLE OF MEANS

MONTH	LOCATION				
	N	S	E	W	$\bar{X}$
May	1.1249	0.3465	1.1249	0.1732	0.7357
June	0.4864	1.4715	1.6833	0.2746	0.9790
July	0.4023	2.2204	1.3803	1.2424	1.3114
August	0.4479	1.5326	0.8958	1.0891	0.9925
September	1.1905	2.0343	1.9394	1.2854	1.6124
October	1.0826	2.9351	2.5077	1.5100	2.0089
$\bar{X}$	0.7891	1.7567	1.5866	0.9580	$\bar{\bar{X}} = 1.2733$

* = .05

** = .01

TABLE 23e. ANALYSIS OF VARIANCE FOR MERRIMACK RIVER FYKE NET CATCHES OF *M. dolomieu* (AFTER LOG TRANSFORMATION)

SOURCE OF VARIATION	DEGREES OF FREEDOM	MEAN SQUARE	F
Month (Block)	5	2.31808	4.57558*
N/S	1	9.26455	18.28697**
E/W	1	0.10512	0.20750 NS
N/S x E/W	1	0.10512	0.20750 NS
Error and subsample	39	0.50662	
TOTAL	48		

TABLE OF MEANS

MONTH	LOCATION				
	N	S	E	W	$\bar{X}$
May	0.1732	0.6770	0.4023	0.4479	0.4251
June	0.000	1.1512	0.7489	0.4023	0.5756
July	0.6597	2.0152	1.0474	1.6275	1.3375
August	0.1732	1.6903	0.8958	0.9678	0.9318
September	1.1796	1.9240	1.8348	1.2687	1.5518
October	0.1732	0.1732	0.3465	0.0000	0.1732
$\bar{X}$	0.3932	1.2718	0.8568	0.7857	$\bar{\bar{X}} = 0.8325$

* = .05

** = .01

fyke nets as the season progressed. The autumn decline in smallmouth bass catch (Tables 23 c; 22), which has been observed for several years (NAI, 1973; 1972) is not consistent with this general trend. The only plausible explanations for this decline include a) reduced abundance due to mortality (which includes sport fishing, natural mortality, and death due to previous fyke net capture and handling) and b) reduced catchability. The latter is possible in October, when falling water temperature may reduce smallmouth bass activity, and hence, their susceptibility to capture by passive fishing techniques. In previous years, sacrificing specimens for sex and age data after capture was suspected as the cause because catches fell off by September, before the water cooled substantially. During 1974, all fishes were released after capture. Smallmouth catches continued to increase through September, falling off sharply in late October after water temperatures had dropped considerably (Table 22).

North-South differences were significant for yellow perch, smallmouth bass, and pumpkinseeds ($p < .01$). North-South mean catch differences were not significant ($p > .05$) for brown bullheads or white suckers (Table 23). East-West differences were significant only for yellow perch ($p < .05$) (Table 23 d). The interaction term was significant only for yellow perch ($p < .05$) and brown bullheads ($p < .01$) (Table 23 b, d). All species for which the North-South differences were significant were more frequently captured south than north of the discharge (Table 23 a,d,e). Since the interaction term for pumpkinseeds and smallmouth bass was not significant (Table 23 a, e), little movement is implied. This lends further support to the argument expressed earlier and in previous years that these species' distribution is more greatly affected by available habitat than by changing temperature. Yellow perch and brown bullheads, however, apparently move about a great deal as is implied by the significant interaction terms (Table 23 b, d). Both species are known to exhibit "behavioral thermoregulation" (Neill and Magnuson, 1974; Ferguson, 1958; Coutant, 1970) although recent published results (Kelso, 1974) tend to question the responses of brown bullheads to heated effluents. Nevertheless, Hooksett Pond data for

1974 indicates an apparent movement by both species, possibly as a response to changing temperatures and influences of the thermal discharge.

Length-weight relationships are displayed graphically in Figure 14 a, b, c. Computed results are listed below:

SPECIES	STATION	LOG C	n	r	N
<i>Lepomis gibbosus</i>	N-10 E	-1.78	2.92	.97	39
	N-10 W	-1.71	2.84	.93	12
	S- 2 W	-1.72	2.82	.96	318
	S- 3 E	-1.71	2.81	.97	136
<i>Micropterus dolomieu</i>	N-10 E	-2.30	3.26	.99	10
	N-10 W	-1.43	2.46	.99	4
	S- 2 W	-1.70	2.64	.96	53
	S- 3 E	-2.25	3.17	.99	39
<i>Perca flavescens</i>	N-10 E	-1.94	2.78	.95	66
	N-10 W	only	one	caught	1
	S- 2 W	-2.168	3.06	.95	94
	S- 3 E	-2.63	3.54	.96	82

Direct comparisons with 1973 results are made difficult by the fact that separate relationships were computed for males and females in 1973 and, further, by the inclusion of young-of-the-year in 1974 and not in 1973. The latter probably explains the generally higher (less negative) intercept (log c) and greater slope (n) values computed for 1974 when compared to 1973. Examination of the graphic presentations (Figure 14 a-c) indicates that among-station differences were present only for smallmouth bass (Figure 14 b). It appears that smallmouth captured at Station S-2 W were slightly less robust at a given length than were smallmouth from Station S-3 E. This could have been the result of the increased metabolic demands caused by the warmer waters of S-2 W. However, the difference was slight. Too few specimens were captured at the northern stations (14 total) to allow direct comparisons.

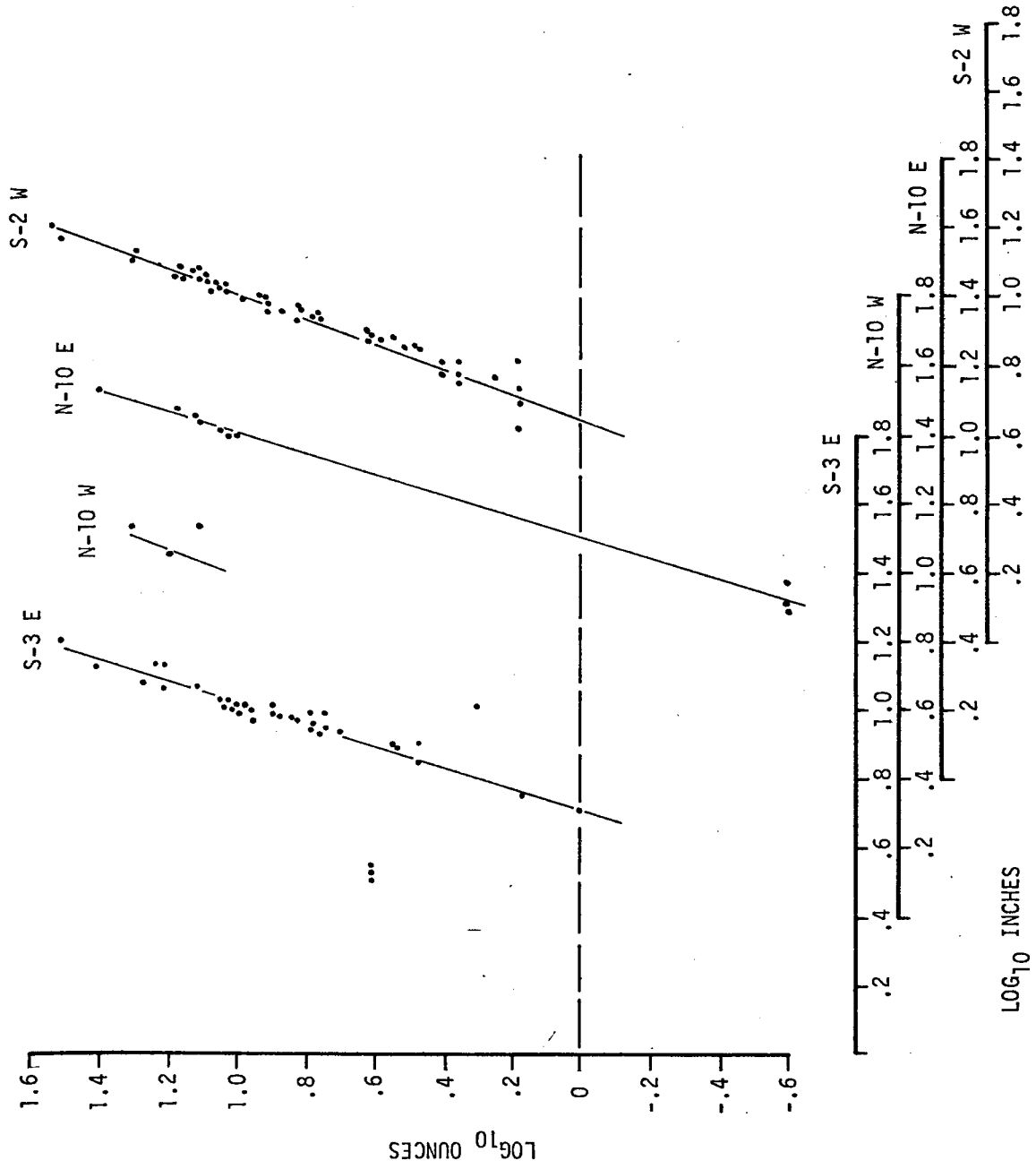


Figure 14b. Log-log length-weight relationships for smallmouth bass captured at four stations, 1974.

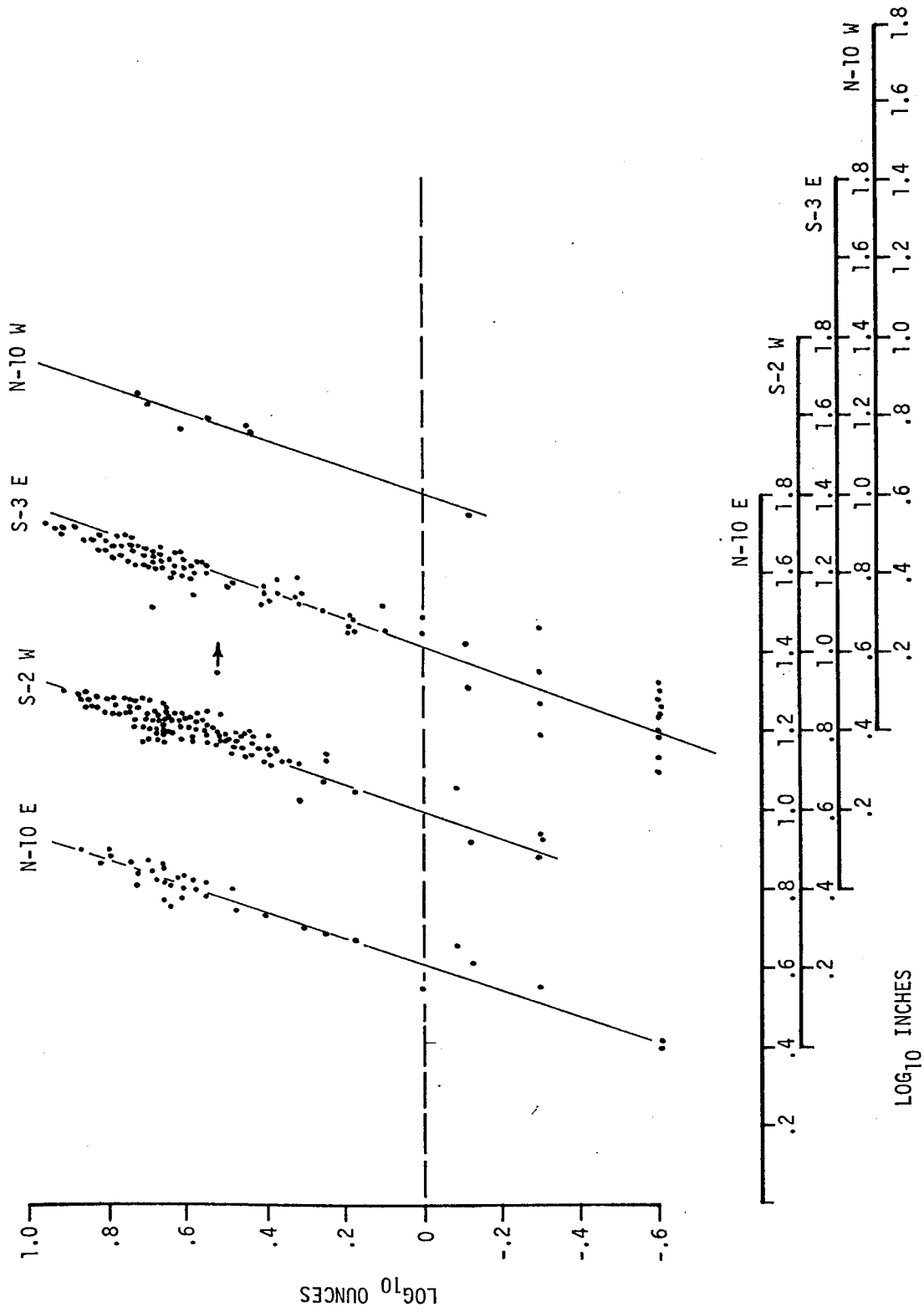


Figure 14a. Log-log length-weight relationships for pumpkinseed captured at four stations, 1974.

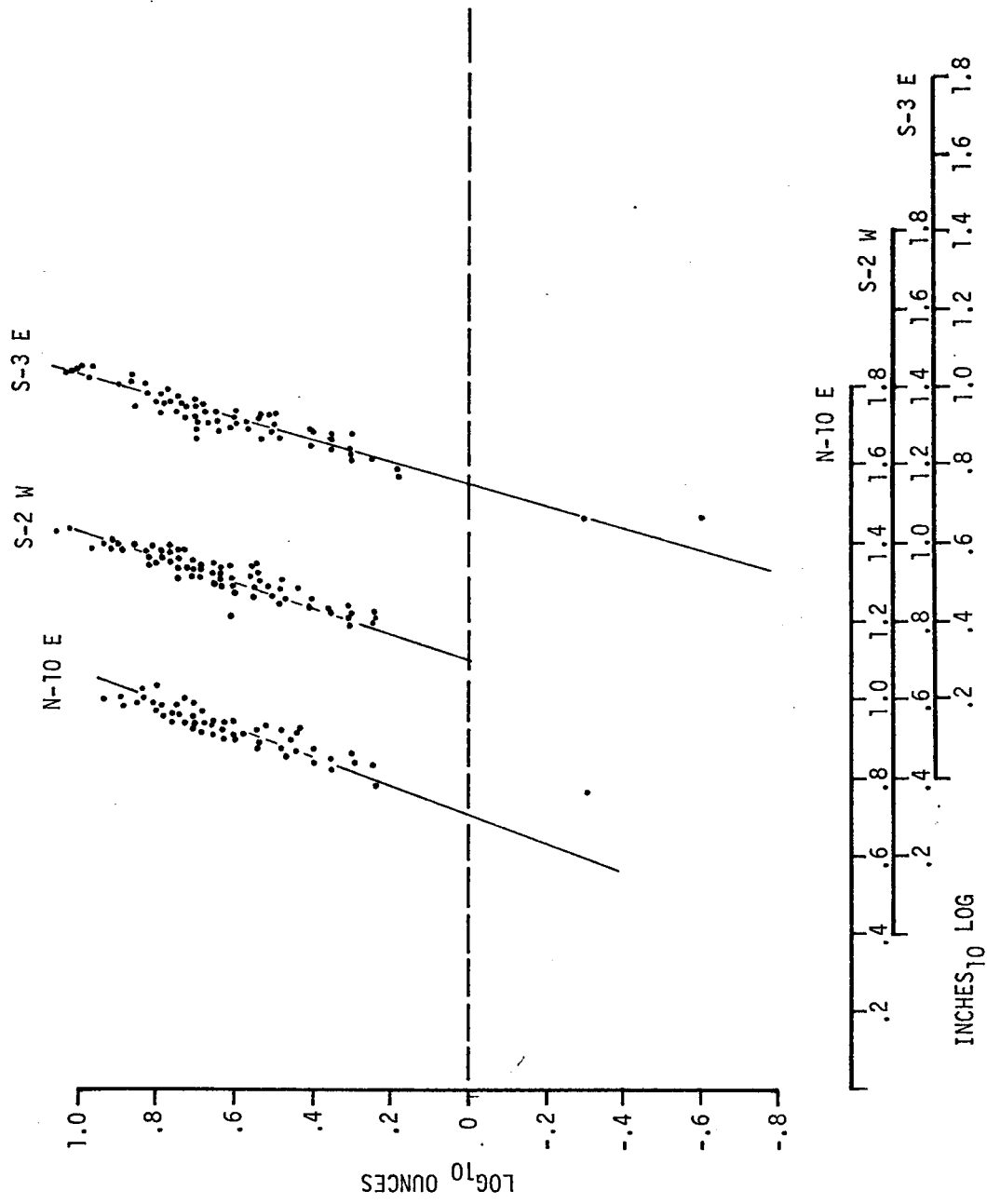


Figure 14c. Log-log length-weight relationships for yellow perch captured at four stations, 1974.

In previous years, mean lengths at time of capture were compared north and south of the discharge for Age III and IV pumpkinseed, yellow perch, and smallmouth bass using direct statistical methods (NAI, 1974). In 1974, insufficient numbers of these species were captured to allow this comparison. Comparisons had to be made using the length-frequency histograms presented in Figure 16 a-c and the age-group data contained in Table 24.

Generally, the low numbers of Age 0, I and II pumpkinseeds, yellow perch, and smallmouth bass captured in the fyke netting program during 1974 and in previous years (Table 24) indicate that members of these populations do not become vulnerable to fyke netting until they are at least 3 years old. This reduces even further the number of specimens available for accurate age-length determinations, since only the fastest growing young fish are captured.

In previous years, young specimens of all three species, but especially young pumpkinseeds and smallmouth bass, tended to be more abundant south than north of the discharge; whereas older, larger individuals were more uniformly distributed. In 1974, even the older individuals were more abundant south than north of the discharge (Table 24 a-c). This difference was most apparent for yellow perch and pumpkinseeds (Table 24 a,b). Too few smallmouth bass were captured north of the discharge for any real comparisons of age distributions to be made (Table 24 c).

As in previous years, the range of total lengths for each age group among the three species investigated shows tremendous overlap, making it impossible to make any inferences from length data (Figure 15 a-c). Furthermore, stunting may be occurring within the pumpkinseed populations, increasing the overlap. Evidence of this for the other two species is lacking, but the relatively large size of many of the yellow perch and smallmouth bass captured (Figure 15 b,c) suggests that growth continues at a relatively rapid rate with age. Back-calculated age and growth, such as was performed by Wightman (1971) in the earlier Merrimack

TABLE 24a. MONTHLY AGE DISTRIBUTION, BY SPECIES AND STATION,
FOR MERRIMACK RIVER PUMPKINSEEDS CAPTURED BY FYKE
NETTING DURING 1974.

MONTH	STATION	AGE							
		0	1	2	3	4	5	6	7
May	N-10 W			1	2				
	N-10 E					1	2		
	S- 2 W			1	1	4	6	1	
	S- 3 E			3	2	7			
June	N-10 W								
	N-10 E				1				
	S- 2 W		1	3	8	5	1		
	S- 3 E	5			2	3	1		
July	N-10 W								
	N-10 E				3	5	1	1	
	S- 2 W			1	10	19	20	3	1
	S- 3 E				5	2	3	2	
August	N-10 W				2		1		
	N-10 E								
	S- 2 W			8	65	40	9	1	
	S- 3 E				5	8	4		
September	N-10 W								
	N-10 E	1	4	4	6	1	2	1	
	S- 2 W			3	39	36	15	5	
	S- 3 E			1	11	28	13	1	
October	N-10 W		1						
	N-10 E								
	S- 2 W	2	2	3	3				
	S- 3 E	4	4	1	6		2		1
TOTAL		12	12	29	171	159	80	17	2

TABLE 24b. MONTHLY AGE DISTRIBUTION, BY SPECIES AND STATION,
FOR MERRIMACK RIVER YELLOW PERCH CAPTURED BY FYKE
NETTING DURING 1974.

MONTH	STATION	AGE							
		0	1	2	3	4	5	6	7
May	N-10 W					1			
	N-10 E		1		2	7	2		
	S- 2 W			1					
	S- 3 E					1			
June	N-10 W								
	N-10 E		1	1	2	2			
	S- 2 W				2				
	S- 3 E	2	1	6	8	2			
July	N-10 W								
	N-10 E			1	1	1		1	
	S- 2 W				7	16	5		
	S- 3 E				1	4	5	2	1
August	N-10 W								
	N-10 E			1	1	1			
	S- 2 W			2	5	8	2		
	S- 3 E					2	1		
September	N-10 W								
	N-10 E			2	5	6	5	2	
	S- 2 W			6	4	5	8	3	
	S- 3 E					3	3	1	
October	N-10 W								
	N-10 E			1	6	3	9	2	
	S- 2 W			3	10	9	12	6	1
	S- 3 E			4	4	8	12	4	2
TOTAL		2	3	28	58	79	64	21	4

TABLE 24c. MONTHLY AGE DISTRIBUTION, BY SPECIES AND STATION,
FOR MERRIMACK RIVER SMALLMOUTH BASS CAPTURED BY
FYKE NETTING DURING 1974.

MONTH	STATION	AGE								
		0	1	2	3	4	5	6	7	8
May	N-10 W					1				
	N-10 E									
	S- 2 W				1				1	
	S- 3 E			3						
June	N-10 W									
	N-10 E									
	S- 2 W			1	2			1		
	S- 3 E		3	3						
July	N-10 W						1			
	N-10 E									
	S- 2 W	2	3	1	3	2			1	
	S- 3 E			1	1	3	6	3		
August	N-10 W									
	N-10 E									
	S- 2 W		4	11	5	3		1		
	S- 3 E	2		1	2	3		2		
September	N-10 W					1	1			
	N-10 E	3			5	1				
	S- 2 W		3	4	2	1	1			
	S- 3 E		4		2	3	1	2		
October	N-10 W									
	N-10 E									1
	S- 2 W									
	S- 3 E									
TOTAL		7	17	25	23	18	10	9	2	1

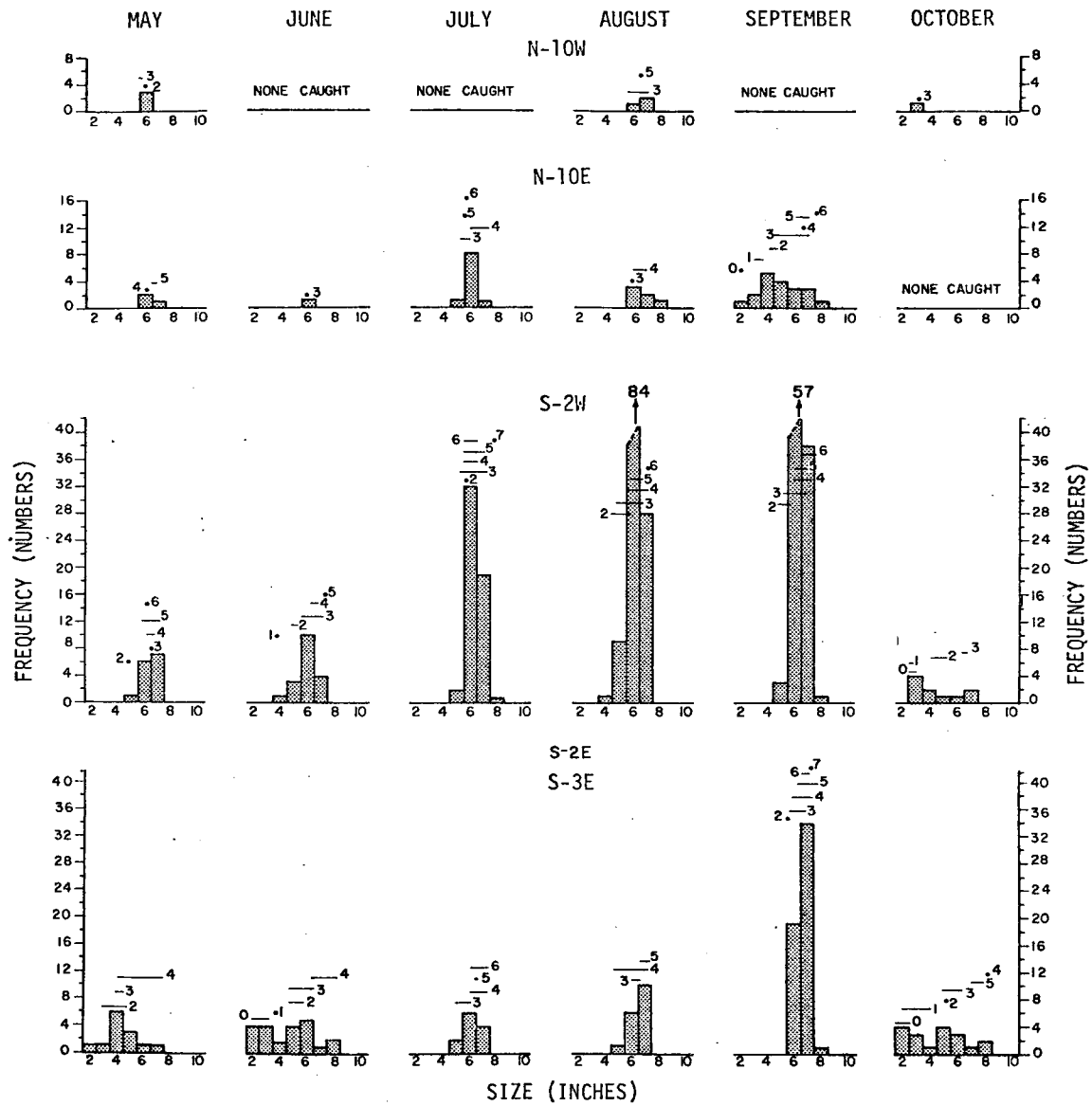


Figure 15a. | Length frequency distributions and age ranges for pumpkinseed, 1974.

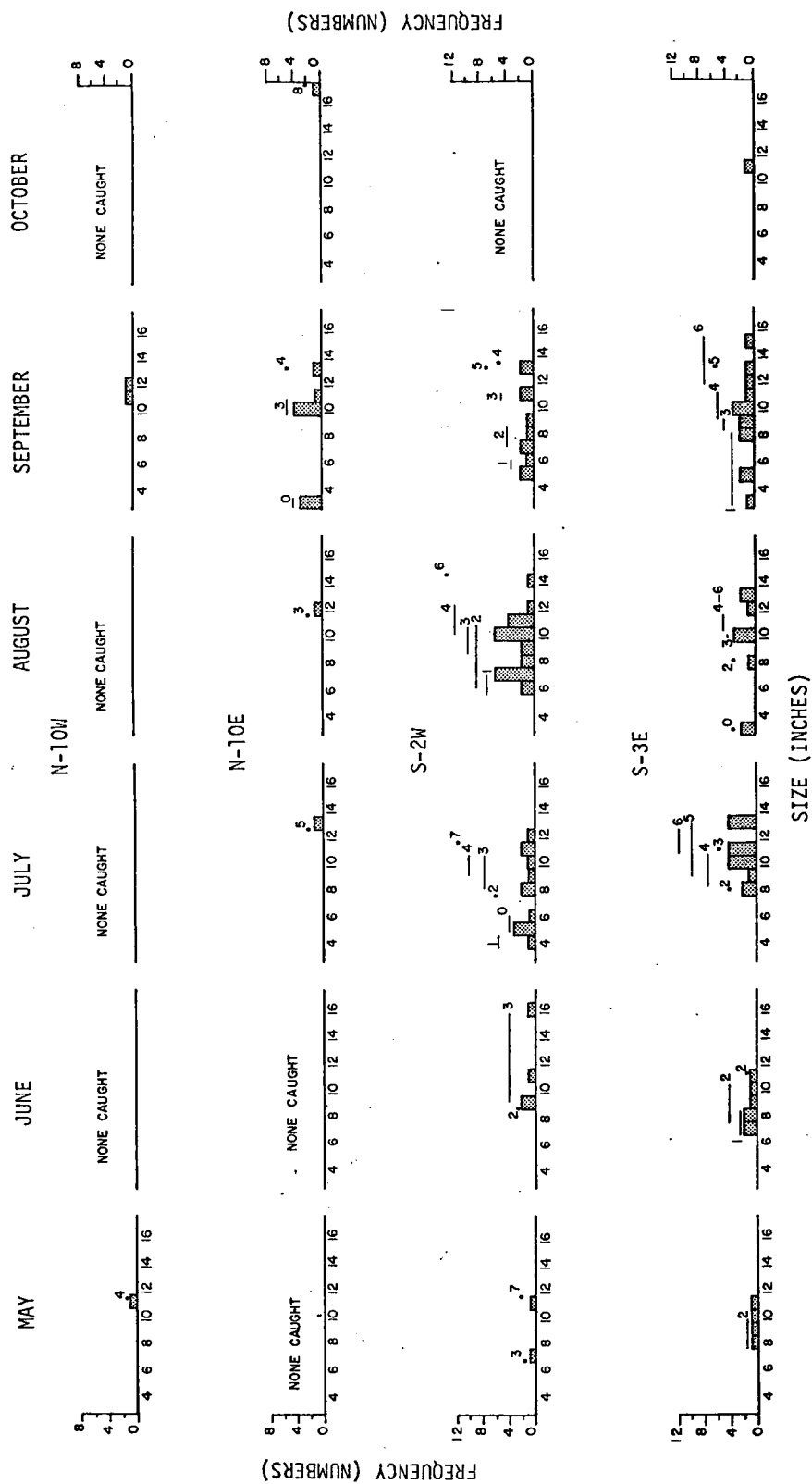


Figure 15b. Length frequency distributions and age ranges for smallmouth bass, 1974.

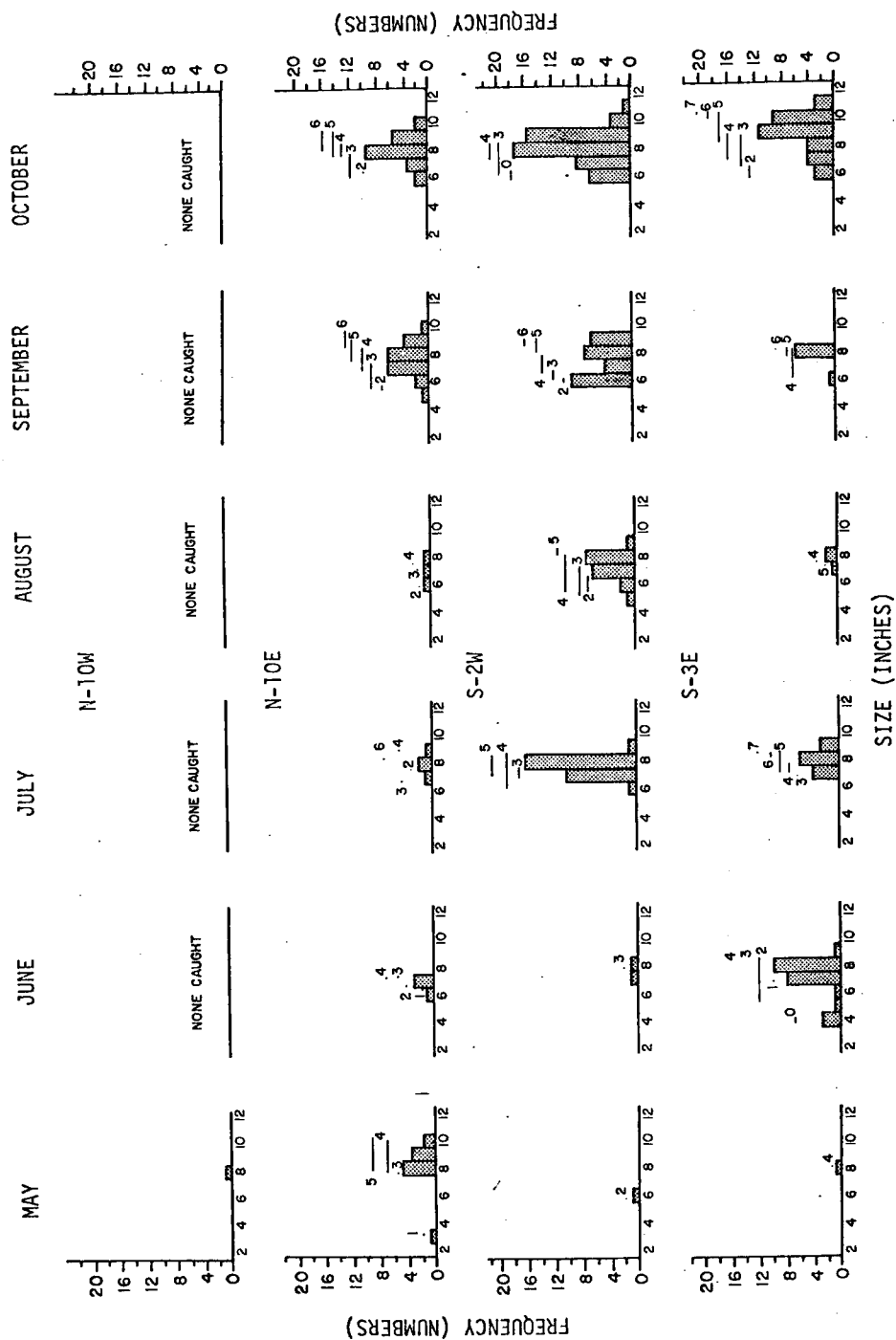


Figure 15c. Length frequency distributions and age ranges for yellow perch, 1974.

studies, is necessary to more accurately determine the growth histories of these fishes.

C. CONCLUSIONS AND RECOMMENDATIONS

Hooksett Pond supports a viable, productive warm-water fish community which contains relatively high proportions of desirable game species. In general, 1974 data support earlier contentions that a) Merrimack station is causing no discernible damage to the game fish populations of Hooksett Pond and b) although attraction-avoidance responses of fishes to the thermal discharges may be manifested at times, the distribution of fishes in Hooksett Pond appears to be determined more by habitat availability than by temperature preferenda.

Generally, 1974 resulted in fewer specimens being captured than in previous years, especially in the fyke net program. This may be the result of sacrificing specimens for sex composition in previous years, which was eliminated in 1974. However, the fyke net catches generally represent fishes older than Age II so any positive responses to the new program may not be discernible for several years. Therefore, the current methods should be continued. Back-calculated age-and-growth analysis, which should yield a far better picture of growth for the game species than is provided by the length-at-capture program, will be initiated in 1975.

Seine and electrofishing data indicate that juvenile centrarchids become vulnerable to sampling in July. To make the data from these two methods more comparable, future electrofishing programs will begin in July rather than June. June results have been historically poor; when fish were in fact encountered, catches have usually been dominated by fallfish and shiners rather than the game species being investigated. Delaying the onset of electrofishing until July, after the centrarchids have nested and the young-of-the-year are large enough to be captured, would yield data more representative of these important species' overall abundance than has been provided by the 1974 program.

SUMMARY: MERRIMACK RIVER MONITORING PROGRAM, 1974

As in past years, pH and nutrient concentrations showed little or no differences among stations while dissolved oxygen was slightly reduced at stations south of the discharge canal. Concentrations of nitrates were elevated over those noted in previous years which may explain increases in primary productivity (chlorophyll a) noted in 1974. Abundance increases in aquatic plants, periphyton and plankton organisms were also recorded.

Levels of chlorophyll a corresponded to seasonal trends in plankton abundances and were significantly less at Station Zero-West than at other stations sampled. Diatom abundances and percentage composition in plankton samples were significantly less at Station Zero-West than at N-10 over the sampling season. Other major plankton groups showed no significant among-station differences. Weekly and monthly abundances of periphytic diatoms were reduced at Station Zero-West at the 2-foot depth and at S-4 at the 6-foot depth. A trend toward recovery was noted at downstream stations.

Reduced abundance of aquatic plants and insects at Station Zero-West may have been thermally related, although habitat suitability was likely a significant influence. Benthic invertebrate populations also seemed to be influenced more by habitat, in the form of substrate type, than by impacts from the operation of the Merrimack Station.

Finfish data indicated that the Merrimack Station is causing no discernible damage to game fish populations and that the distribution of fishes in Hooksett Pond appears to be determined more by habitat availability than by temperature or chemical influences.

