CITY DOCUMENT

ANNUAL REPORT

of the

WATER SUPPLY BOARD

of the

CITY OF PROVIDENCE

RHODE ISLAND

IN CITY COUNCIL
JUN 4 1981
READ:
WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.
Rose M Mendonca CLERK

For the Year Ended June 30, 1980

WATER SUPPLY BOARD

CITY OF PROVIDENCE

May 28, 1981

Mrs. Rose Mendonca
City Clerk
City Hall
Providence, Rhode Island

Dear Mrs. Mendonca:

I am enclosing a copy of the Annual Report of the Water Supply Board for the fiscal year ended June 30, 1980.

Thirty copies are being forwarded to your office for presentation to the members of the City Council at the next scheduled meeting.

Very truly yours,

Wiley J. Archer, P.E.
Chief Engineer

ms

enclosures

ADMINISTRATIVE OFFICE

Water Supply Board
City of Providence

July 1, 1980

To the Honorable Vincent A. Cianci, Jr., Chairman
and the Honorable City Council:

In compliance with Chapter XX of the Charter of the City of Providence enacted by the General Assembly of the State of Rhode Island at its January Session, A.D. 1940, and approved April 26, 1940, we have the honor to present the fortieth annual report of the Water Supply Board, for the year ended June 30, 1980.

On October 19, 1979, Peter P. Granieri, P. E., Chief Engineer, resigned. Wiley J. Archer, P. E., Deputy Chief Engineer, was appointed Acting Chief Engineer.

At a meeting held on March 14, 1980, John A. Doherty resigned as a member and was appointed Water Supply Board Coordinator.

The Board held regular semi-weekly meetings throughout the year at which careful consideration was given to the many problems arising in connection with maintenance and operating activities, the department's financial structure, matters relative to taxes levied on property owned in nearby communities, and other departmental duties which properly come before the Board. Special meetings were held as required throughout the year for consideration of particular problems.

The report of the Chief Engineer is appended hereto. It contains important tables and statistical data to which we invite your attention for details and particular information regarding the finances of the department and conduct of the work during the above period.

Respectfully submitted,

WATER SUPPLY BOARD

Richard A. Carroll, Chairman
Alfred T. Ciccone
Robert F. Howard
Vincent J. Cirelli
Laurence K. Flynn
James R. Bernardo, Acting Ex-Officio
John A. Doherty, Coordinator

REPORT OF THE CHIEF ENGINEER

Providence, R.I.
July 1, 1980

WATER SUPPLY BOARD
CITY OF PROVIDENCE

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1980.

Precipitation on the 92.8 square mile drainage area this past year amounted to 49.29 inches; this was 10.96 inches less than the total of 60.25 for the 1979 year and 18.17 less than the maximum of record . . . . . 67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 22.21 inches compared with 29.88 for the previous year and the 40.97 inches maximum of record for the fiscal 1956.

Consumption decreased to 63,252,000 gallons per day, down 455,000 gallons per day from the June 30, 1979 figure of 63,707,000 gallons. The maximum day's use was 115,619,000 gallons on June 25, 1980, the highest hourly rate that day being 163,704,000 gallons per day. The maximum day's use of 117,980,000 gallons on June 24, 1976 and the maximum hourly rate of 167,472,000 gallons per day, established on July 18, 1977, remain as the high in the 64-year record.

Water sold to the Kent County Water Authority, the City of Cranston (for distribution to its western section and southwestern Johnston), Warwick, East Providence, East Smithfield Water Company, Smithfield Water Department and the Greenville Water District totaled 7,099,884,615 gallons, an average of 24,680,760 gallons per day. These seven wholesale customers accounted for 30.66% of the total consumption. Summaries relating to quantities metered to these users are shown in Tables 36, 37, and 38 of the Appendix.

The department's two 16-millimeter sound films in color entitled "Pipeline for Tomorrow" and "Pure Water-Lifeline of Providence", were shown to groups during visits to the Philip J. Holton Water Purification Works. The first of the two, a pictorial review of the Major Construction Projects completed in 1970, was viewed mainly by student and professional engineers. The other film also was screened for these people, in addition to showings for lay persons and those students having a general interest in water supply. It describes the source of supply, forestry operations, the collection, treatment, transmission, distribution and pumping of the water, together with engineering activities, maintenance and servicing, metering and billing.

SOURCE OF SUPPLY

RAINFALL AND RUNOFF The rainfall on the 92.8 square mile Scituate Watershed above Gainer Memorial Dam was measured by rainfall gauges at Rocky Hill, Hopkins Mills, North Scituate, Westcott District and Gainer Dam. A total of 49.29 inches was recorded which was 0.03 inches less than the 64-year (July 1916-June 1980) average of 49.32 inches and 73.1% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 22.21 inches; this was 2.82 inches less than the 64-year average of 25.03 inches and 54.2% of the maximum 40.97 inches, which occurred during the July 1955-1956 year.

STORAGE, DRAFT AND YIELD On July 1, 1979 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs, amounted to 41,078,000,000 gallons or 99.5% of combined capacity. At the end of the year, the combined storage was 39,596,000,000 gallons or 95.9% of capacity.

The total draft from the Scituate watershed for the year was 37,330,500,000 gallons, an average of 102,000,000 gallons daily. The draft for water supply purposes was 23,572,570,000 gallons and discharge into the north branch of the Pawtuxet River totaled 13,757,930,000.

The yield from the watershed for the year totaled 35,848,500,000 gallons, an average of 97,950,000 gallons per day. This was 12,570,000 per day less than the 110,520,000 gallons average daily yield for the 64-year period July 1916-June 1980.

WATERSHED MANAGEMENT — FORESTRY OPERATIONS Watershed management practices focus on protection of the water and forest resources at the source of supply. The protective mantle of woodlands which surrounds the Scituate and five tributary reservoirs is a key element in the supply of a high-quality raw water.

An important part of the watershed management program is continual review of the land-use practices on the 75 percent of watershed which is not owned or controlled by the department. Pressure to develop private lands of marginal suitability for residential or commercial purposes increases as overall land availability diminishes. The department monitors new development, existing uses on critical soils, and any land alteration which may have an impact on the potable water resource.

Four instances of oil or gasoline spills occurred on the watershed during the year. The spills resulted from vehicular accidents on highways which traverse the watershed. Timely response to spills, effective cleanup procedures, coordination with appropriate authorities at various branches of government, and review of environmental impacts of hazardous waste and materials receive constant attention.

Recorded trespass violations of Water Supply Board property totaled 695. Over 50 percent of the violation involved property damage. Prosecutions numbered 82. Off-road vehicle impacts persist on aqueduct lands and on certain sections of watershed property.

A minimal number of high-hazard days during the Spring 1980 forest-fire season limited operation of the Tunk Hill Fire Tower. Nine small fires occurred on watershed property during the reporting period.

Epidemic populations of gypsy moth (Lymantria dispar L.) began building in the northern and western portions of the watershed during 1980. Heavy defoliation of upland hardwoods is anticipated throughout much of the 92.8 square mile watershed in 1981. Severe damage to twigs and foliage of red pine was noted in a number of forest plantations. Samples of damaged trees were sent to U. S. Forest Service entomologists who identified several species of insects as causal agents.

Forest-culture operations were primarily limited to contractual cordwood harvest in forest stands which contained white pine as an understory component. Removal of low-quality hardwoods provided for the release of the white pine. Diversity of the species in the forest with lease of the white pine. Diversity of the species in the forest with conifers favored in upland sites are goals in silvicultural improvement. Such management should reduce impacts to the forest caused by recurring gypsy-moth infestations.

Turfed areas at the Purification Works, Gainer Dam, Rockland Cemetery, distribution reservoirs, aqueducts and other properties received necessary maintenance. Other grounds maintenance included repair of vandalized facilities; installation of fencing and gates; upkeep of access roads, rights-of-way, and dams; and brush control at selected sites.

LABORATORIES The chemical and bacteriological laboratories that check the quality of the water supply from the raw water impoundments to the taps at the consumers' premises conducted tests on more than 13,000 samples during the year. They were obtained from brooks, streams and raw water reservoirs, as well as daily samples collected throughout the distribution system. Tests made on these samples included chemical, sanitary chemical and mineral analyses, and bacteriologic and microscopic examinations. The total number of tests made during the year (July 1979-June 1980) approximated to 93,000. Based on a 35-hour week, the water was receiving one test or another every 70 seconds.

Chemists carried out coagulation tests on raw water with various amounts of chemicals, simulating all operations of the purification process for the purpose of determining the most desirable dosage to produce an excellent quality of water at a reasonable cost. Rigid laboratory control over the quality of the water exceeded the sampling requirements of the U.S.E.P.A. Primary Drinking Water Regulations. The actual number of bacteriological samples collected from our distribution system amounted to 3,160, an average of 263 per month.

PURIFICATION The water supplied to the communities from the Providence system is processed at one of the most modern filtration plants in the country. Operation is all electric from a centralized control system. Power loss is minimized and almost nil, due to the avilability of three sources . . . . . public, hydro-generated and auxiliary diesel generator.

All chemical feeding machines are automatically controlled in direct proportion to the volume of water being treated. They are installed in multiple units, providing standby machines that may be placed in service in case of mechanical failure. Ferri-Floc and quicklime are stored in large silos and are transferred pneumatically, by remote control, to hoppers located above each feeder. Sodium silicofluoride is received in 400-pound drums and is conveyed pneumatically to collectors above the fluoridizers. Chlorine is handled in one-ton containers which are stored in a room directly above the chlorinizers.

The treatment process consists of influent aeration, mixing, coagulation and finally, filtration. Chemicals employed include Ferri-Floc (ferric sulfate) to coagulate micro-organisms and particles that cause color and turbidity, lime to change the water from acid to alkaline to assist in the precipitation of iron and manganese and reduce corrosion in the distribution system, and chlorine to destroy harmful bacteria. Finally, fluoride is added to reduce the incidence of dental caries in children. The following quantities of chemicals were used during the year (July 1979-June 1980): 2,491,593 pounds of Ferri-Floc before influent aeration, 2,312,053 pounds of quicklime after influent aeration and before mixing, 121,760 pounds of chlorine prior to filtration, and 278,457 pounds of sodium silicofluoride after filtration . . . . . a grand total of 5,203,863 pounds.

It is interesting to note that the cost of chemicals per million gallons of water treated was $4.86 for the year ended September 30, 1960; it was $11.52 for the year ended June 30, 1980, slightly more than double.

During the year, 23,152.48 million gallons were delivered into the distribution system, an average of 63.26 million gallons daily. The maximum hourly demand in the system was at a rate of 163.70 million gallons daily; consumption during the maximum day, June 25, 1980, amounted to 115.62 million gallons. The difference between plant production and system demands was provided from storage reservoirs on our distribution system.

DISTRIBUTION

At the end of the year the Water Supply Board distribution system in Providence, Cranston, Johnston and North Providence contained 4,450,960.30 feet (842.98 miles) of water mains ranging from 6-inches to 66-inches in diameter. The network consists of iron, steel, asbestos-cement and reinforced concrete steel cylinder pipe. There were 67,674 services, 16,760 valves and 5,114 hydrants in use on June 30, 1980. The amount of pipe laid during the year totaled 12,823.75 feet; 5,116.58 feet were removed, resulting in a net increase to the system of 7,707.17 feet. Services installed and removed were 614 and 118 respectively, a gain of 496. There was an increase of 21 valves, 31 having been in-

stalled and 10 removed, and a loss of 2 hydrants . . . . . 76 installed and 78 removed. The number of meters on active services totaled 68,345.

Total water distribution was 23,150.32 million gallons or 63.25 million gallons per day. The low service, a gravity supply, consumed 77%; the high service system, furnishing water to the higher elevations as well as the special high pressure fire service in the downtown business district of Providence, used 23%. Registration on customers' meters totaled 22,257.39 million gallons, accounting for 96.1% of the amount distributed.

Leaks in the transmission and distribution mains totaled 66 during the year, 20 occurring at joints and 46 as a result of ruptured mains. Leaks at joints averaged one for every 42 miles of pipe and total leaks averaged one for every 13 miles of main. Of the 66 leaks, 1 was caused by a contractor excavating while performing unrelated work.

ENGINEERING

The engineering staff has been engaged in the preparation of various specifications and estimates, plans for extensions of the distribution system into real estate developments, including domestic and fire services, and problems related to the operation and maintenance of water works structures and equipment. Work included real estate surveys, inventories and appraisals, consumer demands with respect to service requirements and proper size meters, inspection of water pipe installations, observing and conducting flow tests at various points in the distribution system, electrical energy conservation studies, and compiling pertinent data and records. Services included computations of quantities and preparation of monthly estimates for periodic payments on all outstanding contracts.

Drawings and specifications for the construction of a new 24-inch high service force main from Neutaconkanut Pumping Station to Longview Reservoir were completed and the work was advertised for bids. A contract was awarded to the low bidder, Rosciti Construction Company, and work commenced in the spring.

Installation of 12-inch and 16-inch feeder mains along with 6-inch and 8-inch mains in the Marieville section of North Providence, under construction since May 1979, is nearing completion. This area, presently supplied by the City of Pawtucket, will then receive water from the City of Providence.

Data furnished by Pawtucket is being incorporated into the Water Supply Board records showing existing mains, hydrants, gates and services.