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APPENDIX I

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- KK 1-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 APR 74	37.91	2315	36.08	1100
2 APR 74	38.38	1530	37.61	600
3 APR 74	40.39	1745	37.26	615
4 APR 74	40.39	1615	39.62	745
5 APR 74	40.39	1145	38.68	2315
6 APR 74	38.80	1230	36.73	2400
7 APR 74	37.44	2145	35.66	700
8 APR 74	39.21	2215	37.38	15
9 APR 74	39.09	15	36.67	2315
10 APR 74	36.61	15	35.73	900
11 APR 74	38.56	1730	35.43	530
12 APR 74	38.74	1415	37.85	430
13 APR 74	38.62	1045	37.79	2245
14 APR 74	40.63	2330	37.73	45
15 APR 74	42.28	1645	40.69	15
16 APR 74	43.47	1745	41.34	830
17 APR 74	43.64	1745	41.52	715
18 APR 74	45.30	2230	42.76	630
19 APR 74	45.59	2015	44.13	915
20 APR 74	46.13	2000	44.12	645
21 APR 74	47.13	2400	44.77	745
22 APR 74	49.08	2345	46.95	615
23 APR 74	49.38	2145	43.73	1400
24 APR 74	49.14	15	47.37	2400
25 APR 74	47.31	15	45.24	730
26 APR 74	46.01	15	44.83	800
27 APR 74	47.43	2400	44.59	615
28 APR 74	49.44	2400	43.64	700
29 APR 74	51.09	1545	49.44	15
30 APR 74	52.45	2400	50.65	15
AVERAGE	46.34			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 JUN 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIVACK RIVER -- VK A-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 MAY 74	54.75	1615	52.45	15
2 MAY 74	53.75	15	51.74	730
3 MAY 74	52.69	15	50.85	2345
4 MAY 74	51.09	1545	49.73	2400
5 MAY 74	50.15	1645	48.49	745
6 MAY 74	49.85	15	48.67	2215
7 MAY 74	49.97	1530	48.55	130
8 MAY 74	50.33	1730	48.49	715
9 MAY 74	51.15	1700	49.50	715
10 MAY 74	50.38	15	48.95	2345
11 MAY 74	50.85	1715	48.73	415
12 MAY 74	50.50	15	49.25	930
13 MAY 74	50.32	1500	49.85	915
14 MAY 74	51.86	1800	49.20	615
15 MAY 74	55.11	2400	51.03	445
16 MAY 74	57.24	2330	54.87	700
17 MAY 74	59.60	1730	57.18	15
18 MAY 74	60.55	1630	58.42	730
19 MAY 74	60.84	1600	58.95	630
20 MAY 74	60.61	1600	58.78	715
21 MAY 74	59.66	30	58.48	630
22 MAY 74	59.66	1915	58.01	615
23 MAY 74	59.66	15	57.53	2330
24 MAY 74	57.53	30	56.00	1930
25 MAY 74	56.00	15	54.58	2345
26 MAY 74	54.52	15	51.80	2345
27 MAY 74	51.92	145	51.45	2200
28 MAY 74	52.92	1745	51.39	200
29 MAY 74	52.69	15	52.04	1645
30 MAY 74	53.87	1745	52.04	15
31 MAY 74	54.64	2230	53.40	200

AVERAGE 54.35

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
03 JUL 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK N-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUN 74	56.71	1800	54.64	15
2 JUN 74	57.36	1645	56.00	415
3 JUN 74	59.07	1700	56.06	600
4 JUN 74	61.61	1700	58.48	430
5 JUN 74	64.61	1915	60.79	615
6 JUN 74	65.40	1630	62.74	715
7 JUN 74	66.05	1530	63.92	600
8 JUN 74	67.46	1700	63.30	645
9 JUN 74	70.07	1745	66.34	645
10 JUN 74	72.55	1700	69.59	700
11 JUN 74	72.31	1745	70.77	830
12 JUN 74	71.13	15	69.47	730
13 JUN 74	71.07	1745	68.29	445
14 JUN 74	70.95	1415	68.71	700
15 JUN 74	71.13	1700	68.53	630
16 JUN 74	70.13	15	67.64	2400
17 JUN 74	69.69	1445	67.17	530
18 JUN 74	71.01	1830	68.59	545
19 JUN 74	71.66	1500	70.24	615
20 JUN 74	72.61	1700	69.83	600
21 JUN 74	72.13	30	71.01	2345
22 JUN 74	72.43	1445	70.07	600
23 JUN 74	71.73	30	71.01	2400
24 JUN 74	72.37	1545	69.83	600
25 JUN 74	70.77	15	69.13	2400
26 JUN 74	69.13	15	67.52	2330
27 JUN 74	67.75	1815	66.64	630
28 JUN 74	69.13	1700	66.40	500
29 JUN 74	69.13	1615	68.65	430
30 JUN 74	70.07	1530	68.17	445

AVERAGE 68.59

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 AUG 74

ENVIRONMENTAL TEMPERATURE TAPE -- VEPRIVACK RIVER -- K 1-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUL 74	71.44	1615	68.94	545
2 JUL 74	73.14	1300	70.54	2400
3 JUL 74	71.84	1700	69.82	715
4 JUL 74	74.68	1645	70.89	530
5 JUL 74	74.38	15	72.48	2330
6 JUL 74	73.67	1600	71.60	715
7 JUL 74	74.20	2130	71.72	515
8 JUL 74	75.68	1500	73.85	445
9 JUL 74	77.22	2130	75.09	600
10 JUL 74	73.75	1500	74.74	715
11 JUL 74	77.10	15	75.08	900
12 JUL 74	75.56	1600	73.49	715
13 JUL 74	76.51	1845	73.32	715
14 JUL 74	78.31	1645	74.74	630
15 JUL 74	79.98	1630	75.85	700
16 JUL 74	78.52	1800	76.69	745
17 JUL 74	78.58	1715	75.39	800
18 JUL 74	77.87	1815	75.62	830
19 JUL 74	77.45	1730	75.39	815
20 JUL 74	76.34	15	73.79	900
21 JUL 74	75.39	1515	73.20	545
22 JUL 74	75.92	1515	72.61	715
23 JUL 74	74.68	15	73.20	2345
24 JUL 74	73.97	1330	72.37	2330
25 JUL 74	75.33	1545	72.02	630
26 JUL 74	74.97	1215	72.73	445
27 JUL 74	73.91	1330	73.31	530
28 JUL 74	74.03	1545	72.13	245
29 JUL 74	73.79	1515	72.67	530
30 JUL 74	72.61	1615	72.55	645
31 JUL 74	75.33	1545	72.61	330
AVERAGE	75.55			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
10 SEP 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK N-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 AUG 74	75.35	1600	73.67	645
2 AUG 74	75.39	1600	74.26	715
3 AUG 74	77.69	1745	75.68	15
4 AUG 74	78.70	1415	76.92	630
5 AUG 74	78.64	1500	77.28	615
6 AUG 74	77.99	1500	76.45	715
7 AUG 74	76.80	15	75.39	730
8 AUG 74	77.81	1615	74.26	700
9 AUG 74	76.86	15	74.85	2400
10 AUG 74	75.21	1500	73.08	715
11 AUG 74	76.51	1615	72.61	645
12 AUG 74	77.16	1345	73.32	700
13 AUG 74	77.63	1430	74.03	345
14 AUG 74	77.62	1630	70.12	1215
15 AUG 74	77.75	1545	65.04	1030
16 AUG 74	77.93	1615	73.91	645
17 AUG 74	76.21	15	74.14	845
18 AUG 74	76.86	1630	74.26	715
19 AUG 74	78.10	1645	74.14	800
20 AUG 74	78.75	1645	74.62	700
21 AUG 74	78.93	1615	75.68	445
22 AUG 74	79.46	1530	76.69	515
23 AUG 74	78.05	1500	76.74	2345
24 AUG 74	78.99	1545	76.33	600
25 AUG 74	78.58	1645	75.92	630
26 AUG 74	77.23	1515	75.39	2300
27 AUG 74	75.74	1545	74.20	630
28 AUG 74	75.15	1530	74.33	2315
29 AUG 74	74.32	15	72.08	2345
30 AUG 74	72.02	15	70.54	2315
31 AUG 74	72.78	1530	69.95	715

AVERAGE 77.03

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
22 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK N-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 SEP 74	73.43	1615	71.07	615
2 SEP 74	72.78	15	71.54	2400
3 SEP 74	71.54	15	68.53	2400
4 SEP 74	68.47	15	66.28	2345
5 SEP 74	67.64	1530	65.69	600
6 SEP 74	66.64	15	64.86	2315
7 SEP 74	64.80	30	63.74	915
8 SEP 74	65.45	1715	63.50	700
9 SEP 74	65.81	1745	64.33	600
10 SEP 74	66.93	1545	65.16	515
11 SEP 74	67.58	1630	66.10	445
12 SEP 74	69.06	1630	66.52	600
13 SEP 74	71.37	1545	68.53	530
14 SEP 74	71.01	1445	69.77	2345
15 SEP 74	69.95	1530	68.65	800
16 SEP 74	68.82	15	66.34	2400
17 SEP 74	67.11	1345	64.98	745
18 SEP 74	67.29	1600	65.45	745
19 SEP 74	66.64	1915	65.67	945
20 SEP 74	67.64	1515	66.05	800
21 SEP 74	67.46	45	66.22	2330
22 SEP 74	66.16	15	64.69	700
23 SEP 74	65.34	15	62.56	2400
24 SEP 74	62.50	15	60.90	2345
25 SEP 74	60.84	15	59.31	2400
26 SEP 74	59.66	1415	58.78	545
27 SEP 74	61.02	1515	58.24	615
28 SEP 74	61.32	1645	59.78	700
29 SEP 74	62.74	1330	60.90	715
30 SEP 74	61.79	15	59.31	2400

AVERAGE 66.63

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK N-10

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 OCT 74	59.37	15	56.47	2345
2 OCT 74	56.53	1330	55.52	815
3 OCT 74	55.88	30	54.28	2345
4 OCT 74	54.28	15	52.86	2400
5 OCT 74	54.05	1515	51.68	645
6 OCT 74	55.47	1615	52.33	600
7 OCT 74	54.23	1615	54.34	445
8 OCT 74	55.29	1430	53.51	645
9 OCT 74	53.99	1500	52.33	700
10 OCT 74	52.75	15	51.68	815
11 OCT 74	52.57	1445	50.85	645
12 OCT 74	51.27	1645	50.38	700
13 OCT 74	52.27	1530	50.20	630
14 OCT 74	51.21	15	50.38	715
15 OCT 74	52.63	1545	50.35	530
16 OCT 74	52.27	30	50.30	2345
17 OCT 74	51.03	1215	50.32	630
18 OCT 74	50.50	15	48.61	2400
19 OCT 74	48.67	15	47.25	2400
20 OCT 74	47.25	30	44.47	2400
21 OCT 74	44.47	15	43.58	800
22 OCT 74	44.59	1445	42.87	700
23 OCT 74	45.53	1530	43.82	630
24 OCT 74	46.13	1345	44.83	545
25 OCT 74	45.12	30	44.29	2330
26 OCT 74	44.94	1345	43.76	700
27 OCT 74	44.88	1430	43.88	2400
28 OCT 74	44.29	1330	42.93	615
29 OCT 74	44.71	1430	43.05	645
30 OCT 74	44.83	2930	43.76	700
31 OCT 74	46.30	1430	44.83	15

AVERAGE 50.30

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 APR 74	NO DATA	FOR THIS DAY		
2 APR 74	NO DATA	FOR THIS DAY		
3 APR 74	NO DATA	FOR THIS DAY		
4 APR 74	NO DATA	FOR THIS DAY		
5 APR 74	NO DATA	FOR THIS DAY		
6 APR 74	NO DATA	FOR THIS DAY		
7 APR 74	NO DATA	FOR THIS DAY		
8 APR 74	NO DATA	FOR THIS DAY		
9 APR 74	NO DATA	FOR THIS DAY		
10 APR 74	NO DATA	FOR THIS DAY		
11 APR 74	51.76	2345	47.89	1400
12 APR 74	53.67	1300	49.94	1745
13 APR 74	55.44	400	49.76	2400
14 APR 74	49.70	15	42.03	1815
15 APR 74	52.78	2245	43.12	100
16 APR 74	52.85	130	48.31	1745
17 APR 74	55.47	1345	50.13	45
18 APR 74	59.13	1215	54.96	15
19 APR 74	59.19	1445	55.20	2330
20 APR 74	59.61	1415	55.02	115
21 APR 74	61.18	1300	53.45	2400
22 APR 74	61.43	2400	49.46	600
23 APR 74	65.78	1030	61.67	15
24 APR 74	62.94	245	55.83	2215
25 APR 74	59.73	1545	55.44	2400
26 APR 74	55.32	15	51.70	1230
27 APR 74	56.39	800	55.08	15
28 APR 74	61.61	1145	58.28	2330
29 APR 74	65.32	2400	57.86	345
30 APR 74	67.17	400	61.12	2315

AVERAGE 59.45

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 JUN 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- VK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 MAY 74	64.63	1615	60.53	2400
2 MAY 74	60.34	15	57.68	800
3 MAY 74	62.33	1015	59.43	1730
4 MAY 74	62.64	745	52.97	2230
5 MAY 74	55.20	2400	50.61	745
6 MAY 74	55.69	1515	51.46	730
7 MAY 74	56.71	1515	50.91	830
8 MAY 74	55.99	15	50.79	700
9 MAY 74	57.20	1100	52.30	400
10 MAY 74	54.66	1800	51.09	615
11 MAY 74	68.50	1530	53.09	600
12 MAY 74	62.45	200	57.50	1715
13 MAY 74	68.13	1730	57.92	600
14 MAY 74	65.60	15	53.87	730
15 MAY 74	64.33	1630	53.31	745
16 MAY 74	75.87	1915	61.31	445
17 MAY 74	78.53	1730	66.33	745
18 MAY 74	77.68	1700	66.80	730
19 MAY 74	76.23	15	65.72	745
20 MAY 74	77.08	1945	65.41	615
21 MAY 74	75.87	15	65.23	630
22 MAY 74	78.47	1500	66.80	645
23 MAY 74	76.11	15	67.11	730
24 MAY 74	74.54	15	64.93	815
25 MAY 74	73.09	15	57.14	1000
26 MAY 74	63.66	1300	59.98	430
27 MAY 74	69.71	1700	60.64	645
28 MAY 74	71.46	1745	59.86	615
29 MAY 74	70.19	2115	60.58	615
30 MAY 74	72.91	1745	61.91	715
31 MAY 74	73.63	1515	62.33	715

AVERAGE 67.72

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
08 JUL 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUN 74	73.17	1500	64.81	715
2 JUN 74	74.48	15	64.33	700
3 JUN 74	77.74	1745	63.65	515
4 JUN 74	80.64	1815	65.08	700
5 JUN 74	83.05	1800	75.14	600
6 JUN 74	81.97	30	70.13	715
7 JUN 74	81.55	1445	72.97	545
8 JUN 74	81.09	2130	68.93	630
9 JUN 74	86.75	2130	73.73	515
10 JUN 74	90.37	1515	72.01	800
11 JUN 74	88.08	1815	83.43	630
12 JUN 74	NO DATA FOR THIS DAY			
13 JUN 74	NO DATA FOR THIS DAY			
14 JUN 74	85.50	1515	83.97	2400
15 JUN 74	85.90	1730	74.12	730
16 JUN 74	83.25	1445	74.72	1030
17 JUN 74	87.17	1530	74.90	545
18 JUN 74	85.31	1515	84.37	515
19 JUN 74	87.77	1445	80.22	2400
20 JUN 74	83.68	1845	80.10	15
21 JUN 74	89.10	1400	83.30	515
22 JUN 74	80.92	1445	77.50	630
23 JUN 74	86.53	15	77.20	915
24 JUN 74	87.71	1445	76.11	645
25 JUN 74	85.06	15	74.73	1030
26 JUN 74	NO DATA FOR THIS DAY			
27 JUN 74	83.56	1745	78.11	2400
28 JUN 74	82.58	1615	76.11	600
29 JUN 74	82.48	1820	74.48	730
30 JUN 74	82.75	15	74.90	515

AVERAGE 84.47

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 AUG 74

ENVIRONMENTAL TEMPERATURE TAPE -- VERMILION RIVER -- NK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUL 74	84.38	1945	75.99	800
2 JUL 74	88.38	1945	83.48	600
3 JUL 74	89.80	2000	77.86	830
4 JUL 74	89.95	1245	78.77	700
5 JUL 74	86.99	1600	85.78	2330
6 JUL 74	88.68	1615	78.23	630
7 JUL 74	89.89	1230	77.56	700
8 JUL 74	92.80	1700	80.34	615
9 JUL 74	94.00	1715	81.85	645
10 JUL 74	92.79	1830	83.36	700
11 JUL 74	89.04	15	79.92	615
12 JUL 74	89.89	1645	78.17	615
13 JUL 74	91.44	1930	78.41	615
14 JUL 74	89.89	15	81.31	715
15 JUL 74	94.72	1400	83.00	545
16 JUL 74	92.12	15	82.64	745
17 JUL 74	91.27	1800	79.80	615
18 JUL 74	92.19	2145	81.01	615
19 JUL 74	94.90	1430	82.40	800
20 JUL 74	88.86	15	78.77	615
21 JUL 74	86.08	30	76.47	645
22 JUL 74	89.65	1730	77.74	730
23 JUL 74	89.10	1515	79.86	700
24 JUL 74	87.38	1315	76.47	630
25 JUL 74	89.47	1700	76.23	615
26 JUL 74	89.41	1630	77.22	645
27 JUL 74	88.68	1830	77.74	600
28 JUL 74	89.63	1530	78.47	615
29 JUL 74	89.35	1745	80.10	530
30 JUL 74	89.69	1715	78.41	530
31 JUL 74	89.82	2015	76.69	930

AVERAGE 89.98

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
10 SEP 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 AUG 74	88.86	1345	78.53	615
2 AUG 74	82.58	15	74.54	630
3 AUG 74	84.57	1615	78.35	830
4 AUG 74	85.42	1415	84.03	515
5 AUG 74	84.75	30	83.00	730
6 AUG 74	84.43	2100	77.08	900
7 AUG 74	91.94	1545	80.10	345
8 AUG 74	89.65	15	79.56	815
9 AUG 74	NO DATA FOR THIS DAY			
10 AUG 74	NO DATA FOR THIS DAY			
11 AUG 74	NO DATA FOR THIS DAY			
12 AUG 74	NO DATA FOR THIS DAY			
13 AUG 74	NO DATA FOR THIS DAY			
14 AUG 74	NO DATA FOR THIS DAY			
15 AUG 74	NO DATA FOR THIS DAY			
16 AUG 74	NO DATA FOR THIS DAY			
17 AUG 74	NO DATA FOR THIS DAY			
18 AUG 74	NO DATA FOR THIS DAY			
19 AUG 74	NO DATA FOR THIS DAY			
20 AUG 74	NO DATA FOR THIS DAY			
21 AUG 74	NO DATA FOR THIS DAY			
22 AUG 74	NO DATA FOR THIS DAY			
23 AUG 74	NO DATA FOR THIS DAY			
24 AUG 74	NO DATA FOR THIS DAY			
25 AUG 74	NO DATA FOR THIS DAY			
26 AUG 74	NO DATA FOR THIS DAY			
27 AUG 74	NO DATA FOR THIS DAY			
28 AUG 74	NO DATA FOR THIS DAY			
29 AUG 74	85.42	1600	84.57	2400
30 AUG 74	84.81	1830	83.48	745
1 AUG 74	85.66	1530	82.21	745
AVERAGE	86.21			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
22 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 SEP 74	85.42	1745	78.23	1130
2 SEP 74	84.33	30	82.15	2400
3 SEP 74	82.15	515	80.82	300
4 SEP 74	NO DATA FOR THIS DAY			
5 SEP 74	81.43	1615	79.56	2400
6 SEP 74	79.62	1745	77.86	815
7 SEP 74	79.07	1845	77.98	1145
8 SEP 74	81.01	1545	77.50	730
9 SEP 74	81.91	1630	78.59	800
10 SEP 74	81.91	1615	76.96	200
11 SEP 74	82.88	1830	77.44	400
12 SEP 74	85.30	2000	81.49	645
13 SEP 74	88.26	1745	84.15	730
14 SEP 74	87.65	30	83.60	2400
15 SEP 74	84.45	1700	75.45	2400
16 SEP 74	82.64	1915	73.39	600
17 SEP 74	83.12	2315	78.65	900
18 SEP 74	82.76	15	80.34	1000
19 SEP 74	82.58	1815	80.58	400
20 SEP 74	82.88	1945	81.37	130
21 SEP 74	81.97	30	76.47	2400
22 SEP 74	76.29	15	74.06	830
23 SEP 74	78.11	330	69.04	2400
24 SEP 74	68.07	15	63.54	400
25 SEP 74	66.44	1445	62.64	1100
26 SEP 74	66.14	1530	64.81	730
27 SEP 74	68.07	1900	64.27	815
28 SEP 74	68.92	2000	66.08	730
29 SEP 74	69.28	2230	67.11	1230
30 SEP 74	75.63	1845	67.29	200

AVERAGE 79.25

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-0

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 OCT 74	74.30	15	63.54	645
2 OCT 74	72.61	1345	62.88	715
3 OCT 74	70.79	15	61.55	630
4 OCT 74	69.04	15	59.49	730
5 OCT 74	72.18	1745	58.34	645
6 OCT 74	68.68	15	60.22	600
7 OCT 74	63.00	1730	61.55	2400
8 OCT 74	69.71	2215	59.67	730
9 OCT 74	73.69	1500	58.95	800
10 OCT 74	70.01	1645	65.54	2400
11 OCT 74	69.04	1900	62.64	1300
12 OCT 74	71.10	1930	57.50	645
13 OCT 74	68.32	15	57.74	800
14 OCT 74	69.71	2145	57.26	645
15 OCT 74	71.46	1100	61.43	615
16 OCT 74	70.19	15	60.40	515
17 OCT 74	68.86	1430	58.53	700
18 OCT 74	67.89	15	56.11	745
19 OCT 74	59.49	15	51.52	715
20 OCT 74	63.18	630	52.18	1900
21 OCT 74	61.49	1745	51.27	730
22 OCT 74	63.96	1730	50.73	700
23 OCT 74	72.24	1600	52.42	415
24 OCT 74	71.64	1830	55.38	830
25 OCT 74	72.18	1930	55.63	645
26 OCT 74	70.79	2030	56.29	800
27 OCT 74	70.25	215	53.81	2100
28 OCT 74	69.46	1545	52.30	700
29 OCT 74	72.24	1630	53.99	815
30 OCT 74	73.21	1730	57.38	915
31 OCT 74	70.79	1945	57.44	900

AVERAGE 69.40

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 FEB 74	35.50	20	33.30	2300
2 FEB 74	33.83	2400	33.12	430
3 FEB 74	34.31	215	33.12	520
4 FEB 74	35.20	2400	33.12	45
5 FEB 74	37.76	1830	33.12	700
6 FEB 74	34.31	30	33.12	245
7 FEB 74	33.18	15	33.12	45
8 FEB 74	33.18	15	33.12	130
9 FEB 74	33.30	1215	33.12	130
10 FEB 74	33.24	1615	33.12	100
11 FEB 74	33.30	345	33.12	45
12 FEB 74	33.36	2400	33.12	30
13 FEB 74	33.41	2400	33.12	100
14 FEB 74	33.53	915	33.12	1115
15 FEB 74	33.59	1430	33.30	445
16 FEB 74	33.59	15	33.12	815
17 FEB 74	33.36	330	33.12	1900
18 FEB 74	35.44	1645	33.12	115
19 FEB 74	33.47	2315	33.12	115
20 FEB 74	35.85	1215	33.24	615
21 FEB 74	34.84	100	33.12	715
22 FEB 74	34.66	1530	33.41	845
23 FEB 74	34.54	1500	33.59	2345
24 FEB 74	33.83	1400	33.12	445
25 FEB 74	34.49	1630	33.24	715
26 FEB 74	34.72	1500	33.36	745
27 FEB 74	34.90	1630	33.47	745
28 FEB 74	35.57	2330	34.07	730
AVERAGE	34.30			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 MAR 74	40.55	1815	35.50	700
2 MAR 74	38.35	1700	36.09	1200
3 MAR 74	36.74	45	35.20	1915
4 MAR 74	40.97	2145	35.20	830
5 MAR 74	41.26	1645	37.40	545
6 MAR 74	40.97	15	37.04	815
7 MAR 74	39.48	1615	37.16	715
8 MAR 74	39.35	30	36.69	2100
9 MAR 74	36.74	30	35.08	2015
10 MAR 74	36.69	1230	34.96	730
11 MAR 74	36.86	1600	33.95	745
12 MAR 74	38.71	1715	34.01	800
13 MAR 74	40.55	2000	33.24	600
14 MAR 74	38.47	1145	33.30	715
15 MAR 74	40.49	2000	33.95	630
16 MAR 74	40.37	115	35.61	1115
17 MAR 74	38.59	15	35.26	2300
18 MAR 74	35.33	1930	34.60	845
19 MAR 74	35.56	2045	34.37	730
20 MAR 74	37.16	1630	35.02	715
21 MAR 74	37.53	715	34.60	2345
22 MAR 74	37.23	1400	33.24	630
23 MAR 74	36.57	2330	33.95	700
24 MAR 74	38.05	1715	36.16	100
25 MAR 74	38.94	1400	35.44	815
26 MAR 74	38.35	2345	35.56	915
27 MAR 74	39.00	1900	35.02	845
28 MAR 74	40.01	1730	35.91	700
29 MAR 74	39.66	30	35.91	730
30 MAR 74	36.80	30	36.45	615
31 MAR 74	38.53	2245	36.51	30
AVERAGE	38.48			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 APR 74	52.03	1000	37.70	230
2 APR 74	42.27	100	39.30	830
3 APR 74	44.12	1730	38.65	645
4 APR 74	44.06	115	41.32	1215
5 APR 74	42.87	30	40.07	2400
6 APR 74	40.19	1230	38.29	2400
7 APR 74	38.83	2315	37.10	645
8 APR 74	40.49	2215	38.71	100
9 APR 74	40.49	15	38.11	2315
10 APR 74	38.05	15	37.22	1015
11 APR 74	39.90	1815	36.74	700
12 APR 74	40.31	1445	39.18	600
13 APR 74	40.01	1200	39.18	2345
14 APR 74	41.86	2130	39.12	130
15 APR 74	NO DATA FOR THIS DAY			
16 APR 74	NO DATA FOR THIS DAY			
17 APR 74	NO DATA FOR THIS DAY			
18 APR 74	NO DATA FOR THIS DAY			
19 APR 74	NO DATA FOR THIS DAY			
20 APR 74	NO DATA FOR THIS DAY			
21 APR 74	NO DATA FOR THIS DAY			
22 APR 74	NO DATA FOR THIS DAY			
23 APR 74	NO DATA FOR THIS DAY			
24 APR 74	NO DATA FOR THIS DAY			
25 APR 74	NO DATA FOR THIS DAY			
26 APR 74	47.51	1545	47.27	1745
27 APR 74	47.39	15	46.67	645
28 APR 74	53.63	2130	38.06	1315
29 APR 74	54.46	1330	52.92	415
30 APR 74	55.84	2345	53.75	15
AVERAGE	44.49			

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 JUN 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 MAY 74	55.94	1600	54.17	15
2 MAY 74	55.47	15	53.69	830
3 MAY 74	NO DATA FOR THIS DAY			
4 MAY 74	NO DATA FOR THIS DAY			
5 MAY 74	NO DATA FOR THIS DAY			
6 MAY 74	NO DATA FOR THIS DAY			
7 MAY 74	NO DATA FOR THIS DAY			
8 MAY 74	52.26	1645	50.78	1130
9 MAY 74	52.98	1700	51.02	615
10 MAY 74	51.91	15	50.60	2400
11 MAY 74	53.33	1600	50.18	500
12 MAY 74	52.26	30	51.13	1630
13 MAY 74	52.50	1545	51.49	600
14 MAY 74	53.33	1830	50.54	645
15 MAY 74	56.37	2345	52.32	515
16 MAY 74	59.22	2400	56.37	515
17 MAY 74	62.55	1715	59.16	15
18 MAY 74	62.73	1700	60.17	730
19 MAY 74	62.97	1545	60.53	600
20 MAY 74	63.50	1615	60.77	730
21 MAY 74	63.09	1700	60.55	630
22 MAY 74	64.63	1545	60.71	630
23 MAY 74	63.14	115	60.77	2330
24 MAY 74	60.89	145	59.22	900
25 MAY 74	59.76	30	56.19	945
26 MAY 74	56.54	145	54.29	1915
27 MAY 74	54.52	30	53.32	845
28 MAY 74	55.59	1545	53.10	645
29 MAY 74	55.71	2100	54.05	730
30 MAY 74	57.91	1915	54.64	630
31 MAY 74	58.98	2000	56.01	645

AVERAGE 57.65

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
03 JUL 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUN 74	60.65	1830	57.56	830
2 JUN 74	60.29	1430	58.39	645
3 JUN 74	62.00	1730	53.45	530
4 JUN 74	65.88	1730	60.89	600
5 JUN 74	67.49	1415	64.04	600
6 JUN 74	69.03	1545	64.10	715
7 JUN 74	71.65	2030	65.40	630
8 JUN 74	75.43	2000	65.17	600
9 JUN 74	78.43	2345	67.90	700
10 JUN 74	82.11	1400	71.35	915
11 JUN 74	81.40	1545	75.16	900
12 JUN 74	79.02	1200	71.17	645
13 JUN 74	79.91	1745	72.24	830
14 JUN 74	82.05	1230	70.58	815
15 JUN 74	79.73	2100	70.10	845
16 JUN 74	78.66	30	72.13	1200
17 JUN 74	82.39	1530	70.04	830
18 JUN 74	78.96	1545	70.87	1030
19 JUN 74	76.82	1830	71.41	630
20 JUN 74	81.22	1415	71.71	130
21 JUN 74	82.41	1500	76.64	830
22 JUN 74	83.24	1515	71.17	700
23 JUN 74	80.03	130	71.71	600
24 JUN 74	81.04	2300	73.70	730
25 JUN 74	81.16	15	74.50	1015
26 JUN 74	79.28	15	75.75	1400
27 JUN 74	79.20	1730	73.79	815
28 JUN 74	76.64	1515	70.99	800
29 JUN 74	77.71	2400	70.32	830
30 JUN 74	73.66	215	69.39	930

AVERAGE 76.47

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 AUG 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 JUL 74	81.46	2045	72.00	845
2 JUL 74	82.89	1445	76.94	500
3 JUL 74	84.37	1900	74.68	900
4 JUL 74	87.29	2100	76.38	730
5 JUL 74	85.62	15	77.65	545
6 JUL 74	83.36	2330	75.63	1030
7 JUL 74	84.91	1915	72.96	830
8 JUL 74	86.87	1645	76.94	800
9 JUL 74	89.37	1545	78.79	845
10 JUL 74	87.94	1115	81.40	915
11 JUL 74	84.31	315	76.17	945
12 JUL 74	85.74	1930	74.62	745
13 JUL 74	87.28	1600	74.98	900
14 JUL 74	86.63	45	78.01	900
15 JUL 74	89.72	1330	81.58	730
16 JUL 74	86.71	15	80.98	845
17 JUL 74	87.11	1800	78.60	830
18 JUL 74	87.46	2045	79.32	915
19 JUL 74	87.94	1415	79.38	915
20 JUL 74	NO DATA FOR THIS DAY			
21 JUL 74	NO DATA FOR THIS DAY			
22 JUL 74	NO DATA FOR THIS DAY			
23 JUL 74	NO DATA FOR THIS DAY			
24 JUL 74	84.13	1500	81.93	2400
25 JUL 74	86.46	1545	76.23	515
26 JUL 74	86.22	1530	77.47	615
27 JUL 74	85.90	1645	77.95	515
28 JUL 74	86.51	1615	77.95	515
29 JUL 74	86.56	1930	77.49	645
30 JUL 74	86.51	1315	78.60	400
31 JUL 74	86.99	1030	79.32	430

AVERAGE 86.20

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
10 SEP 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- MK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 AUG 74	85.74	30	77.42	900
2 AUG 74	82.23	45	75.33	800
3 AUG 74	82.95	2000	78.19	1200
4 AUG 74	83.12	1615	80.92	30
5 AUG 74	82.83	330	78.55	2345
6 AUG 74	82.05	2030	77.53	715
7 AUG 74	83.13	2130	77.65	615
8 AUG 74	86.04	15	76.35	2200
9 AUG 74	NO DATA FOR THIS DAY			
10 AUG 74	NO DATA FOR THIS DAY			
11 AUG 74	NO DATA FOR THIS DAY			
12 AUG 74	83.06	1700	85.44	2345
13 AUG 74	83.77	1615	78.13	815
14 AUG 74	86.37	1530	78.55	815
15 AUG 74	90.14	1330	73.55	1230
16 AUG 74	87.11	2030	78.31	745
17 AUG 74	85.15	15	77.53	1330
18 AUG 74	79.73	1700	75.87	945
19 AUG 74	81.04	1600	75.51	830
20 AUG 74	89.55	1445	77.18	730
21 AUG 74	90.38	1515	79.32	745
22 AUG 74	92.28	1530	81.46	930
23 AUG 74	89.19	1430	80.33	2345
24 AUG 74	83.43	1145	78.60	445
25 AUG 74	81.76	1430	73.66	500
26 AUG 74	85.44	1645	81.34	515
27 AUG 74	86.39	2000	80.92	600
28 AUG 74	85.92	845	83.18	1930
29 AUG 74	84.49	15	81.04	700
30 AUG 74	81.87	15	70.52	1230
31 AUG 74	83.12	1800	78.49	400

AVERAGE 85.50

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
22 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 SEP 74	82.77	830	77.47	1230
2 SEP 74	81.46	15	79.02	1015
3 SEP 74	80.03	15	74.50	1815
4 SEP 74	77.12	145	69.39	1600
5 SEP 74	72.84	1430	66.59	745
6 SEP 74	71.29	1930	66.83	900
7 SEP 74	70.64	15	65.76	945
8 SEP 74	73.49	2200	68.85	445
9 SEP 74	76.05	1230	73.13	145
10 SEP 74	78.84	2015	70.70	330
11 SEP 74	78.37	1830	73.37	1015
12 SEP 74	81.34	2230	75.75	1145
13 SEP 74	83.66	2345	79.02	1445
14 SEP 74	83.78	445	77.65	1645
15 SEP 74	79.50	1845	74.74	1315
16 SEP 74	76.88	2400	68.44	1015
17 SEP 74	78.37	2030	72.30	1345
18 SEP 74	78.37	215	71.41	1045
19 SEP 74	79.08	2030	73.95	1245
20 SEP 74	79.44	1830	75.69	1530
21 SEP 74	78.72	30	74.68	2400
22 SEP 74	74.50	15	68.02	1215
23 SEP 74	71.41	45	64.57	2015
24 SEP 74	66.83	15	62.19	2300
25 SEP 74	63.44	30	60.83	815
26 SEP 74	64.04	500	60.53	1130
27 SEP 74	67.43	1545	61.78	1000
28 SEP 74	67.54	1615	62.91	900
29 SEP 74	67.96	700	64.69	815
30 SEP 74	67.90	1515	61.96	615

AVERAGE 75.10

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74

ENVIRONMENTAL TEMPERATURE TAPE -- MERRIMACK RIVER -- WK S-4

DAY	MAX. TEMP.	TIME	MIN. TEMP.	TIME
1 OCT 74	66.00	30	59.76	915
2 OCT 74	63.92	1445	57.85	1045
3 OCT 74	63.56	1315	56.13	1045
4 OCT 74	63.38	2330	54.70	1115
5 OCT 74	63.20	1715	56.31	830
6 OCT 74	65.58	100	57.35	2015
7 OCT 74	61.60	1300	57.44	730
8 OCT 74	64.57	2400	54.76	830
9 OCT 74	66.45	1500	56.84	730
10 OCT 74	65.52	1330	61.30	530
11 OCT 74	63.38	30	56.49	900
12 OCT 74	66.71	2300	53.27	930
13 OCT 74	64.99	15	55.24	1115
14 OCT 74	66.12	2345	55.30	700
15 OCT 74	66.71	2100	56.01	645
16 OCT 74	66.06	45	57.85	645
17 OCT 74	64.04	15	54.88	815
18 OCT 74	62.25	100	50.54	830
19 OCT 74	57.14	15	48.76	2400
20 OCT 74	52.74	715	45.49	2400
21 OCT 74	54.11	2015	45.19	900
22 OCT 74	58.51	1600	45.37	845
23 OCT 74	59.34	2245	45.66	630
24 OCT 74	59.82	2215	45.66	815
25 OCT 74	61.48	2330	47.74	1115
26 OCT 74	60.05	45	44.89	845
27 OCT 74	61.30	530	44.95	2315
28 OCT 74	59.82	1745	45.01	1000
29 OCT 74	61.24	1745	46.91	1415
30 OCT 74	62.43	1830	50.54	1300
31 OCT 74	62.61	200	50.66	1330

AVERAGE 62.58

ALL TEMPERATURE READINGS IN DEGREES F

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	MON 1 APR 74	TUE 2 APR 74	WED 3 APR 74	THU 4 APR 74	FRI 5 APR 74	SAT 6 APR 74	SUN 7 APR 74	MON 8 APR 74	TUE 9 APR 74	WED 10 APR 74	THU 11 APR 74	FRI 12 APR 74
15	*****	3.14	1.59	2.57	1.46	0.33	0.54	0.31	0.21	0.30	0.25	0.22
30	*****	2.91	1.90	2.52	1.82	0.33	0.42	0.25	0.15	0.30	0.25	0.28
45	*****	3.03	1.65	2.63	1.69	0.33	0.42	0.25	0.15	0.30	0.25	0.28
100	*****	3.14	1.53	2.46	1.75	0.27	0.42	0.18	0.15	0.36	0.25	0.28
115	*****	3.14	1.18	2.75	1.58	0.33	0.42	0.25	0.15	0.36	0.25	0.28
130	*****	3.03	1.06	2.52	1.28	0.33	0.42	0.25	0.15	0.34	0.31	0.34
145	*****	2.97	1.06	2.40	1.58	0.27	0.42	0.25	0.21	0.42	0.25	0.28
200	*****	3.03	1.30	2.59	1.45	0.27	0.42	0.18	0.09	0.30	0.31	0.28
215	*****	2.97	0.95	2.47	1.27	0.16	0.42	0.18	0.28	*****	0.31	0.28
230	*****	3.09	1.25	2.46	1.39	0.22	0.37	0.25	0.15	0.24	0.32	0.34
245	*****	3.03	0.77	2.65	1.27	0.33	0.43	0.18	0.28	0.36	0.36	0.35
300	*****	2.79	1.01	2.65	1.28	0.22	0.43	0.25	0.21	0.31	0.32	0.28
315	*****	3.09	1.01	2.65	1.27	0.16	0.43	0.25	0.22	0.30	0.38	0.28
330	*****	2.97	0.65	2.47	0.97	0.22	0.37	0.18	0.21	0.31	0.32	0.28
345	*****	2.49	1.07	2.34	1.40	0.22	0.43	0.25	0.21	0.31	0.32	0.22
400	*****	2.08	0.71	2.53	0.97	0.16	0.43	0.12	0.21	0.31	0.37	0.16
415	*****	2.61	0.77	2.29	0.99	0.16	0.37	0.25	0.27	0.31	0.37	0.16
430	*****	2.20	0.78	2.11	1.03	0.28	0.37	0.25	0.21	0.25	0.37	0.28
445	*****	1.65	0.96	2.22	0.93	0.16	0.37	0.19	0.27	0.31	0.37	0.16
500	*****	2.08	0.41	2.00	1.09	0.22	0.37	0.25	0.21	0.37	0.31	0.16
515	*****	1.90	0.54	2.12	0.68	0.22	0.31	0.25	0.27	0.31	0.37	0.16
530	*****	2.14	0.47	2.00	0.86	0.16	0.37	0.18	0.28	0.25	0.37	0.16
545	*****	1.78	0.31	1.64	0.86	0.16	0.37	0.25	0.28	0.37	0.31	0.22
600	*****	1.53	0.25	1.70	0.75	0.22	0.32	0.25	0.22	0.25	0.25	0.10
615	*****	1.35	0.49	1.64	0.68	0.16	0.38	0.12	0.28	0.37	0.31	0.22
630	*****	0.94	0.25	1.46	0.75	0.16	0.32	0.25	0.29	0.31	0.25	0.10
645	*****	0.89	0.25	1.23	0.43	0.16	0.26	0.18	0.22	0.31	0.19	0.16
700	*****	0.59	0.18	1.29	0.81	0.16	0.38	0.18	0.22	0.43	0.13	0.04
715	*****	0.94	1.31	0.93	0.43	0.10	0.26	0.13	0.22	0.25	0.25	0.28
730	*****	0.37	0.37	0.93	0.43	0.16	0.26	0.19	0.16	0.33	0.13	0.10
745	*****	0.83	0.37	1.05	0.43	0.16	0.32	0.18	0.29	0.31	0.19	0.04
800	*****	0.65	0.18	1.05	0.25	0.16	0.46	0.24	0.22	0.37	0.19	0.04
815	*****	0.53	0.24	0.87	0.37	0.16	0.26	0.12	0.22	0.25	0.14	0.10
830	*****	0.28	0.22	0.93	0.25	*****	0.32	0.12	0.34	0.37	0.14	0.04
845	*****	0.40	0.16	0.62	0.50	*****	0.26	0.13	0.22	0.31	0.14	0.16
900	*****	0.34	0.22	1.11	0.20	*****	0.20	0.12	0.28	0.37	0.14	0.10
915	*****	0.29	0.22	0.68	0.25	*****	0.31	0.12	0.34	0.31	0.14	0.10
930	*****	0.46	0.22	0.75	0.31	*****	0.25	0.10	0.34	0.31	0.13	0.10
945	*****	0.28	0.16	0.87	0.31	*****	0.25	0.11	0.34	0.37	0.07	0.16
1000	*****	0.46	0.16	0.87	0.43	0.04	0.19	0.16	0.28	0.31	0.19	0.10
1015	*****	0.52	0.34	0.87	0.19	0.16	0.25	0.04	0.34	0.26	0.07	0.10
1030	*****	0.64	0.22	0.51	0.13	0.16	0.25	0.10	0.34	0.31	0.07	0.16
1045	*****	0.46	0.22	0.75	0.32	0.15	0.19	0.10	0.40	0.26	0.12	0.16
1100	3.65	0.81	0.28	0.56	0.25	0.21	0.19	0.04	0.28	0.31	0.12	0.16
1115	3.76	0.46	0.33	0.62	0.37	0.15	0.25	0.16	0.40	0.25	0.06	0.28
1130	3.71	0.40	0.39	0.69	0.32	0.15	0.25	0.16	0.34	0.31	0.18	0.16
1145	3.82	0.40	0.39	0.45	0.56	0.15	0.19	0.10	0.34	0.19	0.18	0.28
1200	3.88	0.34	0.27	0.51	0.66	0.21	0.19	0.16	0.28	0.31	0.24	0.22

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY '!' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	MON 1 APR 74	TUE 2 APR 74	WED 3 APR 74	THU 4 APR 74	FRI 5 APR 74	SAT 6 APR 74	SUN 7 APR 74	MON 8 APR 74	TUE 9 APR 74	WED 10 APR 74	THU 11 APR 74	FRI 12 APR 74
1215	3.81	0.34	-0.52	0.27	0.43	0.21	0.24	0.10	0.23	0.25	0.18	0.22
1230	3.75	0.52	0.76	0.33	0.49	0.21	0.12	0.10	0.34	0.25	0.18	0.23
1245	3.87	0.57	0.75	0.68	0.60	0.27	0.24	0.10	0.29	0.25	0.12	0.22
1300	3.94	0.81	0.87	0.68	0.72	0.27	0.12	0.04	0.35	0.37	0.00	0.22
1315	3.61	0.93	1.11	0.87	0.72	0.27	0.24	0.16	0.28	0.31	0.12	0.21
1330	3.75	1.11	1.11	0.63	0.55	0.21	0.18	0.04	0.28	0.25	0.05	0.27
1345	3.81	1.35	1.29	0.86	0.78	0.27	0.18	0.10	0.30	0.31	0.06	0.27
1400	3.69	1.17	1.35	0.86	0.72	0.21	0.24	0.04	0.37	0.19	0.17	0.33
1415	3.75	1.05	1.34	0.86	0.74	0.33	0.24	0.10	0.37	0.25	0.04	0.27
1430	3.76	1.35	1.70	0.96	0.74	0.21	0.18	0.04	0.37	0.25	0.10	0.39
1445	3.76	1.77	1.64	1.21	0.67	0.27	0.24	0.09	0.31	0.25	0.04	0.39
1500	3.87	1.54	1.45	1.03	0.73	0.21	0.24	0.09	0.31	0.19	0.16	0.39
1515	3.53	1.41	1.51	1.26	0.74	0.27	0.19	0.09	0.31	0.25	0.04	0.33
1530	3.51	1.23	1.99	1.15	0.87	0.21	0.31	0.09	0.37	0.31	0.10	0.45
1545	3.62	1.89	1.33	1.33	0.59	0.27	0.25	0.15	0.31	0.25	0.10	0.33
1600	3.45	1.77	1.91	1.57	0.80	0.27	0.25	0.10	0.37	0.25	0.10	0.33
1615	3.50	1.59	2.09	1.56	0.99	0.33	0.31	0.21	0.31	0.37	0.10	0.39
1630	3.39	1.65	1.85	1.32	0.75	0.28	0.31	0.10	0.31	0.25	0.10	0.27
1645	3.39	1.71	2.15	1.51	0.56	0.39	0.25	0.04	0.31	0.31	0.16	0.33
1700	3.15	1.94	2.34	1.62	0.93	0.34	0.25	0.04	0.30	0.25	0.10	0.33
1715	3.21	1.71	2.03	1.56	0.68	0.34	0.25	0.09	0.30	0.31	0.10	0.33
1730	3.39	2.19	2.58	1.20	0.81	0.46	0.13	0.03	0.30	0.25	0.04	0.33
1745	3.33	1.77	2.15	1.56	0.81	0.34	0.25	-0.01	0.24	0.31	0.16	0.45
1800	3.21	2.00	2.51	1.62	0.57	0.46	0.25	0.04	0.30	0.25	0.04	0.39
1815	3.21	2.31	2.22	1.75	0.63	0.46	0.18	-0.02	0.24	0.25	0.16	0.33
1830	3.09	2.01	2.15	1.56	0.52	0.46	0.18	0.04	0.30	0.31	0.16	0.33
1845	3.44	2.25	2.22	1.75	0.64	0.40	0.19	-0.01	0.30	0.25	0.10	0.39
1900	3.33	2.01	2.28	1.81	0.52	0.46	0.25	0.03	0.24	0.25	0.22	0.33
1915	3.33	2.07	2.34	1.62	0.81	0.46	0.12	0.03	0.24	0.25	0.16	0.33
1930	3.33	2.19	2.39	1.98	0.52	0.46	0.25	0.09	0.30	0.25	0.22	0.34
1945	3.15	2.25	2.45	1.81	0.58	0.46	0.18	0.03	0.24	0.19	0.16	0.34
2000	2.97	2.01	2.52	1.97	0.76	0.46	0.25	0.09	0.30	0.25	0.22	0.22
2015	3.09	2.25	2.39	1.68	0.58	0.46	0.18	0.09	0.18	0.25	0.16	0.28
2030	3.21	2.19	2.28	1.97	0.58	0.53	0.31	0.09	0.24	0.31	0.16	0.22
2045	3.15	2.01	2.34	1.64	0.46	0.46	0.25	0.09	0.24	0.25	0.10	0.28
2100	3.09	2.01	2.34	1.50	0.46	0.48	0.18	0.09	0.18	0.31	0.16	0.22
2115	3.27	2.25	2.58	1.69	0.58	0.48	0.25	0.09	0.24	0.25	0.10	0.22
2130	3.03	2.19	2.45	1.51	0.58	0.49	0.25	0.09	0.24	0.25	0.10	0.22
2145	3.26	2.08	2.34	1.57	0.45	0.49	0.13	0.09	0.18	0.25	0.10	0.29
2200	3.21	1.84	2.45	1.46	0.51	0.49	0.25	0.09	0.30	0.25	0.16	0.16
2215	3.32	2.02	2.46	1.57	0.45	0.43	0.18	0.09	0.18	0.19	0.10	0.28
2230	3.26	2.25	2.45	1.70	0.33	0.54	0.18	0.09	0.30	0.25	0.16	0.22
2245	3.26	2.02	2.46	1.63	0.27	0.48	0.25	0.15	0.30	0.19	0.04	0.22
2300	3.15	1.84	2.64	1.70	0.27	0.36	0.25	0.09	0.24	0.31	0.16	0.22
2315	3.20	2.02	2.57	1.45	0.39	0.54	0.24	0.09	0.30	0.19	0.16	0.28
2330	2.97	1.90	2.46	1.57	0.39	0.42	0.25	0.21	0.30	0.25	0.16	0.28
2345	3.14	1.42	2.40	1.57	0.33	0.42	0.25	0.09	0.30	0.19	0.16	0.22
2400	3.20	1.35	2.33	1.69	0.21	0.42	0.25	0.15	0.30	0.25	0.22	0.28

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 13 APR 74	SUN 14 APR 74	MON 15 APR 74	TUE 16 APR 74	WED 17 APR 74	THU 18 APR 74	FRI 19 APR 74	SAT 20 APR 74	SUN 21 APR 74	MON 22 APR 74	TUE 23 APR 74	WED 24 APR 74
15	0.28	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
30	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
45	0.22	0.28	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
100	0.28	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
115	0.28	0.28	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
130	0.28	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
145	0.16	0.28	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
200	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
215	0.22	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
230	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
245	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
300	0.22	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
315	0.22	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
330	0.10	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
345	0.22	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
400	0.16	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
415	0.16	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
430	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
445	0.16	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
500	0.16	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
515	0.16	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
530	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
545	0.10	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
600	0.16	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
615	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
630	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
645	0.04	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
700	0.16	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
715	0.10	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
730	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
745	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
800	0.04	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
815	0.16	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
830	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
845	0.10	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
900	0.16	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
915	0.04	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
930	0.16	0.01	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
945	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1000	0.10	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1015	0.10	0.16	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1030	0.16	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1045	0.10	0.10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1100	0.16	0.01	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1115	0.10	0.04	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1130	0.16	0.03	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1145	0.10	0.02	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
1200	0.21	0.03	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 13 APR 74	SUN 14 APR 74	MCN 15 APR 74	TUE 16 APR 74	WED 17 APR 74	THU 18 APR 74	FRI 19 APR 74	SAT 20 APR 74	SUN 21 APR 74	MON 22 APR 74	TUE 23 APR 74	WED 24 APR 74
1215	0.16	0.03	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1230	0.16	0.03	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1245	0.21	0.09	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1300	0.16	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1315	0.21	0.09	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1330	0.27	0.21	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1345	0.27	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1400	0.27	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1415	0.27	0.21	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1430	0.33	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1445	0.27	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1500	0.34	0.20	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1515	0.39	0.15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1530	0.34	0.21	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1545	0.28	0.21	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1600	0.40	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1615	0.34	0.39	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1630	0.40	0.25	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1645	0.34	0.31	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1700	0.40	0.32	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1715	0.40	0.31	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1730	0.40	0.31	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1745	0.40	0.20	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1800	0.34	0.31	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1815	0.34	0.20	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1830	0.40	0.25	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1845	0.34	0.14	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1900	0.34	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1915	0.40	0.14	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1930	0.34	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1945	0.34	0.13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2000	0.34	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2015	0.40	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2030	0.28	0.13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2045	0.34	0.13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2100	0.34	0.19	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2115	0.28	0.13	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2130	0.34	0.20	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2145	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2200	0.34	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2215	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2230	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2245	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2300	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2315	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2330	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2345	0.22	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
2400	0.28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	THU 25 APR 74	FRI 26 APR 74	SAT 27 APR 74	SUN 28 APR 74	MON 29 APR 74	TUE 30 APR 74
15	*****	*****	0.73	*****	2.40	1.48
30	*****	*****	0.73	*****	2.28	1.48
45	*****	*****	0.73	*****	2.34	1.48
100	*****	*****	0.67	*****	2.28	1.54
115	*****	*****	0.73	*****	2.11	1.42
130	*****	*****	0.73	*****	2.10	1.48
145	*****	*****	0.67	*****	2.11	1.48
200	*****	*****	0.68	*****	2.04	1.36
215	*****	*****	0.68	*****	2.10	1.48
230	*****	*****	0.74	*****	2.04	1.48
245	*****	*****	0.74	*****	1.98	1.42
300	*****	*****	0.67	*****	2.11	1.48
315	*****	*****	0.68	*****	1.87	1.49
330	*****	*****	0.74	*****	1.92	1.54
345	*****	*****	0.68	*****	1.81	1.49
400	*****	*****	0.80	*****	1.81	1.55
415	*****	*****	0.73	*****	1.68	1.49
430	*****	*****	0.73	*****	1.87	1.61
445	*****	*****	0.79	*****	1.75	1.61
500	*****	*****	0.79	*****	1.75	1.61
515	*****	*****	0.73	*****	1.75	1.67
530	*****	*****	0.80	*****	1.75	1.66
545	*****	*****	0.85	*****	1.75	1.66
600	*****	*****	0.74	*****	1.80	1.71
615	*****	*****	0.85	*****	1.68	1.71
630	*****	*****	0.80	*****	1.68	1.72
645	*****	*****	0.79	*****	1.68	1.78
700	*****	*****	0.85	*****	1.62	1.78
715	*****	*****	0.79	*****	1.68	1.72
730	*****	*****	0.79	*****	1.68	1.84
745	*****	*****	0.74	*****	1.62	1.78
800	*****	*****	0.80	*****	1.75	1.64
815	*****	*****	*****	*****	1.68	1.78
830	*****	*****	*****	*****	1.75	1.78
845	*****	*****	*****	*****	1.74	1.77
900	*****	*****	*****	*****	1.68	1.72
915	*****	*****	*****	*****	1.75	1.72
930	*****	*****	*****	*****	1.75	1.72
945	*****	*****	*****	*****	1.68	1.65
1000	*****	*****	*****	*****	1.75	1.59
1015	*****	*****	*****	*****	1.68	1.65
1030	*****	*****	*****	*****	1.56	1.65
1045	*****	*****	*****	*****	1.56	1.59
1100	*****	*****	*****	*****	1.50	1.59
1115	*****	*****	*****	*****	1.44	1.59
1130	*****	*****	*****	*****	1.44	1.59
1145	*****	*****	*****	*****	1.43	1.59
1200	*****	*****	*****	*****	1.37	1.53

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

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TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	THU 25 APR 74	FRI 26 APR 74	SAT 27 APR 74	SUN 28 APR 74	MON 29 APR 74	TUE 30 APR 74
1215	*****	*****	*****	*****	1.31	1.53
1230	*****	*****	*****	*****	1.37	1.59
1245	*****	*****	*****	*****	1.31	1.65
1300	*****	*****	*****	-14.64	1.31	1.78
1315	*****	*****	*****	-16.30	1.25	1.78
1330	*****	*****	*****	-16.30	1.31	1.89
1345	*****	*****	*****	2.42	1.54	1.95
1400	*****	*****	*****	2.41	1.78	2.08
1415	*****	*****	*****	2.35	1.90	2.19
1430	*****	*****	*****	2.35	1.90	2.31
1445	*****	*****	*****	2.30	1.90	2.38
1500	*****	*****	*****	2.35	1.95	2.48
1515	*****	-18.53	*****	2.28	1.84	2.61
1530	*****	0.85	*****	2.40	1.90	2.67
1545	*****	0.85	*****	2.47	1.90	2.67
1600	*****	0.85	*****	2.52	1.84	2.72
1615	*****	0.79	*****	2.59	1.89	2.84
1630	*****	0.85	*****	2.58	1.84	2.84
1645	*****	0.79	*****	2.64	2.01	2.84
1700	*****	0.67	*****	2.82	1.89	2.90
1715	*****	0.67	*****	2.82	1.95	2.97
1730	*****	0.67	*****	2.82	2.01	3.15
1745	*****	0.55	*****	2.76	1.89	3.09
1800	*****	0.48	*****	2.94	2.01	3.20
1815	*****	0.61	*****	2.94	2.01	3.32
1830	*****	0.48	*****	3.05	2.07	3.32
1845	*****	0.48	*****	2.94	2.13	3.43
1900	*****	0.42	*****	2.99	2.01	3.32
1915	*****	0.48	*****	2.99	2.07	3.44
1930	*****	0.48	*****	3.17	1.66	3.44
1945	*****	0.42	*****	3.11	1.66	3.37
2000	*****	0.48	*****	3.17	1.60	3.37
2015	*****	0.48	*****	3.17	1.60	3.50
2030	*****	0.54	*****	3.17	1.54	3.31
2045	*****	0.60	*****	3.11	1.60	3.49
2100	*****	0.54	*****	3.17	1.61	3.37
2115	*****	0.60	*****	3.05	1.61	3.37
2130	*****	0.60	*****	3.17	1.61	3.25
2145	*****	0.60	*****	3.11	1.61	3.25
2200	*****	0.60	*****	3.05	1.55	3.19
2215	*****	0.60	*****	2.87	1.55	3.13
2230	*****	0.66	*****	2.87	1.61	3.07
2245	*****	0.60	*****	2.81	1.61	2.89
2300	*****	0.66	*****	2.69	1.55	2.89
2315	*****	0.67	*****	2.63	1.61	2.78
2330	*****	0.73	*****	2.52	1.55	2.72
2345	*****	0.67	*****	2.47	1.55	2.60
2400	*****	0.73	*****	2.40	1.49	2.48

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	WED 1 MAY 74	THU 2 MAY 74	FRI 3 MAY 74	SAT 4 MAY 74	SUN 5 MAY 74	MON 6 MAY 74	TUE 7 MAY 74	WED 8 MAY 74	THU 9 MAY 74	FRI 10 MAY 74	SAT 11 MAY 74	SUN 12 MAY 74
15	0.28	0.25	*****	*****	*****	*****	*****	*****	0.19	0.13	0.38	0.30
30	0.29	0.21-	*****	*****	*****	*****	*****	*****	0.08	0.01	0.20	0.36
45	0.34	0.27	*****	*****	*****	*****	*****	*****	0.19	0.07	0.32	0.30
100	0.29	0.32	*****	*****	*****	*****	*****	*****	0.19	0.01	0.38	0.30
115	0.34	0.26	*****	*****	*****	*****	*****	*****	0.25	0.07	0.26	0.36
130	0.29	0.33	*****	*****	*****	*****	*****	*****	0.25	0.01	0.38	0.42
145	0.34	0.39	*****	*****	*****	*****	*****	*****	0.25	0.01	0.32	0.42
200	0.33	0.39	*****	*****	*****	*****	*****	*****	0.25	0.01	0.32	0.31
215	0.33	0.39	*****	*****	*****	*****	*****	*****	0.19	0.13	0.38	0.43
230	0.33	0.39	*****	*****	*****	*****	*****	*****	0.14	0.01	0.26	0.37
245	0.34	0.51	*****	*****	*****	*****	*****	*****	0.14	0.09	0.26	0.25
300	0.34	0.52	*****	*****	*****	*****	*****	*****	0.07	0.09	0.20	0.37
315	0.34	0.46	*****	*****	*****	*****	*****	*****	0.02	0.03	0.21	0.25
330	0.34	0.52	*****	*****	*****	*****	*****	*****	0.07	0.04	0.21	0.25
345	0.34	0.58	*****	*****	*****	*****	*****	*****	0.02	0.04	0.02	0.19
400	0.40	0.57	*****	*****	*****	*****	*****	*****	0.03	0.04	0.09	0.25
415	0.34	0.58	*****	*****	*****	*****	*****	*****	0.01	0.04	0.14	0.19
430	0.34	0.57	*****	*****	*****	*****	*****	*****	0.01	0.04	0.08	0.19
445	0.46	0.57	*****	*****	*****	*****	*****	*****	0.02	0.01	0.14	0.07
500	0.40	0.57	*****	*****	*****	*****	*****	*****	0.02	0.01	0.02	0.06
515	0.52	0.58	*****	*****	*****	*****	*****	*****	0.02	0.04	0.08	0.25
530	0.46	0.46	*****	*****	*****	*****	*****	*****	0.08	0.04	0.08	0.13
545	0.58	0.59	*****	*****	*****	*****	*****	*****	0.14	0.01	0.02	0.07
600	0.52	0.59	*****	*****	*****	*****	*****	*****	0.14	0.02	0.02	0.01
615	0.52	0.52	*****	*****	*****	*****	*****	*****	0.09	0.03	0.08	0.13
630	0.57	0.58	*****	*****	*****	*****	*****	*****	0.14	0.02	0.02	0.07
645	0.52	0.64-	*****	*****	*****	*****	*****	*****	0.25	0.01	0.08	0.13
700	0.63	0.59	*****	*****	*****	*****	*****	*****	0.14	0.02	0.02	0.19
715	0.52	0.59	*****	*****	*****	*****	*****	*****	0.14	0.04	0.02	0.07
730	0.52	0.58	*****	*****	*****	*****	*****	*****	0.31	0.10	0.08	0.07
745	0.58	0.58	*****	*****	*****	*****	*****	*****	0.37	0.04	0.08	0.07
800	0.46	0.58	*****	*****	*****	*****	*****	*****	0.31	0.04	0.20	0.28
815	0.59	0.58	*****	*****	*****	*****	*****	*****	0.38	0.04	0.14	0.02
830	0.64	0.53	*****	*****	*****	*****	*****	*****	0.38	0.04	0.20	0.38
845	0.37	0.58	*****	*****	*****	*****	*****	*****	0.50	0.09	0.25	0.01
900	0.57	0.58	*****	*****	*****	*****	*****	*****	0.37	0.10	0.26	0.04
915	0.58	0.52	*****	*****	*****	*****	*****	*****	0.43	0.09	0.38	0.01
930	0.63	0.46	*****	*****	*****	*****	*****	*****	0.50	0.10	0.50	0.07
945	0.63	0.58	*****	*****	*****	*****	*****	*****	0.38	0.09	0.50	0.01
1000	0.64	0.53	*****	*****	*****	*****	*****	*****	0.50	0.04	0.49	0.07
1015	0.68	0.53	*****	*****	*****	*****	*****	*****	0.55	0.15	0.44	0.01
1030	0.62	0.58	*****	*****	*****	*****	*****	*****	0.43	0.10	0.50	0.01
1045	0.75	0.58	*****	*****	*****	*****	*****	*****	0.61	0.10	0.56	0.07
1100	0.68	0.52	*****	*****	*****	*****	*****	*****	0.66	0.15	0.62	0.04
1115	0.67	0.58	*****	*****	*****	*****	*****	1.03	0.72	0.04	0.50	0.01
1130	0.67	0.52	*****	*****	*****	*****	*****	0.26	0.72	0.04	0.62	0.04
1145	0.67	0.52	*****	*****	*****	*****	*****	0.44	0.72	0.02	0.62	0.07
1200	0.61	0.58	*****	*****	*****	*****	*****	0.49	0.60	0.07	0.55	0.09

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

96 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	WED MAY 74	THU MAY 74	FRI MAY 74	SAT MAY 74	SUN MAY 74	MON MAY 74	TUE MAY 74	WED MAY 74	THU MAY 74	FRI MAY 74	SAT MAY 74	SUN MAY 74
1215	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1230	0.55	0.51	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1245	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1300	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1315	0.61	0.57	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1330	0.68	0.52	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
1345	0.62	0.58	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
1400	0.72	0.56	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
1415	0.56	0.67	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
1430	0.67	0.61	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
1445	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1500	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1515	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1530	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
1545	0.54	0.66	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
1600	0.66	0.55	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
1615	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1630	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1645	0.48	0.55	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
1700	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
1715	0.54	0.43	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
1730	0.43	0.49	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
1745	0.49	0.42	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
1800	0.42	0.31	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
1815	0.42	0.31	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
1830	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
1845	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
1900	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
1915	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
1930	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
1945	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
2000	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2015	0.55	0.13	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
2030	0.13	0.32	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2045	0.32	0.26	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
2100	0.26	0.20	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
2115	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
2130	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
2145	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2200	0.25	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2215	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2230	0.25	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2245	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2300	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2315	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
2330	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
2345	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
2400	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	MON 13 MAY 74	TUE 14 MAY 74	WED 15 MAY 74	THU 16 MAY 74	FRI 17 MAY 74	SAT 18 MAY 74	SUN 19 MAY 74	MON 20 MAY 74	TUE 21 MAY 74	WED 22 MAY 74	THU 23 MAY 74	FRI 24 MAY 74
15	0.25	0.13	-0.06	-0.16	0.45	0.78	0.30	0.47	1.44	1.45	1.73	1.77
30	0.08	0.13	0.00	-0.16	0.45	0.67	0.31	0.53	1.31	1.69	1.68	1.71
45	0.08	0.13	0.00	-0.28	0.45	0.73	0.31	0.53	1.31	1.69	1.68	1.71
100	0.13	0.25	0.00	-0.11	0.51	0.61	0.30	0.59	1.37	1.69	1.74	1.76
115	0.13	0.14	0.00	-0.17	0.51	0.66	0.31	0.59	1.37	1.57	1.90	1.82
130	0.13	0.07	-0.06	-0.05	0.45	0.66	0.37	0.60	1.32	1.69	1.68	1.58
145	0.19	0.13	-0.05	-0.17	0.57	0.60	0.25	0.60	1.44	1.75	1.61	2.00
200	0.19	0.02	-0.00	-0.05	0.51	0.66	0.43	0.66	1.25	1.75	1.56	1.58
215	0.19	0.07	-0.12	-0.11	0.57	0.60	0.18	0.61	1.43	1.75	1.56	1.54
230	0.13	0.14	0.00	0.00	0.57	0.60	0.31	0.61	1.31	1.57	1.74	1.52
245	0.19	0.08	0.00	-0.11	0.45	0.54	0.24	0.66	1.44	1.75	1.56	1.58
300	0.13	0.03	-0.12	-0.05	0.45	0.48	0.18	0.61	1.38	1.57	1.50	1.46
315	0.13	0.03	-0.12	-0.05	0.51	0.60	0.18	0.73	1.21	1.45	1.67	1.40
330	0.25	0.09	-0.06	-0.05	0.45	0.48	0.19	0.61	1.20	1.45	1.50	1.40
345	0.25	-0.02	-0.06	-0.05	0.39	0.48	0.12	0.49	1.20	1.57	1.20	1.46
400	0.14	0.02	-0.06	-0.05	0.45	0.44	0.13	0.49	0.96	1.46	1.25	1.34
415	0.13	0.09	-0.05	-0.05	0.33	0.44	0.18	0.48	0.96	1.39	1.13	1.40
430	0.14	0.03	-0.11	-0.05	0.33	0.26	0.02	0.48	0.84	1.39	0.96	1.22
445	0.26	-0.03	-0.06	-0.10	0.33	0.38	0.02	0.35	0.79	1.21	1.01	1.26
500	0.19	-0.03	-0.05	0.00	0.33	0.14	0.01	0.37	0.85	1.27	0.95	1.23
515	0.13	-0.03	-0.17	-0.15	0.33	0.26	-0.04	0.42	0.73	1.22	0.90	1.11
530	0.25	-0.02	-0.06	-0.10	0.28	0.26	0.01	0.42	0.67	1.22	0.84	1.11
545	0.19	-0.03	-0.06	-0.09	0.28	0.20	-0.04	0.48	0.62	1.22	0.95	1.17
600	0.19	0.08	-0.11	-0.03	0.34	0.20	0.01	0.36	0.62	1.16	0.84	0.99
615	0.19	-0.03	-0.12	0.01	0.34	0.20	0.07	0.48	0.62	1.22	0.85	0.99
630	0.25	-0.03	-0.11	0.18	0.22	0.20	0.13	0.48	0.68	1.10	0.84	0.93
645	0.25	0.02	-0.05	0.13	0.28	0.26	0.13	0.61	0.68	1.16	0.84	0.93
700	0.25	0.02	-0.11	0.12	0.34	0.26	0.25	0.61	0.68	1.22	1.14	1.05
715	0.37	0.02	-0.06	0.18	0.28	0.20	0.25	0.44	0.68	1.10	1.03	1.00
730	0.31	-0.03	-0.12	0.18	0.34	0.26	0.25	0.50	0.74	1.28	1.03	0.93
745	0.43	0.08	-0.05	0.25	0.27	0.26	0.31	0.56	0.74	1.22	0.96	1.00
800	0.37	0.02	-0.05	0.24	0.34	0.20	0.25	0.56	0.68	1.22	0.97	0.99
815	0.43	0.08	0.00	0.24	0.34	0.32	0.19	0.61	0.80	1.28	0.97	0.99
830	0.37	0.09	0.00	0.24	0.33	0.32	0.30	0.61	0.91	1.45	0.90	0.93
845	0.43	0.03	-0.00	0.24	0.28	0.32	0.30	0.55	0.74	1.33	1.03	0.87
900	0.43	0.15	-0.00	0.30	0.34	0.20	0.30	0.60	0.97	1.46	0.90	0.87
915	0.50	0.08	0.12	0.36	0.46	0.26	0.31	0.60	0.97	1.57	1.02	1.00
930	0.43	0.14	0.05	0.24	0.39	0.20	0.37	0.66	0.97	1.64	0.96	1.00
945	0.50	0.08	0.11	0.42	0.45	0.26	0.30	0.72	0.91	1.75	1.32	1.05
1000	0.50	0.14	0.04	0.36	0.62	0.26	0.37	0.78	1.03	1.81	1.38	1.05
1015	0.49	0.07	0.16	0.42	0.63	0.25	0.37	0.84	1.28	1.75	1.62	1.12
1030	0.43	0.07	0.16	0.48	0.68	0.25	0.37	0.84	1.27	1.93	1.62	1.23
1045	0.50	0.14	0.16	0.48	0.80	0.25	0.37	0.84	1.39	1.75	1.62	1.59
1100	0.55	0.19	0.10	0.53	0.80	0.30	0.36	1.02	1.45	1.75	1.73	1.59
1115	0.42	0.07	0.16	0.59	0.98	0.25	0.36	1.09	1.45	1.93	2.15	1.47
1130	0.55	0.07	0.16	0.53	0.98	0.30	0.37	1.02	1.51	2.10	2.03	1.53
1145	0.47	0.13	0.22	0.60	1.04	0.37	0.43	1.13	1.57	2.64	2.09	1.95
1200	0.42	0.13	0.16	0.65	1.09	0.37	0.42	1.07	1.51	2.68	2.03	1.95

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 79.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4, AND N-10

TIME	MON 13		TUE 14		WED 15		THU 16		FRI 17		SAT 18		SUN 19		MON 20		TUE 21		WED 22		THU 23		FRI 24	
	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	
1215	0.67	0.07	0.23	0.71	1.09	0.48	0.41	1.07	1.44	3.11	1.79	1.95												
1230	0.74	0.07	0.21	0.65	1.15	0.48	0.47	1.26	1.50	2.99	2.03	2.36												
1245	0.68	0.13	0.14	0.71	1.09	0.55	0.41	1.08	1.44	2.40	2.09	2.19												
1300	0.74	0.07	0.15	0.71	1.09	0.60	0.53	1.13	1.38	2.68	2.03	2.06												
1315	0.72	0.06	0.21	0.71	1.26	0.54	0.53	1.19	1.91	2.74	2.16	2.19												
1330	0.73	0.03	0.28	0.71	1.14	0.59	0.47	1.07	1.85	3.04	2.28	2.12												
1345	0.73	0.05	0.21	0.70	1.14	0.59	0.47	1.13	2.09	3.04	2.34	2.30												
1400	0.78	0.05	0.15	0.65	1.32	0.71	0.65	1.13	2.03	3.04	1.86	2.36												
1415	0.72	0.06	0.21	0.65	1.32	0.59	0.53	1.13	2.15	3.10	2.04	2.31												
1430	0.72	0.05	0.28	0.65	1.32	0.59	0.59	1.01	1.85	3.34	1.86	2.19												
1445	0.72	0.06	0.15	0.75	1.38	0.65	0.48	1.13	1.85	3.51	2.10	2.31												
1500	0.66	0.06	0.26	0.57	1.43	0.65	0.53	1.06	1.73	3.51	1.92	2.25												
1515	0.78	0.06	0.20	0.69	1.31	0.65	0.53	1.12	1.79	3.51	1.93	2.25												
1530	0.66	0.00	0.20	0.70	1.44	0.59	0.53	1.12	1.98	3.57	1.87	2.24												
1545	0.84	0.06	0.15	0.63	1.37	0.65	0.59	1.12	2.22	3.63	2.16	2.36												
1600	0.72	0.06	0.19	0.51	1.31	0.59	0.53	1.00	2.22	3.33	2.28	2.54												
1615	0.84	0.06	0.13	0.58	1.38	0.59	0.53	1.30	2.16	3.27	2.10	2.49												
1630	0.78	0.00	0.19	0.57	1.25	0.53	0.59	1.24	2.04	3.27	2.10	2.43												
1645	0.78	0.05	0.19	0.51	1.25	0.53	0.48	1.18	2.16	3.04	2.10	2.55												
1700	0.72	0.00	0.13	0.51	1.25	0.59	0.53	1.24	2.25	2.98	1.99	2.43												
1715	0.72	0.10	0.19	0.51	1.43	0.59	0.48	1.18	2.16	2.12	2.16	2.50												
1730	0.66	0.04	0.19	0.51	1.25	0.53	0.48	1.18	2.09	3.04	2.11	2.37												
1745	0.54	0.04	0.13	0.57	1.31	0.59	0.41	1.18	1.92	2.81	2.06	2.25												
1800	0.49	0.01	0.07	0.46	1.37	0.41	0.54	1.18	2.09	2.91	1.93	2.20												
1815	0.48	0.04	0.07	0.57	1.31	0.47	0.42	1.24	1.97	2.98	1.93	2.50												
1830	0.43	0.10	0.07	0.45	1.25	0.47	0.42	1.24	1.79	3.15	1.81	2.56												
1845	0.43	0.00	0.08	0.40	1.31	0.47	0.41	1.24	1.91	3.15	1.81	2.50												
1900	0.37	0.04	0.02	0.51	1.20	0.41	0.41	1.42	1.79	2.92	1.81	2.32												
1915	0.31	0.05	0.02	0.45	1.13	0.47	0.41	1.36	1.85	2.56	1.70	2.50												
1930	0.31	0.10	0.08	0.45	1.20	0.47	0.47	1.42	1.85	2.33	1.76	2.50												
1945	0.25	0.05	0.01	0.39	1.20	0.35	0.47	1.48	2.09	2.03	1.97	2.51												
2000	0.25	0.05	0.03	0.39	1.13	0.41	0.47	1.48	1.91	2.27	1.82	2.15												
2015	0.31	0.00	0.03	0.45	1.07	0.29	0.35	1.48	1.91	1.85	1.82	1.97												
2030	0.31	0.06	0.03	0.39	1.02	0.29	0.47	1.54	1.91	1.97	1.75	1.90												
2045	0.37	0.06	0.16	0.33	0.96	0.35	0.35	1.42	2.03	1.73	1.57	2.03												
2100	0.27	0.05	0.10	0.45	1.01	0.23	0.41	1.43	1.92	2.09	1.57	1.90												
2115	0.25	0.00	0.03	0.33	0.95	0.29	0.41	1.48	1.98	2.09	1.75	2.32												
2130	0.31	0.00	0.03	0.33	0.95	0.29	0.35	1.49	1.86	1.90	1.87	2.33												
2145	0.25	0.06	0.15	0.27	0.96	0.23	0.41	1.43	1.92	1.85	1.81	2.09												
2200	0.19	0.06	0.09	0.39	0.96	0.24	0.35	1.37	1.69	2.21	1.98	2.09												
2215	0.25	0.00	0.09	0.33	1.03	0.24	0.47	1.43	1.63	1.86	1.87	2.15												
2230	0.25	0.00	0.15	0.33	0.85	0.12	0.41	1.31	1.63	1.97	1.94	2.14												
2245	0.37	0.00	0.15	0.45	0.97	0.24	0.35	1.49	1.63	1.61	1.81	2.09												
2300	0.19	0.05	0.06	0.33	0.90	0.16	0.47	1.50	1.74	2.09	1.81	2.15												
2315	0.25	0.00	0.16	0.45	0.90	0.24	0.41	1.37	1.69	1.73	1.71	2.15												
2330	0.26	0.00	0.22	0.39	0.78	0.18	0.47	1.37	1.69	2.03	1.71	2.27												
2345	0.26	0.04	0.09	0.45	0.78	0.24	0.53	1.37	1.69	1.90	1.93	2.27												
2400	0.26	0.00	0.21	0.45	0.78	0.24	0.53	1.37	1.63	1.80	1.71	2.32												