COMMERCIAL AND ACCOUNTING

At the end of the fiscal year the Water Supply Board had 67,674 services. To meet the various requirements of our customers, we operated as usual on a 24-hour schedule. This included switchboard operators around the clock and two-way radio communication with our crews in the field. Day to day operations of the division also were carried out during the year such as reading meters, preparation of water bills, collection of delinquent accounts, investigating complaints, furnishing information to title companies and banks, processing new appliations and preparing payrolls and job cost data.

Conversion of meters to a remote reading system has progressed satisfactorily. During the year 473 installations were made, bringing the total to 30,951 since the program was initiated in May 1968.

FINANCIAL

The gross income for the year totaled $7,271,578.15. Revenue from sale of water alone amounted to $6,676,163.23. The remaining income of $595,414.92 was received from other sources, including hydrant rentals, installation of services and fire supplies, and miscellaneous items. At the end of the year unpaid water bills for all previous and the present year totaled $1,626,429.55 or 21.6% of this year's total net billing.

Expenses for the year, including principal payments of $335,000.00 on serial bonds outstanding and $627,150.00 in interest charges, amounted to $7,196,195.60 . . . . . up $781,498.93 from the previous year. Bonded debt at the close of the year was $11,045,000.00.

An upward revision of water rates was authorized by the Public Utilities Commission in August 1978 and the new rates were placed in effect immediately. The full effect of the rate increase will not be realized until the fiscal year ending June 30, 1981.

It is anticipated that for the year ending June 30, 1981, expenses will rise substantially due to higher material costs, higher wages and fringe benefits, and higher energy costs.

Financial accounts of the department, together with other statistical data for the year ended June 30, 1980, are appended to this report.

Respectfully submitted,

Wiley J. Archer, P.E.
Acting Chief Engineer

APPENDIX

LIST OF TABLES

TABLE 1

MONTHLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

STATIONS ON WATERSHED

1979-1980	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	1.95	2.27	1.56	1.66	1.05	1.70
Aug.	10.12	7.81	6.87	6.58	9.59	8.19
Sept.	4.53	4.70	4.47	4.43	4.71	4.57
Oct.	4.25	3.83	3.83	4.18	3.42	3.90
Nov.	5.15	4.92	4.86	4.86	4.45	4.85
Dec.	2.16	1.75	1.85	1.84	1.74	1.87
Jan.	1.67	1.54	1.65	1.50	1.55	1.58
Feb.	1.18	1.10	1.15	1.15	1.17	1.15
Mar.	9.64	10.35	9.10	9.43	9.74	9.65
Apr.	6.26	6.74	6.23	5.89	5.80	6.18
May	1.78	2.36	1.96	1.50	1.41	1.80
June	5.10	4.31	3.50	3.18	3.14	3.85
TOTAL	53.79	51.68	47.03	46.20	47.77	*49.29
Monthly Average	4.48	4.31	3.92	3.85	3.98	4.11

*Total of Averages

TABLE 2

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1916-1917	7.38	1.33	1.24	2.61	2.34	3.30	3.96	2.18	4.91	2.70	4.15	4.54	40.64	1917	43.16
1917-1918	1.51	6.13	2.66	6.71	0.48	3.23	3.56	3.73	2.15	4.56	3.12	4.49	42.33	1918	47.09
1918-1919	5.13	4.14	8.79	1.07	2.60	3.75	4.89	3.42	6.05	4.31	5.99	3.65	53.79	1919	56.42
1919-1920	5.47	6.65	6.07	2.29	5.05	2.58	3.03	6.10	4.90	6.28	3.95	7.93	60.30	1920	55.81
1920-1921	4.44	3.86	3.04	1.34	5.85	5.09	3.46	3.06	3.72	5.45	3.73	4.30	47.34	1921	47.84
1921-1922	6.80	2.97	2.53	1.26	8.02	2.54	1.91	2.67	6.40	1.98	5.22	6.34	48.64	1922	54.76
1922-1923	8.36	9.09	5.35	2.92	1.41	3.11	6.78	1.82	3.73	5.92	1.48	4.93	54.90	1923	48.39
1923-1924	2.78	2.35	2.15	5.67	5.68	5.10	4.49	2.92	2.80	6.12	3.66	1.49	45.21	1924	39.15
1924-1925	1.72	5.85	5.28	0.21	2.23	2.38	4.41	2.22	4.76	2.85	2.72	2.36	36.99	1925	44.45
1925-1926	6.14	1.70	2.96	4.32	4.83	5.18	3.26	6.10	3.73	2.46	2.27	1.74	44.69	1926	43.33
1926-1927	3.80	3.94	1.89	5.04	5.55	3.55	2.98	3.31	1.59	2.56	3.41	3.36	40.98	1927	52.45
1927-1928	3.99	8.55	2.61	5.24	9.22	5.63	2.72	4.32	2.70	5.43	1.45	3.91	55.77	1928	45.59
1928-1929	5.06	5.50	4.80	3.99	2.50	3.21	5.20	4.89	3.92	7.56	3.47	2.27	52.37	1929	43.95
1929-1930	2.06	2.93	1.35	3.09	3.06	4.15	2.86	2.88	3.23	2.03	2.74	3.05	33.43	1930	35.58
1930-1931	3.33	3.00	1.35	3.36	4.65	3.10	3.55	2.57	6.37	3.36	4.19	6.31	45.14	1931	44.43
1931-1932	3.74	5.96	1.97	2.22	1.03	3.16	6.16	2.38	6.16	1.97	2.57	2.75	40.07	1932	58.60
1932-1933	2.57	6.44	11.75	6.63	7.13	2.09	2.02	3.81	6.55	6.18	3.76	4.04	62.97	1933	48.13
1933-1934	2.00	3.60	7.56	3.41	1.48	3.72	3.87	4.53	4.03	5.24	3.98	4.79	48.21	1934	51.14
1934-1935	2.20	3.89	7.37	3.25	4.44	3.55	7.24	3.09	1.93	4.76	2.27	5.12	49.11	1935	41.30
1935-1936	4.10	1.42	3.59	1.04	5.86	0.88	8.81	4.16	9.31	3.80	1.98	2.98	47.93	1936	57.75
1936-1937	2.63	3.28	7.72	2.00	1.25	9.83	5.02	2.45	4.09	5.42	3.05	3.40	50.14	1937	50.58
1937-1938	1.58	6.47	4.19	3.92	8.10	2.89	5.29	2.91	2.70	2.60	4.17	8.62	53.44	1938	57.83
1938-1939	11.49	3.10	6.76	2.64	3.91	3.64	3.08	5.06	5.86	4.53	0.94	2.95	53.96	1939	44.17
1939-1940	1.20	6.52	3.47	5.76	1.40	3.40	2.82	5.97	4.04	6.00	5.76	2.45	48.79	1940	47.18
1940-1941	4.41	2.01	2.63	2.00	6.81	2.28	3.12	3.37	2.97	1.36	3.16	4.92	39.04	1941	37.88
1941-1942	5.90	4.00	0.20	1.75	3.35	3.78	4.95	3.30	8.35	0.89	2.80	3.88	43.15	1942	51.98
1942-1943	5.38	4.32	1.94	4.26	5.52	6.39	3.56	1.95	3.68	3.90	3.87	1.99	46.76	1943	36.84
1943-1944	3.41	2.15	1.30	6.38	3.43	1.22	1.79	2.50	5.05	4.11	1.35	3.75	36.44	1944	48.82
1944-1945	1.74	2.01	11.03	2.71	8.45	4.33	3.45	5.79	2.13	3.36	4.89	5.17	55.06	1945	52.25

TABLE 2 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1945-1946	2.74	3.06	2.84	2.21	9.03	7.58	3.82	3.81	1.42	2.37	4.92	3.31	47.11	1946	43.01
1946-1947	2.49	11.48	3.69	0.48	1.32	3.90	2.98	2.60	3.85	5.40	3.37	4.10	45.66	1947	47.68
1947-1948	4.86	2.91	4.02	3.26	6.42	3.91	7.14	2.57	4.26	3.97	9.36	4.20	56.88	1948	55.70
1948-1949	3.73	3.14	1.59	4.86	7.43	3.45	4.38	3.62	2.47	4.65	4.03	0.10	43.45	1949	38.58
1949-1950	1.24	6.07	3.49	2.27	3.47	2.79	3.68	4.62	3.99	3.68	3.51	2.93	41.74	1950	45.11
1950-1951	1.62	5.04	2.03	2.23	7.21	4.57	4.95	4.48	5.91	3.97	5.20	2.71	49.92	1951	55.38
1951-1952	3.36	3.08	2.41	4.14	9.64	5.53	4.88	4.81	4.13	4.41	3.97	3.16	53.52	1952	45.26
1952-1953	1.20	7.33	2.21	1.94	3.02	4.20	7.38	4.64	9.33	7.54	3.24	1.67	53.70	1953	61.10
1953-1954	4.27	2.94	2.74	5.57	6.22	5.56	2.91	3.16	4.36	5.37	4.91	1.55	49.56	1954	57.44
1954-1955	2.76	9.10	7.63	3.13	5.65	6.91	1.00	4.96	4.17	4.16	1.78	4.53	55.78	1955	57.74
1955-1956	2.43	12.75	4.53	11.48	5.23	0.72	5.39	4.39	7.91	3.84	2.42	2.10	63.19	1956	49.06
1956-1957	4.13	1.56	3.98	2.96	4.92	5.46	2.90	2.46	3.33	5.01	1.55	0.72	38.98	1957	36.13
1957-1958	0.96	1.58	1.58	3.07	5.50	7.47	8.46	4.50	5.46	7.55	3.84	2.69	52.66	1958	58.88
1958-1959	7.04	4.58	6.12	3.83	3.03	1.78	2.56	4.12	7.13	4.41	1.15	5.55	51.30	1959	53.82
1959-1960	6.74	2.27	0.57	8.37	5.35	5.60	3.59	5.65	3.27	3.06	4.49	1.15	50.11	1960	47.42
1960-1961	4.86	2.55	8.10	3.58	2.86	4.26	3.24	3.48	4.27	5.92	5.65	2.25	51.02	1961	50.52
1961-1962	3.01	4.02	9.43	2.60	3.18	3.47	4.55	6.15	3.67	2.16	2.05	4.68	48.97	1962	47.58
1962-1963	1.33	3.37	3.49	8.95	4.20	2.98	3.23	3.41	3.71	2.03	3.06	3.36	43.12	1963	40.63
1963-1964	3.59	1.65	4.41	1.59	7.82	2.77	6.32	5.36	2.63	5.65	1.15	1.98	44.92	1964	45.58
1964-1965	3.86	2.14	3.56	2.84	3.81	6.28	4.13	4.51	2.13	2.54	2.03	2.71	40.54	1965	33.21
1965-1966	2.61	2.58	1.96	3.58	2.48	1.95	5.93	5.09	1.59	1.95	3.57	2.40	35.69	1966	45.45
1966-1967	3.71	3.10	5.28	3.65	5.41	3.77	2.10	4.00	6.15	4.81	8.33	3.12	53.43	1967	57.49
1967-1968	6.71	4.50	3.86	2.24	3.45	8.22	4.28	2.12	8.07	1.65	4.01	6.21	55.32	1968	50.30
1968-1969	1.27	2.77	2.90	2.46	7.00	7.56	1.73	6.88	3.65	5.82	4.22	1.37	47.63	1969	54.51
1969-1970	5.01	2.57	4.02	1.96	6.35	10.93	0.74	6.51	4.91	4.13	3.46	3.39	53.98	1970	46.26
1970-1971	0.75	5.23	2.09	3.71	5.76	5.58	2.25	5.35	3.27	3.37	4.42	2.45	44.23	1971	42.76
1971-1972	3.40	2.27	3.30	4.44	5.15	3.09	2.51	6.49	8.35	3.71	7.72	6.57	57.00	1972	75.24
1972-1973	6.49	2.67	5.99	5.19	10.48	9.07	2.93	3.68	3.20	7.53	4.46	5.77	67.46	1973	56.73
1973-1974	3.13	4.59	5.04	4.19	2.25	9.96	4.83	3.39	5.83	3.74	3.37	2.78	53.10	1974	48.80
1974-1975	1.29	3.95	7.44	3.68	1.98	6.52	5.76	3.43	3.84	3.36	2.16	3.77	47.18	1975	56.71

TABLE 2 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1975-1976	3.19	3.95	7.58	6.82	6.89	5.96	7.61	3.43	3.53	2.43	3.21	3.19	57.79	1976	50.04
1976-1977	6.57	6.89	3.19	5.74	0.48	3.77	4.49	3.09	6.81	3.99	3.24	3.98	52.24	1977	60.04
1977-1978	3.53	3.66	7.46	8.52	6.46	5.41	9.83	2.54	4.13	2.54	6.23	1.45	61.76	1978	49.70
1978-1979	3.04	7.58	1.50	3.57	2.47	4.82	14.42	4.10	2.78	5.67	8.13	2.17	60.25	1979	62.35
1979-1980	1.70	8.19	4.57	3.90	4.85	1.87	1.58	1.15	9.65	6.18	1.80	3.85	49.29	1980	-----
64 Years Average	3.73	4.35	4.19	3.75	4.73	4.45	4.32	3.88	4.55	4.16	3.69	3.52	*49.32	Avg.	*49.32
64 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	14.42	6.88	9.65	7.56	9.36	8.62	67.46	Max.	75.24
64 Years Minimum	0.75	1.33	0.20	0.21	0.48	0.72	0.74	1.15	1.42	0.89	0.94	0.10	33.43	Min.	33.21

*Total of Monthly Averages.

NOTES: The 64-Year calendar year average is for the years 1916-1979.
A new minimum of record was established for February.
A new maximum of record was established for March.