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING. ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 25	SUN 26	MON 27	TUE 28	WED 29	THU 30	FRI 31
	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74
15	2.21	0.38	1.12	0.82	1.23	2.19	2.28
30	2.33	0.38	1.23	0.88	1.23	2.12	2.35
45	2.33	0.50	1.17	0.88	1.23	2.18	2.22
100	2.26	0.49	1.12	0.82	1.17	2.24	2.16
115	2.26	0.53	1.12	0.94	1.18	2.06	2.41
130	2.27	0.50	1.12	0.77	1.24	2.00	2.17
145	2.21	0.73	0.99	0.94	1.30	2.19	2.29
200	2.03	0.68	1.05	0.89	1.18	2.06	2.29
215	1.96	0.79	1.05	0.82	1.18	2.12	2.05
230	1.78	0.73	1.05	0.82	1.24	2.12	2.17
245	1.84	0.67	0.94	0.83	1.17	2.00	1.93
300	1.61	0.67	1.00	0.76	1.17	2.06	2.00
315	1.49	0.67	1.06	0.76	1.35	2.06	2.05
330	1.43	0.67	0.82	0.71	1.29	2.00	2.11
345	1.37	0.67	0.70	0.65	1.35	1.94	1.93
400	1.13	0.55	0.70	0.58	1.23	1.78	2.00
415	1.13	0.55	0.53	0.53	1.05	1.59	1.81
430	0.95	0.43	0.40	0.41	1.05	1.65	1.69
445	0.84	0.49	0.46	0.46	0.93	1.41	1.45
500	0.78	0.43	0.53	0.36	0.93	1.41	1.47
515	0.66	0.55	0.53	0.36	0.87	1.29	1.40
530	0.54	0.43	0.46	0.36	0.93	1.23	1.22
545	0.48	0.49	0.46	0.36	0.87	1.23	1.28
600	0.30	0.61	0.46	0.36	0.81	1.17	1.15
615	0.24	0.73	0.46	0.29	0.99	1.23	1.16
630	0.18	0.85	0.46	0.36	0.99	1.05	1.28
645	0.18	0.86	0.53	0.29	0.87	1.11	1.10
700	0.01	1.04	0.46	0.36	1.23	1.05	1.16
715	0.07	0.92	0.53	0.29	0.93	1.05	1.22
730	0.02	1.16	0.44	0.35	0.34	1.05	1.22
745	0.02	1.16	0.46	0.20	0.81	0.99	1.16
800	0.08	1.28	0.46	0.40	0.69	0.99	1.22
815	-0.04	1.15	0.46	0.46	0.99	0.99	1.22
830	0.08	0.92	0.44	0.40	0.75	1.05	1.16
845	0.08	0.46	0.28	0.59	1.05	1.05	1.16
900	-0.10	0.46	0.40	0.59	0.99	1.11	1.09
915	-0.04	0.63	0.40	0.40	0.99	1.11	1.22
930	0.01	0.75	0.40	0.58	0.99	1.17	1.22
945	-0.09	1.28	0.40	0.64	1.11	1.18	0.97
1000	-0.04	1.22	0.44	0.64	1.17	1.30	1.45
1015	-0.03	1.06	0.40	0.77	1.23	1.36	1.45
1030	-0.04	1.28	0.34	0.76	1.35	1.47	1.68
1045	-0.10	1.11	0.40	0.82	1.53	1.53	1.68
1100	-0.04	1.24	0.59	0.99	1.59	1.65	1.74
1115	-0.06	1.18	0.59	0.87	1.59	1.76	1.92
1130	-0.10	1.06	0.63	0.93	1.77	1.94	2.16
1145	-0.10	1.12	0.71	1.05	1.71	2.01	2.10
1200	-0.04	1.11	0.76	0.99	1.71	1.95	2.40

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 73.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 JUN 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 25		SUN 26		MON 27		TUE 28		WED 29		THU 30		FRI 31	
	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74	MAY 74
1215	-0.04	1.11	0.82	1.11	1.78	2.07	2.28							
1230	-0.10	1.05	0.82	1.11	1.84	2.06	2.39							
1245	-0.10	1.17	0.83	1.17	1.83	2.12	2.45							
1300	-0.03	1.29	0.82	1.17	1.83	2.17	2.45							
1315	-0.04	1.35	0.94	1.17	2.00	2.12	2.81							
1330	-0.04	1.35	0.89	1.17	1.88	2.35	2.59							
1345	-0.04	1.41	0.94	1.29	1.94	2.35	2.45							
1400	0.01	1.17	0.89	1.23	1.94	2.29	2.57							
1415	-0.04	1.29	1.00	1.29	1.88	2.29	2.81							
1430	-0.10	1.17	0.94	1.36	2.12	2.29	3.05							
1445	-0.04	1.23	0.95	1.30	1.94	2.29	3.05							
1500	-0.10	1.17	0.94	1.42	1.94	2.34	2.99							
1515	-0.04	0.99	1.00	1.36	2.12	2.47	2.76							
1530	-0.10	1.17	0.94	1.24	1.94	2.46	2.94							
1545	-0.10	1.17	0.83	1.40	1.94	2.40	2.88							
1600	-0.16	0.99	0.94	1.34	2.06	2.57	2.92							
1615	-0.10	0.87	1.06	1.28	2.12	2.57	2.88							
1630	-0.10	0.99	0.89	1.28	2.06	2.34	2.75							
1645	-0.22	0.87	1.00	1.34	2.12	2.28	2.76							
1700	-0.10	0.87	1.00	1.16	2.00	2.39	2.93							
1715	-0.22	1.11	0.94	1.28	2.06	2.22	2.97							
1730	-0.22	0.93	0.95	1.28	2.06	2.34	2.87							
1745	-0.10	1.05	1.00	1.22	2.06	2.28	2.64							
1800	-0.16	0.99	0.89	1.23	1.94	2.16	2.52							
1815	-0.16	1.05	0.95	1.16	2.00	2.28	2.46							
1830	-0.16	1.05	0.88	1.22	2.06	2.29	2.53							
1845	-0.15	0.99	0.95	1.10	1.89	2.33	2.40							
1900	-0.21	1.05	0.89	1.16	1.90	2.45	2.25							
1915	-0.15	0.88	0.88	1.16	2.00	2.57	2.40							
1930	-0.15	1.00	0.95	1.22	2.00	2.45	2.34							
1945	-0.16	1.00	0.95	1.22	2.06	2.51	2.58							
2000	-0.39	0.99	0.82	1.16	1.94	2.51	2.99							
2015	-0.15	0.93	0.82	1.16	2.00	2.51	2.52							
2030	-0.03	1.11	0.84	1.22	2.00	2.40	2.91							
2045	-0.04	1.17	0.82	1.28	2.06	2.51	2.40							
2100	-0.03	1.05	0.82	1.22	2.18	2.47	2.58							
2115	-0.03	1.17	0.84	1.23	2.06	2.53	2.34							
2130	0.07	1.12	0.88	1.28	2.12	2.28	2.40							
2145	0.02	1.23	0.82	1.16	2.18	2.34	2.22							
2200	0.19	1.12	0.94	1.16	2.19	2.34	2.22							
2215	0.13	1.23	0.82	1.29	2.19	2.40	2.40							
2230	0.09	1.12	0.82	1.16	2.12	2.34	2.15							
2245	0.20	1.23	0.77	1.22	2.12	2.40	2.22							
2300	0.07	1.05	0.82	1.24	2.00	2.28	2.22							
2315	0.13	1.17	0.88	1.24	2.24	2.34	2.34							
2330	0.07	1.17	0.82	1.18	2.00	2.16	2.15							
2345	0.25	1.18	0.88	1.24	2.06	2.22	2.34							
2400	0.32	1.05	0.82	1.06	2.12	2.34	2.09							

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

DELTA SERVICE COMPANY OF NEW HAMPSHIRE
 100 JEFFERSON ST. BOSTON, MASS. 02108

TEMPERATURE RECORDS BETWEEN STATIONS 5-4 AND N-10

STATION	5-4	5-5	5-6	5-7	5-8	5-9	5-10	5-11	5-12	5-13	5-14	5-15	5-16	5-17	5-18	5-19	5-20	5-21	5-22	5-23	5-24	5-25	5-26	5-27	5-28	5-29	5-30	5-31	5-32	5-33	5-34	5-35	5-36	5-37	5-38	5-39	5-40	5-41	5-42	5-43	5-44	5-45	5-46	5-47	5-48	5-49	5-50	5-51	5-52	5-53	5-54	5-55	5-56	5-57	5-58	5-59	5-60	5-61	5-62	5-63	5-64	5-65	5-66	5-67	5-68	5-69	5-70	5-71	5-72	5-73	5-74	5-75	5-76	5-77	5-78	5-79	5-80	5-81	5-82	5-83	5-84	5-85	5-86	5-87	5-88	5-89	5-90	5-91	5-92	5-93	5-94	5-95	5-96	5-97	5-98	5-99	5-100	5-101	5-102	5-103	5-104	5-105	5-106	5-107	5-108	5-109	5-110	5-111	5-112	5-113	5-114	5-115	5-116	5-117	5-118	5-119	5-120	5-121	5-122	5-123	5-124	5-125	5-126	5-127	5-128	5-129	5-130	5-131	5-132	5-133	5-134	5-135	5-136	5-137	5-138	5-139	5-140	5-141	5-142	5-143	5-144	5-145	5-146	5-147	5-148	5-149	5-150	5-151	5-152	5-153	5-154	5-155	5-156	5-157	5-158	5-159	5-160	5-161	5-162	5-163	5-164	5-165	5-166	5-167	5-168	5-169	5-170	5-171	5-172	5-173	5-174	5-175	5-176	5-177	5-178	5-179	5-180	5-181	5-182	5-183	5-184	5-185	5-186	5-187	5-188	5-189	5-190	5-191	5-192	5-193	5-194	5-195	5-196	5-197	5-198	5-199	5-200	5-201	5-202	5-203	5-204	5-205	5-206	5-207	5-208	5-209	5-210	5-211	5-212	5-213	5-214	5-215	5-216	5-217	5-218	5-219	5-220	5-221	5-222	5-223	5-224	5-225	5-226	5-227	5-228	5-229	5-230	5-231	5-232	5-233	5-234	5-235	5-236	5-237	5-238	5-239	5-240	5-241	5-242	5-243	5-244	5-245	5-246	5-247	5-248	5-249	5-250	5-251	5-252	5-253	5-254	5-255	5-256	5-257	5-258	5-259	5-260	5-261	5-262	5-263	5-264	5-265	5-266	5-267	5-268	5-269	5-270	5-271	5-272	5-273	5-274	5-275	5-276	5-277	5-278	5-279	5-280	5-281	5-282	5-283	5-284	5-285	5-286	5-287	5-288	5-289	5-290	5-291	5-292	5-293	5-294	5-295	5-296	5-297	5-298	5-299	5-300	5-301	5-302	5-303	5-304	5-305	5-306	5-307	5-308	5-309	5-310	5-311	5-312	5-313	5-314	5-315	5-316	5-317	5-318	5-319	5-320	5-321	5-322	5-323	5-324	5-325	5-326	5-327	5-328	5-329	5-330	5-331	5-332	5-333	5-334	5-335	5-336	5-337	5-338	5-339	5-340	5-341	5-342	5-343	5-344	5-345	5-346	5-347	5-348	5-349	5-350	5-351	5-352	5-353	5-354	5-355	5-356	5-357	5-358	5-359	5-360	5-361	5-362	5-363	5-364	5-365	5-366	5-367	5-368	5-369	5-370	5-371	5-372	5-373	5-374	5-375	5-376	5-377	5-378	5-379	5-380	5-381	5-382	5-383	5-384	5-385	5-386	5-387	5-388	5-389	5-390	5-391	5-392	5-393	5-394	5-395	5-396	5-397	5-398	5-399	5-400	5-401	5-402	5-403	5-404	5-405	5-406	5-407	5-408	5-409	5-410	5-411	5-412	5-413	5-414	5-415	5-416	5-417	5-418	5-419	5-420	5-421	5-422	5-423	5-424	5-425	5-426	5-427	5-428	5-429	5-430	5-431	5-432	5-433	5-434	5-435	5-436	5-437	5-438	5-439	5-440	5-441	5-442	5-443	5-444	5-445	5-446	5-447	5-448	5-449	5-450	5-451	5-452	5-453	5-454	5-455	5-456	5-457	5-458	5-459	5-460	5-461	5-462	5-463	5-464	5-465	5-466	5-467	5-468	5-469	5-470	5-471	5-472	5-473	5-474	5-475	5-476	5-477	5-478	5-479	5-480	5-481	5-482	5-483	5-484	5-485	5-486	5-487	5-488	5-489	5-490	5-491	5-492	5-493	5-494	5-495	5-496	5-497	5-498	5-499	5-500	5-501	5-502	5-503	5-504	5-505	5-506	5-507	5-508	5-509	5-510	5-511	5-512	5-513	5-514	5-515	5-516	5-517	5-518	5-519	5-520	5-521	5-522	5-523	5-524	5-525	5-526	5-527	5-528	5-529	5-530	5-531	5-532	5-533	5-534	5-535	5-536	5-537	5-538	5-539	5-540	5-541	5-542	5-543	5-544	5-545	5-546	5-547	5-548	5-549	5-550	5-551	5-552	5-553	5-554	5-555	5-556	5-557	5-558	5-559	5-560	5-561	5-562	5-563	5-564	5-565	5-566	5-567	5-568	5-569	5-570	5-571	5-572	5-573	5-574	5-575	5-576	5-577	5-578	5-579	5-580	5-581	5-582	5-583	5-584	5-585	5-586	5-587	5-588	5-589	5-590	5-591	5-592	5-593	5-594	5-595	5-596	5-597	5-598	5-599	5-600	5-601	5-602	5-603	5-604	5-605	5-606	5-607	5-608	5-609	5-610	5-611	5-612	5-613	5-614	5-615	5-616	5-617	5-618	5-619	5-620	5-621	5-622	5-623	5-624	5-625	5-626	5-627	5-628	5-629	5-630	5-631	5-632	5-633	5-634	5-635	5-636	5-637	5-638	5-639	5-640	5-641	5-642	5-643	5-644	5-645	5-646	5-647	5-648	5-649	5-650	5-651	5-652	5-653	5-654	5-655	5-656	5-657	5-658	5-659	5-660	5-661	5-662	5-663	5-664	5-665	5-666	5-667	5-668	5-669	5-670	5-671	5-672	5-673	5-674	5-675	5-676	5-677	5-678	5-679	5-680	5-681	5-682	5-683	5-684	5-685	5-686	5-687	5-688	5-689	5-690	5-691	5-692	5-693	5-694	5-695	5-696	5-697	5-698	5-699	5-700	5-701	5-702	5-703	5-704	5-705	5-706	5-707	5-708	5-709	5-710	5-711	5-712	5-713	5-714	5-715	5-716	5-717	5-718	5-719	5-720	5-721	5-722	5-723	5-724	5-725	5-726	5-727	5-728	5-729	5-730	5-731	5-732	5-733	5-734	5-735	5-736	5-737	5-738	5-739	5-740	5-741	5-742	5-743	5-744	5-745	5-746	5-747	5-748	5-749	5-750	5-751	5-752	5-753	5-754	5-755	5-756	5-757	5-758	5-759	5-760	5-761	5-762	5-763	5-764	5-765	5-766	5-767	5-768	5-769	5-770	5-771	5-772	5-773	5-774	5-775	5-776	5-777	5-778	5-779	5-780	5-781	5-782	5-783	5-784	5-785	5-786	5-787	5-788	5-789	5-790	5-791	5-792	5-793	5-794	5-795	5-796	5-797	5-798	5-799	5-800	5-801	5-802	5-803	5-804	5-805	5-806	5-807	5-808	5-809	5-810	5-811	5-812	5-813	5-814	5-815	5-816	5-817	5-818	5-819	5-820	5-821	5-822	5-823	5-824	5-825	5-826	5-827	5-828	5-829	5-830	5-831	5-832	5-833	5-834	5-835	5-836	5-837	5-838	5-839	5-840	5-841	5-842	5-843	5-844	5-845	5-846	5-847	5-848	5-849	5-850	5-851	5-852	5-853	5-854	5-855	5-856	5-857	5-858	5-859	5-860	5-861	5-862	5-863	5-864	5-865	5-866	5-867	5-868	5-869	5-870	5-871	5-872	5-873	5-874	5-875	5-876	5-877	5-878	5-879	5-880	5-881	5-882	5-883	5-884	5-885	5-886	5-887	5-888	5-889	5-890	5-891	5-892	5-893	5-894	5-895	5-896	5-897	5-898	5-899	5-900	5-901	5-902	5-903	5-904	5-905	5-906	5-907	5-908	5-909	5-910	5-911	5-912	5-913	5-914	5-915	5-916	5-917	5-918	5-919	5-920	5-921	5-922	5-923	5-924	5-925	5-926	5-927	5-928	5-929	5-930	5-931	5-932	5-933	5-934	5-935	5-936	5-937	5-938	5-939	5-940	5-941	5-942	5-943	5-944	5-945	5-946	5-947	5-948	5-949	5-950	5-951	5-952	5-953	5-954	5-955	5-956	5-957	5-958	5-959	5-960	5-961	5-962	5-963	5-964	5-965	5-966	5-967	5-968	5-969	5-970	5-971	5-972	5-973	5-974	5-975	5-976	5-977	5-978	5-979	5-980	5-981	5-982	5-983	5-984	5-985	5-986	5-987	5-988	5-989	5-990	5-991	5-992	5-993	5-994	5-995	5-996	5-997	5-998	5-999	5-1000	5-1001	5-1002	5-1003	5-1004	5-1005	5-1006	5-1007	5-1008	5-1009	5-1010	5-1011	5-1012	5-1013	5-1014	5-1015	5-1016	5-1017	5-1018	5-1019	5-1020	5-1021	5-1022	5-1023	5-1024	5-1025	5-1026	5-1027	5-1028	5-1029	5-1030	5-1031	5-1032	5-1033	5-1034	5-1035	5-1036	5-1037	5-1038	5-1039	5-1040	5-1041	5-1042	5-1043	5-1044	5-1045	5-1046	5-1047	5-1048	5-1049	5-1050	5-1051	5-1052	5-1053	5-1054	5-1055	5-1056	5-1057	5-1058	5-1059	5-1060	5-1061	5-1062	5-1063	5-1064	5-1065	5-1066	5-1067	5-1068	5-1069	5-1070	5-1071	5-1072	5-1073	5-1074	5-1075	5-1076	5-1077	5-1078	5-1079	5-1080	5-1081	5-1082	5-1083	5-1084	5-1085	5-1086	5-1087	5-1088	5-1089	5-1090	5-1091	5-1092	5-1093	5-1094	5-1095	5-1096	5-1097	5-1098	5-1099	5-1100	5-1101	5-1102	5-1103	5-1104	5-1105	5-1106	5-1107	5-1108	5-1109	5-1110	5-1111	5-1112	5-1113	5-1114	5-1115	5-1116	5-1117	5-1118	5-1119	5-1120	5-1121	5-1122	5-1123	5-1124	5-1125	5-1126	5-1127	5-1128	5-1129	5-1130	5-1131	5-1132	5-1133	5-1134	5-1135	5-1136	5-1137	5-1138	5-1139	5-1140	5-1141	5-1142	5-1143	5-1144	5-1145	5-1146	5-1147	5-1148	5-1149	5-1150	5-1151	5-1152	5-1153	5-1154	5-1155	5-1156	5-1157	5-1158	5-1159	5-1160	5-1161	5-1162	5-1163	5-1164	5-1165	5-1166	5-1167	5-1168	5-1169	5-1170	5-1171	5-1172	5-1173	5-1174	5-1175	5-1176	5-1177	5-1178	5-1179	5-1180	5-1181	5-1182	5-1183	5-1184	5-1185	5-1186	5-1187	5-1188	5-1189	5-1190	5-1191	5-1192	5-1193	5-1194	5-1195	5-1196	5-1197	5-1198	5-1199	5-1200	5-1201	5-1202	5-1203	5-1204	5-1205	5-1206	5-1207	5-1208	5-1209	5-1210	5-1
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UNITED STATES SERVICE COMPANY

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INTERVALS WERE 2.0 TEMPERATURE EXCEEDS 79.0 DEGREES FARE MARKED BY 121 TO THE LEFT OF THE BELTA TEMPERATURE RECORDING
ASTERISKS INDICATE NO DATA AT STATION 1210 AND OVER 514

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
03 JUL 74
TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

	TUE 25 JUN 74	WED 26 JUN 74	THU 27 JUN 74	FRI 28 JUN 74	SAT 29 JUN 74	SUN 30 JUN 74
1235	5.28	6.57	7.10	4.55	2.09	2.08
1230	5.75	6.21	9.12	4.42	3.04	1.55
1245	5.54	6.19	9.30	4.53	3.59	1.19
1200	5.11	6.44	9.31	4.53	3.89	1.50
1215	5.76	7.77	9.12	4.69	4.12	2.14
1230	7.15	5.64	9.72	5.12	4.41	1.95
1245	5.15	5.79	9.56	5.45	4.65	1.61
1200	5.33	5.34	9.42	5.54	5.06	1.42
1215	5.75	6.15	9.24	5.79	5.31	1.57
1230	6.00	6.97	9.19	5.54	5.42	1.31
1245	5.57	6.97	9.22	5.60	5.09	1.35
1200	5.65	5.75	9.59	5.51	5.54	1.15
1215	5.60	5.05	9.01	5.59	5.36	1.53
1230	5.55	6.45	9.01	5.55	5.59	1.71
1245	6.42	7.32	9.92	5.71	5.71	1.35
1200	5.47	5.22	9.41	5.60	6.19	1.53
1215	5.95	5.49	9.11	5.55	6.02	1.47
1230	5.33	5.74	9.40	5.12	5.31	1.54
1245	5.32	5.74	9.52	5.55	5.60	1.71
1200	6.75	6.37	9.93	5.45	5.93	1.83
1215	6.11	6.31	9.12	5.00	5.31	1.89
1230	6.05	6.40	6.93	5.00	5.49	1.54
1245	6.07	6.00	9.39	4.75	6.23	1.53
1200	6.44	6.79	9.41	4.99	6.14	2.25
1215	6.15	6.52	9.33	4.89	5.29	2.49
1230	7.50	6.32	9.30	4.52	5.78	2.37
1245	6.39	6.03	9.13	4.53	5.39	2.37
1200	6.35	6.40	9.24	4.52	5.39	2.07
1215	6.35	6.40	9.45	4.45	5.77	1.65
1230	7.41	6.31	9.63	3.53	6.02	1.64
1245	7.50	6.41	9.55	3.93	5.71	1.55
1200	7.50	6.40	9.05	4.13	5.30	1.00
1215	7.57	6.54	7.97	4.25	5.13	2.19
1230	7.01	6.75	7.63	4.00	5.39	3.09
1245	7.01	6.49	6.69	3.67	5.43	3.32
1200	7.01	6.59	6.97	3.93	5.43	3.39
1215	6.03	6.33	7.11	4.05	5.18	3.09
1230	6.03	6.45	7.17	4.23	5.09	3.39
1245	6.03	6.45	6.17	4.23	5.09	3.57
1200	6.03	6.45	5.31	4.35	5.16	3.27
1215	6.03	6.45	6.27	3.99	4.93	3.15
1230	6.03	6.45	5.79	3.69	4.71	3.37
1245	6.03	6.45	5.79	3.75	5.00	3.33
1200	6.03	6.45	6.09	3.75	4.93	3.45
1215	6.03	6.45	6.09	3.93	6.50	3.33
1230	6.03	6.45	6.39	2.93	5.19	3.21
1245	6.03	6.45	6.39	2.93	5.19	3.21
1200	6.03	6.45	6.39	3.10	5.71	3.37
1215	6.03	6.45	6.39	4.47	6.95	3.63

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 73.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READINGS
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 AUG 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	MON JUL 74	TUE JUL 74	WED JUL 74	THU JUL 74	FRI JUL 74	SAT JUL 74	SUN JUL 74	MON JUL 74	TUE JUL 74	WED JUL 74	THU JUL 74	FRI JUL 74
15	3.69	6.75	9.39	10.03	9.70	7.93	7.56	2.67	9.14	8.77	5	3.90
30	3.39	6.87	9.61	9.62	9.58	7.12	6.67	2.62	8.79	8.83	5	3.50
45	3.21	7.65	8.49	9.25	9.34	6.79	6.30	2.50	8.01	8.53	5	3.09
100	3.34	7.12	9.32	9.08	9.57	6.39	6.26	2.56	8.43	8.32	5	5.50
115	3.69	5.82	9.38	9.38	9.46	6.33	6.26	3.16	8.79	8.59	5	5.38
130	3.99	6.17	9.62	9.90	9.29	6.26	6.40	3.21	8.79	8.53	5	5.39
145	3.99	7.00	9.62	10.27	9.17	6.32	7.29	2.50	8.96	8.24	5	4.54
200	4.05	6.52	9.79	9.36	9.57	6.51	7.47	2.73	9.02	7.89	5	4.95
215	3.94	6.64	9.69	9.56	9.58	6.64	7.28	2.50	8.85	8.65	5	5.15
230	3.46	6.76	10.15	9.98	9.23	7.10	6.92	2.50	8.73	8.53	5	4.37
245	3.57	7.05	10.40	9.50	9.23	7.89	6.45	2.20	9.02	8.18	5	5.38
300	3.51	6.88	9.62	9.62	9.11	7.83	6.69	1.97	8.91	8.36	5	5.75
315	3.75	6.53	9.97	9.63	8.99	6.92	7.40	2.09	9.14	8.59	5	6.28
330	3.69	6.41	9.80	10.21	8.04	7.35	7.06	2.21	8.96	8.53	5	5.31
345	3.58	6.58	10.10	10.26	6.31	6.22	6.27	2.27	8.24	8.13	5	5.75
400	3.51	6.41	9.97	9.86	6.13	5.56	5.87	2.35	8.43	8.13	5	5.25
415	3.63	6.22	10.22	9.68	5.59	6.33	4.85	2.38	8.19	8.13	5	5.04
430	3.64	6.34	9.38	9.14	4.29	5.51	3.89	2.44	7.72	8.24	5	4.26
445	3.46	6.34	8.91	8.42	2.98	5.44	3.24	2.39	6.82	8.00	5	3.54
500	3.57	4.44	9.50	7.53	3.15	4.13	3.00	2.20	6.40	8.60	5	2.95
515	3.57	5.94	9.50	6.82	3.04	3.83	2.47	2.20	5.94	8.06	5	2.71
530	3.45	6.94	9.32	6.65	2.50	3.66	2.00	2.51	5.21	7.69	5	2.06
545	3.64	7.13	9.56	5.98	2.26	3.54	2.36	2.62	4.32	7.29	5	1.82
600	2.75	6.65	9.32	5.69	7.50	3.12	2.47	2.51	3.67	6.40	5	1.52
615	2.28	5.75	9.56	5.03	3.10	3.25	2.11	2.51	2.95	5.21	5	1.41
630	2.21	5.82	9.75	5.21	3.10	3.19	1.64	2.56	2.71	5.49	5	1.79
645	2.16	5.22	7.79	5.33	3.16	2.94	1.99	2.51	2.65	4.73	5	1.24
700	2.38	6.05	7.31	4.44	2.87	3.18	1.34	2.26	2.54	4.01	5	1.05
715	3.04	5.99	7.42	4.20	2.99	3.37	0.50	2.62	2.06	3.66	5	0.93
730	2.81	4.50	5.46	3.84	3.04	3.36	0.39	2.15	2.37	3.30	5	1.17
745	3.23	4.98	3.73	3.91	3.16	3.48	0.20	1.66	2.31	3.00	5	0.99
800	3.22	5.51	3.44	4.03	3.16	3.60	0.44	1.07	2.42	2.76	5	0.43
815	3.33	5.81	3.32	3.78	3.10	3.48	0.03	1.67	1.58	2.76	5	1.11
830	2.50	5.75	3.92	3.84	2.62	3.12	0.67	1.85	1.59	2.55	5	1.15
845	1.01	6.00	3.32	3.84	2.98	3.36	0.56	1.25	1.47	2.58	5	0.60
900	1.80	6.00	2.84	4.13	2.80	3.36	0.55	1.13	2.19	2.70	5	0.54
915	1.86	5.70	3.43	4.13	2.86	3.36	0.37	1.26	2.90	2.47	5	0.66
930	1.61	5.17	3.44	3.95	3.05	3.66	0.80	1.13	3.25	2.77	5	0.72
945	1.56	5.82	3.35	4.07	2.81	3.37	0.73	1.36	2.59	2.85	5	0.96
1000	1.00	5.81	4.33	5.08	2.93	2.54	0.92	1.96	2.48	3.30	5	1.11
1015	1.06	*****	3.91	5.50	3.05	1.93	1.02	2.61	3.08	3.60	5	0.11
1030	1.24	5.81	2.72	4.61	3.22	1.50	0.69	3.09	2.96	4.06	5	0.12
1045	1.53	6.45	3.14	5.01	3.81	2.45	0.50	3.93	3.43	5.09	5	0.71
1100	1.35	6.82	3.43	4.59	4.88	2.10	0.16	4.88	3.72	6.33	5	2.43
1115	2.37	6.76	3.91	4.95	6.13	2.03	0.62	5.52	3.84	5.89	5	2.73
1130	2.60	6.52	3.61	4.71	6.66	2.69	0.91	5.94	3.67	5.60	5	3.53
1145	3.37	6.82	3.85	5.06	7.39	2.87	1.32	6.60	4.44	5.25	5	4.39
1200	3.73	6.70	4.20	5.37	7.15	2.93	1.09	6.29	4.80	5.84	5	4.45

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 *ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 AUG 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS 5-4 AND N-10

TIME	MON JUL 74	TUE JUL 74	WED JUL 74	THU JUL 74	FRI JUL 74	SAT JUL 74	SUN JUL 74	MON JUL 74	TUE JUL 74	WED JUL 74	THU JUL 74	FRI JUL 74
1215	4.21	6.93	6.17	5.00	7.69	2.81	0.84	6.40	7.34	5.65	2.79	4.69
1230	4.32	6.94	7.77	6.25	7.45	4.71	1.08	6.94	7.11	6.02	2.65	4.02
1245	4.69	***	7.71	6.60	7.51	5.42	1.35	7.72	6.09	5.48	3.30	4.20
1300	5.27	5.00	7.95	7.08	7.74	6.13	0.13	7.66	7.81	5.47	3.49	5.64
1315	5.03	7.18	8.44	7.55	7.98	6.19	0.48	6.53	7.23	4.94	4.50	6.41
1330	5.57	7.64	8.54	7.92	8.10	5.83	0.60	7.18	6.45	5.53	3.90	6.23
1345	5.15	6.16	8.07	8.51	7.92	5.83	1.61	8.61	6.99	5.30	2.82	6.17
1400	5.31	9.38	8.54	9.23	7.57	6.31	2.62	7.18	8.24	5.65	2.17	5.99
1415	6.58	9.62	7.46	9.47	7.67	5.31	3.16	7.99	6.81	5.24	2.95	4.97
1430	6.44	9.68	6.22	9.70	7.69	5.59	3.33	9.49	5.62	5.42	3.24	4.56
1445	5.45	10.28	8.19	10.47	7.51	6.01	4.28	8.01	6.28	5.71	2.70	5.10
1500	5.93	8.02	8.30	9.76	7.74	6.67	3.39	7.48	6.27	5.77	2.70	5.51
1515	6.47	7.47	8.54	9.76	7.80	7.09	4.53	8.19	5.18	5.77	2.30	5.64
1530	5.86	7.48	9.13	9.22	7.39	6.37	4.82	8.31	9.13	4.57	2.42	5.69
1545	5.27	8.56	9.26	9.94	7.27	6.44	5.29	8.67	10.14	5.95	3.55	6.76
1600	5.84	8.72	9.38	9.51	7.33	6.13	5.95	7.94	9.60	6.13	3.39	7.36
1615	6.34	8.24	9.97	9.99	7.63	5.77	6.31	7.13	9.37	5.13	3.65	7.12
1630	6.69	8.02	9.49	10.10	7.21	6.67	5.83	8.78	8.36	5.95	3.55	7.06
1645	7.11	9.31	9.60	10.11	7.33	6.42	6.85	9.32	8.36	6.01	3.42	7.30
1700	7.24	8.54	9.61	9.98	7.44	6.36	7.09	9.02	7.52	6.07	3.49	7.78
1715	7.23	8.54	10.21	10.17	7.38	5.77	6.79	8.78	8.24	6.31	3.67	8.31
1730	6.63	8.55	9.67	10.29	7.57	6.42	7.13	8.61	9.49	6.13	3.96	8.37
1745	5.80	8.30	10.03	10.11	7.45	6.66	7.13	8.37	9.19	6.13	3.65	8.07
1800	6.05	8.61	10.80	10.11	7.63	7.21	6.97	8.49	8.65	5.88	4.01	6.07
1815	5.44	8.60	10.32	10.23	7.56	6.84	6.43	9.38	8.06	5.83	4.31	5.43
1830	3.78	8.49	10.33	10.41	7.39	6.79	6.91	9.44	7.57	6.01	4.56	8.31
1845	5.56	8.73	10.15	10.05	7.87	7.20	6.91	8.61	7.38	5.94	4.32	6.07
1900	5.50	9.32	10.91	9.93	7.44	6.25	7.92	8.19	8.30	5.54	4.14	5.01
1915	4.26	8.84	11.03	9.82	7.81	6.25	8.99	8.49	8.95	4.65	3.49	5.13
1930	6.05	8.61	10.80	10.11	7.63	7.21	8.69	8.13	8.00	5.54	4.31	5.61
1945	6.43	8.54	10.39	10.34	7.50	7.33	7.86	8.19	8.06	5.43	5.22	8.36
2000	6.93	8.48	10.26	10.41	7.39	6.97	8.21	7.94	8.30	5.11	5.28	8.24
2015	8.26	7.95	10.57	10.17	7.56	6.91	8.44	7.72	8.30	4.92	5.31	8.43
2030	7.82	8.14	10.75	10.53	7.75	7.20	7.96	7.77	8.95	5.16	5.93	8.37
2045	3.24	8.24	9.62	10.33	7.57	7.32	7.80	7.95	7.40	5.24	3.07	8.09
2100	7.94	8.18	9.62	11.19	7.81	7.81	8.04	8.01	7.05	4.83	3.96	7.43
2115	7.42	8.42	9.13	11.01	8.11	7.99	7.92	7.89	6.93	4.71	5.51	6.78
2130	7.48	8.43	9.02	11.13	8.05	8.17	7.26	7.66	6.99	5.25	5.46	5.88
2145	6.34	7.71	9.03	11.13	8.41	7.93	6.91	7.60	8.00	4.94	5.16	6.00
2200	6.81	6.95	8.90	10.88	7.75	8.34	7.01	7.54	8.65	4.35	4.92	6.54
2215	7.11	8.54	8.90	10.47	7.51	8.23	5.77	8.85	8.71	2.81	5.10	6.53
2230	7.00	8.26	9.01	10.35	7.93	7.69	4.91	8.01	7.31	2.14	5.16	6.90
2245	6.04	5.34	9.13	10.53	7.45	7.45	3.96	6.35	8.24	5.71	5.27	6.94
2300	6.99	6.00	9.54	10.30	7.10	7.28	3.27	7.72	8.77	4.00	4.92	7.03
2315	7.05	7.60	8.89	10.12	7.63	8.11	2.74	8.01	8.71	3.53	5.64	7.20
2330	6.88	7.59	9.68	9.94	7.62	8.94	3.04	9.55	8.65	4.06	5.69	7.62
2345	6.53	8.01	9.85	9.94	6.32	6.92	2.73	8.61	8.18	5.45	5.63	7.38
2400	5.92	8.61	9.68	9.76	7.28	6.55	2.56	8.79	8.41	4.07	4.81	6.84

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR 5-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 AUG 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 13 JUL 74	SUN 14 JUL 74	MON 15 JUL 74	TUE 16 JUL 74	WED 17 JUL 74	THU 18 JUL 74	FRI 19 JUL 74	SAT 20 JUL 74	SUN 21 JUL 74	MON 22 JUL 74	TUE 23 JUL 74	WED 24 JUL 74
15	7.50	8.94	5.85	8.45	6.87	5.56	8.36					
30	7.91	9.20	5.95	9.04	6.93	5.97	8.59					
45	7.91	9.32	5.69	7.92	5.99	5.80	8.42					
100	7.69	9.38	5.56	8.10	6.99	6.15	8.42					
115	7.74	9.39	5.74	7.92	6.45	6.03	8.47					
130	7.86	9.32	5.62	7.56	6.75	6.27	8.36					
145	8.03	9.15	5.68	7.62	6.87	6.33	8.36					
200	7.74	8.60	5.62	6.97	6.63	6.87	8.12					
215	7.98	8.78	5.26	6.97	6.81	7.40	7.94					
230	8.15	8.49	5.08	7.45	6.74	7.17	7.63					
245	8.10	7.72	5.08	7.93	7.05	7.05	7.65					
300	8.04	6.77	5.02	8.23	7.58	7.40	7.59					
315	7.90	6.04	4.67	9.05	7.94	7.41	8.06					
330	7.65	5.28	4.19	8.17	7.53	7.46	8.18					
345	7.35	4.44	3.54	8.29	7.53	6.86	8.07					
400	6.55	4.44	3.24	8.12	7.71	6.39	7.77					
415	5.78	3.56	3.12	8.29	7.94	5.98	7.29					
430	5.29	3.26	3.18	8.41	7.47	5.20	7.00					
445	4.76	3.56	2.94	8.24	6.82	4.79	6.64					
500	4.28	3.62	3.00	7.76	6.29	4.44	6.23					
515	3.75	3.44	2.94	7.58	5.69	4.08	5.87					
530	3.29	3.26	2.94	7.17	4.62	3.78	5.26					
545	3.10	3.32	3.01	6.57	4.15	3.55	4.74					
600	3.04	3.26	3.01	5.44	3.43	3.51	4.50					
615	2.92	3.44	2.82	4.37	3.07	3.31	4.38					
630	2.75	3.14	2.82	3.99	2.95	3.06	4.15					
645	2.26	3.32	2.94	3.53	2.72	3.24	3.73					
700	2.21	3.20	2.69	3.90	2.60	3.30	3.97					
715	2.03	3.39	2.70	3.53	2.65	2.94	3.55					
745	2.27	3.32	2.95	3.24	2.48	2.72	3.49					
800	2.15	3.14	3.00	2.88	2.19	2.71	3.67					
815	2.20	3.02	3.24	2.88	1.95	2.77	3.25					
830	1.91	1.84	3.30	2.76	1.29	2.89	3.13					
845	0.66	1.42	2.94	2.34	1.46	1.82	3.07					
900	-0.34	1.05	3.43	2.28	1.83	1.46	2.42					
915	-0.34	2.35	3.66	2.92	1.82	1.35	1.76					
930	0.73	3.07	3.89	2.59	1.89	1.76	1.82					
945	1.43	2.96	3.83	2.82	1.70	1.64	2.00					
1000	1.19	2.95	3.89	3.06	2.05	1.47	2.05					
1015	1.79	3.20	4.83	3.24	2.59	1.40	2.35					
1030	2.26	2.95	5.95	3.78	3.49	2.06	2.90					
1045	2.50	2.77	6.67	5.08	4.25	2.82	2.95					
1100	3.09	2.47	7.15	5.80	4.56	3.31	3.66					
1115	3.81	2.05	7.79	6.38	4.97	4.56	4.92					
1130	4.04	3.20	8.20	6.93	5.45	4.73	5.35					
1145	5.82	3.12	7.91	6.87	5.56	4.61	4.92					
1200	6.42	2.98	7.97	6.45	5.62	4.85	6.10					