TABLE 3

MONTHLY AND YEARLY RUNOFF IN INCHES ON SCITUATE WATERSHED (92.8 SQ. MI.)

YEARS ENOED JUNE 30,

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1916-1917	2.74	1.09	0.42	0.51	0.58	0.97	1.91	1.30	4.29	3.05	2.79	2.18	21.83	1917	22.41
1917-1918	0.79	0.71	0.63	1.79	1.59	1.38	1.83	4.04	3.17	3.40	2.24	1.24	22.81	1918	23.75
1918-1919	0.47	0.82	1.81	1.02	1.34	2.37	3.81	2.27	5.01	4.43	3.86	1.27	28.48	1919	32.65
1919-1920	1.35	0.91	3.33	1.45	2.25	2.71	1.19	1.69	9.60	5.10	3.73	4.15	37.46	1920	33.29
1920-1921	1.38	0.79	0.34	0.37	1.73	3.22	2.79	1.69	4.19	3.68	2.85	0.95	23.98	1921	24.52
1921-1922	2.56	0.93	0.31	0.24	1.65	2.68	1.13	1.80	4.81	3.92	3.50	2.39	25.92	1922	33.32
1922-1923	3.50	3.59	4.39	1.66	1.26	1.37	4.16	2.46	6.10	4.06	2.68	1.15	36.38	1923	29.75
1923-1924	0.64	0.40	0.25	1.27	2.01	4.57	4.52	1.88	3.43	5.70	3.38	1.05	29.10	1924	23.31
1924-1925	0.20	0.56	0.68	0.49	0.45	0.97	0.91	3.65	3.41	2.46	1.46	0.52	15.76	1925	19.04
1925-1926	0.58	0.39	0.32	0.61	1.48	3.25	2.23	3.11	4.38	3.00	1.70	0.62	21.67	1926	21.03
1926-1927	0.40	0.42	0.17	0.76	2.15	2.09	3.34	2.64	3.05	1.71	2.03	1.44	20.20	1927	30.14
1927-1928	0.32	1.59	0.64	1.95	6.73	4.70	2.62	3.76	2.86	3.18	2.05	1.15	31.55	1928	23.03
1928-1929	1.08	1.17	0.80	1.21	1.16	1.99	4.02	3.65	5.56	6.09	3.56	0.48	30.77	1929	25.18
1929-1930	0.06	0.07	-0.09	0.07	0.53	1.18	1.96	2.38	2.74	1.84	0.88	0.42	12.04	1930	11.82
1930-1931	0.09	0.04	-0.11	0.12	0.63	0.83	1.56	2.11	5.95	3.21	3.10	2.97	20.50	1931	21.67
1931-1932	0.69	0.85	0.10	0.07	0.15	0.91	3.35	2.16	4.10	3.08	1.35	0.39	17.20	1932	30.15
1932-1933	0.07	0.35	3.27	3.48	6.29	2.26	2.24	2.70	6.28	6.88	1.93	1.57	37.32	1933	27.13
1933-1934	0.17	0.25	1.52	0.95	0.82	1.82	3.78	1.18	5.48	6.08	2.88	1.47	26.40	1934	28.94
1934-1935	0.08	0.14	1.40	1.33	1.91	3.21	4.78	2.83	4.22	4.05	1.71	1.78	27.44	1935	21.82
1935-1936	0.62	-0.14	0.26	-0.13	1.09	0.75	3.94	1.93	11.51	4.45	1.59	0.44	26.31	1936	31.64
1936-1937	0.03	-0.02	0.82	0.46	0.43	6.06	4.59	2.77	3.34	3.79	2.52	0.75	25.54	1937	27.16
1937-1938	0.02	0.60	0.57	0.79	4.17	3.25	4.15	2.99	2.99	2.29	1.84	2.85	26.51	1938	33.76
1938-1939	6.93	1.32	1.66	1.22	1.90	3.62	2.11	4.12	5.24	4.90	1.08	0.31	34.41	1939	21.35
1939-1940	-0.24	0.22	0.09	0.63	1.35	1.54	2.03	1.51	4.86	6.89	3.17	1.65	23.70	1940	23.98
1940-1941	0.84	-0.14	-0.04	-0.07	1.63	1.65	1.53	2.88	2.42	1.65	1.16	1.33	14.84	1941	12.43
1941-1942	0.54	0.10	-0.41	-0.15	0.52	0.86	1.87	2.54	7.14	1.75	1.06	0.59	16.41	1942	22.77
1942-1943	0.86	0.26	-0.17	0.45	1.86	4.56	2.45	3.46	4.40	2.68	3.01	0.36	24.18	1943	17.97
1943-1944	0.02	-0.16	-0.22	0.60	0.95	0.42	0.73	1.23	3.24	3.53	1.08	0.43	11.85	1944	18.61
1944-1945	-0.26	-0.31	1.73	0.50	3.16	3.55	2.91	2.58	5.61	2.15	3.10	1.26	25.98	1945	24.02

TABLE 3 (Continued)

MONTHLY AND YEARLY RUNOFF IN INCHES ON SCITUATE WATERSHED (92.8 SQ. MI.)

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1945-1946	0.15	-0.12	-0.15	0.06	1.88	4.59	3.93	2.98	3.70	1.43	2.50	1.65	22.60	1946	21.08
1946-1947	0.00	2.35	0.56	0.49	0.30	1.19	2.16	1.52	4.01	3.31	2.86	1.09	19.84	1947	20.47
1947-1948	0.53	0.12	0.31	0.23	2.94	1.39	1.55	3.15	7.16	3.76	5.25	3.12	29.51	1948	29.08
1948-1949	0.56	0.15	-0.21	0.35	2.24	2.00	3.57	3.22	2.92	3.20	1.78	-0.02	19.76	1949	16.40
1949-1950	-0.26	0.02	0.09	0.05	0.57	1.26	2.03	2.42	4.16	3.01	2.20	1.00	16.55	1950	19.39
1950-1951	-0.11	0.22	-0.02	0.04	1.85	2.59	3.24	4.95	4.36	4.30	2.70	1.21	25.33	1951	30.16
1951-1952	0.14	0.07	-0.07	0.34	4.62	4.30	4.24	3.30	5.02	2.97	2.46	0.98	28.37	1952	20.27
1952-1953	-0.35	0.53	-0.20	-0.20	0.37	1.15	4.61	4.35	7.24	6.36	3.20	0.20	27.26	1953	32.41
1953-1954	0.07	-0.05	-0.13	0.38	1.86	4.32	2.12	2.66	3.56	4.01	3.71	0.33	22.84	1954	32.15
1954-1955	-0.01	0.93	3.96	1.33	3.65	5.90	2.46	3.61	4.26	2.76	1.62	0.89	31.36	1955	35.13
1955-1956	0.02	4.04	1.19	7.22	5.56	1.50	3.27	4.09	4.57	6.57	1.98	0.96	40.97	1956	25.87
1956-1957	0.37	-0.22	0.05	0.23	1.10	2.90	2.41	2.10	2.78	4.54	0.58	-0.18	16.66	1957	14.20
1957-1958	-0.41	-0.38	-0.22	0.06	0.52	2.40	6.59	2.69	6.03	6.89	3.88	0.83	28.88	1958	35.66
1958-1959	0.85	0.86	1.31	2.05	1.85	1.83	1.65	2.58	5.86	4.52	1.45	1.23	26.04	1959	26.97
1959-1960	2.09	0.07	-0.23	1.17	2.18	4.40	3.29	5.09	3.15	4.01	2.19	0.35	27.76	1960	25.51
1960-1961	0.38	0.00	1.54	0.98	2.11	2.42	2.21	3.68	4.97	4.75	3.63	1.30	27.97	1961	27.93
1961-1962	0.25	0.20	2.30	1.28	1.53	1.83	4.32	1.66	5.24	3.61	1.53	0.98	24.73	1962	24.34
1962-1963	-0.09	0.04	0.07	1.89	2.97	2.12	1.81	1.88	4.47	1.69	1.88	0.54	19.27	1963	15.25
1963-1964	0.10	-0.25	-0.02	-0.11	1.59	1.67	4.68	2.82	3.47	4.61	0.87	0.01	19.44	1964	19.30
1964-1965	0.03	-0.14	-0.11	0.11	0.47	2.48	1.68	3.43	3.02	1.89	1.04	0.44	14.34	1965	11.89
1965-1966	-0.10	-0.14	-0.06	0.04	0.21	0.44	0.70	2.26	3.11	1.10	1.68	0.73	9.97	1966	13.88
1966-1967	0.11	0.09	0.36	0.50	1.87	1.37	2.25	1.60	4.52	4.92	4.94	1.61	24.14	1967	30.51
1967-1968	1.67	1.58	0.61	0.80	1.50	4.51	2.91	2.76	7.53	2.00	1.78	2.26	29.91	1968	24.79
1968-1969	0.27	0.03	0.11	0.00	1.61	3.53	1.72	1.40	5.38	5.72	2.74	0.70	23.21	1969	25.97
1969-1970	0.41	0.22	0.23	0.21	2.14	5.10	1.85	5.49	3.15	3.81	1.81	1.23	25.65	1970	20.56
1970-1971	-0.07	0.10	0.04	0.22	1.43	1.50	1.37	3.61	4.90	2.79	2.79	0.73	19.41	1971	19.20
1971-1972	-0.04	-0.26	0.10	0.35	1.05	1.81	2.45	2.86	9.14	3.05	4.18	3.71	28.40	1972	43.96
1972-1973	2.12	0.66	1.05	1.87	6.75	6.12	4.08	4.23	3.07	4.91	3.00	1.35	39.21	1973	31.76
1973-1974	0.93	0.86	0.71	0.77	1.25	6.60	4.85	3.62	4.44	4.14	2.16	0.72	31.05	1974	26.11
1974-1975	-0.12	-0.04	0.70	1.03	1.01	3.60	4.77	3.03	3.61	3.01	1.23	0.91	22.74	1975	28.74

TABLE 3 (Continued)

MONTHLY AND YEARLY RUNOFF IN INCHES ON SCITUATE WATERSHED (92.8 SQ. MI.)

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1975-1976	0.04	-0.04	0.84	2.35	4.44	4.55	6.77	4.39	3.16	1.87	1.62	0.25	30.24	1976	23.43
1976-1977	0.33	1.29	0.34	1.38	0.62	1.40	1.71	2.11	7.53	3.69	2.23	0.72	23.35	1977	31.55
1977-1978	-0.02	0.03	0.91	3.68	3.56	5.40	6.96	2.23	6.18	3.39	3.44	0.53	36.29	1978	26.50
1978-1979	0.07	0.89	-0.05	0.31	0.52	2.03	10.75	3.09	4.40	3.36	3.63	0.88	29.88	1979	32.83
1979-1980	0.01	0.83	0.47	1.25	2.70	1.46	1.25	0.50	6.49	4.80	1.88	0.57	22.21	1980	-----
64 Years Average	0.57	0.49	0.64	0.88	1.92	2.66	3.04	2.79	4.78	3.75	2.40	1.11	* 25.03	Avg.	*25.13
64 Years Maximum	6.93	4.04	4.39	7.22	6.75	6.60	10.75	5.49	11.51	6.89	5.25	4.15	40.97	Max.	43.96
64 Years Minimum	-0.41	-0.38	-0.41	-0.20	0.15	0.42	0.70	0.50	2.42	1.10	0.58	-0.18	9.97	Min.	11.82

*Total of Monthly Averages.

NOTE: A new minimum of record was established for February.