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 * ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 AUG 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SAT 13 JUL 74	SUN 14 JUL 74	MON 15 JUL 74	TUE 16 JUL 74	WED 17 JUL 74	THU 18 JUL 74	FRI 19 JUL 74	SAT 20 JUL 74	SUN 21 JUL 74	MON 22 JUL 74	TUE 23 JUL 74	WED 24 JUL 74
1215	6.90	2.52	\$ 8.39	\$ 6.57	\$ 6.10	\$ 4.55	\$ 5.51					
1230	7.19	2.52	\$ 8.75	\$ 6.73	\$ 6.20	\$ 4.79	\$ 7.22					
1245	5.82	2.70	\$ 9.68	\$ 6.67	\$ 6.27	\$ 6.44	\$ 6.63					
1300	4.08	3.00	\$ 8.21	\$ 6.79	\$ 5.97	\$ 6.74	\$ 7.41					
1315	4.33	3.24	\$ 8.09	\$ 7.20	\$ 6.03	\$ 7.47	\$ 7.94					
1330	7.53	4.19	\$ 8.44	\$ 7.39	\$ 5.97	\$ 7.84	\$ 8.00					
1345	8.25	4.49	\$ 8.09	\$ 7.38	\$ 5.95	\$ 6.81	\$ 8.59					
1400	7.94	4.00	\$ 8.01	\$ 7.44	\$ 6.13	\$ 6.51	\$ 8.77					
1415	7.66	4.18	\$ 7.07	\$ 7.44	\$ 6.38	\$ 6.14	\$ 9.19					
1430	8.13	3.87	\$ 6.11	\$ 7.38	\$ 6.08	\$ 5.32						
1445	9.32	4.59	\$ 6.18	\$ 7.68	\$ 5.18	\$ 5.56						
1500	9.37	4.98	\$ 5.81	\$ 7.62	\$ 5.90	\$ 6.63						8.63
1515	8.96	5.18	\$ 6.12	\$ 7.73	\$ 5.77	\$ 6.73						8.37
1530	9.77	5.18	\$ 6.54	\$ 7.80	\$ 6.31	\$ 6.20						8.33
1545	9.08	5.30	\$ 6.66	\$ 7.62	\$ 6.31	\$ 6.08						8.39
1600	9.67	5.30	\$ 6.41	\$ 7.60	\$ 6.25	\$ 6.27						8.45
1615	9.55	5.65	\$ 6.47	\$ 7.68	\$ 5.95	\$ 6.44						8.46
1630	9.25	5.65	\$ 5.46	\$ 7.50	\$ 6.13	\$ 6.55						8.22
1645	9.61	5.76	\$ 5.82	\$ 7.50	\$ 5.88	\$ 6.57						8.09
1700	9.61	5.24	\$ 6.00	\$ 7.79	\$ 5.88	\$ 6.84						8.28
1715	9.49	5.12	\$ 6.06	\$ 7.80	\$ 5.94	\$ 7.50						8.10
1730	9.55	5.36	\$ 6.06	\$ 7.38	\$ 6.13	\$ 7.63						8.27
1745	9.43	5.06	\$ 6.18	\$ 7.14	\$ 6.61	\$ 7.33						8.04
1800	9.31	5.24	\$ 6.24	\$ 6.84	\$ 6.61	\$ 7.38						7.97
1815	9.07	5.18	\$ 6.59	\$ 6.79	\$ 6.48	\$ 7.33						7.92
1830	9.01	5.18	\$ 6.77	\$ 7.19	\$ 6.42	\$ 7.14						8.34
1845	9.31	5.12	\$ 7.25	\$ 6.85	\$ 6.49	\$ 6.97						8.39
1900	9.01	5.12	\$ 7.55	\$ 6.67	\$ 6.49	\$ 7.09						8.16
1915	9.19	5.55	\$ 8.09	\$ 6.49	\$ 6.60	\$ 7.20						8.10
1930	8.54	5.06	\$ 8.20	\$ 6.48	\$ 6.60	\$ 7.44						8.05
1945	8.12	4.47	\$ 8.14	\$ 6.90	\$ 6.67	\$ 7.57						8.11
2000	8.36	4.35	\$ 7.85	\$ 6.73	\$ 6.73	\$ 7.55						8.23
2015	7.77	4.64	\$ 7.79	\$ 6.73	\$ 6.79	\$ 7.50						8.05
2030	7.24	4.82	\$ 8.15	\$ 6.73	\$ 6.78	\$ 7.75						7.87
2045	6.94	4.29	\$ 8.32	\$ 6.79	\$ 6.73	\$ 7.93						7.69
2100	6.58	4.70	\$ 7.13	\$ 7.20	\$ 6.73	\$ 7.93						7.93
2115	7.83	4.53	\$ 6.13	\$ 7.62	\$ 6.85	\$ 7.93						8.11
2130	7.95	3.87	\$ 6.84	\$ 7.56	\$ 6.61	\$ 7.52						8.23
2145	7.30	2.44	\$ 6.96	\$ 7.50	\$ 6.32	\$ 7.58						7.97
2200	7.24	2.27	\$ 7.85	\$ 7.51	\$ 6.25	\$ 7.35						8.05
2215	7.99	3.03	\$ 7.31	\$ 7.38	\$ 6.32	\$ 7.43						8.11
2230	8.49	3.87	\$ 7.20	\$ 7.27	\$ 6.50	\$ 7.58						7.97
2245	8.07	4.30	\$ 7.44	\$ 7.63	\$ 6.19	\$ 7.76						8.05
2300	7.77	4.93	\$ 8.39	\$ 7.75	\$ 6.07	\$ 7.88						8.11
2315	7.89	5.19	\$ 8.03	\$ 7.63	\$ 5.96	\$ 7.89						7.87
2330	8.79	5.25	\$ 7.20	\$ 7.57	\$ 5.72	\$ 8.12						7.75
2345	9.02	5.32	\$ 7.50	\$ 7.51	\$ 5.79	\$ 8.41						
2400	9.02	5.55	\$ 7.92	\$ 7.21	\$ 5.68	\$ 8.30						

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 * ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
06 AUG 74
TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	THU 25 JUL 74	FRI 26 JUL 74	SAT 27 JUL 74	SUN 28 JUL 74	MON 29 JUL 74	TUE 30 JUL 74	WED 31 JUL 74
15	7.39	8.70	6.64	9.24	3.94	9.94	9.69
30	7.39	8.16	8.52	8.65	3.99	9.59	9.59
45	7.15	8.57	8.22	8.05	4.11	9.18	9.00
100	7.28	8.52	7.63	7.57	4.23	8.94	8.41
115	6.31	8.69	7.32	7.11	4.17	8.51	7.57
130	6.32	8.57	7.33	6.79	4.12	7.75	7.39
145	5.92	8.28	7.15	6.53	4.17	7.21	7.21
200	5.07	7.99	6.58	6.46	4.30	7.22	6.49
215	4.61	7.26	6.27	6.21	4.47	6.91	6.26
230	3.90	6.90	5.79	5.44	4.24	6.49	6.02
245	3.89	6.19	5.48	5.20	4.42	6.15	5.84
300	3.60	5.79	5.14	4.90	4.41	5.66	5.66
315	3.37	5.42	4.89	4.54	4.65	5.97	5.48
330	3.00	5.19	4.66	4.60	5.01	5.01	5.31
345	3.26	4.99	4.78	4.25	5.06	4.24	5.13
400	3.00	4.17	4.65	4.50	4.95	4.11	4.59
415	2.77	3.82	4.00	4.61	5.06	4.06	5.19
430	2.70	4.17	4.36	4.66	5.25	4.23	4.83
445	2.66	4.12	3.83	4.55	5.07	4.17	4.89
500	2.35	3.64	3.76	4.26	4.90	4.17	5.13
515	2.30	3.23	3.70	3.95	4.66	4.35	5.25
530	2.30	3.34	4.06	4.07	5.01	4.29	5.30
545	2.46	3.53	3.94	4.19	4.53	4.65	5.25
600	2.77	2.92	4.00	3.88	3.47	4.59	5.19
615	3.30	2.86	4.35	3.58	3.52	4.48	5.25
630	3.37	2.92	4.54	4.13	3.88	4.53	5.54
645	3.18	3.22	4.54	4.31	3.34	4.71	5.72
700	3.36	3.22	4.47	4.42	3.53	4.78	5.72
715	3.54	3.58	4.66	4.42	4.36	4.84	5.67
730	4.07	4.06	4.60	4.48	5.24	4.59	5.61
745	4.55	4.39	4.53	4.57	5.55	5.08	5.96
800	4.52	5.00	4.36	4.37	6.02	5.42	5.96
815	5.63	7.44	4.65	4.37	7.75	6.08	6.37
830	6.38	7.99	4.78	4.48	8.05	7.09	6.79
845	7.03	8.70	4.95	4.72	8.17	7.93	7.63
900	7.81	8.88	5.00	5.07	7.99	8.63	8.16
915	8.05	9.73	5.31	5.14	7.97	9.24	9.58
930	8.59	8.76	5.72	5.14	8.22	9.60	10.35
945	8.82	8.82	6.13	5.20	8.22	9.95	9.94
1000	9.36	8.91	6.90	5.02	8.52	10.13	10.58
1015	9.53	8.90	7.75	5.07	8.39	10.25	11.31
1030	9.41	8.69	8.28	5.25	8.28	10.31	11.49
1045	9.70	8.63	8.64	5.49	8.45	10.43	10.95
1100	10.47	8.69	9.29	5.91	8.70	10.49	11.00
1115	10.24	8.93	9.40	6.25	8.51	10.59	11.19
1130	10.42	8.97	9.58	6.55	8.33	10.42	11.43
1145	10.54	8.50	9.83	6.80	8.46	10.59	10.83
1200	10.72	8.50	9.89	7.39	8.64	10.72	10.59

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

06 AUG 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	THU 25 JUL 74	FRI 26 JUL 74	SAT 27 JUL 74	SUN 28 JUL 74	MON 29 JUL 74	TUE 30 JUL 74	WED 31 JUL 74
1215	10.12	8.44	9.88	7.99	8.45	10.90	13.71
1230	10.30	8.74	9.88	8.46	8.76	10.90	10.59
1245	10.06	8.01	9.74	8.94	8.99	10.94	10.46
1300	10.56	8.92	9.70	9.12	8.40	11.13	10.41
1315	9.69	9.10	9.53	9.17	8.57	11.25	10.40
1330	9.76	9.22	9.35	9.52	8.57	11.19	10.04
1345	9.91	9.40	9.35	9.59	8.57	11.37	9.45
1400	9.63	9.39	9.41	9.39	9.29	10.95	9.09
1415	9.97	9.58	9.41	10.01	9.47	10.95	9.57
1430	9.52	9.52	9.23	10.00	9.41	11.13	9.26
1445	9.40	9.51	9.59	10.06	9.29	11.02	9.50
1500	9.51	9.45	9.33	10.18	9.47	10.50	9.44
1515	9.27	9.52	9.32	10.59	9.17	10.48	9.32
1530	9.46	9.70	9.64	10.54	9.94	10.29	9.27
1545	9.25	9.52	9.69	10.41	9.64	10.17	8.13
1600	9.14	9.46	9.94	10.65	9.82	10.24	7.83
1615	9.03	8.97	9.88	10.65	9.76	9.94	8.19
1630	8.97	9.04	10.00	10.71	9.53	10.06	8.42
1645	8.96	9.16	10.19	10.12	9.76	9.99	8.31
1700	9.22	9.21	9.32	9.35	9.69	10.42	8.91
1715	8.79	9.15	10.00	8.53	9.70	10.12	8.97
1730	8.73	8.56	9.83	8.04	9.69	10.45	9.14
1745	8.79	9.29	10.06	7.86	9.76	10.12	9.09
1800	8.67	9.51	10.12	7.32	9.53	10.00	9.03
1815	8.86	9.52	10.05	6.35	9.22	10.12	9.09
1830	8.73	9.45	10.05	6.55	9.46	10.06	9.15
1845	8.44	9.45	9.37	6.61	9.47	9.77	9.56
1900	7.97	9.69	10.06	6.20	9.65	10.07	9.62
1915	7.91	9.58	9.82	6.02	10.00	10.24	9.81
1930	8.09	9.52	10.07	5.60	10.24	10.13	9.57
1945	7.96	9.40	9.94	5.47	10.18	10.36	9.63
2000	7.62	9.57	10.01	4.38	9.94	10.30	9.69
2015	7.50	9.58	9.94	4.76	9.53	10.95	9.57
2030	7.56	9.58	10.13	4.76	9.77	10.36	9.64
2045	7.14	9.76	10.19	4.64	10.11	10.73	9.87
2100	7.26	9.57	10.07	4.76	9.82	10.95	9.70
2115	7.50	9.47	9.95	4.58	9.33	10.90	9.64
2130	7.20	9.35	10.13	4.46	9.83	10.96	9.40
2145	7.26	9.22	10.13	4.34	9.76	11.01	9.46
2200	7.50	9.34	10.07	4.52	9.64	11.02	9.46
2215	7.09	9.53	10.37	4.46	9.82	10.72	9.53
2230	7.03	9.59	10.55	4.29	9.95	10.78	9.58
2245	7.21	9.47	10.43	4.30	9.95	10.72	9.40
2300	7.38	9.11	10.31	4.41	9.71	10.84	9.46
2315	7.62	9.11	10.25	4.41	9.88	10.78	9.46
2330	7.56	8.94	10.07	4.48	9.95	10.54	9.23
2345	7.20	8.94	9.77	4.35	10.07	10.31	9.33
2400	8.46	8.57	9.42	4.47	9.59	10.19	9.46

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

10 SEP 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	THU 1 AUG 74	FRI 2 AUG 74	SAT 3 AUG 74	SUN 4 AUG 74	MON 5 AUG 74	TUE 6 AUG 74	WED 7 AUG 74	THU 8 AUG 74	FRI 9 AUG 74	SAT 10 AUG 74	SUN 11 AUG 74	MON 12 AUG 74
1215	*****	1.76	5 -0.26	5 2.27	5 1.97	5 -0.68	5 4.84	2.36	*****	*****	*****	*****
1230	5.91	1.46	5 -0.14	5 2.09	5 2.26	5 -0.68	5 4.97	2.18	*****	*****	*****	*****
1245	6.23	1.93	5 -0.02	5 2.69	5 2.08	5 -0.63	5 4.85	2.06	*****	*****	*****	*****
1300	6.58	2.36	5 0.08	5 2.62	5 2.27	5 -0.87	5 5.50	5 1.93	*****	*****	*****	*****
1315	6.83	2.90	5 0.32	5 2.44	5 1.62	5 -0.93	5 4.73	5 1.63	*****	*****	*****	*****
1330	7.06	3.13	5 0.62	5 2.62	5 1.96	5 -0.94	5 4.96	5 0.91	*****	*****	*****	*****
1345	7.18	2.83	5 0.96	5 2.56	5 2.15	5 -0.94	5 5.51	5 0.66	*****	*****	*****	*****
1400	7.12	2.77	5 1.03	5 2.98	5 1.72	5 -0.93	5 5.56	5 0.74	*****	*****	*****	*****
1415	7.42	2.53	5 1.64	5 2.27	5 1.72	5 -0.93	5 5.39	5 0.85	*****	*****	*****	*****
1430	7.30	2.88	5 1.93	5 2.15	5 1.96	5 -0.57	5 5.15	5 -1.63	*****	*****	*****	*****
1445	7.36	2.70	5 2.10	5 2.45	5 1.90	5 -0.64	5 4.84	*****	*****	*****	*****	*****
1500	6.94	2.70	5 2.05	5 1.97	5 1.49	5 -0.57	5 4.96	*****	*****	*****	*****	*****
1515	7.30	2.54	5 2.23	5 1.61	5 1.90	5 -0.45	5 5.74	5 0.31	*****	*****	*****	5 8.48
1530	7.12	2.70	5 2.04	5 2.33	5 1.79	5 -0.40	5 5.80	5 0.43	*****	*****	*****	5 8.53
1545	7.12	2.56	5 2.23	5 1.67	5 1.49	5 -0.34	5 5.92	5 0.36	*****	*****	*****	5 8.65
1600	6.94	2.58	5 2.14	5 2.62	5 1.67	5 -0.46	5 6.34	5 0.31	*****	*****	*****	5 8.71
1615	7.00	2.76	5 2.41	5 1.97	5 1.85	5 0.12	5 7.34	5 0.18	*****	*****	*****	5 8.95
1630	7.05	2.82	5 2.23	5 1.61	5 1.73	5 0.18	5 7.75	5 0.06	*****	*****	*****	5 9.01
1645	6.23	2.70	5 2.22	5 1.73	5 1.49	5 0.54	5 8.12	5 0.12	*****	*****	*****	5 9.37
1700	6.63	2.65	5 1.86	5 1.91	5 1.37 ⁿ	5 1.55	5 8.48	5 0.00	*****	*****	*****	5 9.42
1730	6.70	2.76	5 1.80	5 1.67	5 1.61	5 1.92	5 8.71	5 0.06	*****	*****	*****	5 9.61
1745	6.82	2.94	5 1.91	5 1.91	5 1.78	5 1.73	5 8.54	5 0.12	*****	*****	*****	5 9.73
1800	6.88	2.94	5 2.26	5 2.09	5 1.91	5 1.55	5 9.24	5 0.37	*****	*****	*****	5 9.60
1815	7.12	2.84	5 2.22	5 2.62	5 1.90	5 1.91	5 9.37	5 0.19	*****	*****	*****	5 9.43
1830	7.24	3.00	5 2.05	5 2.27	5 1.85	5 1.91	5 9.37	5 0.25	*****	*****	*****	5 9.32
1845	7.42	3.06	5 2.15	5 2.21	5 1.72	5 1.73	5 9.37	5 0.37	*****	*****	*****	5 9.38
1900	7.48	2.94	5 2.64	5 2.03	5 1.78	5 1.37	5 9.61	5 0.20	*****	*****	*****	5 9.44
1915	7.42	2.77	5 3.12	5 1.67	5 1.79	5 1.68	5 9.55	5 0.26	*****	*****	*****	5 9.32
1930	7.66	2.83	5 3.30	5 1.25	5 1.91	5 1.74	5 9.67	5 0.31	*****	*****	*****	5 9.73
2000	7.72	2.71	5 3.42	5 1.25	5 1.85	5 2.05	5 10.03	5 0.32	*****	*****	*****	5 9.74
2015	8.01	2.65	5 3.23	5 1.43	5 1.56	5 2.39	5 9.35	5 0.37	*****	*****	*****	5 9.38
2030	7.89	2.48	5 3.12	5 1.25	5 1.79	5 2.70	5 10.15	5 0.32	*****	*****	*****	5 9.50
2045	8.01	2.54	5 3.06	5 1.49	5 1.92	5 1.98	5 10.15	5 0.32	*****	*****	*****	5 9.32
2100	8.25	2.48	5 3.00	5 1.49	5 1.43	5 1.80	5 10.03	5 0.26	*****	*****	*****	5 9.05
2115	8.19	2.53	5 3.00	5 1.84	5 1.320	5 1.80	5 10.03	5 0.15	*****	*****	*****	5 9.38
2130	8.00	2.54	5 2.76	5 1.73	5 1.93	5 1.52	5 10.57	5 0.56	*****	*****	*****	5 9.09
2145	8.00	2.54	5 2.58	5 1.56	5 1.74	5 1.80	5 10.33	5 -2.69	*****	*****	*****	5 9.15
2200	7.95	2.48	5 2.46	5 1.65	5 1.93	5 1.68	5 9.50	5 -2.69	*****	*****	*****	5 8.61
2215	7.66	2.53	5 2.51	5 2.03	5 2.23	5 1.68	5 9.62	5 -2.69	*****	*****	*****	5 8.74
2230	7.53	2.53	5 2.53	5 2.15	5 2.04	5 1.99	5 9.56	5 -2.69	*****	*****	*****	5 8.61
2245	7.24	2.48	5 2.52	5 2.15	5 2.22	5 1.87	5 9.56	5 -2.69	*****	*****	*****	5 8.61
2300	7.06	2.48	5 2.52	5 2.50	5 1.33	5 2.05	5 9.32	5 -2.69	*****	*****	*****	5 8.61
2315	6.46	2.36	5 2.46	5 2.56	5 0.50	5 1.87	5 8.91	5 -2.69	*****	*****	*****	5 8.61
2330	5.99	2.36	5 2.53	5 2.56	5 -0.44	5 1.69	5 8.85	5 -2.69	*****	*****	*****	5 8.61
2345	5.52	2.29	5 2.59	5 2.31	5 -0.74	5 1.76	5 8.61	5 -2.69	*****	*****	*****	5 8.61
2400	5.34	2.24	5 2.22	5 2.93	5 -0.27	5 1.64	5 8.61	5 -2.69	*****	*****	*****	5 8.61

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
** ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

10 SEP 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	TUE 13 AUG 74	WED 14 AUG 74	THU 15 AUG 74	FRI 16 AUG 74	SAT 17 AUG 74	SUN 18 AUG 74	MON 19 AUG 74	TUE 20 AUG 74	WED 21 AUG 74	THU 22 AUG 74	FRI 23 AUG 74	SAT 24 AUG 74
15	8.92	8.31	6.47	6.88	7.06	1.47	0.93	1.59	\$ 10.19	\$ 9.48	\$ 9.42	\$ 1.63
30	8.74	8.13	6.35	6.65	6.58	1.47	0.91	1.34	\$ 10.38	\$ 8.95	\$ 9.17	\$ 1.57
45	8.73	8.19	6.40	6.53	6.64	1.53	0.93	1.46	\$ 10.02	\$ 9.01	\$ 9.05	\$ 1.57
100	8.75	8.13	6.71	6.23	6.45	1.66	0.87	1.17	\$ 9.73	\$ 9.37	\$ 8.88	\$ 1.63
115	8.98	8.24	6.52	6.11	6.23	1.54	1.06	1.11	\$ 9.49	\$ 9.07	\$ 8.93	\$ 1.69
130	8.69	8.00	6.17	5.46	5.81	1.48	0.93	1.29	\$ 9.43	\$ 8.83	\$ 8.52	\$ 1.33
145	8.69	8.01	5.76	5.28	5.51	1.42	1.06	1.34	\$ 9.43	\$ 8.77	\$ 8.17	\$ 1.21
200	8.45	7.65	5.88	5.17	5.22	1.24	0.87	1.16	\$ 9.37	\$ 8.89	\$ 9.17	\$ 0.87
215	8.39	7.66	6.65	5.17	4.86	1.12	0.93	1.05	\$ 9.26	\$ 9.01	\$ 8.11	\$ 0.98
230	8.15	7.54	6.35	5.12	5.04	1.12	1.00	0.93	\$ 9.08	\$ 9.01	\$ 7.81	\$ 0.93
245	7.68	7.17	6.53	4.69	4.92	1.06	0.82	0.82	\$ 9.26	\$ 9.19	\$ 7.27	\$ 0.74
300	7.44	7.23	7.37	4.63	4.62	1.06	0.77	1.23	\$ 9.01	\$ 9.25	\$ 7.52	\$ 0.68
315	7.62	7.05	8.14	4.57	4.62	0.94	0.71	1.24	\$ 8.48	\$ 9.01	\$ 7.58	\$ 0.62
330	7.44	6.71	8.33	4.51	4.61	1.00	0.65	1.46	\$ 8.37	\$ 9.07	\$ 7.09	\$ 0.62
345	7.38	6.77	7.91	4.63	4.44	0.94	0.23	1.46	\$ 8.13	\$ 8.94	\$ 6.98	\$ 0.44
400	7.14	6.23	7.61	4.88	4.68	0.89	0.05	1.58	\$ 7.99	\$ 9.07	\$ 6.75	\$ 0.50
415	6.61	5.70	7.66	4.69	4.68	0.77	0.12	1.76	\$ 7.24	\$ 8.94	\$ 6.39	\$ 0.38
430	6.19	5.28	7.61	4.63	3.95	0.77	0.12	1.76	\$ 6.75	\$ 8.65	\$ 6.33	\$ 0.32
445	5.94	5.10	7.44	4.69	4.08	0.65	0.12	1.76	\$ 6.29	\$ 8.30	\$ 6.26	\$ 0.26
500	5.71	4.62	7.26	4.75	3.92	0.65	0.06	1.53	\$ 5.50	\$ 7.75	\$ 6.15	\$ 0.26
515	5.17	4.32	7.49	4.63	3.25	0.42	-0.05	1.36	\$ 4.92	\$ 7.17	\$ 5.80	\$ 0.93
530	4.77	3.95	7.37	4.23	2.97	0.35	0.00	1.31	\$ 4.31	\$ 6.69	\$ 5.80	\$ 1.22
545	4.28	3.37	7.20	3.98	2.80	0.17	0.00	1.24	\$ 3.85	\$ 5.98	\$ 5.80	\$ 1.75
600	4.11	2.95	6.96	3.74	2.74	0.06	-0.11	0.88	\$ 3.55	\$ 5.15	\$ 5.97	\$ 1.93
615	4.16	2.89	6.96	3.86	2.73	-0.17	-0.11	0.83	\$ 3.24	\$ 4.96	\$ 6.20	\$ 2.17
630	3.98	2.65	7.14	3.69	2.73	-0.05	-0.17	0.83	\$ 3.14	\$ 4.42	\$ 6.33	\$ 2.35
645	3.03	2.71	6.89	3.21	2.67	-0.05	-0.29	0.94	\$ 3.02	\$ 4.37	\$ 6.09	\$ 2.42
700	2.80	2.77	7.01	2.68	2.98	-0.05	-0.29	0.95	\$ 2.47	\$ 4.42	\$ 6.03	\$ 2.41
715	2.56	2.59	7.01	2.56	3.10	-0.00	-0.17	0.83	\$ 2.24	\$ 3.71	\$ 6.33	\$ 2.46
730	2.38	1.88	7.32	2.44	3.03	-0.17	-0.23	0.71	\$ 2.06	\$ 3.53	\$ 6.33	\$ 2.98
745	2.44	1.65	7.73	2.26	3.04	-0.11	-0.17	0.71	\$ 1.70	\$ 3.48	\$ 6.33	\$ 2.82
800	2.05	1.25	7.32	2.62	3.04	-0.17	-0.05	0.83	\$ 1.88	\$ 3.00	\$ 6.53	\$ 3.06
815	2.02	1.17	7.20	3.04	3.27	-0.11	-0.65	0.77	\$ 1.64	\$ 3.18	\$ 6.69	\$ 3.37
830	2.20	1.12	7.61	2.98	3.40	-0.11	-0.83	0.76	\$ 1.93	\$ 3.01	\$ 6.81	\$ 3.72
845	2.03	1.35	8.20	3.09	3.33	-0.11	-0.65	0.71	\$ 1.82	\$ 3.12	\$ 6.40	\$ 3.54
900	1.90	1.70	8.39	3.39	3.04	-0.41	-0.71	0.64	\$ 1.76	\$ 2.89	\$ 6.69	\$ 3.60
915	2.25	1.52	8.02	3.26	2.65	-0.53	-0.59	0.70	\$ 1.64	\$ 2.58	\$ 6.57	\$ 3.59
930	2.52	1.28	7.95	3.87	2.85	-0.47	-0.41	0.93	\$ 1.81	\$ 2.34	\$ 7.10	\$ 3.90
945	2.31	1.04	8.67	4.10	2.79	-0.59	-0.65	1.76	\$ 1.51	\$ 2.29	\$ 7.39	\$ 3.89
1000	2.48	1.70	9.02	4.39	2.68	-0.59	-0.53	2.00	\$ 1.51	\$ 2.15	\$ 7.39	\$ 3.66
1015	2.59	2.47	8.73	4.17	2.56	-0.59	-0.53	2.20	\$ 2.00	\$ 2.20	\$ 6.81	\$ 4.08
1030	2.95	2.41	19.03	4.63	2.43	-0.59	-0.35	3.14	\$ 2.36	\$ 2.45	\$ 7.52	\$ 4.13
1045	2.84	3.24	15.12	5.42	2.31	-0.59	-0.00	3.84	\$ 2.94	\$ 2.15	\$ 7.70	\$ 4.25
1100	\$ 2.88	4.26	8.37	5.15	2.43	-0.41	0.47	5.38	\$ 3.36	\$ 2.03	\$ 7.64	\$ 4.37
1115	\$ 3.31	5.03	8.43	5.70	2.19	-0.54	0.29	5.63	\$ 3.78	\$ 2.38	\$ 7.99	\$ 3.63
1130	\$ 3.72	5.51	7.89	6.23	2.96	-0.49	0.03	5.81	\$ 4.37	\$ 2.74	\$ 7.94	\$ 3.71
1145	\$ 3.78	5.14	7.59	6.94	1.78	-0.73	0.33	5.56	\$ 4.67	\$ 3.64	\$ 7.81	\$ 4.00
1200	\$ 3.60	5.44	7.52	7.36	1.35	-0.73	1.23	6.27	\$ 4.79	\$ 4.88	\$ 7.75	\$ 3.58

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
10 SEP 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10												
TIME	TUE 13 AUG 74	WED 14 AUG 74	THU 15 AUG 74	FRI 16 AUG 74	SAT 17 AUG 74	SUN 18 AUG 74	MON 19 AUG 74	TUE 20 AUG 74	WED 21 AUG 74	THU 22 AUG 74	FRI 23 AUG 74	SAT 24 AUG 74
1215	\$ 3.78	\$ 12.48	\$ 7.34	*****	1.11	-0.72	1.52	\$ 6.75	\$ 5.32	\$ 5.12	\$ 7.82	\$ 3.22
1230	\$ 4.31	\$ 9.05	\$ -4.78	*****	0.93	-0.72	1.59	\$ 7.63	\$ 5.68	\$ 5.89	\$ 7.69	\$ 3.21
1245	\$ 5.14	\$ 6.21	\$ 6.27	*****	0.94	-0.79	1.17	\$ 8.00	\$ 6.51	\$ 6.79	\$ 7.86	\$ 3.03
1300	\$ 6.03	\$ 6.44	\$ 6.40	*****	0.57	-0.43	0.98	\$ 7.89	\$ 7.27	\$ 9.09	\$ 8.16	\$ 3.16
1315	\$ 6.75	\$ 6.63	\$ 0.26	*****	0.57	-0.32	0.74	\$ 8.46	\$ 8.05	\$ 9.22	\$ 9.40	\$ 3.04
1330	\$ 7.16	\$ 6.22	\$ 11.39	*****	0.39	0.10	1.39	\$ 8.58	\$ 8.51	\$ 9.58	\$ 8.93	\$ 2.79
1345	\$ 7.34	\$ 6.34	\$ 7.58	*****	0.40	0.07	1.33	\$ 9.17	\$ 8.93	\$ 9.82	\$ 9.05	\$ 2.67
1400	\$ 7.81	\$ 6.21	\$ 5.98	*****	0.40	0.09	1.09	\$ 9.10	\$ 9.11	\$ 10.05	\$ 9.23	\$ 2.68
1415	\$ 7.88	\$ 6.09	\$ 6.39	*****	0.45	0.21	1.15	\$ 9.29	\$ 9.63	\$ 10.65	\$ 9.34	\$ 2.62
1430	\$ 7.93	\$ 6.63	\$ 5.74	*****	0.45	0.44	1.14	\$ 9.23	\$ 9.52	\$ 11.06	\$ 9.34	\$ 2.44
1445	\$ 8.22	\$ 6.39	\$ 5.95	*****	0.55	0.62	1.56	\$ 9.05	\$ 9.76	\$ 11.00	*****	\$ 2.50
1500	\$ 8.58	\$ 6.63	\$ 5.50	*****	0.33	1.05	0.90	\$ 8.63	\$ 10.00	\$ 10.94	*****	\$ 2.20
1515	\$ 8.95	\$ 7.10	\$ 5.38	*****	0.22	0.92	0.85	\$ 7.92	\$ 9.57	\$ 10.88	*****	\$ 2.56
1530	\$ 9.12	\$ 6.51	\$ 4.72	*****	0.16	0.92	0.60	\$ 8.20	\$ 9.52	\$ 10.46	*****	\$ 2.14
1545	\$ 9.48	\$ 6.80	\$ 4.41	*****	0.34	1.04	1.13	\$ 8.39	\$ 8.87	\$ 10.41	*****	\$ 1.97
1600	\$ 9.66	\$ 5.06	\$ 4.24	*****	0.10	0.98	1.19	\$ 8.09	\$ 8.45	\$ 10.35	*****	\$ 2.03
1615	\$ 9.78	\$ 5.97	\$ 3.24	*****	0.52	0.80	1.01	\$ 8.27	\$ 8.75	\$ 10.46	*****	\$ 1.97
1630	\$ 9.66	\$ 4.84	\$ 2.54	*****	0.75	1.15	1.01	\$ 8.22	\$ 8.81	\$ 10.47	*****	\$ 1.97
1645	\$ 9.37	\$ 5.08	\$ 3.76	*****	0.57	0.86	0.84	\$ 8.28	\$ 9.05	\$ 9.93	*****	\$ 1.79
1700	\$ 9.19	\$ 4.66	\$ 3.52	*****	0.57	0.87	0.66	\$ 7.86	\$ 9.16	\$ 9.76	*****	\$ 1.91
1715	\$ 9.01	\$ 4.89	\$ 3.37	*****	0.46	0.68	0.60	\$ 7.62	\$ 9.23	\$ 9.22	*****	\$ 1.97
1730	\$ 8.95	\$ 5.13	\$ 3.24	*****	0.46	0.56	0.74	\$ 7.45	\$ 9.38	\$ 9.10	*****	\$ 2.03
1745	\$ 8.94	\$ 5.14	\$ 3.76	*****	0.46	0.74	0.42	\$ 7.27	\$ 9.58	\$ 8.98	*****	\$ 1.79
1800	\$ 9.01	\$ 4.73	\$ 4.49	*****	1.05	0.62	0.73	\$ 7.09	\$ 9.76	\$ 8.92	*****	\$ 1.55
1815	\$ 9.07	\$ 4.61	\$ 5.44	*****	1.17	0.93	0.73	\$ 7.63	\$ 9.82	\$ 8.81	*****	\$ 1.43
1830	\$ 9.12	\$ 5.80	\$ 5.86	*****	1.23	0.92	1.21	\$ 7.80	\$ 9.76	\$ 9.10	*****	\$ 1.67
1845	\$ 9.07	\$ 5.62	\$ 6.93	*****	1.41	0.50	1.15	\$ 8.52	\$ 9.82	\$ 8.81	*****	\$ 1.01
1900	\$ 9.01	\$ 5.39	\$ 6.87	*****	1.11	0.21	1.21	\$ 8.83	\$ 9.70	\$ 9.10	*****	\$ 0.77
1915	\$ 9.12	\$ 4.78	\$ 5.73	*****	1.12	-0.02	1.15	\$ 8.29	\$ 9.94	\$ 8.81	*****	\$ 1.19
1930	\$ 9.07	\$ 5.03	\$ 6.64	*****	1.29	-0.26	1.75	\$ 8.82	\$ 9.70	\$ 9.22	*****	\$ 1.31
1945	\$ 8.95	\$ 5.51	\$ 6.57	*****	1.47	-0.25	1.69	\$ 9.48	\$ 10.06	\$ 9.23	*****	\$ 1.25
2000	\$ 8.77	\$ 5.08	\$ 5.91	*****	1.41	-0.20	1.63	\$ 9.72	\$ 10.36	\$ 9.47	*****	\$ 1.31
2030	\$ 8.59	\$ 4.90	\$ 5.27	*****	1.12	0.45	1.69	\$ 9.55	\$ 9.84	\$ 9.35	*****	\$ 1.19
2045	\$ 8.66	\$ 4.78	\$ 5.73	*****	1.29	0.63	1.75	\$ 9.90	\$ 9.66	\$ 9.17	*****	\$ 1.50
2100	\$ 8.53	\$ 5.03	\$ 6.64	*****	1.47	0.93	1.69	\$ 9.84	\$ 9.29	\$ 2.47	*****	\$ 1.43
2115	\$ 8.47	\$ 5.51	\$ 6.57	*****	1.41	0.70	1.57	\$ 10.25	\$ 9.84	\$ 2.05	*****	\$ 1.56
2130	\$ 8.23	\$ 6.10	\$ 5.91	*****	1.58	0.81	1.33	\$ 10.13	\$ 9.66	\$ 1.69	*****	\$ 1.04
2145	\$ 8.42	\$ 6.40	\$ 5.69	*****	1.41	0.63	1.69	\$ 9.96	\$ 9.72	\$ 1.81	*****	\$ 0.68
2200	\$ 8.42	\$ 6.76	\$ 6.82	*****	1.29	0.81	1.33					
2215	\$ 8.25	\$ 6.70	\$ 6.33	*****	1.24							
2230	\$ 8.25	\$ 6.76	\$ 6.82	*****								
2245	\$ 8.19	\$ 6.52	\$ 6.76	*****								
2300	\$ 8.07	\$ 6.23	\$ 6.46	*****								
2315	\$ 8.43	\$ 6.47	\$ 6.75	*****								
2330	\$ 8.07	\$ 6.29	\$ 7.18	*****								
2345	\$ 8.43	\$ 6.53	\$ 6.75	*****								
2400	\$ 9.07			*****								

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT
ASTERISKS INDICATE NO DATA AT STATION

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY '!' TO THE LEFT.
 * INDICATES NO DATA AT STATION.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