TABLE 4

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1916-1917	37.1	82.0	33.9	19.5	24.8	29.4	48.2	59.6	87.4	113.0	67.2	48.0	53.7	1917	51.9
1917-1918	52.3	11.6	23.7	26.7	331.2	42.7	51.4	108.3	147.4	74.6	71.8	27.6	53.9	1918	50.4
1918-1919	9.2	19.8	20.6	95.3	51.5	63.2	77.9	66.4	82.8	102.8	64.4	34.8	52.9	1919	57.9
1919-1920	24.7	13.7	54.8	63.3	44.6	105.0	39.3	27.7	195.9	81.2	94.4	52.3	62.1	1920	59.6
1920-1921	31.1	20.5	11.2	27.6	29.6	63.3	80.6	55.2	112.6	67.5	76.4	22.1	50.7	1921	51.2
1921-1922	37.6	31.3	12.2	19.0	20.6	105.5	59.2	67.4	75.2	198.0	67.0	37.7	53.3	1922	60.8
1922-1923	41.9	39.5	82.0	56.8	89.4	44.0	61.4	135.2	163.5	68.6	181.1	23.3	66.3	1923	61.5
1923-1924	23.0	17.0	11.6	22.4	35.4	89.6	100.7	64.4	122.5	93.1	92.3	70.5	64.4	1924	59.5
1924-1925	11.6	9.6	12.9	233.3	20.2	40.8	20.6	164.4	71.6	86.3	53.7	22.0	42.6	1925	42.8
1925-1926	9.4	22.9	10.8	14.1	30.6	62.7	68.4	51.0	117.4	122.0	74.9	35.6	48.5	1926	48.5
1926-1927	10.5	10.6	9.0	15.1	38.7	58.9	112.1	79.8	191.8	66.8	59.5	42.8	49.3	1927	57.5
1927-1928	8.0	18.6	24.5	37.2	73.0	83.5	96.3	87.0	105.9	58.6	141.4	29.4	56.6	1928	50.5
1928-1929	21.3	21.3	16.7	30.3	46.4	62.0	77.3	74.6	141.8	80.6	102.6	21.1	58.8	1929	57.3
1929-1930	2.9	2.4	-6.7	2.3	17.3	28.4	68.5	82.6	84.8	90.6	32.1	13.8	36.0	1930	33.2
1930-1931	2.7	1.3	-8.1	3.6	13.5	26.8	43.9	82.1	93.4	95.5	74.0	47.1	45.4	1931	48.8
1931-1932	18.4	14.3	5.1	3.2	14.6	28.8	54.4	90.8	66.6	156.3	52.5	14.2	42.9	1932	51.4
1932-1933	2.7	5.4	27.8	52.5	88.2	108.1	110.9	70.9	95.9	111.3	51.3	38.9	59.3	1933	56.4
1933-1934	8.5	6.9	20.1	27.9	55.4	48.9	97.7	26.0	136.0	116.0	72.4	30.7	54.8	1934	56.6
1934-1935	3.6	3.6	19.0	40.9	43.0	90.4	66.0	91.6	218.6	85.1	75.3	34.8	55.9	1935	52.8
1935-1936	15.1	-9.8	7.2	-12.5	18.6	85.2	44.7	46.4	123.6	117.1	80.3	14.8	54.9	1936	54.8
1936-1937	1.1	-0.6	10.6	23.0	34.4	61.6	91.4	113.1	81.7	69.9	82.6	22.0	50.9	1937	53.7
1937-1938	1.3	9.3	13.6	20.2	51.5	112.5	78.4	102.7	110.7	88.1	44.1	33.1	49.6	1938	58.4
1938-1939	60.3	42.6	24.6	46.2	48.6	99.4	68.5	81.4	89.4	108.2	114.9	10.5	63.8	1939	48.3
1939-1940	-20.0	3.4	2.6	10.9	96.4	45.3	72.0	25.3	120.3	114.8	55.0	67.3	48.6	1940	50.8
1940-1941	19.0	-7.0	-1.5	-3.5	23.9	72.4	49.0	87.4	81.5	121.3	36.7	27.0	38.0	1941	32.8
1941-1942	9.2	2.5	-205.0	-8.6	15.5	22.8	37.8	77.0	85.5	196.6	37.8	15.2	38.0	1942	43.8
1942-1943	16.0	6.0	-8.8	10.6	33.7	71.4	68.8	177.4	119.6	68.7	77.8	18.1	51.7	1943	48.8
1943-1944	0.6	-7.4	-16.9	9.4	27.7	34.4	40.8	49.2	64.2	85.9	80.0	11.5	32.5	1944	38.1
1944-1945	-14.9	-15.4	15.7	18.4	37.4	82.0	84.3	44.6	263.4	64.0	63.4	24.4	47.2	1945	46.0

TABLE 4 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1945-1946	5.5	-3.9	-5.3	2.7	20.8	60.6	102.9	78.2	260.6	60.3	50.8	49.8	48.0	1946	49.0
1946-1947	0.0	20.5	15.2	102.1	22.7	30.5	72.5	58.5	104.2	61.3	84.9	26.6	43.5	1947	42.9
1947-1948	10.9	4.1	7.7	7.0	45.8	35.5	21.7	122.6	168.1	94.7	56.1	74.3	51.9	1948	52.2
1948-1949	15.0	4.8	-13.2	7.2	30.1	58.0	81.5	89.0	118.2	68.8	44.2	-20.0	45.5	1949	42.5
1949-1950	-21.0	0.3	2.6	2.2	16.4	45.2	55.2	52.4	104.3	81.8	62.7	34.1	39.7	1950	43.0
1950-1951	-6.8	4.4	-1.0	1.8	25.6	56.7	65.4	110.5	73.8	108.3	51.9	44.6	50.7	1951	54.5
1951-1952	4.2	2.3	-2.9	8.2	47.9	77.8	86.9	68.6	121.5	67.3	61.7	31.0	53.0	1952	44.8
1952-1953	-29.2	7.2	-9.0	-10.3	12.2	27.4	62.5	93.8	77.6	84.4	98.8	12.0	50.8	1953	53.0
1953-1954	1.6	-1.7	-4.7	6.8	29.9	77.7	72.8	84.2	81.6	74.7	75.6	21.3	46.1	1954	56.0
1954-1955	-0.4	10.2	51.9	42.5	64.6	85.4	246.0	72.8	102.2	66.3	91.0	19.6	56.2	1955	60.8
1955-1956	0.8	32.7	26.3	62.9	122.7	208.3	60.7	93.2	57.8	171.1	81.8	45.7	64.8	1956	52.7
1956-1957	8.9	-14.1	1.2	7.8	22.4	53.1	83.1	85.4	83.5	90.6	37.4	-25.0	42.7	1957	39.3
1957-1958	-42.7	-24.1	-13.9	2.0	9.5	32.1	77.9	59.8	110.4	91.3	101.0	30.9	54.8	1958	60.6
1958-1959	12.1	18.8	21.4	53.5	61.1	102.8	64.5	62.6	82.2	102.5	126.1	22.2	50.8	1959	50.1
1959-1960	31.0	3.1	-40.4	14.0	40.7	78.6	91.6	90.1	96.3	131.0	48.8	30.4	55.4	1960	53.8
1960-1961	7.8	-0.1	19.0	27.4	73.8	56.8	68.2	105.7	116.4	80.2	64.2	57.8	54.8	1961	55.3
1961-1962	8.3	5.0	24.4	49.2	48.1	52.7	94.9	27.0	142.8	167.1	74.6	20.9	50.5	1962	51.1
1962-1963	-6.8	1.2	2.0	21.1	70.7	71.1	56.0	55.1	120.5	83.3	61.4	16.1	44.7	1963	37.5
1963-1964	2.8	-15.2	-0.5	-6.8	20.3	60.3	74.1	52.6	131.9	81.6	75.7	0.5	43.3	1964	42.3
1964-1965	0.8	-6.5	-3.1	3.9	12.3	39.5	40.7	76.1	141.8	74.4	51.2	16.2	35.4	1965	35.8
1965-1966	-3.8	-5.4	-3.1	1.1	8.5	22.6	11.8	44.4	195.6	56.4	47.1	30.4	27.9	1966	30.5
1966-1967	3.0	2.9	6.8	1.4	34.6	36.3	107.1	40.0	73.5	102.3	59.3	51.6	45.2	1967	53.1
1967-1968	2.5	3.5	1.6	35.7	43.5	54.9	68.0	130.2	93.3	121.2	44.4	36.4	54.1	1968	49.3
1968-1969	21.3	1.1	3.8	0.0	23.0	46.7	99.4	20.3	147.4	98.3	64.9	51.1	48.7	1969	47.6
1969-1970	8.2	8.6	5.7	10.7	33.7	46.7	250.0	84.3	64.2	92.3	52.3	36.3	47.5	1970	44.4
1970-1971	-9.3	1.9	1.9	5.9	24.8	26.9	60.9	67.5	149.8	82.8	63.1	29.8	43.9	1971	44.9
1971-1972	-1.2	-11.5	3.0	7.9	20.4	58.6	97.6	44.1	109.5	82.2	54.1	56.5	49.8	1972	58.4
1972-1973	32.7	24.7	17.5	36.0	64.4	67.5	139.2	114.9	95.9	65.2	67.3	23.4	58.1	1973	56.0
1973-1974	29.7	18.7	14.1	18.4	55.6	66.3	100.4	106.8	76.2	110.7	64.1	25.9	58.5	1974	53.5
1974-1975	-9.3	-1.0	9.4	28.0	51.0	55.2	82.8	88.3	94.0	89.6	56.9	24.1	48.2	1975	46.8

TABLE 4 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
1975-1976	1.3	-1.0	11.1	34.5	64.4	76.3	89.0	128.0	89.5	77.0	50.5	7.8	52.3	1976	46.8
1976-1977	5.0	18.7	10.7	24.0	129.2	37.1	38.1	68.3	110.6	92.5	68.8	18.1	44.7	1977	52.0
1977-1978	-0.6	0.8	12.2	43.2	55.1	99.8	70.8	90.6	175.1	133.5	55.2	41.4	58.9	1978	53.3
1978-1979	2.3	11.7	-3.3	8.7	21.1	42.1	74.5	75.4	158.3	59.3	44.6	40.6	49.6	1979	52.7
1979-1980	0.6	10.1	10.3	32.1	55.7	78.1	79.1	43.5	67.3	77.7	104.4	14.8	45.06	1980	----
64 Years Average	15.3	11.3	15.3	23.5	40.6	59.8	70.4	71.9	105.1	90.1	65.0	31.5	50.8	Avg.	51.0
64 Years Maximum	60.3	82.0	82.0	233.3	331.2	208.3	250.0	177.4	263.4	198.0	181.1	74.3	66.3	Max.	61.5
64 Years Minimum	-42.7	-24.1	-205.0	-12.5	8.5	22.6	11.8	20.3	57.8	56.4	32.1	-25.0	27.9	Min.	30.5

NOTE: The 64-Year calendar year average is for the years 1916-1979.

TABLE 5

SCITUATE WATERSHEO

(92.8 Square Miles)

STATISTICS OF STORAGE - YEAR ENOEO JUNE 30, 1980

1979-1980	1 Regulating Reservoir Elev.	Avail. Storage M.G.	2 Westconnaug Reservoir Elev.	Avail. Storage M.G.	3 Barden Reservoir Elev.	Avail. Storage M.G.	4 Moswansicut Reservoir Elev.	Avail. Storage M.G.	5 Ponaganset Reservoir Elev.	Avail. Storage M.G.	Total 1-5 Avail. Storage M.G.	% of *Tot. Avail.	6 Scituate Reservoir Elev.	Avail. Storage M.G.	Total 1-6 Avail. Storage M.G.	% of **Tot. Avail.
July	285.53	423	454.30	460	345.25	865	301.97	722	633.14	700	3,170	101.1	283.80	36,386	39,556	99.5
Aug.	285.12	391	453.95	440	345.10	853	301.87	712	632.62	662	3,058	97.5	280.96	33,350	36,408	91.6
Sept.	285.50	421	454.25	458	345.23	863	301.99	724	632.97	687	3,153	100.6	279.43	31,773	34,926	87.9
Oct.	285.51	422	452.89	381	345.26	866	301.99	724	632.98	688	3,081	98.3	277.60	29,900	32,981	83.0
Nov.	285.56	426	453.94	440	345.31	870	301.98	723	633.37	717	3,176	101.3	276.58	28,880	32,056	80.7
Oec.	285.62	431	454.48	471	345.36	874	302.01	726	633.54	731	3,233	103.1	278.50	30,800	34,033	85.6
Jan.	285.58	427	454.39	465	345.32	871	302.01	726	633.45	724	3,213	102.5	277.65	29,950	33,163	83.4
Feb.	285.54	424	454.36	464	345.30	869	301.95	720	633.43	722	3,199	102.0	276.16	28,460	31,659	79.7
Mar.	285.55	425	454.30	460	345.23	863	302.01	726	633.45	724	3,198	102.0	274.87	27,178	30,376	76.4
Apr.	285.72	439	454.74	485	345.63	895	302.11	736	633.98	764	3,319	105.9	282.99	35,519	38,838	97.7
May	285.72	439	454.70	483	345.73	903	302.16	742	633.79	750	3,317	105.8	285.24	37,984	41,301	103.9
June	285.55	425	454.32	461	345.27	867	301.96	721	633.29	711	3,185	101.6	284.08	36,689	39,874	100.3
Maximum for			3/22/80		3/22/80		3/22/80		3/22/80		3/22/80		4/14/80		4/12/80	
Year	286.09	470	455.60	534	346.64	978	302.55	782	634.67	818	3,582	114.3	285.43	38,193	41,448	104.3
Minimum for			9/15/79		9/8/79		7/14/ & 7/28/79		8/1/79		9/15/79		3/8/80		3/8/80	
Year	285.12	391	452.54	364	342.64	665	301.85	710	632.62	662	2,844	90.7	274.59	26,915	30,189	76.0

1. Regulating Reservoir-Spillway Elev.	285.50;	Total Storage	428 M.G.;	Oead Storage	7 M.G.;	Total Available Storage 421 M.G.
2. Westconnaug " "	454.17;	" "	453 "	" "	0 "	" " " " 453 "
3. Barden " "	345.10;	" "	853 "	" "	0 "	" " " " 853 "
4. Moswansicut " "	301.90;	" "	1,781 "	" "	1,066 "	" " " " 715 "
5. Ponaganset " "	633.05;	" "	742 "	" "	49 "	" " " " 693 "
Total 1-5		Total Storage	4,257 M.G.;	Oead Storage	1,122 M.G.;	Total Available Storage *3,135 M.G.
6. Scituate " "	284.01;	" "	37,011 "	" "	400 "	" " " " 36,611 "
Total 1-6		Total Storage	41,268 M.G.;	Oead Storage	1,522 M.G.;	Total Available Storage **39,746 M.G.

NOTE: Elevations shown are in feet above mean high water in Providence Harbor.
Statistics shown are for the first day (7 A.M.) of the month indicated.

TABLE 6

SCITUATE RESERVOIR ELEVATIONS

YEARS ENDED JUNE 30

1st of Month

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1928-1929	284.43	283.63	283.08	282.87	282.65	282.11	282.34	284.00	284.32	284.28	284.53	284.10
1929-1930	282.77	280.87	278.95	276.88	274.83	273.09	272.60	273.57	275.38	277.54	278.29	277.51
1930-1931	276.23	274.28	272.18	269.80	267.58	266.14	264.86	265.82	267.39	275.51	278.84	281.37
1931-1932	283.32	281.56	280.11	278.25	276.34	274.45	273.35	276.56	277.96	281.85	283.83	283.17
1932-1933	281.06	278.86	277.16	279.75	282.50	284.60	283.61	282.80	282.86	284.23	284.16	283.09
1933-1934	282.68	280.42	278.39	278.26	277.64	276.86	277.58	280.96	280.38	285.04	284.14	284.09
1934-1935	283.14	280.72	278.62	278.55	278.20	278.73	281.17	283.23	281.23	281.20	284.37	283.14
1935-1936	283.50	281.93	279.32	277.32	275.01	274.30	273.13	277.33	278.48	285.48	283.95	282.22
1936-1937	280.91	279.07	277.06	275.97	274.43	273.12	280.27	280.85	279.18	281.83	284.30	285.19
1937-1938	284.06	282.09	281.43	279.80	278.13	280.96	279.49	279.19	279.73	280.86	282.48	283.04
1938-1939	284.87	285.14	280.58	281.12	279.83	278.23	280.01	279.17	281.31	282.72	283.74	282.57
1939-1940	280.86	278.48	276.67	274.62	272.85	273.10	273.18	274.28	274.70	280.08	284.55	285.11
1940-1941	283.53	282.87	280.63	278.35	275.88	276.19	276.21	276.22	278.63	279.70	280.39	280.01
1941-1942	280.07	278.99	277.15	274.75	272.38	270.88	270.02	270.95	273.39	282.29	281.65	281.25
1942-1943	280.34	279.81	278.31	276.16	274.55	275.40	280,05	279.69	280.00	280.98	281.53	283.91
1943-1944	282.46	280.43	278.21	275.93	274.41	273.57	271.84	270.65	270.52	273.95	277.75	277.50
1944-1945	276.20	273.86	271.20	271.68	270.27	273.47	277.37	279.19	279.43	283.76	283.73	283.88
1945-1946	283.76	282.03	279.81	277.63	275.45	275.88	280.85	281.92	282.59	283.71	283.56	284.67
1946-1947	283.41	281.23	282.51	281.16	279.95	278.30	277.97	279.17	279.62	283.18	283.87	284.50
1947-1948	283.91	282.73	280.97	279.29	277.37	279.63	279.66	277.97	280.01	285.22	284.61	285.56
1948-1949	284.69	282.83	281.01	278.73	277.01	278.12	279.00	281.61	281.56	282.64	284.16	284.66
1949-1950	282.50	280.17	278.10	276.05	273.94	272.40	272.07	273.29	275.58	280.13	282.78	284.07
1950-1951	283.58	281.33	279.64	277.64	275.63	275.99	277.74	279.77	282.17	283.41	284.46	285.08
1951-1952	284.19	282.41	280.57	278.54	276.71	281.24	283.40	282.84	281.44	283.39	284.31	285.10
1952-1953	283.92	281.34	280.02	277.76	275.37	273.52	272.74	278.12	282.29	285.13	284.68	284.49
1953-1954	282.38	280.50	278.36	276.08	274.38	274.86	279.60	280.19	281.50	283.75	284.92	284.48
1954-1955	283.05	281.11	280.22	282.61	281.65	282.94	284.57	281.49	282.33	282.66	284.05	284.35
1955-1956	283.65	281.04	282.47	279.97	285.21	284.60	281.10	282.20	282.41	282.18	285.06	283.80
1956-1957	282.87	281.39	278.96	276.87	274.79	274.14	276.52	278.15	279.67	282.10	284.36	283.34
1957-1958	281.00	278.38	275.91	273.47	271.19	269.42	270.66	279.27	280.98	284.82	285.62	284.67
1958-1959	283.80	282.10	280.42	279.27	279.43	279.32	278.74	278.12	279.12	282.98	284.30	283.82
1959-1960	283.61	283.91	281.28	279.01	278.35	279.54	282.60	282.15	284.19	283.12	284.27	284.62

TABLE 6 (Continued)

SCITUATE RESERVOIR ELEVATIONS

YEARS ENDED JUNE 30

1st of Month

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1960-1961	282.55	280.89	278.84	279.00	278.37	279.44	280.03	278.86	281.01	282.99	284.92	285.35
1961-1962	283.23	281.41	279.11	279.99	279.76	279.36	278.81	280.96	279.87	283.34	284.04	284.15
1962-1963	283.45	281.29	279.08	277.14	277.54	280.09	280.12	278.98	279.05	283.61	283.64	284.54
1963-1964	283.55	282.41	280.07	278.08	275.77	279.90	275.36	280.15	280.37	282.17	284.68	283.53
1964-1965	281.43	279.43	277.21	274.98	272.78	271.28	273.08	273.83	277.38	280.27	281.38	281.06
1965-1966	279.60	277.26	274.89	272.71	270.70	269.01	267.69	266.76	268.84	272.57	272.61	273.71
1966-1967	275.84	274.08	272.00	270.63	269.64	271.24	271.94	274.09	275.21	280.45	283.59	285.27
1967-1968	285.05	284.30	282.48	280.59	279.74	279.97	281.26	279.15	279.05	285.30	284.18	284.21
1968-1969	284.41	281.48	279.26	277.25	275.21	275.47	279.28	280.30	280.89	284.78	285.12	284.77
1969-1970	283.38	281.73	280.04	278.43	276.70	278.08	283.45	282.99	283.99	284.44	284.21	284.03
1970-1971	283.63	281.21	279.11	277.10	275.29	275.41	275.73	275.87	279.66	284.28	284.50	284.90
1971-1972	283.42	280.96	278.39	276.39	274.87	274.19	275.15	277.06	279.58	285.00	284.48	284.47
1972-1973	284.73	284.04	282.85	282.06	281.95	285.16	285.65	283.80	282.83	280.67	284.31	283.71
1973-1974	282.86	282.05	280.53	279.10	277.85	277.82	284.69	283.94	282.12	284.44	283.35	283.05
1974-1975	281.94	279.25	276.35	274.93	274.37	273.81	277.47	282.00	282.26	282.68	283.71	282.96
1975-1976	282.20	279.77	277.30	276.16	277.67	281.34	280.27	282.72	282.07	283.17	283.94	284.22
1976-1977	281.99	280.03	279.49	277.55	277.10	275.63	275.70	276.31	277.25	284.75	284.84	284.49
1977-1978	283.27	280.68	278.26	277.22	280.05	280.65	282.32	285.31	281.70	284.96	284.17	285.06
1978-1979	283.11	280.41	279.08	276.52	274.70	273.21	274.38	285.29	283.96	283.64	284.80	285.51
1979-1980	283.80	280.96	279.43	277.60	276.58	278.50	277.65	276.16	274.87	282.99	285.24	284.08
52 Years Average	282.58	280.75	278.91	277.45	276.36	276.53	277.58	278.76	279.47	282.43	283.44	283.49
52 Years Maximum	285.05	285.14	283.08	282.87	285.21	285.16	285.65	285.31	284.32	285.48	285.62	285.56
52 Years Minimum	275.84	273.86	271.20	269.80	267.58	266.14	264.86	265.82	267.39	272.57	272.61	273.71

TABLE 7

SCITUATE WATERSHED

(92.8 Square Miles)

DRAFT AND YIELD-YEAR ENDED JUNE 30, 1980

	DRAFT FROM SCITUATE RESERVOIR Million Gallons						WATERSHED YIELD Million Gallons		
	To River Below Gainer Dam						Average per Day		
1979-1980	Over Spill-way	Through Gate-house	Total	To Water Purification Works	Total For Month	Average per Day	For Month	1979-1980	64-Year Mean 1917-1980
July	0	590.57	590.57	2,573.47	3,164.04	102.07	16.04	0.52	29.65
August	0	711.26	711.26	2,109.96	2,821.22	91.01	1,339.22	43.20	25.49
September	0	714.34	714.34	1,981.88	2,696.22	89.87	751.22	25.04	34.41
October	0	893.50	893.50	2,051.51	2,945.01	95.00	2,020.01	65.16	45.78
November	0	554.17	554.17	1,830.44	2,384.61	79.49	4,361.61	145.39	103.22
December	0	1,545.06	1,545.06	1,687.46	3,232.52	104.28	2,362.52	76.21	138.38
January	0	1,764.15	1,764.15	1,761.37	3,525.52	113.73	2,021.52	65.21	158.15
February	0	376.55	376.55	1,705.59	2,082.14	71.80	799.14	27.56	159.28
March	0	239.45	239.45	1,772.19	2,011.64	64.89	10,473.64	337.86	248.68
April	1,288.84	2,180.87	3,469.71	1,812.16	5,281.87	176.06	7,744.87	258.16	201.59
May	423.24	2,016.33	2,439.57	2,024.92	4,464.49	144.02	3,037.49	97.98	124.86
June	0.35	459.25	459.60	2,261.62	2,721.22	90.71	921.22	30.71	59.67
For Year	*1,712.43	12,045.50	13,757.93	23,572.57	37,330.50	102.00	35,848.50	97.95	110.52

*Includes Flashboard Leakage.

TABLE 8

SCITUATE WATERSHED - REFORESTATION

NUMBER AND KINDS OF TREES PLANTED IN VARIOUS YEARS

Planted During Calendar Year	Fraser Fir	Balsam Fir	Red Pine	White Pine	Douglas Fir	Austrian Pine	Scotch Pine	Jack Pine	White Spruce	Norway Spruce	Hemlock	Larch	Total Number Planted Yearly
1926	0	0	160,000	40,000	0	0	0	0	0	0	0	0	200,000
1927	0	0	60,000	150,000	0	0	0	0	0	0	0	0	210,000
1928	0	0	10,000	10,000	0	0	0	0	0	0	0	0	20,000
1929	0	0	10,000	75,000	0	0	0	0	0	0	0	0	85,000
1930	0	0	40,000	40,000	0	0	0	0	0	0	0	0	80,000
1931	0	0	40,000	50,000	0	0	0	0	9,000	0	0	0	99,000
1932	0	0	40,000	40,000	0	0	0	0	20,000	0	0	0	100,000
1933	0	0	0	0	0	0	0	0	0	0	0	0	0
1934 & 1935	0	0	755,000	255,000	0	36,000	136,000	4,000	505,000	204,000	3,000	0	1,898,000
1936	0	0	453,700	111,000	0	14,400	0	0	20,000	15,000	26,000	0	640,100
1937	0	0	481,100	0	0	0	0	0	213,200	0	0	0	694,300
1938	0	0	229,000	21,693	0	0	0	0	0	0	0	0	250,693
1939	0	0	8,000	761,000	0	0	0	50,000	0	0	0	0	819,000
1940	0	0	267,387	618,828	0	45,916	0	67,750	0	0	0	0	999,881
1941	0	0	51,000	295,650	0	0	0	0	34,350	0	0	0	381,000
1942	0	0	0	308,120	0	0	0	0	0	0	0	0	308,120
1943	0	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	1,500	12,000	0	0	0	0	0	0	0	13,500
1952	0	0	20,000	0	0	0	0	0	10,000	0	0	10,000	40,000
1953	0	0	10,000	0	0	0	0	0	6,000	0	0	0	16,000
1954	0	2,000	0	0	2,000	0	0	0	0	0	0	6,000	10,000
1955	0	0	0	5,000	0	0	0	0	0	0	0	5,000	10,000

TABLE 8 (Continued)

SCITUATE WATERSHED - REFORESTATION

NUMBER AND KINDS OF TREES PLANTED IN VARIOUS YEARS

Planted During Calendar Year	Fraser Fir	Balsam Fir	Red Pine	White Pine	Douglas Fir	Austrian Pine	Scotch Pine	Jack Pine	White Spruce	Norway Spruce	Hemlock	Larch	Total Number Planted Yearly
1956	0	0	0	5,000	0	4,500	0	0	0	0	0	0	9,500
1957	0	0	0	6,000	0	0	0	0	0	0	0	0	6,000
1958	0	0	2,700	2,000	0	0	0	0	0	0	0	0	4,700
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	140	540	6,874	784	405	0	0	3,401	49	0	3,461	15,654
1961	0	0	0	2,300	144	0	0	0	0	0	2,000	0	4,444
1962	0	0	0	5,000	0	0	0	0	150	0	2,000	2,000	9,150
1963	0	0	0	5,000	0	0	0	0	170	0	5,000	5,000	15,170
1964	0	0	0	5,000	0	0	0	0	510	0	5,000	5,000	15,510
1965	1,000	2,000	0	5,000	0	0	0	0	0	0	10,000	5,000	23,000
1966	0	0	0	5,000	0	0	0	0	0	0	5,000	5,000	15,000
1967	0	0	0	1,000	0	0	0	0	0	0	3,000	1,000	5,000
1968	0	0	0	2,000	1,000	0	0	0	0	0	2,000	1,000	*6,200
1969	0	0	0	2,000	0	0	0	0	0	1,000	2,000	0	**5,100
1970	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000
1971	0	0	0	2,000	500	0	0	0	0	500	2,000	0	***5,040
1972	0	0	0	2,000	500	0	0	0	0	500	2,000	0	****7,000
1973	0	0	0	1,500	500	0	0	0	0	500	2,000	500	*****7,000
1974	0	0	0	1,500	500	0	0	0	0	500	2,500	0	5,000
1975	0	0	0	4,500	500	0	0	0	0	0	0	0	5,000
1976	0	0	0	3,750	500	0	0	0	0	500	3,000	0	7,750
1977	0	0	0	2,000	500	0	0	0	0	500	1,500	0	4,500
1978	0	0	0	1,250	0	0	0	0	0	1,750	2,000	0	5,000
1979	0	0	0	1,750	0	0	0	0	0	1,250	2,000	0	5,000
1980	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000
Totals	1,000	4,140	2,638,427	2,859,215	20,428	101,221	136,000	121,750	821,781	227,049	86,000	48,961	7,070,312

*Includes 200 Black Walnut.
**Includes 100 Chestnut.
***Includes 40 Chestnut.
****Includes 1,400 White Ash and 600 Black Cherry.
*****Includes 1,000 White Ash and 1,000 Tulip Poplar.