10 SEP 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME		SUN 25		MON 26		TUE 27		WED 28		THU 29		FRI 30		SAT 31	
		AUG 74		AUG 74		AUG 74		AUG 74		AUG 74		AUG 74		AUG 74	
15	\$	0.55	\$	2.59	\$	6.82	\$	8.72	\$	8.33	\$	8.06	\$	7.89	\$
30	\$	0.43	\$	3.01	\$	6.77	\$	8.66	\$	8.08	\$	7.82	\$	7.54	\$
45	\$	0.43	\$	3.12	\$	7.06	\$	8.73	\$	8.03	\$	7.58	\$	7.13	\$
100	\$	0.38	\$	3.24	\$	7.31	\$	8.79	\$	8.39	\$	7.34	\$	7.60	\$
115	\$	0.39	\$	3.42	\$	7.14	\$	8.61	\$	8.38	\$	7.52	\$	7.77	\$
130	\$	0.38	\$	4.20	\$	7.08	\$	8.68	\$	7.92	\$	7.52	\$	7.84	\$
145	\$	0.39	\$	4.44	\$	6.90	\$	8.62	\$	7.80	\$	7.52	\$	7.53	\$
200	\$	0.38	\$	4.50	\$	6.54	\$	8.62	\$	7.62	\$	7.46	\$	7.36	\$
215	\$	0.44	\$	4.62	\$	6.25	\$	8.56	\$	7.56	\$	7.52	\$	7.47	\$
230	\$	0.26	\$	4.68	\$	5.89	\$	8.44	\$	7.44	\$	7.64	\$	7.30	\$
245	\$	0.15	\$	4.38	\$	5.58	\$	8.33	\$	7.38	\$	7.64	\$	7.36	\$
300	\$	0.15	\$	4.25	\$	5.59	\$	8.21	\$	7.32	\$	7.76	\$	7.42	\$
315	\$	0.14	\$	4.08	\$	5.47	\$	8.09	\$	7.50	\$	7.76	\$	7.42	\$
330	\$	0.08	\$	4.06	\$	5.35	\$	7.84	\$	7.32	\$	7.52	\$	7.24	\$
345	\$	0.08	\$	4.19	\$	5.47	\$	7.73	\$	6.79	\$	7.64	\$	6.46	\$
400	\$	0.08	\$	4.02	\$	5.35	\$	7.73	\$	7.25	\$	7.64	\$	6.41	\$
415	\$	0.20	\$	3.73	\$	4.93	\$	7.79	\$	7.32	\$	7.06	\$	6.47	\$
430	\$	0.26	\$	4.02	\$	5.30	\$	7.85	\$	7.03	\$	7.30	\$	7.36	\$
445	\$	0.20	\$	4.01	\$	5.47	\$	7.73	\$	7.09	\$	7.42	\$	7.54	\$
500	\$	0.14	\$	3.79	\$	5.59	\$	7.79	\$	7.09	\$	7.35	\$	7.06	\$
515	\$	0.20	\$	3.48	\$	5.30	\$	7.56	\$	7.03	\$	7.36	\$	6.82	\$
530	\$	0.35	\$	3.73	\$	5.24	\$	7.50	\$	6.67	\$	7.42	\$	7.13	\$
545	\$	0.32	\$	3.91	\$	5.11	\$	7.31	\$	6.19	\$	7.41	\$	7.31	\$
600	\$	0.44	\$	4.38	\$	4.75	\$	7.50	\$	6.31	\$	7.70	\$	7.37	\$
615	\$	0.36	\$	4.20	\$	5.06	\$	8.20	\$	6.26	\$	8.18	\$	7.24	\$
630	\$	1.17	\$	3.79	\$	5.49	\$	8.09	\$	6.07	\$	7.70	\$	7.00	\$
645	\$	0.99	\$	4.08	\$	5.65	\$	7.85	\$	5.71	\$	7.65	\$	6.98	\$
700	\$	1.04	\$	4.44	\$	5.59	\$	8.15	\$	5.41	\$	7.70	\$	7.00	\$
715	\$	0.98	\$	4.56	\$	5.71	\$	8.03	\$	5.66	\$	7.30	\$	7.18	\$
730	\$	1.29	\$	4.08	\$	6.31	\$	8.03	\$	6.01	\$	7.29	\$	7.43	\$
745	\$	1.53	\$	4.27	\$	6.91	\$	8.09	\$	5.89	\$	7.50	\$	7.48	\$
800	\$	1.58	\$	4.37	\$	6.96	\$	8.80	\$	5.95	\$	7.47	\$	7.31	\$
815	\$	1.71	\$	4.56	\$	7.08	\$	8.98	\$	5.65	\$	7.54	\$	7.48	\$
830	\$	1.76	\$	4.44	\$	7.50	\$	8.86	\$	5.83	\$	7.00	\$	6.82	\$
845	\$	.9.	\$	4.6	\$	7.74	\$	9.40	\$	5.77	\$	6.40	\$	7.4	\$
900	\$	1.93	\$	4.50	\$	7.56	\$	9.33	\$	6.36	\$	7.42	\$	7.72	\$
915	\$	2.11	\$	4.92	\$	7.80	\$	8.85	\$	7.14	\$	7.30	\$	7.78	\$
930	\$	2.24	\$	4.98	\$	8.03	\$	8.92	\$	6.78	\$	6.99	\$	7.54	\$
945	\$	2.36	\$	4.50	\$	8.14	\$	9.16	\$	6.78	\$	7.06	\$	7.48	\$
1000	\$	2.42	\$	4.20	\$	8.21	\$	9.16	\$	6.90	\$	7.35	\$	7.77	\$
1015	\$	2.53	\$	4.14	\$	8.14	\$	8.80	\$	6.96	\$	7.60	\$	7.65	\$
1030	\$	2.47	\$	4.31	\$	8.15	\$	8.33	\$	7.39	\$	7.35	\$	7.77	\$
1045	\$	2.42	\$	5.21	\$	8.14	\$	8.14	\$	7.38	\$	7.23	\$	7.77	\$
1100	\$	2.42	\$	5.15	\$	7.97	\$	7.78	\$	7.21	\$	7.18	\$	7.83	\$
1115	\$	2.76	\$	5.33	\$	7.90	\$	7.55	\$	7.27	\$	7.23	\$	7.72	\$
1130	\$	2.46	\$	5.45	\$	7.78	\$	7.55	\$	7.67	\$	7.29	\$	8.01	\$
1145	\$	2.34	\$	5.27	\$	7.90	\$	8.08	\$	7.63	\$	7.23	\$	7.83	\$
1200	\$	2.16	\$	5.51	\$	8.02	\$	7.84	\$	7.32	\$	7.35	\$	7.89	\$

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING.
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
10 SEP 74
TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SUN 25		MON 26		TUE 27		WED 28		THU 29		FRI 30		SAT 31	
	AUG 74		AUG 74		AUG 74		AUG 74		AUG 74		AUG 74		AUG 74	
1215	5	2.22	5	5.63	7.96	7.67	7.15	7.33	7.15	6.99	7.65	7.58	7.65	
1230	5	2.34	5	5.50	7.84	7.91	7.33	7.15	7.33	-2.62	7.58	7.52	7.58	
1245	5	2.41	5	5.50	7.84	7.43	7.15	7.15	7.15	6.51	7.52	7.52	7.52	
1300	5	1.92	5	5.32	7.65	7.43	7.08	7.08	7.08	6.59	7.82	7.82	7.82	
1315	5	1.93	5	5.74	7.24	7.55	6.96	6.96	6.96	6.45	7.94	7.94	7.94	
1330	5	1.54	5	5.80	6.94	7.49	7.03	7.03	7.03	7.18	8.30	8.30	8.30	
1345	5	1.62	5	5.74	6.53	7.49	7.20	7.20	7.20	7.12	8.41	8.41	8.41	
1400	5	1.61	5	5.98	7.24	7.42	6.90	6.90	6.90	7.29	8.35	8.35	8.35	
1415	5	1.43	5	6.04	7.66	7.60	6.79	6.79	6.79	6.75	7.94	7.94	7.94	
1430	5	1.50	5	5.98	6.99	7.54	6.90	6.90	6.90	6.88	7.75	7.75	7.75	
1445	5	1.37	5	5.92	6.29	7.72	6.91	6.91	6.91	6.69	7.69	7.69	7.69	
1500	5	1.25	5	5.80	5.40	7.54	7.09	7.09	7.09	7.17	7.93	7.93	7.93	
1515	5	1.31	5	5.86	4.74	7.54	7.08	7.08	7.08	7.11	7.87	7.87	7.87	
1530	5	1.25	5	5.80	4.26	7.96	6.97	6.97	6.97	6.81	7.09	7.09	7.09	
1545	5	1.13	5	5.98	3.95	9.02	7.02	7.02	7.02	6.22	7.04	7.04	7.04	
1600	5	1.19	5	5.98	4.74	7.36	7.03	7.03	7.03	6.52	7.09	7.09	7.09	
1615	5	1.07	5	5.08	4.44	7.13	7.09	7.09	7.09	7.11	7.15	7.15	7.15	
1630	5	0.77	5	6.09	5.10	7.18	7.09	7.09	7.09	7.30	7.81	7.81	7.81	
1645	5	0.41	5	6.32	5.50	7.01	7.03	7.03	7.03	7.35	7.87	7.87	7.87	
1700	5	0.35	5	6.27	6.11	6.39	7.09	7.09	7.09	8.01	8.11	8.11	8.11	
1715	5	0.29	5	6.33	6.35	7.01	6.97	6.97	6.97	7.94	8.47	8.47	8.47	
1730	5	0.24	5	6.45	6.35	7.26	6.61	6.61	6.61	8.12	8.65	8.65	8.65	
1745	5	0.12	5	6.16	6.89	6.66	6.68	6.68	6.68	8.35	8.58	8.58	8.58	
1800	5	0.00	5	6.04	7.00	6.90	7.04	7.04	7.04	8.43	8.88	8.88	8.88	
1815	5	-0.11	5	5.80	7.30	6.60	7.38	7.38	7.38	8.37	9.01	9.01	9.01	
1830	5	0.24	5	5.50	7.48	7.14	7.51	7.51	7.51	7.89	8.78	8.78	8.78	
1845	5	0.24	5	5.39	7.89	7.25	7.27	7.27	7.27	7.59	8.53	8.53	8.53	
1900	5	0.36	5	5.15	8.25	6.90	7.26	7.26	7.26	7.48	9.12	9.12	9.12	
1915	5	0.48	5	4.97	8.37	6.60	7.15	7.15	7.15	7.36	7.82	7.82	7.82	
1930	5	0.49	5	4.72	8.67	6.47	7.16	7.16	7.16	7.17	7.81	7.81	7.81	
1945	5	0.61	5	4.73	8.90	7.14	7.32	7.32	7.32	7.29	7.94	7.94	7.94	
2000	5	0.60	5	5.09	9.02	7.48	7.16	7.16	7.16	7.00	7.94	7.94	7.94	
2015	5	0.55	5	5.15	8.91	7.20	7.33	7.33	7.33	6.88	7.77	7.77	7.77	
2030	5	0.55	5	5.45	8.85	7.61	7.34	7.34	7.34	7.05	7.82	7.82	7.82	
2045	5	0.55	5	5.39	8.67	7.60	7.39	7.39	7.39	6.82	7.88	7.88	7.88	
2100	5	0.54	5	5.87	8.55	7.97	7.45	7.45	7.45	6.77	8.07	8.07	8.07	
2115	5	0.60	5	6.16	8.61	8.57	7.46	7.46	7.46	6.77	8.48	8.48	8.48	
2130	5	0.74	5	6.64	8.49	8.69	7.45	7.45	7.45	7.00	8.47	8.47	8.47	
2145	5	0.74	5	6.82	8.61	8.63	7.57	7.57	7.57	6.94	8.23	8.23	8.23	
2200	5	0.85	5	7.00	8.67	8.57	7.87	7.87	7.87	7.00	8.36	8.36	8.36	
2215	5	0.91	5	7.12	8.73	8.69	7.93	7.93	7.93	7.13	8.54	8.54	8.54	
2230	5	1.10	5	7.42	8.61	8.63	7.77	7.77	7.77	6.82	8.42	8.42	8.42	
2245	5	1.45	5	7.48	8.67	8.69	7.77	7.77	7.77	7.24	8.47	8.47	8.47	
2300	5	1.40	5	7.78	8.60	8.44	8.00	8.00	8.00	8.25	8.55	8.55	8.55	
2315	5	1.92	5	7.54	8.61	8.27	7.94	7.94	7.94	8.49	8.53	8.53	8.53	
2330	5	1.98	5	7.12	8.78	8.14	7.87	7.87	7.87	8.07	8.59	8.59	8.59	
2345	5	2.29	5	6.70	8.79	8.03	7.94	7.94	7.94	7.78	8.65	8.65	8.65	
2400	5	2.28	5	6.82	8.67	8.14	7.68	7.68	7.68	7.59	8.54	8.54	8.54	

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
22 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SUN SEP 74	MON SEP 74	TUE SEP 74	WED SEP 74	THU SEP 74	FRI SEP 74	SAT SEP 74	SUN SEP 74	MON SEP 74	TUE SEP 74	WED SEP 74	THU SEP 74
15	10.51	8.60	8.49	8.34	6.25	3.94	5.80	5.76	8.49	7.97	10.95	10.53
30	10.49	8.54	8.48	8.20	6.13	3.69	5.83	5.68	8.56	8.09	10.83	10.47
45	10.20	8.44	8.36	7.63	5.09	3.21	4.09	5.76	8.62	7.97	11.30	10.59
100	10.20	8.12	8.24	7.01	5.71	3.51	1.60	5.70	8.67	7.85	11.19	10.53
115	10.03	8.13	7.82	8.23	6.31	3.57	2.37	5.52	8.61	7.74	10.65	10.47
130	9.04	8.19	7.64	8.82	5.95	3.51	2.31	5.64	8.61	7.56	10.42	10.59
145	9.61	8.42	7.64	9.06	5.94	3.57	1.83	5.82	8.61	7.14	10.42	10.53
200	9.55	8.18	7.58	8.23	5.95	3.51	3.20	5.58	8.85	6.60	10.53	10.35
215	9.67	7.09	7.58	7.50	5.89	4.17	4.57	5.76	8.97	6.13	10.71	10.53
230	9.91	8.01	7.52	8.20	5.43	4.05	3.00	5.52	10.20	5.70	10.78	10.47
245	9.44	7.83	7.41	7.80	5.78	2.04	2.25	5.52	10.16	5.88	10.77	10.59
300	9.20	7.95	7.52	7.06	5.49	1.19	1.90	5.64	8.61	5.41	10.78	10.65
315	9.66	8.02	7.52	8.16	5.65	2.62	2.19	5.64	9.09	5.52	10.66	10.65
330	9.26	7.83	7.53	8.16	5.36	3.45	2.25	5.58	10.16	5.35	10.95	10.47
345	9.90	7.54	7.76	8.58	5.53	3.45	2.13	5.34	9.93	6.49	10.84	10.36
400	9.13	7.41	7.64	8.93	5.36	3.94	2.19	5.34	10.10	6.66	10.66	10.71
415	9.26	7.36	7.64	7.81	5.33	2.21	2.19	5.52	10.22	6.00	10.13	10.59
430	9.60	7.83	7.70	6.44	5.30	1.91	2.43	5.22	10.16	6.66	9.94	10.71
445	9.72	7.65	7.76	6.68	2.32	2.00	2.43	5.52	10.40	8.75	10.01	10.53
500	9.43	7.42	8.01	6.68	4.29	1.19	2.43	5.34	10.22	8.75	9.76	10.29
515	9.49	6.58	7.71	6.68	5.29	1.19	2.25	5.40	10.34	7.84	9.52	10.29
530	9.49	6.70	7.59	8.22	5.17	1.61	2.62	5.46	10.16	6.89	9.06	10.29
545	9.66	6.82	7.52	7.80	5.17	1.61	2.62	5.46	9.69	6.71	9.58	10.48
600	9.66	7.07	7.99	8.04	3.93	1.72	2.73	5.46	9.33	6.72	9.53	10.41
615	9.72	6.82	8.18	8.21	3.81	1.31	2.60	5.40	9.15	7.01	9.46	10.71
630	9.31	7.36	8.24	8.45	2.92	1.90	2.49	5.40	9.09	5.70	9.11	10.35
645	9.25	7.18	8.36	8.45	2.32	1.96	2.43	5.58	9.15	6.66	9.52	10.48
700	9.12	7.41	8.41	8.63	1.61	1.31	2.13	5.46	9.92	7.01	9.41	10.47
715	9.73	7.60	8.96	8.34	0.95	1.31	2.01	5.58	9.03	7.19	9.58	10.65
730	10.38	7.71	9.18	8.04	0.89	1.31	2.07	5.34	9.75	7.68	10.35	10.71
745	9.70	7.59	8.69	7.69	0.78	1.25	2.07	5.34	10.52	7.72	10.24	11.13
800	10.26	7.30	8.54	7.32	0.96	1.43	2.19	5.34	9.93	7.91	10.35	10.41
815	11.33	7.37	8.42	7.03	1.44	1.31	2.01	5.64	9.51	9.51	9.82	10.88
830	11.46	7.48	8.65	6.62	1.66	1.73	3.20	5.64	9.51	9.76	9.11	11.01
845	11.16	7.11	8.18	5.42	0.90	1.43	2.66	5.52	8.79	8.80	10.35	10.66
900	10.81	7.23	8.25	6.73	0.83	****	2.01	5.70	8.43	8.00	10.12	10.19
915	10.57	7.23	7.95	7.56	0.77	1.97	2.43	6.47	8.73	7.25	10.12	10.01
930	10.75	7.35	7.58	6.25	1.02	2.38	2.13	5.99	8.69	6.54	0.99	10.54
945	10.33	7.42	8.06	5.60	1.26	3.93	1.95	5.52	9.28	5.89	8.21	12.00
1000	8.72	7.59	7.76	6.15	2.27	4.53	3.03	5.82	8.99	5.95	8.04	10.11
1015	8.72	7.24	8.01	6.30	2.27	2.08	5.34	5.99	9.10	6.96	7.14	8.75
1030	9.55	7.53	8.12	6.90	2.62	2.08	5.46	6.05	8.85	7.44	7.26	9.94
1045	9.60	7.29	7.05	7.02	2.03	4.53	5.99	6.12	9.28	7.62	7.20	8.99
1100	7.82	7.42	5.09	6.01	2.50	4.29	2.19	5.58	9.09	8.04	8.03	9.59
1115	7.13	7.77	6.28	5.12	2.32	4.81	2.07	5.64	8.56	8.74	0.22	9.11
1130	5.94	7.54	5.62	6.36	3.93	5.70	2.49	6.13	8.68	10.76	7.87	7.63
1145	5.75	7.65	5.63	6.31	3.53	5.06	2.31	6.43	8.62	10.41	8.09	8.69
1200	5.57	7.84	6.21	5.71	3.82	4.69	2.49	6.31	9.27	8.63	8.57	

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

22 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SUN 1 SEP 74	MON 2 SEP 74	TUE 3 SEP 74	WED 4 SEP 74	THU 5 SEP 74	FRI 6 SEP 74	SAT 7 SEP 74	SUN 8 SEP 74	MON 9 SEP 74	TUE 10 SEP 74	WED 11 SEP 74	THU 12 SEP 74
1215	5.45	7.94	6.21	6.78	4.19	4.51	1.09	5.92	9.46	8.94	8.31	9.59
1230	4.92	8.07	6.57	7.08	*****	5.06	2.37	5.58	10.53	7.38	8.63	9.35
1245	5.16	8.18	6.22	7.14	4.65	5.52	5.41	6.06	10.29	7.38	8.96	9.41
1300	5.09	8.25	6.21	5.53	4.41	4.94	5.48	6.23	8.92	7.56	9.18	9.65
1315	5.16	8.01	6.33	4.34	4.48	5.13	5.64	6.23	9.10	7.08	9.76	10.55
1330	5.22	8.30	6.52	5.95	*****	5.19	5.69	6.29	9.64	8.39	9.28	10.43
1345	5.10	7.94	6.39	7.20	4.88	5.53	5.54	6.17	9.28	8.98	9.65	11.50
1400	4.74	7.76	6.64	6.60	4.88	5.53	5.52	6.78	9.28	9.04	9.58	11.97
1415	4.98	7.94	6.21	5.41	5.01	5.53	5.52	6.90	9.69	9.70	10.12	11.69
1430	5.10	7.88	6.33	6.25	5.31	5.25	5.82	7.19	10.29	10.06	10.42	10.90
1445	5.57	8.09	6.01	6.72	5.13	5.24	5.76	7.13	10.17	10.78	10.36	9.83
1500	5.93	8.72	6.99	6.54	5.01	5.41	5.52	7.25	10.23	10.08	10.01	9.89
1515	6.29	8.95	6.40	7.02	5.07	5.59	5.82	7.61	10.23	10.53	9.70	9.12
1530	6.70	8.89	5.92	5.67	4.95	5.41	5.76	7.31	9.75	10.53	9.65	10.13
1545	6.82	8.69	6.10	3.03	5.13	5.65	5.64	6.72	9.88	10.19	9.35	10.96
1600	7.31	8.06	7.12	2.62	5.01	5.41	5.41	7.07	9.93	10.82	9.35	11.44
1615	7.49	7.94	7.18	5.24	5.07	5.65	5.70	7.07	9.63	11.24	10.01	11.03
1630	7.71	7.70	7.17	7.20	4.83	5.71	5.76	7.07	9.76	11.61	9.29	10.79
1645	8.13	8.19	7.76	4.82	5.13	5.58	5.88	6.77	9.52	12.07	9.30	10.72
1700	8.38	8.30	7.52	4.82	5.19	5.53	5.76	6.89	9.16	11.66	9.88	11.51
1715	8.38	8.42	6.74	3.57	4.94	5.70	5.64	6.78	9.07	11.48	10.49	11.91
1730	8.19	8.00	7.04	3.77	5.00	5.82	5.70	7.01	9.52	11.72	10.43	11.91
1745	8.31	7.89	5.44	4.58	5.31	5.58	5.70	6.89	9.82	12.07	10.43	12.04
1800	8.13	8.12	5.49	4.82	5.25	5.76	5.82	6.89	10.11	11.78	10.66	11.86
1815	8.01	8.31	4.66	4.70	5.43	5.64	5.88	6.54	9.63	11.72	10.78	12.09
1830	8.32	8.36	4.84	4.70	5.49	5.82	5.88	6.54	9.16	11.78	10.90	11.80
1845	8.43	8.19	5.14	5.06	5.42	5.70	5.82	6.03	8.87	12.01	10.89	11.91
1900	8.49	8.49	5.97	5.06	5.24	5.64	5.94	7.01	8.92	11.66	10.89	11.97
1915	8.49	8.24	5.79	4.82	5.25	5.70	5.88	6.09	8.75	11.72	11.01	12.03
1930	8.32	8.30	5.50	4.58	5.13	6.06	5.76	6.66	8.57	12.07	10.90	12.21
1945	8.50	8.36	5.56	4.52	5.13	5.76	5.99	5.64	8.44	12.07	10.83	12.21
2000	8.68	8.18	5.25	4.46	5.06	5.47	5.93	6.30	8.24	12.07	11.01	11.91
2015	8.73	8.19	6.15	4.34	5.13	5.76	5.99	5.60	8.28	12.25	11.02	11.62
2030	8.55	8.25	6.03	4.88	5.19	6.06	6.06	6.06	8.33	12.02	10.89	12.21
2045	8.56	8.31	5.86	5.06	5.25	5.82	5.87	6.37	8.28	11.84	10.77	12.15
2100	8.56	8.18	6.09	6.13	5.12	5.53	5.94	6.60	8.62	11.96	10.83	12.33
2115	8.73	8.30	5.73	6.90	5.13	5.35	6.05	7.01	8.51	11.66	10.89	12.09
2130	8.55	8.18	6.21	6.38	4.90	5.36	6.00	7.25	8.34	11.48	10.93	12.33
2145	8.19	8.36	6.26	4.76	4.63	5.35	5.93	7.91	8.57	11.24	10.90	12.45
2200	8.01	8.13	6.03	5.42	3.79	5.65	5.70	8.50	8.62	11.12	10.72	12.33
2215	8.07	8.24	7.16	5.25	3.89	5.78	5.99	8.04	8.80	11.12	10.77	12.45
2230	8.44	8.30	7.16	5.95	5.13	6.13	5.81	7.91	8.92	11.67	10.54	12.57
2245	8.56	8.25	7.40	6.19	4.82	6.37	5.81	7.79	8.03	11.07	10.65	12.33
2300	8.66	8.24	7.40	6.31	4.59	6.25	5.87	8.04	8.21	11.25	10.65	12.03
2315	8.44	8.24	6.69	6.01	4.46	5.71	5.70	7.86	8.21	11.25	10.54	12.33
2330	8.44	8.31	7.51	6.43	4.46	6.06	5.58	8.08	8.15	11.19	10.65	11.69
2345	8.66	8.01	7.87	6.56	4.52	5.77	5.70	8.37	8.03	11.19	10.49	11.20
2400	8.68	8.49	8.10	6.37	4.12	5.69	5.58	8.43	7.85	11.07	10.43	12.33

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY *\$* TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

22 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	FRI 13 SEP 74	SAT 14 SEP 74	SUN 15 SEP 74	MON 16 SEP 74	TUE 17 SEP 74	WED 18 SEP 74	THU 19 SEP 74	FRI 20 SEP 74	SAT 21 SEP 74	SUN 22 SEP 74	MON 23 SEP 74	TUE 24 SEP 74
15	12.51	12.70	9.48	6.98	10.29	11.54	10.65	10.17	11.19	8.34	5.23	4.32
30	12.67	12.64	9.42	7.21	10.42	11.19	10.77	10.48	11.31	8.27	5.64	3.19
45	12.82	12.47	8.88	7.03	10.23	11.19	10.65	10.83	11.13	7.86	6.18	2.48
100	12.69	12.52	8.47	6.73	10.42	11.36	10.60	10.95	10.95	7.68	5.64	2.35
115	12.80	12.71	7.40	7.03	10.18	11.36	10.77	11.18	10.95	7.67	5.70	1.47
130	12.94	12.53	7.11	6.97	10.24	11.83	10.60	11.37	11.01	7.07	5.35	1.47
145	12.86	12.82	8.18	5.90	10.29	11.96	10.71	11.43	11.13	6.85	5.02	1.35
200	12.80	12.69	8.77	5.37	10.46	12.19	10.59	11.48	11.01	6.78	5.77	1.11
215	12.68	12.88	8.59	4.79	10.29	12.37	10.72	11.13	10.95	6.85	5.66	1.17
230	12.86	12.88	9.07	4.61	10.35	12.37	10.59	11.13	10.89	6.72	5.23	1.23
245	12.44	12.76	9.07	4.79	10.17	12.08	10.42	11.24	11.07	6.72	5.29	1.11
300	11.91	12.11	9.30	4.60	10.05	11.49	10.42	11.13	11.13	6.31	5.12	0.99
315	12.63	11.99	8.71	4.30	9.99	11.43	10.29	11.01	11.26	6.19	6.23	0.93
330	12.44	12.05	8.41	4.11	10.17	11.66	10.54	11.13	10.83	6.25	6.35	0.99
345	12.69	11.28	8.28	4.00	10.55	11.49	10.41	11.24	10.78	5.88	6.23	0.93
400	12.63	11.21	8.10	3.99	10.35	11.00	10.53	11.01	10.59	6.31	5.94	1.06
415	12.80	12.23	8.47	3.94	9.99	10.47	10.71	11.13	10.78	6.36	5.46	0.93
430	12.98	13.36	8.59	3.70	10.05	11.01	10.78	11.19	10.59	6.25	5.16	0.93
445	13.04	13.40	8.89	3.64	9.83	11.36	10.71	11.31	10.35	6.36	5.34	1.06
500	12.87	12.59	9.01	3.64	9.45	11.83	10.59	11.43	10.71	6.54	5.88	0.94
515	12.86	12.65	9.01	3.58	10.46	11.72	10.78	11.36	10.78	6.54	5.94	1.12
530	12.93	12.41	8.64	3.58	10.41	11.54	10.59	11.36	10.65	6.36	5.94	1.12
545	12.98	12.05	7.94	3.76	9.82	11.37	10.47	11.48	10.47	6.43	6.06	0.99
600	12.98	11.45	8.23	3.40	9.45	11.89	10.65	11.60	10.53	6.60	6.19	1.12
615	12.92	11.04	7.75	3.57	9.87	11.36	10.77	11.72	10.18	6.61	6.18	1.12
630	13.05	11.69	6.56	3.51	10.17	11.78	10.71	11.66	10.30	6.47	5.11	1.22
645	12.93	11.50	6.39	4.24	9.81	11.31	10.58	11.78	10.59	6.37	5.64	1.28
700	13.11	11.99	7.16	4.71	9.69	12.13	10.58	11.66	10.47	6.65	5.94	1.22
715	13.05	12.21	8.06	4.36	10.11	12.13	10.35	11.90	10.25	6.67	6.19	1.22
730	12.87	12.35	8.76	3.81	9.09	11.78	10.59	11.90	10.48	6.79	6.18	1.34
745	12.98	11.85	8.70	3.52	9.51	11.36	10.70	11.84	10.06	6.89	6.54	1.46
800	13.06	11.58	9.18	4.12	9.69	11.42	10.70	11.78	10.77	6.91	5.94	1.52
815	12.82	10.96	8.34	3.81	9.16	10.83	10.89	11.79	10.95	6.97	6.71	1.40
830	13.04	12.23	7.27	4.47	8.87	10.53	10.89	11.96	10.84	6.84	6.65	1.46
845	12.82	12.15	8.17	4.18	8.51	10.65	11.01	11.78	10.54	7.02	6.89	1.34
900	12.69	11.02	8.88	3.93	8.86	10.41	10.94	11.72	10.90	6.84	5.93	1.58
915	12.57	10.78	8.53	4.29	8.20	10.65	11.07	11.90	10.42	6.73	6.36	1.64
930	12.45	11.15	7.51	4.83	8.68	9.99	11.01	12.03	10.59	6.78	5.81	1.64
945	12.52	11.40	7.16	3.75	8.57	9.69	11.13	11.96	11.07	6.66	6.11	1.70
1000	12.57	11.40	7.16	1.67	8.27	10.35	11.48	12.14	10.78	6.84	5.94	1.93
1015	12.57	10.97	6.75	1.15	8.03	8.50	11.13	12.00	10.65	6.95	5.75	1.69
1030	12.04	10.55	6.56	1.20	7.97	6.90	10.69	12.13	10.61	6.89	6.30	1.83
1045	12.63	10.45	7.05	4.18	8.27	5.30	10.82	11.85	11.01	7.13	6.30	1.82
1100	11.66	10.27	6.81	4.82	8.93	7.75	10.82	11.84	11.14	5.82	5.58	1.76
1115	10.98	9.78	6.56	4.30	8.68	6.97	10.17	11.73	10.89	5.24	6.37	2.06
1130	9.49	9.42	6.21	3.41	8.94	6.07	9.27	11.60	10.78	7.25	6.06	2.00
1145	10.38	10.08	6.39	4.83	8.76	5.53	9.16	11.07	10.72	6.84	6.59	1.94
1200	10.62	10.03	6.03	5.19	8.15	5.77	8.88	10.90	10.82	6.04	6.71	2.06

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF HAMPSHIRE
22 NOV 74
TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	FRI 13 SEP 74	SAT 14 SEP 74	SUN 15 SEP 74	MON 16 SEP 74	TUE 17 SEP 74	WED 18 SEP 74	THU 19 SEP 74	FRI 20 SEP 74	SAT 21 SEP 74	SUN 22 SEP 74	MON 23 SEP 74	TUE 24 SEP 74
1215	10.25	9.25	6.45	5.36	7.74	7.26	8.39	10.95	10.78	12.14	6.35	2.19
1230	11.22	8.71	6.44	4.53	6.60	8.03	8.21	11.26	11.25	2.74	5.28	2.10
1245	10.50	9.30	6.44	5.07	6.44	8.21	7.62	11.97	10.65	5.17	4.01	2.35
1300	10.68	9.07	5.79	5.36	6.09	9.28	9.34	11.72	10.90	5.47	2.36	2.29
1315	10.93	8.71	5.20	5.42	6.01	9.35	9.22	11.38	11.26	5.11	1.95	2.17
1330	10.08	7.87	5.44	6.02	6.14	9.36	9.40	12.02	11.07	5.06	4.97	2.24
1345	9.26	7.70	5.74	6.08	5.18	8.75	9.10	12.20	10.94	4.99	5.63	2.24
1400	8.78	8.13	5.98	5.18	5.84	6.92	8.69	11.55	10.59	5.41	4.68	2.42
1415	8.53	8.01	5.73	5.54	6.02	7.27	9.46	11.07	10.94	5.30	5.16	2.54
1430	8.83	8.66	5.62	6.25	6.66	7.86	9.40	10.29	10.76	5.23	6.83	2.54
1445	8.13	8.12	5.68	5.54	6.62	9.24	8.63	9.22	10.65	4.94	5.40	2.54
1500	8.19	8.24	5.38	6.31	8.03	8.59	8.93	8.28	10.88	4.88	4.63	2.66
1515	8.07	8.31	5.20	6.20	8.76	8.69	8.75	8.70	10.82	4.88	5.40	2.72
1530	8.71	8.00	6.09	6.49	9.05	8.93	8.68	8.28	11.06	5.53	5.64	2.35
1545	8.41	8.01	7.22	6.61	9.29	9.70	9.05	8.45	11.31	5.35	2.19	2.53
1600	8.65	8.01	7.40	6.91	9.52	11.01	9.46	8.64	11.00	5.29	1.65	2.53
1615	9.01	7.94	7.11	7.03	10.31	10.42	9.52	9.47	11.00	5.41	2.31	2.29
1630	8.72	7.70	6.92	7.86	10.24	9.16	9.64	9.65	11.13	5.41	1.71	2.23
1645	9.01	6.81	7.75	8.52	10.31	8.45	9.88	10.47	11.12	5.17	1.48	2.18
1700	8.72	6.81	7.75	8.57	10.42	8.93	10.48	11.19	11.06	4.95	4.51	2.18
1715	9.90	6.92	8.05	8.16	10.60	9.05	10.77	10.09	10.88	4.70	4.45	2.06
1730	10.50	7.58	8.11	8.52	10.54	9.29	11.01	11.31	10.53	4.34	4.56	2.18
1745	10.73	7.70	8.47	8.99	10.66	9.70	10.88	11.67	10.53	5.06	4.62	2.18
1800	10.50	7.64	8.94	9.12	10.66	9.59	11.01	11.79	11.01	5.00	5.04	2.18
1815	10.86	7.76	9.31	8.64	10.54	9.41	10.77	11.44	11.24	4.88	5.51	2.12
1830	11.10	8.05	9.60	8.94	10.54	9.40	10.83	11.92	11.01	4.52	5.33	2.19
1845	11.16	8.36	9.73	8.34	10.83	9.40	10.83	11.67	10.77	5.71	5.28	2.00
1900	11.03	8.47	9.42	8.64	10.26	9.40	11.13	11.13	10.88	6.07	5.10	1.94
1915	11.15	8.29	9.36	8.64	11.32	9.88	11.07	10.55	10.65	6.73	5.99	1.89
1930	10.91	7.83	9.37	8.99	11.49	9.76	11.31	10.67	11.00	4.68	4.50	1.82
1945	10.66	7.58	9.25	9.10	11.49	9.94	11.06	10.36	10.83	4.11	3.08	2.00
2000	10.92	8.36	9.19	8.90	11.60	10.48	11.54	10.90	11.31	4.10	2.01	1.82
2015	11.75	8.95	8.83	8.94	11.54	10.48	11.72	11.37	10.53	4.10	1.41	2.00
2030	11.69	8.65	8.83	9.05	11.72	10.55	12.49	11.31	10.17	3.81	3.26	1.70
2045	11.15	8.07	9.18	9.05	11.72	10.47	11.67	11.61	11.18	4.34	3.61	2.05
2100	11.52	8.47	9.18	8.93	11.67	10.41	11.12	11.31	11.43	4.41	3.49	1.65
2115	11.63	9.12	9.06	9.24	11.55	10.59	11.65	11.37	10.83	4.41	3.43	1.59
2130	11.64	8.58	8.95	9.58	11.25	10.53	11.30	11.49	10.24	4.04	2.54	1.81
2145	11.87	9.07	9.18	9.30	11.13	10.53	10.71	11.25	10.41	4.04	3.08	1.58
2200	11.87	9.61	9.42	9.71	11.07	10.53	10.23	10.84	10.30	4.10	2.30	1.52
2215	11.92	9.49	9.12	9.65	11.25	10.59	10.53	11.25	9.22	5.06	3.79	1.28
2230	12.04	9.24	9.53	9.76	11.36	10.59	10.35	11.61	9.10	5.47	3.91	1.16
2245	12.23	9.24	9.36	9.81	11.60	10.77	11.13	11.61	9.16	5.29	3.91	1.16
2300	12.28	8.94	9.12	9.87	11.73	10.77	10.71	11.49	8.81	5.89	5.51	1.10
2315	12.40	9.24	8.88	9.88	11.30	10.71	10.35	11.37	9.23	5.53	6.04	1.65
2330	12.53	9.24	9.24	9.76	11.79	10.83	10.35	11.19	9.46	5.59	4.74	2.35
2345	12.70	9.31	8.82	10.05	11.19	10.65	10.42	11.43	8.75	5.62	4.62	2.53
2400	12.58	9.43	7.75	10.53	11.79	10.77	10.77	11.31	8.45	5.46	4.50	2.23

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING.
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