TABLE 9

GAINER DAM HYDRO-ELECTRIC PLANT*

POWER STATISTICS ON THE BASIS OF THE "CONTRACT YEAR" WITH THE NARRAGANSETT ELECTRIC COMPANY

Contract Year	KWH Generated at Gainer Dam	KWH Used at Gainer Dam and Water Purification Works	KWH Delivered to Narragansett Electric Co.	Payment Received
(Period June 20-30, 1930)	87,000	6,470	75,100	$ 300.40
July 1930-June 1931	3,023,000	152,940	2,758,340	20,000.00
July 1931-June 1932	4,201,500	158,070	3,980,570	19,600.00
July 1932-June 1933	7,024,900	155,210	6,697,656	26,790.62
July 1933-June 1934	5,080,900	152,420	4,837,371	19,349.48
July 1934-June 1935	7,102,900	174,710	6,756,101	27,024.40
July 1935-June 1936	5,761,200	173,530	5,394,176	21,576.70
July 1936-June 1937	5,626,000	174,110	5,262,807	21,051.23
July 1937-June 1938	6,438,300	156,710	6,069,927	24,279.71
July 1938-June 1939	8,915,000	159,860	8,457,980	33,831.92
July 1939-June 1940	4,681,100	231,850	4,329,115	17,316.46
July 1940-June 1941	3,291,200	185,540	2,982,991	16,000.00
July 1941-June 1942	2,585,300	194,250	2,322,916	15,600.00
July 1942-June 1943	4,655,800	170,520	4,372,359	17,489.44
July 1943-June 1944	2,290,100	183,250	2,096,811	14,597.25
July 1944-June 1945	4,146,200	187,080	3,879,622	15,518.49
July 1945-June 1946	4,754,100	200,200	4,460,596	17,343.70
July 1946-June 1947	3,494,400	251,270	3,224,049	13,600.00
July 1947-June 1948	5,576,900	249,940	5,313,209	21,252.84
July 1948-June 1949	3,790,500	264,160	3,521,404	14,085.62
July 1949-June 1950	1,972,200	303,460	1,548,000	9,288.00
July 1950-June 1951	4,965,900	322,220	4,476,900	26,861.40
July 1951-June 1952	6,381,400	329,080	5,836,700	35,020.20
July 1952-June 1953	4,993,400	351,080	4,429,900	26,579.40
July 1953-June 1954	3,945,700	389,050	3,389,000	20,334.00
July 1954-June 1955	6,776,900	422,250	6,111,000	36,666.00
July 1955-June 1956	9,521,700	480,300	8,747,900	52,487.40
July 1956-June 1957	2,195,400	466,480	1,608,100	9,648.60
July 1957-June 1958	4,141,000	541,760	3,432,900	**20,597.40
July 1958-June 1959	4,987,600	504,310	4,297,300	25,783.80
July 1959-June 1960	5,754,000	515,280	5,078,000	30,468.00
July 1960-June 1961	4,912,500	583,050	4,159,400	24,956.40
July 1961-June 1962	3,998,900	614,800	3,267,600	19,605.60
July 1962-June 1963	2,116,200	679,400	1,334,800	8,008.80
July 1963-June 1964	2,550,450	735,790	1,716,800	10,418.40
July 1964-June 1965	184,800	759,140	0	0.00
July 1965-June 1966	303,700	746,340	0	0.00
July 1966-June 1967	1,195,100	748,410	809,600	4,857.60
July 1967-June 1968	5,370,900	795,380	4,232,000	23,916.08
July 1968-June 1969	3,120,600	642,610	2,462,400	13,498.88
July 1969-June 1970	3,383,700	941,350	2,556,800	14,350.10
July 1970-June 1971	1,385,800	1,089,130	737,600	3,008.43
July 1971-June 1972	3,404,000	856,694	2,795,200	15,638.00
July 1972-June 1973	6,807,400	847,110	5,764,800	32,786.38
July 1973-June 1974	4,736,400	1,030,660	3,884,800	21,539.46
July 1974-June 1975	2,094,100	1,015,400	1,372,800	6,504.60
July 1975-June 1976	4,288,100	1,065,070	3,528,000	19,998.90
July 1976-June 1977	2,201,100	1,064,980	1,224,000	5,860.44
July 1977-June 1978	5,909,000	996,540	4,720,000	26,652.86
July 1978-June 1979	3,161,000	1,052,650	2,108,800	11,582.42
July 1979-June 1980	2,187,300	1,055,460	979,200	4,719.01

*1875 KVA 3 Phase, 60 Cycle, 2300 Volts, 80 Ft. Head Turbo-Generator.
**Involves net exchange for portion of previous year.

TABLE 10

WATER PURIFICATION WORKS

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

1979-1980	Influent Aerator Hours Operated	Plant Influent Mil. Gals. Total	Plant Influent Mil. Gals. Average per Day	Water Filtered Mil. Gals. Total	Water Filtered Mil. Gals. Average per Day	Wash Water Mil. Gals. Total	Wash Water Mil. Gals. Average per Day	% of Water Filt.	Plant Effluent Mil. Gals. Total	Plant Effluent Mil. Gals. Average per Day	Plant Effluent Flow Hours	Number of Filters in Operation Max.	Min.	Avg.
July	744.0	2,573.467	83.015	2,554.026	82.388	25.518	0.823	1.2	2,528.508	81.565	744.0	18	5	11.9
August	744.0	2,109.961	68.063	2,151.880	69.415	20.826	0.672	1.0	2,131.054	68.744	744.0	17	5	10.0
September	720.0	1,981.875	66.063	1,969.536	65.651	22.378	0.746	1.1	1,947.158	64.905	720.0	14	5	9.7
October	745.0	2,051.511	66.178	1,929.444	62.240	36.913	1.191	1.9	1,892.531	61.049	745.0	16	6	11.3
November	720.0	1,830.440	61.015	1,765.759	58.859	23.878	0.796	1.3	1,741.881	58.063	720.0	16	7	11.9
December	744.0	1,687.462	54.434	1,753.422	56.562	19.853	0.640	1.1	1,733.569	55.922	744.0	15	7	11.4
January	744.0	1,761.365	56.818	1,816.936	58.611	23.608	0.762	1.3	1,793.328	57.849	744.0	14	7	11.8
February	696.0	1,705.593	58.814	1,714.464	59.119	22.361	0.771	1.3	1,692.103	58.348	696.0	14	8	11.9
March	744.0	1,772.194	57.168	1,825.492	58.887	20.548	0.663	1.1	1,804.944	58.224	744.0	14	6	11.8
April	719.00	1,812.155	60.405	1,765.374	58.846	18.370	0.612	1.1	1,747.004	58.233	719.0	14	7	11.6
May	744.00	2,024.930	65.320	1,968.605	63.503	24.588	0.793	1.2	1,944.017	62.710	744.0	14	6	10.2
June	720.00	2,261.618	75.387	2,219.689	73.990	23.308	0.777	1.0	2,196.381	73.213	720.0	17	6	10.6
Totals	8,784.0	23,572.571		23,434.627		282.149			23,152.478		8,784.0			
Average	732.0		64.406		64.029		0.77	1.2		63.258	732.0			11.2

Raw water treated with Ferri-Floc before Influent Aeration.
Quicklime added to Ferri-Floc treated water in conduit to tangential mixer.
Chlorine added to water before filtration.
Sodium Silicofluoride added to water after filtration.
Raw water drawn from lower intake at Gainer Memorial Dam all year.

TABLE 10 (Continued)

WATER PURIFICATION WORKS

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

1979-1980	Average Rate of Filtration per Filter M.G.D.	Number of Filters Washed Total	Number of Filters Washed Avg. per Day	Average Filter Run Hours	Ferri-Floc Used Lbs.	Ferri-Floc Used Avg. per Day	Ferri-Floc Used Gr. per Gal.	Quicklime Used Lbs.	Quicklime Used Avg. per Day	Quicklime Used Gr. per Gal.	Chlorine Used Lbs.	Chlorine Used Avg. per Day	Chlorine Used Parts per Mil.	Sodium Silicofluoride Used Lbs.	Sodium Silicofluoride Used Avg. per Day	Sodium Silicofluoride Used Parts per Mil.*
July	6.95	137	4.4	66.01	244,582	7,890	0.67	253,122	8,165	0.69	14,444	466	0.68	30,313	978	0.85
August	6.94	112	3.6	68.65	195,478	6,306	0.65	218,845	7,060	0.73	12,649	408	0.71	25,957	837	0.87
September	6.76	120	4.0	63.17	202,708	6,757	0.72	222,964	7,432	0.79	11,673	389	0.71	23,578	786	0.86
October	5.49	199	6.4	43.71	251,648	8,118	0.86	217,438	7,014	0.74	11,014	355	0.69	22,961	741	0.86
November	4.96	128	4.3	67.07	206,447	6,882	0.79	174,388	5,813	0.67	9,852	328	0.67	21,171	706	0.87
December	4.97	107	3.5	86.50	175,825	5,672	0.73	155,396	5,013	0.64	9,268	299	0.63	20,894	674	0.86
January	4.96	127	4.1	71.39	181,946	5,869	0.72	161,201	5,200	0.64	8,776	283	0.58	21,551	695	0.86
February	4.97	126	4.3	68.56	201,480	6,948	0.83	161,089	5,555	0.66	7,895	272	0.55	20,300	700	0.85
March	4.98	116	3.7	78.94	204,191	6,587	0.81	170,724	5,507	0.67	8,488	274	0.56	21,672	699	0.85
April	5.07	105	3.5	84.22	172,139	5,738	0.66	171,773	5,726	0.66	8,160	272	0.55	20,818	694	0.85
May	6.23	138	4.5	59.10	210,088	6,777	0.73	187,089	6,035	0.65	9,217	297	0.56	23,215	749	0.85
June	6.96	127	4.2	63.41	245,061	8,169	0.76	218,024	7,276	0.68	10,324	344	0.56	26,027	868	0.84
Totals		1,542			2,491,593			2,312,053			121,760			278,457		
Average	5.73		4.2	66.60		6,808	0.74		6,317	0.69		333	0.62		761	0.86

Total filter hours for year, 98,151.70; average per day, 268.17.
Average quantity of water filtered per filter per run, 15.90 m.g.
*Dosage expressed as p.p.m. of Fluoride ion.

TABLE 11

WATER PURIFICATION WORKS

CHEMICALS USED -- YEAR ENDED JUNE 30, 1980

	Pounds of Chemicals Used Lbs. per Day		Total Gallons of Water Treated	Cost of Chemicals	Pounds of Chemicals Used per 1,000,000 Gals. of Water Treated (Average)	Cost of Chemicals per 1,000,000 Gals. of Water Treated
	Total	(Average)				
Ferri-Floc	2,491,593	6,808	23,572,571,000	$128,375.27	105.70	$5.45
Quicklime	2,312,053	6,317	23,572,571,000	72,939.49	98.08	3.09
Chlorine	121,760	333	23,434,627,000	17,967.06	5.20	0.77
Sodium Silicofluoride	278,457	761	23,152,478,000	51,236.09	12.03	2.21
Totals	5,203,863			$270,517.91		$11.52

Price of Ferri-Floc -- on July 1, 1979 was $94.72 per ton and varied to $111.87 per ton on June 30, 1980.

Price of Quicklime -- on July 1, 1979 was $59.10 per ton and varied to $72.05 per ton on June 30, 1980.

Price of Chlorine --From July 1, 1979 to September 7, 1979 -- $280.00 per ton; from September 8, 1979 to June 30, 1980 -- $300.00 per ton.

Price of Sodium Silicofluoride -- From July 1, 1979 to June 30, 1980 -- $368.00 per ton.

TABLE 12

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1980

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
pH													
Raw	5.7	5.7	5.8	6.1	6.3	6.4	6.4	6.3	6.3	6.4	6.1	6.0	6.1
Aerated Influent	4.1	4.3	4.2	4.1	4.0	4.1	4.2	4.1	4.1	4.1	4.1	4.1	4.1
Treated	10.2	10.3	10.3	10.4	10.3	10.4	10.4	10.4	10.3	10.4	10.3	10.3	10.3
Settled	10.1	10.2	10.2	10.3	10.2	10.3	10.3	10.4	10.2	10.3	10.2	10.2	10.2
Filtered	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.4	10.2	10.3	10.2	10.2	10.2
**Effluent	10.1	10.1	10.2	10.3	10.2	10.3	10.3	10.4	10.2	10.3	10.2	10.2	10.2
Tap	10.0	10.0	10.0	10.1	10.0	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
Acidity													
Raw	4.6	6.1	6.9	3.7	1.2	1.1	1.0	1.2	1.1	1.2	1.9	2.8	2.7
Aerated Influent	7.3	7.9	8.5	7.5	6.2	5.3	5.8	6.7	7.0	6.2	6.6	7.4	6.9
Phenolphthalein Alkalinity													
Treated	9.5	9.3	10.0	9.8	9.1	9.3	8.9	8.9	8.9	10.0	9.7	9.8	9.4
Settled	8.2	7.9	8.6	8.7	7.5	7.8	7.6	8.1	7.5	8.9	8.4	8.5	8.1
Filtered	8.0	7.7	8.6	8.5	7.5	7.7	7.4	8.1	7.4	8.9	8.3	8.3	8.0
**Effluent	8.0	7.8	8.7	8.6	7.4	7.7	7.5	8.2	7.5	8.9	8.3	8.3	8.1
Tap	6.2	5.9	6.9	6.7	5.9	6.2	6.0	6.5	5.9	7.2	6.8	6.6	6.4
Methyl Orange Alkalinity													
Raw	3.1	3.1	3.5	3.8	3.5	3.5	3.5	3.6	3.6	3.4	3.2	3.5	3.4
Treated	16.2	16.5	18.4	15.9	13.9	14.3	13.9	14.2	14.1	15.2	14.7	15.6	15.2
Settled	14.4	15.0	17.0	14.6	12.7	12.9	12.7	13.2	12.8	14.5	13.5	14.0	13.9
Filtered	14.2	14.8	16.9	14.2	12.5	12.9	12.5	13.1	12.6	14.0	13.4	13.9	13.8
**Effluent	14.2	14.9	16.4	13.9	12.5	12.9	12.6	13.2	12.7	13.9	13.4	13.9	13.7
Tap	13.0	13.4	15.1	12.9	11.6	11.9	11.6	12.0	11.6	12.7	12.4	12.8	12.6
Color													
Raw	12	11	12	12	10	11	9	9	8	9	11	11	10
Settled	12	12	14	15	12	11	11	12	10	10	11	11	12
**Effluent	3	3	3	3	2	3	3	3	3	3	3	3	3
Tap	3	3	4	4	4	4	4	3	3	3	3	3	3
Turbidity													
Raw	0.4	0.3	0.5	0.6	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4
Settled	0.6	0.6	0.7	0.7	0.5	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5
**Effluent	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hardness													
Raw	9	9	10	10	10	10	10	11	11	11	11	10	10
**Effluent	27	28	30	29	28	26	27	29	28	29	28	28	28
Tap	28	29	30	30	28	27	28	29	29	30	29	29	29
Iron													
Raw	0.04	0.04	0.11	0.16	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.06
Settled	.47	.45	.55	.76	.39	.38	.47	.50	.41	.38	.45	.39	0.47
**Effluent	.01	.01	.00	.00	.01	.01	.00	.01	.00	.01	.01	.01	0.01
Tap	.02	.02	.03	.04	.05	.04	.03	.02	.02	.02	.02	.02	0.03
Manganese													
Raw	0.02	0.04	0.14	0.14	0.03	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.04
Settled	.00	.01	.04	.04	.00	.00	.00	.00	.00	.00	.00	.00	0.01
**Effluent	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
Tap	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
Fluoride													
Raw	0.15	0.17	0.15	0.16	0.16	0.16	0.15	0.15	0.18	0.20	0.21	0.20	0.17
**Effluent	0.15	0.17	0.15	0.16	0.16	0.16	0.15	0.15	0.18	0.21	0.21	0.20	0.17
Tap	0.97	1.00	1.01	1.09	1.05	1.00	1.00	0.99	0.98	0.98	0.98	0.98	1.00
Chlorine Residual													
Filtered	0.17	0.20	0.25	0.25	0.19	0.19	0.16	0.13	0.13	0.12	0.09	0.09	0.16
**Effluent	.16	.18	.21	.21	.17	.18	.15	.12	.12	.11	.08	.08	0.15
160 Sock.Crossroad,Crans..	.02	.04	.06	.06	.01	.01	.01	.01	.01	.01	.01	.02	0.02
Neut. Reservoir	.02	.01	.03	.03	.01	.01	.01	.01	.01	.01	.00	.01	0.01
Tap	0.02	0.02	0.05	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Temperatures													
Raw	50	50	53	55	52	43	35	34	37	44	50	52	46
Tap	59	59	60	58	56	46	38	40	44	51	58	61	53

*Parts per million, except pH.

**Before treatment with sodium silicofluoride.

TABLE 13

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN VARIOUS BROOKS AND RESERVOIRS ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Color													
Ponaganset Reservoir	4	4	6	2	2	2	2	-	2	1	3	3	3
Coventry Brook	32	34	24	37	16	18	13	6	12	14	22	16	20
Wilbur Brook	46	45	60	65	40	23	23	13	13	13	36	28	34
Westconnaug Reservoir	8	12	12	17	6	7	8	6	6	8	6	6	9
Barden Reservoir	46	18	28	27	35	18	18	12	9	18	17	12	22
Cork Brook	13	13	18	22	16	12	12	4	10	12	26	11	14
Rush Brook	28	35	28	28	25	12	12	8	13	17	27	23	21
Huntinghouse Brook	16	17	22	28	17	12	12	-	8	12	18	12	16
Harrisdale Brook	14	17	22	19	22	11	12	-	10	12	14	11	15
Blanchard Brook	170	135	190	140	85	40	45	-	36	56	84	109	99
Moswansicut Pond	12	14	12	13	12	14	12	12	12	12	12	12	12
Regulating Reservoir	12	17	20	17	25	11	9	-	4	8	22	8	14
Quonopaug Brook	24	90	130	110	55	80	35	-	24	36	68	60	65
Hemlock Brook	21	56	20	62	35	26	23	-	14	21	17	11	28
Betty Pond Stream	8	16	17	12	38	6	8	-	4	8	22	8	13
Spruce Brook	12	54	35	60	40	18	18	-	12	17	26	22	29
Brandy Brook	40	36	38	60	54	36	24	-	19	27	33	12	34
Moswansicut-South	13	23	12	17	20	11	13	-	14	11	17	17	15
Windsor Brook	24	14	17	22	22	12	12	-	12	12	18	18	17
Paine Pond	36	24	**	56	35	19	17	-	22	23	28	28	29
Unnamed Brook-A	**	**	**	**	36	24	16	-	**	23	36	**	27
Unnamed Brook-B	19	23	24	28	18	7	9	-	12	22	42	19	20
Turbidity													
Ponaganset Reservoir	0.6	1.0	0.5	0.8	0.3	0.3	0.4	--	0.3	0.3	0.2	0.4	0.5
Coventry Brook	0.7	0.5	0.2	0.2	0.2	0.3	0.3	--	0.2	0.2	0.2	0.2	0.3
Wilbur Brook	0.1	0.6	0.5	0.3	0.3	0.4	0.6	--	0.3	0.3	1.0	0.4	0.4
Westconnaug Reservoir	0.5	0.5	0.5	0.2	0.3	0.2	0.5	--	0.2	0.6	0.2	0.2	0.4
Barden Reservoir	1.9	0.4	0.5	0.3	0.2	0.2	0.4	--	0.4	0.5	0.2	0.2	0.5
Cork Brook	0.3	0.3	0.3	0.2	0.3	0.2	0.3	--	0.3	0.4	0.3	0.3	0.3
Rush Brook	1.9	1.1	0.4	0.3	0.4	0.3	0.6	--	0.3	0.4	0.7	0.4	0.6
Huntinghouse Brook	0.7	0.3	0.3	0.5	0.4	0.2	0.4	--	0.3	0.3	0.2	0.3	0.4
Harrisdale Brook	0.7	0.4	0.4	0.3	0.3	0.2	0.5	--	0.4	0.3	0.2	0.3	0.4
Blanchard Brook	1.9	0.8	0.4	0.4	0.3	0.3	0.4	--	0.4	0.4	0.4	0.3	0.5
Moswansicut Pond	0.7	0.6	0.5	1.0	0.5	0.5	0.7	0.5	0.5	0.4	0.6	0.5	0.6
Regulating Reservoir	0.8	0.4	0.5	0.6	0.4	0.3	0.4	--	0.2	0.3	0.7	0.4	0.5
Quonopaug Brook	3.0	0.8	1.1	0.3	0.3	0.4	0.7	--	0.3	0.4	0.5	0.5	0.8
Hemlock Brook	0.5	0.4	0.6	0.4	0.3	0.5	0.3	--	0.3	0.2	0.3	0.3	0.4
Betty Pond Stream	0.8	0.4	0.3	0.4	0.3	0.3	0.4	--	0.3	0.5	0.6	0.9	0.5
Spruce Brook	1.0	0.4	0.5	1.8	0.3	0.4	0.4	--	0.8	0.3	0.5	0.3	0.6
Brandy Brook	0.9	0.3	0.4	0.6	0.4	0.7	0.6	--	0.6	0.5	1.3	0.3	0.6
Moswansicut-South	8.0	1.2	0.3	1.7	0.6	0.9	1.5	--	1.2	0.6	0.6	1.5	1.6
Windsor Brook	0.5	0.3	0.4	0.2	0.3	0.2	1.0	--	0.3	0.4	0.4	0.3	0.4
Paine Pond	0.8	0.6	**	0.8	0.6	0.5	0.8	--	0.6	0.5	0.9	0.7	0.7
Unnamed Brook-A	**	**	**	**	0.5	0.7	0.8	--	**	0.4	0.5	**	0.6
Unnamed Brook-B	0.8	0.6	0.4	0.3	0.3	0.2	0.6	--	0.7	1.5	0.9	0.5	0.6

*Parts per million.
**No sample obtained--Dry.

NOTE: Unnamed Brook A is just north of Scituate Town Dump. Unnamed Brook B is southwest of the former Foster Nike Site.

TABLE 13 (Continued)

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN VARIOUS BROOKS AND RESERVOIRS ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Iron													
Ponaganset Reservoir	0.04	0.20	0.10	0.07	0.04	0.01	0.03	0.02	0.01	0.02	0.02	0.04	0.05
Coventry Brook	.14	.14	.07	.13	.05	.05	.04	.02	.03	.02	.04	.04	.06
Wilbur Brook	.34	.25	.25	.30	.17	.07	.08	.06	.07	.06	.15	.14	.16
Westconnaug Reservoir	.26	.11	.17	.14	.05	.05	.06	.05	.04	.05	.05	.04	.09
Barden Reservoir	.98	.33	.43	.30	.22	.07	.07	.04	.05	.05	.05	.05	.22
Cork Brook	.05	.09	.07	.10	.05	.04	.03	.01	.02	.02	.09	.03	.05
Rush Brook	1.10	.40	.27	.21	.18	.07	.14	.09	.07	.12	.17	.10	.24
Huntinghouse Brook	.04	.10	.07	.12	.05	.03	.03	.03	.03	.03	.05	.03	.05
Harrisdale Brook	.56	.31	.10	.14	.13	.02	.10	.05	.05	.05	.04	.03	.13
Blanchard Brook	6.50	.90	.70	.47	.23	.05	.14	.23	.12	.13	.16	.18	.82
Moswansicut Pond	.09	.05	.03	.10	.04	.05	.05	.02	.02	.04	.05	.06	.05
Regulating Reservoir	.32	.40	.32	.45	.18	.03	.05	.03	.07	.05	.06	.46	.20
Quonopaug Brook	1.75	.50	.90	.37	.14	.07	.12	.12	.10	.10	.15	.26	.38
Hemlock Brook	.54	.28	.33	.14	.07	.10	.05	.06	.08	.05	.04	.10	.15
Betty Pond Stream	1.00	.07	.04	.03	.03	.00	.02	.00	.01	.03	.01	.01	.10
Spruce Brook	.02	.24	.74	.45	.10	.05	.07	.24	.06	.06	.10	.10	.19
Brandy Brook	.02	.20	.12	.18	.14	.03	.07	.42	.02	.15	.10	.04	.12
Moswansicut-South	.48	.88	.01.	.46	.30	.46	.45	.38	.10	.33	.22	1.20	.44
Windsor Brook	.04	.02	.03	.08	.05	.82	.02	.13	.01	.01	.02	.02	.10
Paine Pond	.14	.09	**	.22	.13	.07	.05	-	.07	.09	.30	.14	.13
Unnamed Brook-A	**	**	**	**	.15	.11	.10	**	**	.07	.22	**	.13
Unnamed Brook-B	.07	.24	.15	.02	.03	.07	.12	.19	.16	.52	.46	.17	.18
Manganese													
Ponaganset Reservoir	0.04	0.04	0.04	0.00	0.04	0.03	0.06	---	0.04	0.05	0.04	0.06	0.04
Coventry Brook	.00	.00	.00	.00	.00	.00	.00	--	.00	.00	.00	.00	.00
Wilbur Brook	.00	.04	.01	.01	.00	.00	.02	--	.02	.00	.02	.04	.01
Westconnaug Reservoir	.01	.09	.00	.00	.00	.00	.00	--	.00	.00	.00	.00	.01
Barden Reservoir	.00	.03	.00	.02	.01	.00	.00	--	.00	.04	.00	.04	.01
Cork Brook	.01	.01	.00	.00	.02	.00	.02	--	.01	.00	.00	.00	.01
Rush Brook	.00	.05	.02	.01	.02	.00	.01	--	.01	.00	.04	.01	.02
Huntinghouse Brook	.01	.01	.00	.02	.00	.00	.00	--	.01	.00	.00	.00	.00
Harrisdale Brook	.00	.03	.00	.00	.00	.00	.00	--	.01	.03	.00	.00	.01
Blanchard Brook	.08	.02	.00	.03	.00	.00	.00	--	.01	.00	.01	.00	.01
Moswansicut Pond	.04	.02	.02	.04	.00	.01	.02	.01	.00	.01	.04	.04	.02
Regulating Reservoir	.04	.00	.00	.00	.00	.06	.02	--	.00	.00	.02	.02	.01
Quonopaug Brook	.06	.01	.02	.00	.00	.00	.02	--	.00	.00	.00	.04	.01
Hemlock Brook	.00	.02	.01	.04	.02	.01	.00	--	.00	.00	.00	.00	.01
Betty Pond Stream	.00	.00	.00	.00	.00	.00	.00	--	.00	.03	.01	.00	.00
Spruce Brook	.00	.01	.08	.07	.00	.02	.02	--	.00	.03	.02	.00	.02
Brandy Brook	.00	.00	.00	.01	.02	.02	.01	--	.01	.01	.04	.00	.01
Moswansicut-South	.06	.11	.00	.18	.00	.00	.00	--	.04	.02	.00	.10	.05
Windsor Brook	.00	.01	.00	.03	.00	.01	.04	--	.02	.00	.00	.00	.01
Paine Pond	.05	.04	**	.03	.01	.00	.01	--	.05	.03	.04	.04	.03
Unnamed Brook-A	**	**	**	**	.00	.00	.02	--	**	.00	.00	**	.00
Unnamed Brook-B	.00	.04	.00	.00	.02	.02	.12	--	.48	.40	.30	.04	.13

*Parts per million.