22 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	WED 25 SEP 74	THU 26 SEP 74	FRI 27 SEP 74	SAT 28 SEP 74	SUN 29 SEP 74	MON 30 SEP 74
15	2.35	3.05	3.29	4.79	5.39	4.30
30	2.71	3.24	3.71	4.91	5.30	4.32
45	2.71	3.42	3.59	5.14	5.72	4.73
100	2.59	3.36	4.66	5.02	5.06	4.56
115	2.71	2.59	4.07	4.79	5.62	4.32
130	2.77	3.10	4.36	4.79	5.00	3.04
145	2.03	2.00	3.09	5.26	5.92	3.37
200	2.76	2.59	4.36	5.20	5.90	3.37
215	2.03	2.99	4.47	5.03	5.90	2.19
230	2.94	3.35	4.66	5.20	5.00	1.54
245	2.04	3.29	4.66	5.26	5.62	2.77
300	2.77	3.09	4.59	5.50	5.60	2.94
315	2.76	4.06	5.73	6.04	2.65	2.65
330	2.02	3.05	4.04	5.61	5.00	1.10
345	2.94	4.30	4.04	5.43	5.06	1.16
400	2.05	4.66	4.59	5.74	5.62	2.59
415	1.39	4.42	4.40	5.79	5.50	2.05
430	1.50	4.24	4.72	5.43	5.00	1.10
445	1.45	4.90	4.77	5.32	5.06	1.02
500	1.63	5.00	4.55	5.14	5.00	4.02
515	1.64	5.20	4.66	5.32	5.74	3.37
530	1.93	4.96	4.72	5.43	5.06	4.30
545	2.05	4.35	4.73	5.32	6.16	4.70
600	1.50	4.00	4.54	5.26	6.34	2.12
615	1.51	4.30	5.14	5.26	6.16	1.53
630	1.45	4.35	4.96	5.00	6.07	3.72
645	1.63	4.30	5.20	5.30	6.63	4.05
700	1.52	3.71	4.90	5.32	6.99	3.30
715	1.40	3.71	4.96	5.44	6.93	3.61
730	1.46	3.03	5.25	5.00	6.57	4.02
745	1.46	2.02	5.20	5.26	5.50	5.50
800	1.33	2.76	5.14	5.14	4.20	5.73
815	1.04	2.34	5.32	5.14	3.72	5.43
830	1.33	1.45	5.25	5.30	3.90	5.49
845	1.20	3.05	5.19	4.07	3.90	5.05
900	1.45	3.23	4.61	2.00	3.66	5.97
915	1.51	3.05	4.96	2.00	4.73	6.56
930	0.97	3.29	5.32	3.18	4.19	6.21
945	0.97	3.72	4.66	3.24	4.19	6.56
1000	1.09	2.08	2.94	3.12	4.20	6.15
1015	1.03	2.29	2.02	3.01	4.56	5.26
1030	1.27	1.56	3.53	3.06	4.74	6.00
1045	1.27	1.75	3.59	3.12	4.60	7.04
1100	1.45	1.57	3.29	2.94	5.21	6.62
1115	1.39	1.46	3.48	3.12	5.39	5.91
1130	1.76	1.10	2.94	3.25	5.09	6.00
1145	1.76	2.41	3.18	2.83	5.33	6.50
1200	1.47	2.11	2.52	2.41	4.91	7.10

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 70.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

22 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	WED 25 SEP 74	THU 26 SEP 74	FRI 27 SEP 74	SAT 28 SEP 74	SUN 29 SEP 74	MON 30 SEP 74
1215	1.65	1.11	2.72	2.18	4.73	6.80
1230	1.75	1.22	3.83	2.11	4.97	7.10
1245	1.70	1.81	4.13	2.65	5.03	7.34
1300	1.75	3.89	4.13	3.54	4.74	7.57
1315	1.76	3.84	3.67	3.72	4.74	7.63
1330	2.06	3.54	4.25	3.78	4.38	7.28
1345	2.18	1.63	4.67	4.31	4.56	7.28
1400	2.48	1.39	5.36	4.79	4.44	7.45
1415	2.41	1.39	5.32	4.85	4.56	7.63
1430	2.59	1.51	5.38	5.09	4.26	7.59
1445	2.83	1.46	5.56	5.27	4.08	7.70
1500	2.42	1.46	6.09	5.15	4.26	7.63
1515	3.06	1.57	6.16	6.22	4.14	7.76
1530	3.06	1.46	6.28	6.16	4.02	7.52
1545	2.82	1.57	6.46	6.16	4.02	7.05
1600	2.70	1.57	6.28	5.98	3.79	7.23
1615	2.88	1.76	6.28	6.33	3.90	7.64
1630	2.94	1.88	6.52	5.98	3.73	7.52
1645	3.12	2.30	6.16	5.74	4.14	6.99
1700	3.00	2.76	6.52	5.80	4.08	7.17
1715	2.94	3.00	6.52	5.62	4.26	7.10
1730	3.18	3.30	6.22	5.74	3.79	6.50
1745	3.12	3.65	5.92	5.56	3.79	5.08
1800	2.94	3.12	5.56	5.50	3.67	2.46
1815	2.40	3.29	5.45	5.38	4.08	4.07
1830	2.52	3.48	5.27	5.32	4.02	5.14
1845	2.58	3.42	5.33	5.50	3.31	5.14
1900	2.47	3.42	5.20	5.80	3.31	4.60
1915	2.64	3.36	5.20	5.50	3.37	2.82
1930	2.58	3.42	5.32	4.61	3.55	2.40
1945	2.71	3.66	5.56	3.78	3.13	2.17
2000	2.64	3.00	5.26	3.12	3.49	2.34
2015	2.64	3.00	4.19	3.18	3.73	2.76
2030	2.35	3.66	3.54	3.48	3.55	4.66
2045	2.18	3.30	3.06	3.54	3.43	5.38
2100	2.18	3.35	2.36	2.77	3.61	5.91
2115	3.06	3.23	3.60	3.54	3.60	6.27
2130	3.12	3.41	3.06	3.36	3.14	6.92
2145	3.07	3.41	2.76	3.18	3.07	6.98
2200	2.30	3.23	2.82	3.96	3.07	7.16
2215	3.06	3.41	2.83	3.96	3.94	7.04
2230	3.06	4.40	2.71	5.15	4.26	7.15
2245	2.81	3.41	2.08	5.15	4.55	7.57
2300	2.65	3.23	3.66	5.09	4.05	6.92
2315	3.06	3.23	3.72	5.38	5.39	6.74
2330	3.00	3.95	4.07	5.62	5.15	7.04
2345	2.93	4.36	4.91	5.98	4.91	6.86
2400	3.12	4.13	4.55	5.62	4.61	6.86

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY * TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

26 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	TUE 1	WED 2	THU 3	FRI 4	SAT 5	SUN 6	MON 7	TUE 8	WED 9	THU 10	FRI 11	SAT 12
OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74
15	6.44	4.88	7.08	6.84	10.04	9.99	4.71	4.40	10.99	10.87	10.44	10.38
30	6.69	4.53	6.01	7.37	10.04	10.22	4.64	4.16	11.10	10.51	11.58	10.26
45	6.32	4.23	5.95	7.20	9.32	10.94	4.58	4.34	10.57	10.62	10.22	10.02
100	6.60	3.63	6.60	7.74	10.10	12.71	4.77	4.28	10.92	10.50	10.99	10.26
115	6.20	3.63	6.78	8.49	10.15	11.82	4.71	4.10	10.45	11.04	10.33	10.32
130	6.26	3.47	6.72	8.02	10.45	12.06	4.69	3.93	10.51	10.92	10.22	10.38
145	6.32	3.11	5.06	8.91	9.97	11.81	4.69	4.22	10.75	10.74	10.27	11.07
200	6.74	3.17	2.92	7.30	10.80	12.47	4.69	4.04	10.57	10.57	9.79	11.50
215	6.21	2.97	4.46	7.25	10.92	12.47	4.63	3.75	10.67	10.45	9.61	9.67
230	6.44	2.79	5.71	6.60	11.64	12.64	4.45	3.67	9.97	10.45	9.74	9.79
245	6.80	2.79	4.88	5.94	11.40	11.57	4.75	3.61	9.44	10.22	9.67	8.95
300	6.03	3.28	3.39	5.65	10.92	10.98	4.81	3.08	9.03	10.51	9.09	9.07
315	4.53	3.09	2.91	4.87	9.97	10.62	4.69	3.21	8.38	11.76	8.77	8.79
330	4.06	3.04	2.37	5.04	10.63	10.09	4.81	3.63	8.44	12.00	8.30	8.19
345	2.99	2.91	2.67	4.57	10.51	9.26	4.87	3.56	6.89	10.92	8.06	7.59
400	2.40	2.85	2.49	3.20	10.33	9.02	4.81	3.51	6.71	10.27	8.24	6.59
415	2.51	2.80	2.33	3.09	9.79	8.31	4.69	3.09	6.36	9.80	8.30	5.79
430	2.87	2.44	2.15	4.04	8.67	8.07	4.69	3.33	6.05	10.30	8.60	5.50
445	2.75	2.91	2.26	3.92	7.83	7.77	4.94	3.21	5.92	10.14	8.24	5.09
500	3.18	2.80	2.32	3.27	7.48	7.53	5.00	3.27	5.94	9.92	7.82	5.21
515	2.92	2.86	2.32	3.38	7.17	7.18	4.69	3.45	5.75	9.92	8.00	5.51
530	2.81	2.74	2.61	3.50	6.71	6.76	4.39	3.50	5.75	9.30	7.76	5.39
545	2.69	2.74	2.79	2.37	6.23	6.76	4.52	3.45	5.51	9.79	7.88	5.21
600	2.39	2.80	2.68	2.37	6.17	6.70	4.75	3.80	5.63	9.91	8.13	5.15
615	2.39	2.68	2.74	3.44	5.99	6.53	4.94	3.56	5.51	9.79	7.72	4.97
630	2.81	2.80	2.69	3.08	5.46	6.88	4.46	3.74	5.27	10.03	7.82	4.55
645	2.63	2.92	2.50	3.26	5.64	6.53	4.04	3.68	5.27	9.98	7.66	4.43
700	2.63	2.38	2.50	3.14	5.52	6.40	3.26	3.44	5.16	9.91	7.35	4.73
715	2.58	2.50	2.14	3.19	5.64	6.46	3.26	3.44	4.92	9.86	7.00	4.85
730	2.57	2.68	2.21	2.30	5.70	6.05	2.97	3.20	4.50	9.97	7.06	4.79
745	2.64	2.56	1.90	1.90	5.52	6.29	4.15	3.44	5.39	10.57	6.47	4.91
800	2.81	2.68	1.78	1.90	5.22	6.17	3.86	2.85	5.16	10.39	6.88	4.55
815	2.75	2.80	2.67	1.89	4.97	6.34	3.74	1.60	4.92	10.39	7.35	4.85
830	2.69	2.50	2.33	1.83	(4.50)	6.34	3.80	1.06	5.15	10.28	8.18	4.61
845	2.45	2.74	2.07	1.95	5.34	6.28	3.34	1.66	5.21	10.22	6.77	4.43
900	2.45	2.38	1.95	1.77	4.62	5.58	3.52	1.37	5.27	10.81	5.57	3.30
915	2.39	2.32	1.95	1.71	4.91	5.52	3.51	2.08	5.33	10.93	6.16	3.31
930	2.68	2.38	1.60	1.54	4.92	5.75	3.58	0.94	5.27	10.87	7.00	2.64
945	2.98	2.50	1.49	1.53	5.04	5.18	3.64	1.00	5.15	10.87	8.06	3.73
1000	2.87	2.80	1.56	1.48	5.16	5.64	3.51	1.00	5.16	11.05	6.81	4.01
1015	2.52	2.56	1.72	1.41	5.39	6.06	2.79	0.94	4.98	10.93	8.00	4.07
1030	2.69	2.62	1.49	1.24	5.69	5.83	2.08	0.94	5.28	11.52	7.88	3.25
1045	3.11	2.08	1.25	1.35	5.99	6.35	1.85	0.09	5.16	12.06	8.53	3.12
1100	3.04	2.26	1.37	1.35	5.87	6.93	3.03	0.83	5.58	12.06	8.45	3.72
1115	2.92	2.20	2.56	1.23	5.70	6.66	4.52	0.65	6.42	12.17	7.72	4.14
1130	3.83	3.69	3.67	1.23	7.42	7.02	4.53	0.83	7.07	11.88	7.78	4.56
1145	3.23	2.91	1.25	1.18	8.44	6.96	3.15	0.94	8.14	11.76	8.54	4.66
1200	3.35	3.15	3.68	1.30	10.29	6.54	4.62	0.88	9.44	11.53	9.32	5.93

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY '*' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	TUE 1 OCT 74	WED 2 OCT 74	THU 3 OCT 74	FRI 4 OCT 74	SAT 5 OCT 74	SUN 6 OCT 74	MON 7 OCT 74	TUE 8 OCT 74	WED 9 OCT 74	THU 10 OCT 74	FRI 11 OCT 74	SAT 12 OCT 74
1215	2.87	4.40	4.23	1.30	10.52	6.12	5.06	0.70	9.79	11.16	9.74	5.63
1230	2.57	4.36	2.73	1.30	11.52	6.90	4.82	0.84	10.33	11.28	8.72	5.56
1245	2.69	5.76	1.14	1.31	10.93	6.84	4.52	1.25	11.53	11.02	8.55	5.45
1300	3.34	7.15	6.31	1.09	10.40	6.00	5.89	1.78	11.53	10.15	8.97	6.16
1315	2.63	6.78	8.51	2.44	10.93	7.07	5.17	1.67	11.17	11.64	9.14	7.53
1330	3.34	6.38	5.53	1.25	10.69	7.25	4.70	1.60	10.75	13.30	9.50	10.44
1345	3.10	6.43	2.38	6.06	11.41	7.55	5.35	3.92	11.64	11.22	9.73	9.73
1400	3.34	5.55	4.28	5.40	12.42	6.72	5.18	4.22	11.70	11.34	9.44	9.49
1415	3.40	6.50	6.54	5.22	12.54	6.97	4.40	4.22	12.25	10.86	9.67	9.02
1430	3.59	6.67	4.41	5.46	12.18	7.55	4.04	4.69	12.89	10.86	9.73	9.32
1445	3.52	7.50	1.14	5.58	11.52	8.09	3.87	4.69	*****	10.80	10.21	9.32
1500	*****	7.32	4.75	7.78	12.36	7.73	3.51	4.75	12.65	9.49	9.85	10.32
1515	3.40	7.32	7.67	7.42	12.71	7.31	3.87	4.82	12.59	10.93	9.32	11.63
1530	3.17	4.30	7.97	8.02	12.89	6.78	3.76	4.69	12.18	10.74	9.91	11.76
1545	3.34	4.59	7.79	7.18	12.83	6.37	4.35	5.00	12.06	10.06	10.15	13.06
1600	4.13	3.34	7.56	7.10	13.01	5.82	4.66	5.11	12.18	10.56	9.91	13.77
1615	3.94	6.01	6.66	7.84	13.43	5.18	2.75	5.05	12.12	10.06	9.97	13.77
1630	3.70	6.31	6.97	7.85	13.31	4.93	2.81	5.29	12.18	11.46	9.91	13.53
1645	3.70	6.07	6.97	7.49	14.02	5.30	2.87	4.83	12.06	10.68	9.97	13.59
1700	4.06	6.26	7.19	7.49	14.38	4.76	3.59	4.99	12.42	10.39	10.03	14.24
1715	4.17	6.49	7.03	7.37	14.44	4.16	3.63	4.70	12.13	10.56	9.02	13.41
1730	3.69	6.44	6.91	7.14	14.50	3.92	3.46	4.41	12.54	10.39	8.90	13.23
1745	3.69	6.31	7.31	7.25	13.96	3.87	3.64	4.21	12.72	10.06	8.09	13.35
1800	3.75	6.73	7.14	6.24	14.56	4.05	3.81	3.98	12.30	10.51	9.01	13.71
1815	*****	6.68	6.78	5.28	14.19	4.47	4.16	4.04	12.36	10.51	9.13	13.89
1830	3.59	7.03	6.36	4.52	13.54	4.87	4.34	3.98	12.05	10.92	9.02	13.65
1845	3.47	7.14	6.36	5.17	13.04	5.12	4.58	4.04	11.82	10.98	9.49	13.53
1900	4.30	7.56	6.54	5.53	13.07	4.70	3.75	4.10	11.70	11.10	10.51	13.53
1915	4.94	7.27	6.55	6.36	12.24	4.04	2.80	4.34	11.58	11.34	9.85	13.89
1930	5.37	7.15	6.61	7.13	11.70	3.52	2.85	4.28	11.52	11.88	9.80	13.59
1945	5.61	6.56	6.47	7.54	12.35	2.91	3.44	4.41	11.52	11.88	9.56	13.47
2000	6.03	6.13	5.88	9.39	11.70	2.98	3.57	4.09	11.46	12.17	10.03	13.53
2015	6.08	6.00	6.00	9.09	10.82	2.73	4.05	4.51	11.22	12.47	10.46	13.77
2030	4.71	6.32	6.29	9.27	10.63	3.64	4.52	4.58	11.16	12.29	10.51	14.42
2045	5.42	6.44	6.95	7.72	11.28	4.04	5.11	4.75	11.34	12.11	10.63	14.42
2100	5.36	6.91	7.42	6.52	11.88	3.68	4.94	4.46	11.34	12.17	10.69	14.36
2115	5.66	7.21	7.42	7.95	11.22	3.33	5.24	4.70	11.11	11.82	10.52	13.95
2130	6.07	6.90	7.78	6.17	10.45	3.68	5.42	4.92	10.69	12.22	10.57	14.01
2145	6.08	6.97	7.38	8.31	10.99	3.99	5.41	4.87	10.94	12.64	10.61	14.30
2200	6.37	7.14	7.01	8.02	11.70	4.10	3.86	5.41	11.17	12.64	10.73	14.07
2215	6.13	7.13	6.53	8.01	12.35	3.80	4.35	6.01	12.53	11.94	11.03	14.66
2230	6.07	6.97	7.19	8.49	12.83	4.16	4.21	7.43	12.30	11.51	10.73	14.30
2245	5.42	6.31	8.02	9.81	13.48	4.53	4.04	7.84	11.23	11.94	10.85	15.14
2300	5.59	5.36	7.66	10.10	11.05	4.53	4.45	8.32	11.06	11.34	10.68	15.61
2315	4.64	5.48	8.03	9.75	11.82	4.35	4.28	8.49	10.81	11.63	10.79	15.20
2330	5.19	6.48	7.50	10.34	9.63	4.47	4.15	10.52	10.57	12.05	10.08	14.36
2345	5.43	6.18	7.01	9.86	10.22	4.53	3.56	10.52	10.69	11.46	10.38	13.29
2400	5.59	6.07	6.71	10.22	10.22	4.70	4.16	10.99	11.05	11.40	10.26	13.65

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74
TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SUN 13	MON 14	TUE 15	WED 16	THU 17	FRI 18	SAT 19	SUN 20	MON 21	TUE 22	WED 23	THU 24
	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74
15	13.03	11.69	14.78	13.24	13.23	10.92	8.47	1.56	0.95	9.03	10.99	12.20
30	11.33	11.63	14.54	13.36	12.64	11.28	8.52	1.51	1.07	9.10	11.53	11.66
45	9.62	11.51	14.01	13.04	12.02	11.74	8.28	1.62	1.12	8.97	12.42	12.26
100	10.75	11.33	13.65	13.66	12.88	11.86	8.59	1.62	1.78	8.32	11.94	9.28
115	11.10	10.75	13.35	13.66	12.05	11.39	8.41	1.50	1.02	8.38	11.05	10.05
130	11.69	10.44	13.23	13.36	10.98	11.45	7.70	1.56	1.13	8.38	9.86	11.96
145	11.04	9.85	12.29	13.42	11.15	10.56	7.58	1.74	1.31	8.30	8.61	12.84
200	11.34	9.43	11.51	13.54	11.56	11.04	7.28	2.03	1.13	8.97	7.79	11.95
215	11.22	8.95	11.27	13.30	10.38	11.27	7.04	1.74	1.31	8.72	7.84	12.90
230	10.19	8.31	10.87	13.36	11.39	11.09	6.21	1.97	1.25	9.39	7.72	13.33
245	9.66	7.94	9.91	13.13	11.93	11.21	5.50	1.74	1.36	9.68	7.37	12.97
300	8.78	7.66	9.13	13.29	12.23	11.27	4.42	1.80	1.37	9.26	7.36	11.96
315	8.78	7.29	8.24	13.24	11.46	9.01	2.99	1.79	1.37	8.85	7.12	13.03
330	7.22	6.81	7.89	12.76	11.46	9.95	1.26	1.73	1.37	8.91	7.12	13.27
345	7.22	6.10	7.53	11.63	11.40	*****	1.26	1.85	1.48	8.74	6.84	13.80
400	6.99	5.91	7.41	10.86	12.11	7.59	1.26	1.85	1.48	8.50	6.41	12.67
415	6.93	5.63	7.72	9.97	12.04	7.04	1.38	2.03	1.36	8.32	5.64	11.18
430	6.76	5.51	7.35	8.79	11.51	5.15	1.26	2.32	1.48	7.90	5.52	10.17
445	6.28	5.09	7.47	7.94	11.15	3.59	1.26	2.09	1.66	7.91	5.28	9.63
500	6.21	5.21	7.47	8.07	10.98	1.81	1.21	2.15	1.77	7.42	5.04	10.53
515	6.27	5.14	7.53	6.88	9.48	1.28	1.14	1.68	1.95	7.19	5.46	9.40
530	6.10	5.09	7.72	6.59	9.60	1.22	1.20	1.49	1.89	6.66	5.16	7.48
545	5.92	5.03	7.53	6.81	9.01	1.28	1.20	1.55	2.07	6.54	3.80	6.35
600	6.10	5.03	7.06	6.71	8.24	1.22	1.26	1.50	1.83	6.18	2.31	7.78
615	6.04	4.86	6.58	6.65	6.99	1.45	1.50	1.43	1.95	5.59	1.83	6.65
630	6.10	4.91	5.03	5.98	6.51	1.28	1.62	1.85	1.89	5.16	2.07	3.03
645	6.04	4.80	5.03	6.11	5.74	2.71	1.50	4.53	1.89	5.04	1.89	2.43
700	6.04	5.14	5.97	6.77	5.56	1.22	1.51	6.25	2.01	3.80	1.83	1.00
715	5.86	5.03	5.34	6.28	5.38	1.16	1.50	3.16	1.78	3.91	2.19	0.94
730	5.80	5.03	6.22	6.34	5.03	1.45	1.38	4.24	1.72	3.98	1.90	0.94
745	5.80	5.02	6.53	6.22	5.38	1.57	1.32	1.15	1.72	3.74	1.84	0.83
800	5.62	5.26	5.98	6.23	4.49	1.34	1.38	1.15	1.60	4.03	2.38	0.71
815	5.62	5.26	6.16	6.23	4.67	1.15	1.32	1.02	1.60	2.73	2.02	0.71
830	5.56	4.92	6.10	6.22	4.97	1.15	1.38	1.15	1.60	2.14	2.08	0.71
845	5.62	5.08	7.29	6.65	5.09	1.15	1.44	1.03	1.54	3.03	2.31	0.78
900	5.68	4.79	6.07	6.83	4.38	1.16	1.80	1.03	1.72	3.37	2.14	0.78
915	5.68	4.90	6.63	7.72	4.55	1.27	1.92	1.15	1.95	2.72	2.37	0.77
930	5.86	4.84	7.19	8.49	4.31	1.27	1.86	1.15	2.07	3.97	1.72	0.78
945	6.03	4.97	7.96	9.14	4.50	1.22	1.38	1.15	2.31	4.81	1.72	0.72
1000	6.04	6.52	9.21	9.44	4.91	1.22	1.08	1.39	2.25	2.84	1.49	0.71
1015	6.05	8.84	9.19	10.81	4.84	1.23	1.14	1.33	2.01	2.31	1.31	0.77
1030	5.98	9.55	9.44	11.05	5.45	1.28	1.26	1.33	1.77	5.40	1.25	0.84
1045	6.16	9.03	10.21	11.64	6.22	1.28	1.14	1.21	1.65	4.16	1.31	0.84
1100	4.14	8.30	10.69	11.70	6.40	2.35	1.28	1.68	1.72	3.86	1.48	0.90
1115	4.67	7.95	10.38	11.88	7.65	2.00	1.39	1.19	1.54	7.54	1.30	0.78
1130	4.55	8.00	10.10	12.12	8.72	4.62	1.28	1.27	1.53	9.44	1.31	0.48
1145	4.57	7.77	11.63	12.24	7.76	6.40	1.34	1.15	1.49	11.94	1.25	0.48

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	SUN 13 OCT 74	MON 14 OCT 74	TUE 15 OCT 74	WED 16 OCT 74	THU 17 OCT 74	FRI 18 OCT 74	SAT 19 OCT 74	SUN 20 OCT 74	MON 21 OCT 74	TUE 22 OCT 74	WED 23 OCT 74	THU 24 OCT 74
1215	4.63	7.35	12.23	12.12	8.30	6.34	1.33	1.21	2.02	12.43	1.14	0.40
1230	5.10	7.83	13.77	12.30	8.66	6.06	1.33	1.37	4.34	12.59	1.25	0.54
1245	5.16	8.60	11.00	12.47	10.26	6.57	1.40	1.31	1.53	11.35	1.08	0.48
1300	5.99	9.85	11.99	12.35	10.68	6.92	1.40	1.43	2.55	11.78	0.96	0.42
1315	5.75	11.27	12.41	12.12	10.75	7.47	1.46	1.43	5.11	12.48	1.08	2.20
1330	6.11	12.17	11.28	12.29	11.28	7.64	1.34	1.49	2.39	12.36	1.13	4.88
1345	6.22	12.34	10.63	12.11	11.64	7.52	1.46	1.49	2.44	12.79	1.07	5.95
1400	6.00	11.81	11.58	12.12	11.57	7.58	1.34	1.55	4.75	12.79	1.49	6.18
1415	6.05	11.99	11.81	12.05	10.51	7.58	1.56	1.55	6.37	12.37	2.73	6.78
1430	6.23	11.87	13.18	12.00	10.51	7.58	1.45	1.55	8.20	12.91	9.28	7.13
1445	6.29	12.16	12.59	12.00	10.80	7.65	1.27	1.61	8.57	13.03	9.94	7.43
1500	6.41	11.99	12.23	12.42	10.01	7.41	1.40	1.73	7.07	12.91	7.01	8.44
1515	6.41	11.81	11.75	12.42	10.45	7.81	1.34	1.67	8.09	13.02	5.42	8.68
1530	6.23	11.39	11.93	12.42	10.51	7.41	1.45	1.73	9.15	12.79	5.84	8.50
1545	6.17	11.81	11.75	12.06	10.99	8.23	1.45	1.73	8.50	13.79	7.14	9.22
1600	6.11	12.06	11.34	10.73	11.88	7.94	1.50	1.79	9.03	13.97	9.88	9.75
1615	5.75	12.64	11.70	8.49	12.47	8.53	1.56	1.85	7.84	13.38	9.34	9.46
1630	5.69	12.41	12.23	10.38	12.35	8.71	1.50	1.73	4.93	13.32	11.72	9.63
1645	5.99	13.35	12.59	12.10	12.29	8.06	1.62	1.72	8.92	13.49	11.83	10.11
1700	6.23	13.83	13.18	12.47	12.18	8.71	1.56	1.90	8.80	11.95	11.00	10.11
1715	6.23	13.41	12.88	11.39	11.63	9.29	1.68	1.78	9.27	11.72	11.00	10.11
1730	6.10	13.12	12.83	10.02	11.51	9.35	1.74	1.85	9.50	11.96	8.81	10.41
1745	6.05	13.30	13.06	10.67	11.33	9.47	1.81	1.79	9.68	12.49	8.39	10.05
1800	6.23	13.29	13.48	11.33	11.16	9.59	1.98	1.79	9.62	12.41	9.69	12.79
1815	6.11	13.35	13.66	11.69	10.98	9.71	2.04	1.78	9.21	12.41	10.53	12.31
1830	5.93	13.29	13.24	11.57	11.10	9.83	2.16	1.90	7.66	12.71	12.08	11.96
1845	5.99	13.24	13.42	11.75	11.16	7.75	2.04	1.84	7.96	12.60	12.02	12.13
1900	5.92	13.47	14.19	11.76	11.22	7.81	2.04	1.84	7.66	12.54	11.90	12.19
1915	6.05	13.95	13.84	11.76	10.98	9.06	1.99	1.67	8.67	12.54	12.85	12.62
1930	5.87	14.07	14.02	11.69	10.97	9.42	2.10	1.78	8.61	12.84	12.91	12.67
1945	5.90	14.13	14.13	11.69	10.85	9.83	2.10	1.78	8.97	12.25	13.68	12.67
2000	5.93	14.30	14.25	11.39	10.97	9.42	2.10	1.72	9.80	12.60	13.09	12.55
2015	5.93	14.25	14.13	11.45	11.10	9.60	1.93	1.78	10.29	12.77	13.56	12.66
2030	6.35	14.13	13.78	11.87	10.97	9.65	2.05	1.83	10.16	12.49	12.85	12.66
2045	6.28	14.30	13.96	11.87	11.10	9.83	1.93	1.54	10.22	12.65	13.27	12.97
2100	6.59	14.48	14.37	12.16	10.97	9.77	2.16	1.60	9.50	12.31	13.91	12.72
2115	6.88	14.60	13.78	12.41	10.98	9.12	2.04	1.54	8.97	11.64	12.02	12.48
2130	7.66	14.36	13.96	11.82	11.04	10.44	1.80	1.54	8.91	11.82	14.10	12.84
2145	8.61	14.96	14.25	11.88	12.46	9.72	1.85	1.48	8.97	11.82	13.03	13.09
2200	9.39	14.84	13.90	12.05	10.98	9.42	1.62	1.30	8.79	11.52	14.10	13.39
2215	9.86	14.96	13.90	12.29	11.69	9.36	1.62	1.30	9.09	11.41	12.67	14.52
2230	10.91	14.60	14.08	12.64	10.38	9.36	1.56	1.18	9.09	11.17	12.79	13.21
2245	11.15	14.42	14.08	12.22	10.79	9.24	1.62	1.12	8.97	11.05	14.16	12.38
2300	11.15	14.48	14.19	12.77	11.16	9.24	1.73	1.12	9.39	11.17	12.55	12.38
2315	11.34	14.48	14.02	12.94	10.67	8.89	1.74	1.00	10.16	11.41	12.32	12.44
2330	11.63	14.66	13.60	13.01	10.80	8.76	1.62	0.94	9.10	11.11	11.72	12.54
2345	11.75	15.02	13.96	13.18	10.86	8.59	1.68	1.00	9.04	11.11	12.49	12.14
2400	11.98	14.90	13.72	13.76	10.86	8.46	1.51	1.01	8.32	10.75	13.45	11.59

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
26 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	FRI 25	SAT 26	SUN 27	MON 28	TUE 29	WED 30	THU 31
	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74	OCT 74
15	11.37	15.29	13.79	4.51	8.79	13.80	17.41
30	11.71	15.47	14.32	4.21	9.98	15.29	17.42
45	12.26	15.76	14.51	4.57	11.41	16.83	17.54
100	12.00	13.86	14.57	4.75	11.29	16.10	17.42
115	12.02	14.93	16.12	4.93	11.10	16.66	17.24
130	12.19	14.80	*****	4.87	12.41	16.46	17.54
145	12.13	14.34	16.35	5.58	13.97	16.46	17.66
200	12.25	13.85	15.29	4.93	14.14	16.16	17.73
215	12.07	9.04	14.69	6.12	14.27	15.57	17.60
230	11.69	9.27	14.16	7.13	14.43	16.35	17.42
245	11.82	9.15	14.63	7.31	14.44	16.17	17.42
300	11.76	11.53	15.47	7.19	14.49	15.82	17.49
315	11.77	12.47	15.82	6.70	14.32	16.53	17.30
330	11.94	12.43	16.53	7.13	14.50	17.48	17.13
345	11.83	9.56	16.71	7.66	14.50	16.41	17.02
400	11.53	8.44	16.47	8.32	14.73	16.28	16.95
415	11.72	6.60	16.10	8.50	14.91	16.47	16.83
430	11.47	9.69	16.28	8.14	14.68	16.53	16.77
445	11.47	10.11	16.16	7.90	14.86	16.47	16.53
500	11.23	10.94	16.47	7.78	15.28	16.52	16.47
515	11.23	9.21	16.59	7.90	14.98	16.64	16.42
530	10.83	8.61	17.24	7.85	14.21	16.94	16.53
545	9.69	9.33	17.12	7.13	14.50	17.24	16.59
600	9.04	8.49	16.71	7.07	14.02	17.29	16.36
615	8.69	7.72	16.53	6.90	13.66	16.70	16.53
630	8.08	9.86	15.10	6.36	14.67	*****	16.23
645	7.78	8.37	14.20	6.18	14.91	16.28	15.82
700	7.20	7.78	12.90	6.00	14.91	17.29	14.99
715	6.66	7.13	11.53	6.30	14.44	17.11	14.75
730	5.64	4.63	8.85	6.42	14.27	17.06	14.16
745	5.64	4.81	7.96	6.06	14.21	15.75	13.86
800	5.12	6.59	7.72	5.83	14.03	15.39	13.86
815	4.34	7.36	8.02	5.65	12.29	15.93	13.92
830	3.69	5.64	7.31	6.06	11.41	15.33	13.80
845	4.04	1.00	5.05	2.60	10.88	14.50	13.80
900	4.69	0.94	2.32	4.62	11.53	13.91	13.69
915	4.39	1.19	2.08	3.79	12.12	12.71	13.15
930	4.27	1.07	2.85	2.14	11.65	13.07	12.54
945	4.75	1.07	2.02	1.84	11.17	14.08	10.82
1000	*****	1.12	3.15	1.59	11.94	13.31	11.31
1015	5.05	1.19	5.35	1.53	11.68	15.46	11.96
1030	4.34	1.14	3.28	2.01	11.12	15.64	10.77
1045	3.86	1.08	2.39	1.54	12.13	13.97	10.40
1100	3.38	0.89	1.97	1.83	11.65	9.27	9.94
1115	3.02	0.83	1.78	1.89	9.81	8.07	8.38
1130	3.15	0.89	1.72	1.71	10.46	7.85	6.66
1145	3.62	0.77	2.97	1.59	10.04	7.37	5.88
1200	4.10	0.77	4.45	2.78	9.92	7.19	5.42

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

26 NOV 74

TEMPERATURE DIFFERENCES BETWEEN STATIONS S-4 AND N-10

TIME	FRI 25 OCT 74	SAT 26 OCT 74	SUN 27 OCT 74	MON 28 OCT 74	TUE 29 OCT 74	WED 30 OCT 74	THU 31 OCT 74
1215	5.28	0.88	2.43	3.79	8.26	7.07	5.71
1230	5.28	0.88	2.09	3.02	7.44	6.72	5.78
1245	6.89	0.76	3.09	2.55	6.90	6.61	5.90
1300	8.50	0.82	3.98	4.47	5.94	6.25	5.83
1315	9.63	1.06	2.96	4.17	5.18	6.36	*****
1330	11.30	0.83	2.44	4.53	4.63	6.89	4.76
1345	11.95	0.77	1.83	4.75	3.75	7.14	4.94
1400	7.91	0.89	2.85	4.59	2.37	6.90	6.06
1415	7.08	4.34	3.92	4.34	2.25	6.42	6.31
1430	6.84	3.27	3.39	5.24	2.49	6.59	6.62
1445	7.02	2.26	4.09	5.17	4.69	6.83	7.73
1500	8.33	4.22	4.81	5.00	3.92	7.66	9.16
1515	6.78	6.84	4.63	4.75	5.40	8.38	10.76
1530	8.92	9.51	3.26	4.59	7.60	8.03	11.61
1545	9.22	11.12	1.48	5.16	9.21	10.64	12.49
1600	11.77	11.06	1.30	5.76	9.52	13.61	13.74
1615	10.35	12.00	2.31	7.49	10.88	14.21	13.44
1630	9.22	11.88	5.12	8.86	12.48	14.15	13.50
1645	7.61	12.24	2.49	9.50	12.79	14.56	13.20
1700	5.41	12.36	1.54	11.71	13.91	15.04	13.02
1715	5.95	12.72	1.43	13.73	14.26	15.10	13.62
1730	7.08	14.02	1.24	14.69	16.24	14.98	14.35
1745	9.40	13.79	1.19	15.69	16.70	14.92	14.03
1800	10.53	13.61	1.13	14.45	15.87	15.16	13.20
1815	12.12	12.95	1.19	13.97	15.35	17.07	13.08
1830	12.24	13.73	1.19	13.20	15.82	17.45	13.56
1845	10.76	14.44	1.49	11.36	15.82	17.12	13.79
1900	8.91	14.98	1.66	10.82	15.04	16.28	12.37
1915	8.05	14.38	2.50	9.99	14.04	15.27	11.24
1930	9.51	12.66	2.79	9.86	12.55	14.98	11.48
1945	10.71	11.59	1.97	9.69	11.78	13.85	11.89
2000	10.04	10.40	1.84	9.86	11.78	13.01	11.60
2015	10.34	9.09	2.03	9.09	13.20	13.07	11.18
2030	10.58	0.88	2.50	9.27	13.09	12.83	12.96
2045	10.77	7.84	2.66	9.38	11.30	13.19	11.89
2100	10.77	7.25	2.21	9.50	11.60	13.37	12.90
2115	11.94	8.03	1.65	8.61	10.53	13.85	13.74
2130	14.27	11.06	1.89	8.55	9.88	14.98	14.33
2145	12.66	12.12	4.75	8.31	10.16	14.44	14.92
2200	13.32	11.84	4.45	8.91	10.59	13.55	14.75
2215	15.16	11.29	4.63	8.79	10.70	14.32	15.40
2230	16.05	10.88	1.96	8.73	10.16	14.86	15.76
2245	16.52	12.25	1.13	8.97	10.59	16.76	15.94
2300	16.35	13.62	1.01	9.09	11.13	17.54	15.99
2315	16.77	14.20	0.89	8.61	11.01	17.53	15.76
2330	17.19	14.04	1.24	8.61	11.23	16.83	16.11
2345	17.13	14.04	3.14	8.73	13.68	16.88	16.05
2400	15.35	13.97	4.15	8.61	13.32	17.47	16.11

INTERVALS WHERE N-10 TEMPERATURE EXCEEDS 78.0 DEGREES F ARE MARKED BY 'S' TO THE LEFT OF THE DELTA TEMPERATURE READING
 ASTERISKS INDICATE NO DATA AT STATION N-10 AND/OR S-4

PAGE

// JOB
0000

1830 1830 0000

V2 M11 ACTUAL 16K CONFIG 16K

// XEQ DELTA

// XEQ CLEAR

FILE NUMBER 8 TO BE CLEARED.
// XEQ COMBOFILE 2 TO BE ADDED TO FILE 8
// XEQ COMBOFILE 4 TO BE SUBTRACTED FROM FILE 8
// XEQ DDT

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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

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INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE		TEMPERATURE CHANGE		TEMP SO	TEMP CHANGE	
		S4	N10	S4	N10		SO	SO-N10
MCN 30 SEP 74	500	64.87	60.84	2.67	-0.24	70.13	+ 0.30	+ 0.51
MCN 30 SEP 74	600	62.67	60.55	-2.55	-0.28	71.64	+ 0.79	+ 1.07
MCN 30 SEP 74	1800	62.55	60.08	-4.03	0.00	75.51	+ 0.12	+ 0.12
MCN 30 SEP 74	1830	65.23	60.08	2.67	0.00	75.51	+ 0.00	+ 0.00
MCN 30 SEP 74	1930	62.31	59.90	-2.25	-0.05	75.51	+ 0.00	+ 0.05
MCN 30 SEP 74	2030	64.39	59.72	2.25	-0.06	75.08	- 0.31	- 0.25

PAGE 1

// JOR 0000 1A30 1830 0000

V2 M11 ACTUAL 16K CONFIG 16K

// XEQ DELTA

// XEQ CLEAR

FILE NUMBER 8 TO BE CLEARED.

// XEQ COMBO

FILE 2 TO BE ADDED TO FILE 8

// XEQ COMBO

FILE 4 TO BE SUBTRACTED FROM FILE 8

// XEQ DOT

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

22 NOV 74

INTERVALS MINUTE 54-MIN DILTA TEMPERATURE CHANGE EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE		TEMPERATURE CHANGE	
		S4	N10	S4	N10
SUN	1 SEP 74	80.33	71.60	-1.96	0.06
TUE	3 SEP 74	75.39	70.30	-2.98	0.06
WED	4 SEP 74	74.03	67.58	-2.49	0.00
WED	4 SEP 74	69.39	66.76	-3.09	-0.04
WED	4 SEP 74	73.97	66.76	4.58	0.00
WED	4 SEP 74	71.59	66.76	-2.37	0.00
THU	5 SEP 74	68.14	65.41	-3.09	-0.12
THU	5 SEP 74	71.05	65.75	2.91	-0.05
FRI	6 SEP 74	67.54	66.34	-2.90	-0.12
FRI	6 SEP 74	69.74	66.28	2.19	-0.06
FRI	6 SEP 74	68.02	66.10	-2.07	-0.06
FRI	6 SEP 74	69.57	65.04	2.14	0.00
FRI	6 SEP 74	67.19	65.10	-2.37	0.05
FRI	6 SEP 74	69.45	65.16	2.25	0.05
SAT	7 SEP 74	66.30	64.69	-4.33	-0.10
SAT	7 SEP 74	69.21	63.74	2.37	0.00
SAT	7 SEP 74	66.00	63.80	-3.20	0.06
SAT	7 SEP 74	69.63	64.04	3.20	0.00
TUE	10 SEP 74	74.03	65.28	2.08	0.00
TUE	10 SEP 74	72.06	65.51	-2.09	0.17
TUE	10 SEP 74	76.76	65.99	2.79	0.05
TUE	10 SEP 74	74.86	66.22	-1.90	0.23
THU	12 SEP 74	79.32	67.23	2.14	0.06
THU	12 SEP 74	76.11	67.35	-3.21	0.12
FRI	13 SEP 74	79.62	70.12	-1.84	0.52
SAT	14 SEP 74	83.72	70.36	2.14	0.00
MON	16 SEP 74	68.91	67.23	-2.97	0.18
MON	16 SEP 74	72.24	67.41	3.62	0.00
WED	18 SEP 74	72.90	65.99	-3.20	0.23
WED	18 SEP 74	74.62	66.58	2.19	-0.05
WED	18 SEP 74	73.85	66.93	-2.44	0.00
WED	18 SEP 74	78.31	67.29	2.13	0.06
FRI	20 SEP 74	75.81	67.52	-1.84	0.17
SUN	22 SEP 74	69.80	65.75	-2.86	0.35
SUN	22 SEP 74	71.35	65.87	2.73	0.00
MON	23 SEP 74	66.47	64.10	-2.80	0.11
MON	23 SEP 74	68.91	64.04	2.44	-0.06
MON	23 SEP 74	70.70	63.86	2.03	-0.11
MON	23 SEP 74	68.50	63.86	-2.19	0.00
MON	23 SEP 74	65.34	63.60	-4.11	-0.12
MON	23 SEP 74	68.02	63.50	-2.68	-0.12
MON	23 SEP 74	65.23	63.21	-2.55	-0.06
THU	26 SEP 74	63.50	59.60	2.66	0.00
THU	26 SEP 74	61.00	59.60	-2.09	0.05
FRI	27 SEP 74	61.78	58.83	-2.08	0.28
SAT	28 SEP 74	62.91	60.02	-2.25	0.23
SUN	29 SEP 74	65.17	60.96	-2.37	0.00
SUN	1 SEP 74	80.33	71.60	-1.96	0.06
TUE	3 SEP 74	75.39	70.30	-2.98	0.06
WED	4 SEP 74	74.03	67.58	-2.49	0.00
WED	4 SEP 74	69.39	66.76	-3.09	-0.04
WED	4 SEP 74	73.97	66.76	4.58	0.00
WED	4 SEP 74	71.59	66.76	-2.37	0.00
THU	5 SEP 74	68.14	65.41	-3.09	-0.12
THU	5 SEP 74	71.05	65.75	2.91	-0.05
FRI	6 SEP 74	67.54	66.34	-2.90	-0.12
FRI	6 SEP 74	69.74	66.28	2.19	-0.06
FRI	6 SEP 74	68.02	66.10	-2.07	-0.06
FRI	6 SEP 74	69.57	65.04	2.14	0.00
FRI	6 SEP 74	67.19	65.10	-2.37	0.05
FRI	6 SEP 74	69.45	65.16	2.25	0.05
SAT	7 SEP 74	66.30	64.69	-4.33	-0.10
SAT	7 SEP 74	69.21	63.74	2.37	0.00
SAT	7 SEP 74	66.00	63.80	-3.20	0.06
SAT	7 SEP 74	69.63	64.04	3.20	0.00
TUE	10 SEP 74	74.03	65.28	2.08	0.00
TUE	10 SEP 74	72.06	65.51	-2.09	0.17
TUE	10 SEP 74	76.76	65.99	2.79	0.05
TUE	10 SEP 74	74.86	66.22	-1.90	0.23
THU	12 SEP 74	79.32	67.23	2.14	0.06
THU	12 SEP 74	76.11	67.35	-3.21	0.12
FRI	13 SEP 74	79.62	70.12	-1.84	0.52
SAT	14 SEP 74	83.72	70.36	2.14	0.00
MON	16 SEP 74	68.91	67.23	-2.97	0.18
MON	16 SEP 74	72.24	67.41	3.62	0.00
WED	18 SEP 74	72.90	65.99	-3.20	0.23
WED	18 SEP 74	74.62	66.58	2.19	-0.05
WED	18 SEP 74	73.85	66.93	-2.44	0.00
WED	18 SEP 74	78.31	67.29	2.13	0.06
FRI	20 SEP 74	75.81	67.52	-1.84	0.17
SUN	22 SEP 74	69.80	65.75	-2.86	0.35
SUN	22 SEP 74	71.35	65.87	2.73	0.00
MON	23 SEP 74	66.47	64.10	-2.80	0.11
MON	23 SEP 74	68.91	64.04	2.44	-0.06
MON	23 SEP 74	70.70	63.86	2.03	-0.11
MON	23 SEP 74	68.50	63.86	-2.19	0.00
MON	23 SEP 74	65.34	63.60	-4.11	-0.12
MON	23 SEP 74	68.02	63.50	-2.68	-0.12
MON	23 SEP 74	65.23	63.21	-2.55	-0.06
THU	26 SEP 74	63.50	59.60	2.66	0.00
THU	26 SEP 74	61.00	59.60	-2.09	0.05
FRI	27 SEP 74	61.78	58.83	-2.08	0.28
SAT	28 SEP 74	62.91	60.02	-2.25	0.23
SUN	29 SEP 74	65.17	60.96	-2.37	0.00

PUBLIC SERVICE COMPANY OF HAMPSHIRE

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INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE		TEMPERATURE CHANGE	
		S4	N10	S4	N10
MON 30 SEP 74	500	64.87	60.84	2.67	2.91
MON 30 SEP 74	600	62.67	60.55	-2.55	-2.26
MON 30 SEP 74	1800	62.55	60.08	-4.03	-4.03
MON 30 SEP 74	1830	65.23	60.08	2.67	2.67
MON 30 SEP 74	1930	62.31	59.90	-2.25	-2.20
MON 30 SEP 74	2030	64.39	59.72	2.25	2.31

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
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INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE S4	TEMPERATURE N10	TEMPERATURE CHANGE S4-N10
TUE 1 OCT 74	100	61.84	59.19	-4.16
TUE 1 OCT 74	130	65.46	59.19	3.62
WED 2 OCT 74	1300	63.38	56.23	2.84
WED 2 OCT 74	1530	60.65	56.35	-3.02
WED 2 OCT 74	1630	62.67	56.35	2.97
THU 3 OCT 74	200	58.57	55.64	-3.35
THU 3 OCT 74	230	61.30	55.58	2.72
THU 3 OCT 74	300	59.92	55.52	-2.37
THU 3 OCT 74	1130	58.86	54.99	2.61
THU 3 OCT 74	1300	61.30	54.99	3.45
THU 3 OCT 74	1530	63.09	55.11	3.15
FRI 4 OCT 74	1400	59.28	53.87	4.28
FRI 4 OCT 74	1500	61.66	53.87	2.32
FRI 4 OCT 74	2000	63.09	53.69	2.25
FRI 4 OCT 74	2100	59.99	53.46	-2.85
SAT 5 OCT 74	1200	63.44	53.16	3.09
SUN 6 OCT 74	100	65.58	52.86	2.44
TUE 8 OCT 74	1400	59.46	55.23	2.74
TUE 8 OCT 74	2230	61.18	53.75	1.96
TUE 8 OCT 74	2330	64.16	53.63	2.13
WED 9 OCT 74	1200	62.73	53.28	2.61
THU 10 OCT 74	1330	65.52	52.21	3.08
FRI 11 OCT 74	900	56.49	50.91	-2.60
SAT 12 OCT 74	1330	61.42	50.97	4.34
SAT 12 OCT 74	1600	64.99	51.21	2.07
SUN 13 OCT 74	30	62.43	51.09	-2.25
MON 14 OCT 74	1030	59.34	50.50	3.91
MON 14 OCT 74	1300	60.65	50.80	2.02
MON 14 OCT 74	1330	62.91	50.74	2.25
TUE 15 OCT 74	1230	65.82	52.04	2.25
WED 16 OCT 74	500	60.05	52.10	-1.97
WED 16 OCT 74	1700	63.86	51.39	2.02
WED 16 OCT 74	1730	61.42	51.39	-2.44
THU 17 OCT 74	630	57.32	50.32	-2.08
THU 17 OCT 74	1300	61.60	50.91	1.95
FRI 18 OCT 74	500	53.57	49.97	-3.44
FRI 18 OCT 74	530	51.19	49.91	-2.37
FRI 18 OCT 74	1200	56.19	49.79	4.52
FRI 18 OCT 74	1900	57.02	49.20	-2.02
SAT 19 OCT 74	330	49.41	48.14	-3.21
SUN 20 OCT 74	700	50.96	46.42	2.97
SUN 20 OCT 74	800	47.57	46.42	-2.01
MON 21 OCT 74	1230	48.40	44.06	2.91
MON 21 OCT 74	1400	49.05	44.29	2.42
MON 21 OCT 74	1430	52.50	44.29	3.44
MON 21 OCT 74	1530	53.33	44.18	2.02
MON 21 OCT 74	1630	48.99	44.06	-4.17

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
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INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE S4	TEMPERATURE N10	TEMPERATURE CHANGE S4-N10
TUE 1 OCT 74	100	61.84	59.19	-4.16
TUE 1 OCT 74	130	65.46	59.19	3.62
WED 2 OCT 74	1300	63.38	56.23	2.78
WED 2 OCT 74	1530	60.65	56.35	-3.02
WED 2 OCT 74	1630	62.67	56.35	2.97
THU 3 OCT 74	200	58.57	55.64	-3.05
THU 3 OCT 74	230	61.30	55.58	2.72
THU 3 OCT 74	300	59.92	55.52	-2.37
THU 3 OCT 74	1130	58.86	54.99	2.61
THU 3 OCT 74	1300	61.30	54.99	3.45
THU 3 OCT 74	1530	63.09	55.11	3.15
FRI 4 OCT 74	1400	59.28	53.87	4.28
FRI 4 OCT 74	1500	61.66	53.87	2.32
FRI 4 OCT 74	2000	63.09	53.69	2.25
FRI 4 OCT 74	2100	59.99	53.46	-2.85
SAT 5 OCT 74	1200	63.44	53.16	3.09
SUN 6 OCT 74	100	65.58	52.86	2.44
TUE 8 OCT 74	1400	59.46	55.23	2.74
TUE 8 OCT 74	2230	61.18	53.75	1.96
TUE 8 OCT 74	2330	64.16	53.63	2.13
WED 9 OCT 74	1200	62.73	53.28	2.61
THU 10 OCT 74	1330	65.52	52.21	3.08
FRI 11 OCT 74	900	56.49	50.91	-2.60
SAT 12 OCT 74	1330	61.42	50.97	4.34
SAT 12 OCT 74	1600	64.99	51.21	2.07
SUN 13 OCT 74	30	62.43	51.09	-2.25
MON 14 OCT 74	1030	59.34	50.50	3.91
MON 14 OCT 74	1300	60.65	50.80	2.02
MON 14 OCT 74	1330	62.91	50.74	2.25
TUE 15 OCT 74	1230	65.82	52.04	2.25
WED 16 OCT 74	500	60.05	52.10	-1.97
WED 16 OCT 74	1700	63.86	51.39	2.02
WED 16 OCT 74	1730	61.42	51.39	-2.44
THU 17 OCT 74	630	57.32	50.32	-2.08
THU 17 OCT 74	1300	61.60	50.91	1.95
FRI 18 OCT 74	500	53.57	49.97	-3.44
FRI 18 OCT 74	530	51.19	49.91	-2.37
FRI 18 OCT 74	1200	56.19	49.79	4.52
FRI 18 OCT 74	1900	57.02	49.20	-2.02
SAT 19 OCT 74	330	49.41	48.14	-3.21
SUN 20 OCT 74	700	50.96	46.42	2.97
SUN 20 OCT 74	800	47.57	46.42	-2.01
MON 21 OCT 74	1230	48.40	44.06	2.91
MON 21 OCT 74	1400	49.05	44.29	2.42
MON 21 OCT 74	1430	52.50	44.29	3.44
MON 21 OCT 74	1530	53.33	44.18	2.02
MON 21 OCT 74	1630	48.99	44.06	-4.17
				-0.11
				0.00
				0.06
				0.00
				0.00
				-0.06
				-0.06
				-2.31
				2.49
				3.57
				3.21
				4.16
				2.32
				2.25
				-2.74
				2.85
				2.49
				2.62
				2.02
				2.19
				2.37
				3.14
				-2.60
				4.28
				2.01
				-2.31
				3.86
				2.02
				2.31
				2.13
				-2.02
				2.08
				-2.44
				-2.02
				2.01
				-3.44
				-2.32
				4.40
				-2.02
				-3.15
				3.09
				-2.01
				2.65
				2.36
				3.44
				-2.07
				-4.10

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INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE		TEMPERATURE CHANGE	
		S4	N10	S4	N10
MON 21 OCT 74	1700	52.80	44.00	3.81	-0.06
TUE 22 OCT 74	1000	40.34	43.52	2.19	0.10
TUE 22 OCT 74	1030	46.08	43.76	-2.25	0.24
TUE 22 OCT 74	1130	51.43	43.08	3.56	0.18
TUE 22 OCT 74	1200	55.89	43.94	4.46	0.06
WED 23 OCT 74	130	53.81	43.94	-2.00	0.00
WED 23 OCT 74	200	51.79	44.00	-2.01	0.05
WED 23 OCT 74	1430	54.76	45.48	7.84	0.06
WED 23 OCT 74	1500	52.50	45.48	-2.26	0.00
WED 23 OCT 74	1600	55.30	45.42	3.92	-0.11
WED 23 OCT 74	1730	54.11	45.30	-3.08	-0.06
WED 23 OCT 74	1830	57.32	45.24	2.32	-0.06
THU 24 OCT 74	100	54.46	45.18	-2.37	0.00
THU 24 OCT 74	130	57.14	45.18	2.68	0.00
THU 24 OCT 74	430	56.13	44.94	-2.44	0.00
THU 24 OCT 74	600	51.19	44.83	-3.09	-0.05
THU 24 OCT 74	700	47.27	44.83	-4.22	0.00
THU 24 OCT 74	1330	50.96	46.07	4.46	0.00
THU 24 OCT 74	1800	58.45	45.65	2.31	-0.05
FRI 25 OCT 74	1300	53.39	44.88	3.33	0.11
FRI 25 OCT 74	1330	56.19	44.88	2.80	0.00
FRI 25 OCT 74	1400	52.80	44.88	-3.39	0.00
FRI 25 OCT 74	1600	56.66	44.88	2.78	-0.06
FRI 25 OCT 74	1630	54.17	44.94	-2.49	0.06
FRI 25 OCT 74	1700	50.36	44.94	-3.80	0.00
FRI 25 OCT 74	1800	55.42	44.88	3.45	0.00
FRI 25 OCT 74	1900	53.69	44.77	-3.38	-0.06
FRI 25 OCT 74	2130	58.86	44.59	3.50	0.00
FRI 25 OCT 74	2230	60.47	44.41	2.67	-0.05
SAT 26 OCT 74	230	53.45	44.18	-4.58	0.00
SAT 26 OCT 74	300	55.71	44.18	2.25	0.00
SAT 26 OCT 74	400	52.50	44.06	-3.99	0.00
SAT 26 OCT 74	530	52.56	43.94	-2.30	-0.05
SAT 26 OCT 74	700	51.55	43.76	-2.14	-0.06
SAT 26 OCT 74	730	48.46	43.82	-3.09	0.06
SAT 26 OCT 74	900	44.89	43.94	-4.64	0.06
SAT 26 OCT 74	1430	48.16	44.88	2.32	-0.06
SAT 26 OCT 74	1530	54.40	44.88	5.28	0.00
SAT 26 OCT 74	1930	57.32	44.65	-2.31	0.00
SAT 26 OCT 74	2000	55.00	44.59	-2.32	-0.06
SAT 26 OCT 74	2030	52.68	44.59	-2.31	0.00
SAT 26 OCT 74	2130	55.65	44.59	3.00	0.00
SAT 26 OCT 74	2300	58.15	44.53	2.73	0.00
SUN 27 OCT 74	700	56.90	44.00	-2.19	0.00
SUN 27 OCT 74	730	52.80	43.94	-4.10	-0.05
SUN 27 OCT 74	900	46.32	44.00	-4.98	0.00
SUN 27 OCT 74	1200	48.93	44.47	2.78	0.05

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

26 NOV 74

INTERVALS WHERE S4-N10 DELTA TEMPERATURE CHANGES EXCEED 2 DEGREES F

DATE	30 MIN ENDING	TEMPERATURE		TEMPERATURE CHANGE	
		S4	N10	S4	N10
SUN 27 OCT 74	1230	46.62	44.53	-2.30	0.06
SUN 27 OCT 74	1630	49.65	44.53	3.69	-0.12
SUN 27 OCT 74	1700	45.96	44.41	-3.69	-0.12
SUN 27 OCT 74	2200	49.59	44.12	2.56	0.00
SUN 27 OCT 74	2230	46.02	44.06	-2.56	-0.06
SUN 27 OCT 74	2400	48.04	43.88	2.84	-0.06
MON 28 OCT 74	230	50.78	43.64	2.20	0.00
MON 28 OCT 74	930	45.37	43.23	-2.36	0.11
MON 28 OCT 74	1630	53.10	44.23	3.09	0.00
MON 28 OCT 74	1700	55.89	44.18	2.79	-0.05
MON 28 OCT 74	1730	58.92	44.23	3.03	0.05
MON 28 OCT 74	1900	54.82	44.00	-2.37	0.00
TUE 29 OCT 74	830	54.58	43.17	-2.50	0.12
TUE 29 OCT 74	1230	51.67	44.23	-2.13	0.34
TUE 29 OCT 74	1400	46.97	44.59	-2.08	0.17
TUE 29 OCT 74	1530	52.26	44.65	3.68	0.00
TUE 29 OCT 74	1630	56.96	44.47	2.84	-0.12
TUE 29 OCT 74	1730	60.83	44.59	2.37	0.05
TUE 29 OCT 74	1930	56.90	44.35	-2.55	-0.06
TUE 29 OCT 74	2400	57.56	44.23	2.09	0.00
WED 30 OCT 74	1030	59.64	44.00	2.37	0.05
WED 30 OCT 74	1100	53.33	44.06	-6.31	0.06
WED 30 OCT 74	1600	58.21	44.59	5.58	0.00
WED 30 OCT 74	1830	62.43	44.77	2.55	0.06
WED 30 OCT 74	2300	62.37	44.83	2.73	0.06
THU 31 OCT 74	1130	52.09	45.42	-3.27	0.00
THU 31 OCT 74	1500	55.24	46.07	2.31	-0.22
THU 31 OCT 74	1530	57.79	46.18	2.55	0.10
THU 31 OCT 74	1600	59.76	46.01	1.97	-0.16

APPENDIX II

PLANKTON

TABLE 1 A. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF DIATOMS FROM
SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	1.65354	1/3	3.67054	*
2	Weeks	29	9.01970	1/3	20.022	*
3	Stations x Weeks	87	0.45049			
	TOTAL	119	2.569114369			

TABLE 1 B. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF GREENS FROM
SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	0.39801	1/3	1.27498	
2	Weeks	29	4.26236	1/3	13.6540	*
3	Stations x Weeks	87	0.31217			
	TOTAL	119	1.276985378			

TABLE 1 C. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF BLUEGREENS FROM
SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	23.16663	1/3	6.37723	*
2	Weeks	29	15.96476	1/3	4.3947	*
3	Stations x Weeks	87	3.63271			
	TOTAL	119	7.130446974			

TABLE 1 D. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF YELLOW BROWNS FROM SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	8.42950	1/3	4.54	*
2	Weeks	29	61.40977	1/3	33.074	*
3	Stations x Weeks	87	1.85673			
	TOTAL	119	16.53535319			

TABLE 1 E. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF ZOOPLANKTON FROM SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	0.60782	1/3	0.63154	
2	Weeks	29	5.17726	1/3	5.37931	
3	Stations x Weeks	87	0.96244			
	TOTAL	119	1.980639579			

TABLE 1 F. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF PLANKTON FROM SURFACE TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	0.66399	1/3	2.8677	*
2	Weeks	29	4.14932	1/3	17.9205	*
3	Stations x Weeks	87	0.23154			
	TOTAL	119	1.197194705			

TABLE 1 G. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF DIATOMS FROM SURFACE TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Stations	3	247.21516	1/3	7.18126 *
2	Weeks	29	1374.70020	1/3	39.93316 *
3	Stations x Weeks	87	34.42503		
	TOTAL	119	366.4112066		

TABLE 1 H. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF GREENS FROM SURFACE TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Stations	3	182.78165	1/3	2.24292
2	Weeks	29	1332.71191	1/3	16.35373 *
3	Stations x Weeks	87	81.49286		
	TOTAL	119	388.9653361		

TABLE 1 I. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF BLUEGREENS FROM SURFACE TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Stations	3	259.75537	1/3	21.7806 *
2	Weeks	29	295.63184	1/3	24.78882 *
3	Stations x Weeks	87	11.92599		
	TOTAL	119	87.31220453		

TABLE 1 J. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF YELLOW BROWNS FROM SURFACE TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	95.29622	1/3	5.319876	*
2	Weeks	29	276.29810	1/3	15.42424	*
3	Stations x Weeks	87	17.91324			
	TOTAL	119	82.83180151			

TABLE 1 K. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF ZOOPLANKTON FROM SURFACE TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Stations	3	3.62874	1/3	0.83509	
2	Weeks	29	30.81548	1/3	7.09164	*
3	Stations x Weeks	87	4.34532			
	TOTAL	119	10.77796537			

For all tables:

$$\alpha = .01$$

* indicates significance

TABLE 1 L. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF DIATOMS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depth	1	0.07778	1/8	0.81898	
2	Stations	1	0.00775	1/8	0.08160	
3	Weeks	29	9.28068	1/8	97.72045	*
4	D x S	1	0.81105	1/7	11.4474	*
5	D x W	29	0.11909	1/7	1.6808	
6	S x W	29	0.23532	1/7	3.3214	*
7	D x S x W	29	0.07085			
8	Pool (5 + 7)	58	0.09497			
	TOTAL	119	2.37284			

TABLE 1 M. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF GREENS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	2.09738	1/8	16.6461	*
2	Stations	1	0.79361	1/8	6.2986	
3	Weeks	29	4.21854	1/8	33.4810	*
4	D x S	1	0.03471	1/7	0.3118	
5	D x W	29	0.14382	1/7	1.2918	
6	S x W	29	0.39554	1/7	3.5529	*
7	D x S x W	29	0.11133			
8	Pool (4 + 5 + 7)	59	0.125998			
	TOTAL	119	1.21120			

TABLE 1 N. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF BLUEGREENS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	1.68442	1/8	0.9082	
2	Stations	1	0.29064	1/8	0.1567	
3	Weeks	29	21.44121	1/8	11.5606	*
4	D x S	1	6.46838	1/7	3.2615	
5	D x W	29	1.64189	1/7	0.8278	
6	S x W	29	1.77981	1/7	0.8974	
7	D x S x W	29	1.98327			
8	Pool (4+5+6+7)	88	1.85468			
	TOTAL	119	6.613296			

TABLE 1 O. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF YELLOW BROWNS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	1.55876	1/8	0.51515	
2	Stations	1	0.03061	1/8	0.01012	
3	Weeks	29	59.19543	1/8	19.5634	*
4	D x S	1	3.75243	1/7	1.3181	
5	D x W	29	2.92716	1/7	1.0282	
6	S x W	29	3.27843	1/7	1.1516	
7	D x S x W	29	2.84680			
8	Pool (4+5+6+7)	88	3.02582			
	TOTAL	119	16.6792			

TABLE 1 P. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF ZOOPLANKTON FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Depths	1	0.80576	1/8	1.78950
2	Stations	1	0.35818	1/8	0.79548
3	Weeks	29	2.91597	1/8	6.4760 *
4	D x S	1	1.26447	1/7	3.1296
5	D x W	29	0.21309	1/7	0.5274
6	S x W	29	0.70563	1/7	1.7465
7	D x S x W	29	0.40403		
8	Pool (4+5+6+7)	88	0.45027		
	TOTAL	119	1.05337		

TABLE 1 Q. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF PLANKTON FROM SURFACE AND BOTTOM TOWS, 1974, AFTER $\log_e (x + 1)$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Depths	1	0.68495	1/8	6.46789
2	Stations	1	0.48587	1/8	4.5880
3	Weeks	29	4.22689	1/8	39.9140 *
4	D x S	1	0.14017	1/7	1.5633
5	D x W	29	0.30610	1/7	3.4140 *
6	S x W	29	0.12105	1/7	1.3501
7	D x S x W	29	0.08966		
8	Pool (4+6+7)	59	0.1059		
	TOTAL	119	1.16705		

TABLE 1 R. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF DIATOMS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	63.93111	1/8	4.168376	
2	Stations	1	20.10655	1/8	1.310968	
3	Weeks	29	1446.25269	1/8	94.29722	*
4	D x S	1	89.23421	1/7	6.36142	
5	D x W	29	14.09876	1/7	1.005086	
6	S x W	29	47.03986	1/7	3.35342	*
7	D x S x W	29	14.02741			
8	Pool (4+5+7)	59	15.33717			
	TOTAL	119	372.2471769			

TABLE 1 S. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF GREENS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	121.80669	1/8	7.77881	*
2	Stations	1	18.22073	1/8	1.16361	
3	Weeks	29	1461.70483	1/8	93.3473	*
4	D x S	1	54.59404	1/7	4.0452	
5	D x W	29	16.47900	1/7	1.22103	
6	S x W	29	54.35411	1/7	4.02743	*
7	D x S x W	29	13.49598			
8	Pool (4+5+7)	59	15.65879			
	TOTAL	119	378.4000131			

TABLE 1 T. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF BLUEGREENS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER ARCSIN $\sqrt{p}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	0.08112	1/8	0.012135	
2	Stations	1	10.70419	1/8	1.60133	
3	Weeks	29	302.14355	1/8	45.20011	*
4	D x S	1	3.15576	1/7	0.48373	
5	D x W	29	4.67336	1/7	0.71635	
6	S x W	29	8.97820	1/7	1.37621	
7	D x S x W	29	6.52386			
8	Pool (4+5+6+7)	88	6.68458			
	TOTAL	119	78.66540831			

TABLE 1 U. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF YELLOW BROWNS FROM SURFACE AND BOTTOM TOWS, 1974, AFTER ARCSIN $\sqrt{p}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Depths	1	6.79252	1/8	0.733805	
2	Stations	1	3.14604	1/8	0.33987	
3	Weeks	29	319.23877	1/8	34.48780	*
4	D x S	1	24.09338	1/7	2.781265	
5	D x W	29	6.61673	1/7	0.76266	
6	S x W	29	11.97863	1/7	1.382776	
7	D x S x W	29	8.66274			
8	Pool (4+5+6+7)	88	9.25657			
	TOTAL	119	84.72636554			

TABLE 1 V. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF ZOOPLANKTON FROM SURFACE AND BOTTOM TOWS, 1974, AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Depths	1	2.82438	1/8	2.71664
2	Stations	1	2.96099	1/8	2.84804
3	Weeks	29	45.55327	1/8	43.81554 *
4	D x S	1	1.26280	1/7	1.67968
5	D x W	29	1.31982	1/7	1.75552
6	S x W	29	2.02343	1/7	2.69141
7	D x S x W	29	0.75181		
8	Pool (4+5+6+7)	59	1.03966		
	TOTAL	119	12.15839596		

For all tables:

$\alpha = .01$

* indicates significance

WEEKLY PERIPHYTON

TABLE 2 A. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF DIATOMS FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	4.03199	1/3	7.58492	*
2	Stations	3	5.22814	1/3	9.835095	*
3	W x S	75	0.53158			
	TOTAL	103	1.51799			

TABLE 2 B. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CHLOROPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	9.73634	1/3	11.00313	*
2	Stations	3	1.05130	1/3	1.18808	
3	W x S	75	0.88487			
	TOTAL	103	3.03814			

TABLE 2 C. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CYANOPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\text{LOG}_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	7.84989	1/3	3.17012	*
2	Stations	3	3.25278	1/3	1.31361	
3	W x S	75	2.47621			
	TOTAL	103	3.80312			

TABLE 2 D. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CHRYSOPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\log_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO
1	Weeks	25	4.70751	1/3	1.42002
2	Stations	3	1.44084	1/3	0.43463
3	W x S	75	3.31509		
	TOTAL	103	3.59846		

TABLE 2 E. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF DIATOMS FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\arcsin \sqrt{p}$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	280.43	1/3	3.408	*
2	Stations	3	338.47	1/3	4.113	*
3	W x S	75	82.288			
	TOTAL	103	137.8419			

TABLE 2 F. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF CHLOROPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER $\arcsin \sqrt{p}$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	336.751	1/3	9.705	*
2	Stations	3	135.534	1/3	2.451	
3	W x S	75	55.305			
	TOTAL	103	174.497			

TABLE 2 G. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF CYANOPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	469.054	1/3	7.763	*
2	Stations	3	118.622	1/3	1.963	
3	W x S	75	60.418			
	TOTAL	103	101.296			

TABLE 2 H. ANALYSIS OF VARIANCE FOR THE PERCENTAGE OF CHRYSOPHYTA FROM WEEKLY SURFACE PERIPHYTON PANELS AFTER ARCSIN $\sqrt{P}$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Weeks	25	10.143	1/3	1.114	
2	Stations	3	6.168	1/3	.677	
3	W x S	75	9.104			
	TOTAL	103	9.271			

MONTHLY PERIPHYTON

TABLE 3 A. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF DIATOMS FROM MONTHLY SURFACE PERIPHYTON PANELS AFTER $\log_e (x + 1)$ TRANSFORMATION, 1974.

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Months	5	1.91764	1/3	1.91764	
2	Stations	3	3.87610	1/3	3.61186	*
3	M x S	15	1.07316			
	TOTAL	23	1.6223			

TABLE 3 B. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CHLOROPHYTA FROM MONTHLY SURFACE PERIPHYTON PANELS AFTER $\log_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Months	5	5.80929	1/3	7.67285	*
2	Stations	3	0.419445	1/3	0.5539	
3	M x S	15	0.75712			
	TOTAL	23	1.8114			

TABLE 3 C. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CYANOPHYTA FROM MONTHLY SURFACE PERIPHYTON PANELS AFTER $\log_e (x + 1)$ TRANSFORMATION, 1974

	SOURCE OF VARIATION	D.F.	MEAN SQUARE		F-RATIO	
1	Months	5	1.2209	1/3	1.01848	
2	Stations	3	2.24737	1/3	1.87474	
3	M x S	15	1.19876			
	TOTAL	23	1.34035			

BENTHIC INVERTEBRATES

TABLE 4A. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF OLIGOCHAETA
HOOKSETT POND - MERRIMACK RIVER - 1972, 1973, AND 1974

	S.S.	D.F.	M.S.	F ₃	p
MONTHS	22.02115	2	11.0106	13.5348	<.001
BANKS*	0.18759	1	0.18759	.23060	---
STATIONS	17.8753	3	5.9584	7.3244	<.001
YEARS	110.7754	2	55.3877	68.0857	<.001
M x B	0.4186	2	0.2093	.2573	---
M x S	22.6945	6	3.7824	4.6495	<.001
B x S	26.8226	3	8.9409	10.9906	<.001
M x Y	15.0359	4	3.7590	4.6208	<.005
B x Y	2.3782	2	1.1891	1.4617	---
S x Y	5.8374	6	0.9729	1.1959	---
TOTAL	315.1533	143			
** POOL 3	91.1075	112	0.8135		

* Mid-channel locations not tested

** Error term + 4-way and 3-way interactions

TABLE 4B. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF *Compeoloma decisum*
HOOKSETT POND - MERRIMACK RIVER - 1972, 1973, AND 1974

	S.S.	D.F.	M.S.	F ₃	P
MONTHS	8.0901	2	4.0540	7.4991	<.005
BANKS*	8.3557	1	8.3557	15.4907	<.001
STATIONS	5.3229	3	1.7743	3.2894	<.05
YEARS	0.6437	2	0.3219	.5968	---
M x B	1.3736	2	0.6868	1.2733	---
M x S	2.7461	6	0.4577	.8485	---
B x S	10.1436	3	3.3812	6.2684	<.001
M x Y	6.2039	4	1.5510	2.8754	<.05
B x Y	0.2745	2	0.1373	.2545	---
S x Y	17.3374	6	2.8896	5.3571	<.001
TOTAL	120.90985	143			
** POOL 3	60.4186	112	0.5394		

* mid-channel locations not tested

** Error term + 4-way and 3-way interactions

TABLE 4C. ANALYSIS OF VARIANCE FOR THE ABUNDANCE OF CHIRONOMIDAE
HOOKSETT POND - MERRIMACK RIVER - 1972, 1973, AND 1974

	S.S.	D.F.	M.S.	F ₃	P
MONTHS	47.1971	2	22.5985	26.5765	<.001
BANKS	8.4166	1	8.4166	9.8982	<.001
STATIONS	42.5599	3	14.1866	16.6838	<.001
YEARS	59.2390	2	29.6195	34.8333	<.001
M x B	0.5814	2	0.2907	.3419	---
M x S	10.8415	6	1.8069	2.1250	<.05
B x S	24.7631	3	8.2544	9.7074	<.001
M x Y	15.6878	4	3.9219	4.6123	<.005
B x Y	2.5386	2	1.2693	1.4927	---
S x Y	9.5410	6	1.5902	1.8701	≈.05
TOTAL	314.6012	143			
* POOL 3	95.23622	112	0.85032		

* Error term + 4-way and 3-way interactions

APPENDIX III

FISHERIES

FINFISH SPECIES LIST

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
<i>Anguilla rostrata</i>	American eel
<i>Catostomus commersoni</i>	White sucker
<i>Esox niger</i>	Chain pickerel
<i>Etheostoma nigrum</i>	Johnny darter
<i>Ictalurus nebulosus</i>	Brown bullhead
<i>Ictalurus natalis</i>	Yellow bullhead
<i>Lepomis auritus</i>	Redbreast sunfish
<i>Lepomis gibbosus</i>	Pumpkinseed sunfish
* <i>Lepomis macrochirus</i>	Bluegill sunfish
<i>Micropterus dolomieu</i>	Smallmouth bass
<i>Micropterus salmoides</i>	Largemouth bass
<i>Morone americana</i>	White perch
<i>Notemigonus crysoleucas</i>	Golden shiner
<i>Notropis cornutus</i>	Common shiners
<i>Notropis hudsonius</i>	Spottail shiner
* <i>Noturus gyrinus</i>	Tadpole madtom
<i>Noturus insignis</i>	Margined madtom
<i>Perca flavescens</i>	Yellow perch
* <i>Salmo gairdneri</i>	Rainbow trout
† <i>Semotilus corporalis</i>	Fallfish
† <i>Semotilus</i> spp.	
* <i>Stizostedion vitreum</i>	Walleye

* Not encountered during 1974 sampling period

† Young specimens in *Semotilus* spp. samples may also have contained northern creek chub, *S. atromaculatus*