** No sample obtained--Dry.

NOTE: Unnamed Brook A is just north of Scituate Town Dump. Unnamed Brook B is southwest of the former Foster Nike Site.

TABLE 13 (Continued)

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN VARIOUS BROOKS AND RESERVOIRS ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Ponaganset Reservoir	5.3	5.6	5.0	5.0	4.7	5.0	4.7	4.8	4.9	4.8	4.8	4.8	5.0
Coventry Brook	6.2	6.1	6.2	6.2	5.8	6.3	5.9	6.2	6.0	5.8	6.5	6.1	6.1
Wilbur Brook	6.1	6.0	6.2	5.8	5.9	6.0	5.9	6.2	5.9	5.7	6.6	6.0	6.0
Westconnaug Reservoir	6.5	6.4	6.6	6.4	5.9	6.1	6.1	6.3	6.0	6.0	6.6	6.5	6.3
Barden Reservoir	6.3	6.4	6.3	6.0	5.4	5.9	5.8	6.4	6.1	5.8	6.3	6.2	6.1
Cork Brook	6.3	6.2	6.4	5.8	5.8	6.5	5.9	6.3	5.8	5.9	6.0	6.5	6.1
Rush Brook	6.2	6.5	6.5	6.3	6.2	6.6	6.3	6.5	6.5	6.5	6.7	6.7	6.5
Huntinghouse Brook	6.2	6.6	6.6	6.2	6.3	6.8	6.4	6.7	6.3	6.3	7.0	6.6	6.5
Harrisdale Brook	6.5	6.4	6.7	6.3	6.3	6.9	6.4	6.7	6.4	6.5	6.9	6.6	6.6
Blanchard Brook	6.0	5.9	5.8	5.5	5.6	6.3	5.6	6.0	5.5	6.0	6.9	6.0	5.9
Moswansicut Pond	6.3	6.6	6.6	5.9	6.5	6.8	6.7	6.5	6.5	6.8	6.9	6.5	6.6
Regulating Reservoir	6.5	6.7	6.9	6.5	6.1	7.2	6.5	6.7	6.5	6.5	6.6	6.7	6.6
Quonopaug Brook	6.3	6.1	6.1	5.8	6.2	6.5	5.9	5.8	5.7	5.8	7.1	6.5	6.2
Hemlock Brook	6.3	5.7	6.4	5.1	5.1	6.0	5.8	6.2	5.6	5.6	6.6	6.0	5.9
Betty Pond Stream	6.1	6.1	6.1	5.9	6.0	6.3	6.0	5.9	5.9	6.0	6.5	5.7	6.0
Spruce Brook	6.2	5.7	6.3	5.6	5.3	6.4	5.9	6.1	5.8	5.6	5.9	5.9	5.9
Brandy Brook	6.6	6.7	7.1	6.5	6.6	6.8	6.5	6.7	6.5	6.6	10.0	6.3	6.9
Moswansicut-South	6.5	6.6	6.6	6.6	6.4	6.6	6.5	6.8	6.3	6.6	9.9	6.5	6.8
Windsor Brook	6.5	6.4	6.5	5.6	5.4	6.3	5.9	6.6	5.8	6.1	6.5	6.3	6.2
Paine Pond	5.9	6.3	**	5.8	5.7	6.1	6.0	--	6.0	6.0	6.0	5.9	6.0
Unnamed Brook-A	**	**	**	**	6.7	6.7	6.6	**	**	6.5	6.5	**	6.6
Unnamed Brook-B	6.1	5.5	5.5	5.6	5.6	6.1	5.5	6.0	5.6	5.7	6.1	5.3	5.7
Acidity													
Ponaganset Reservoir	1.0	1.0	2.0	1.0	2.0	1.0	3.0	3.0	2.0	2.0	1.0	1.5	1.7
Coventry Brook	5.0	4.5	3.5	3.0	3.0	2.0	2.5	3.0	1.0	2.5	1.5	4.0	3.0
Wilbur Brook	7.0	7.0	5.5	4.0	4.0	4.0	4.5	3.0	1.0	3.5	1.5	4.0	4.1
Westconnaug Reservoir	2.0	3.0	1.5	2.0	2.5	3.5	2.0	2.0	1.0	2.5	1.0	1.0	2.0
Barden Reservoir	3.5	1.5	2.5	3.0	3.0	2.5	2.0	2.0	1.0	2.5	1.0	1.5	2.2
Cork Brook	2.5	1.0	2.5	2.0	2.0	1.5	2.5	2.0	1.0	2.0	2.5	1.0	1.9
Rush Brook	8.0	2.5	5.0	2.5	3.5	1.0	3.0	2.5	1.0	2.0	1.0	1.0	2.8
Huntinghouse Brook	9.0	1.5	2.0	5.5	2.0	1.0	2.5	4.0	1.0	2.0	1.0	1.0	2.7
Harrisdale Brook	4.5	2.0	4.5	3.0	3.0	1.5	2.5	2.5	1.0	2.5	1.0	3.0	2.6
Blanchard Brook	15.0	1.5	10.5	7.5	5.0	1.0	7.0	20.0	1.0	3.5	2.5	4.0	6.5
Moswansicut Pond	2.5	1.5	2.5	2.0	1.5	1.5	1.5	2.0	1.5	1.5	1.0	2.0	1.8
Regulating Reservoir	2.0	1.5	9.0	3.0	2.0	1.0	2.0	2.0	1.0	1.0	0.5	1.5	2.2
Quonopaug Brook	5.0	4.5	9.0	4.5	2.0	3.0	8.0	8.0	1.0	3.0	3.0	1.5	4.4
Hemlock Brook	2.0	2.5	2.0	4.0	4.0	2.0	2.5	3.0	2.0	2.0	1.0	2.0	2.4
Betty Pond Stream	2.0	3.0	4.0	2.5	4.0	2.5	2.5	4.0	1.5	2.5	3.5	4.5	3.0
Spruce Brook	2.0	2.5	3.0	4.0	3.5	2.0	3.0	3.0	2.0	2.0	3.0	3.0	2.8
Brandy Brook	2.5	1.0	1.5	1.0	2.0	1.0	1.5	1.5	1.5	2.5	6.0	3.0	2.1
Moswansicut-South	2.5	1.0	1.5	2.0	5.5	5.0	5.0	3.0	1.5	2.0	7.0	2.0	3.2
Windsor Brook	2.5	1.0	1.0	2.0	3.0	2.5	1.5	3.0	1.0	1.5	1.0	1.5	1.8
Paine Pond	10.0	4.5	**	6.0	5.0	5.5	6.0	--	5.5	4.0	6.0	6.5	5.9
Unnamed Brook-A	**	**	**	**	4.5	3.0	5.0	**	**	4.5	5.5	**	4.5
Unnamed Brook-B	4.0	1.5	2.0	1.5	3.0	2.0	4.0	2.0	5.0	2.5	1.0	3.0	2.6

*Parts per million.
**No sample obtained--Dry.

NOTE: Unnamed Brook-A is just north of Scituate Town Dump. Unnamed Brook-B is southwest of the former Foster Nike Site.

TABLE 13 (Continued)

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN VARIOUS BROOKS AND RESERVOIRS ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

Monthly Analyses Alkalinity	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Ponaganset Reservoir	2.5	2.5	2.0	1.5	1.5	1.5	1.5	2.0	1.0	1.0	1.5	1.5	1.7
Coventry Brook	6.0	4.5	5.0	3.5	2.5	3.5	3.5	5.5	4.0	3.0	4.5	4.5	4.2
Wilbur Brook	8.0	6.0	7.0	4.0	4.0	3.5	4.0	5.5	3.5	4.0	5.0	5.5	5.0
Westconnaug Reservoir	15.0	6.0	6.0	7.5	4.0	4.0	4.5	5.0	3.5	2.5	4.0	5.0	5.6
Barden Reservoir	4.0	3.5	4.0	3.5	2.5	3.0	3.0	4.0	3.0	2.0	4.0	3.5	3.3
Cork Brook	5.0	4.0	4.5	3.0	3.0	3.5	3.5	5.0	2.5	2.5	3.5	3.5	3.6
Rush Brook	10.5	11.0	12.0	6.0	6.0	6.0	6.5	10.0	5.0	5.0	8.0	10.0	8.0
Huntinghouse Brook	12.0	7.0	9.5	5.0	4.5	5.0	4.5	8.0	4.0	4.5	6.0	8.0	6.5
Harrisdale Brook	13.0	8.5	12.0	8.5	7.0	8.0	7.5	10.5	7.5	7.0	9.0	8.5	8.9
Blanchard Brook	8.5	5.0	5.5	14.5	4.0	4.5	5.0	8.5	5.0	4.0	5.5	5.5	6.3
Moswansicut Pond	7.0	6.5	6.5	6.5	5.5	5.5	5.5	7.0	6.0	5.5	5.5	7.0	6.2
Regulating Reservoir	9.0	8.0	8.5	7.0	5.5	6.0	6.0	7.0	7.0	5.5	7.0	8.5	7.1
Quonopaug Brook	9.5	9.0	10.5	6.0	5.0	5.0	5.5	6.0	5.0	4.5	7.0	8.0	6.8
Hemlock Brook	3.5	3.0	4.0	2.5	2.0	3.5	3.0	5.0	2.5	2.0	3.0	3.0	3.1
Betty Pond Stream	5.5	4.5	5.0	4.5	5.0	4.5	3.5	6.0	3.5	4.0	3.5	3.5	4.4
Spruce Brook	5.0	3.0	7.0	3.5	2.0	4.0	3.5	5.0	3.0	2.5	3.0	5.0	3.9
Brandy Brook	3.5	10.5	7.5	9.5	8.0	9.5	8.5	11.0	8.5	7.5	11.5	6.0	8.5
Moswansicut-South	16.5	16.5	8.5	17.0	13.5	13.0	12.0	23.5	10.5	9.0	13.0	12.5	13.8
Windsor Brook	8.0	4.0	4.5	3.0	3.5	3.0	2.5	6.0	3.0	2.5	3.5	4.0	4.0
Paine Pond	6.5	5.0	**	4.5	4.5	5.0	4.5	--	5.0	4.5	5.5	4.5	5.0
Unnamed Brook-A	**	**	**	**	17.0	11.5	13.5	--	**	9.5	13.0	**	12.9
Unnamed Brook-B	5.0	2.5	2.0	2.5	2.0	2.5	2.5	3.0	3.0	3.0	3.5	1.5	2.8

*Parts per million
**No sample obtained--Dry.

NOTE: Unnamed Brook A is just north of Scituate Town Dump. Unnamed Brook B is southwest of the former Foster Nike Site.

TABLE 14
WATER PURIFICATION WORKS
CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER
IN VARIOUS PARTS OF THE DISTRIBUTION SYSTEM

YEAR ENDED JUNE 30, 1980

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
pH													
Neutaconkanut Reservoir	10.0	10.0	10.0	10.1	10.0	10.1	10.2	10.2	10.1	10.1	10.1	10.0	10.1
160 Sock.Crossroad,Cranston	10.1	10.1	10.1	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.1	10.1
630 Atwells Ave.	10.0	10.0	10.1	10.1	10.0	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
1384 Cranston St.,Cranston	10.0	10.0	10.1	10.1	10.0	10.2	10.2	10.2	10.1	10.2	10.1	10.1	10.1
750 Reservoir Ave.,Cranston	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
1520 Atwood Ave.,Johnston	10.0	10.0	10.1	10.1	10.0	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
774 Allens Ave.	10.0	10.0	10.1	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.1	10.1
Dexter Manor	10.0	10.0	10.1	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
*State Office Building	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
426 Admiral St.	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
238 Brook St.	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.1	10.2	10.1	10.0	10.1
Phenophthalein Alkalinity													
Neutaconkanut Reservoir	6.1	5.7	6.7	6.3	5.7	5.9	5.7	6.1	5.7	6.6	6.2	6.3	6.1
160 Sock.Crossroad,Cranston	6.9	6.5	7.8	7.1	6.4	6.3	6.1	6.8	6.1	7.7	7.1	7.2	6.8
630 Atwells Ave.	6.2	5.9	7.1	6.7	5.8	6.1	5.9	6.6	5.8	7.3	6.6	6.6	6.4
1384 Cranston St.,Cranston	6.2	5.9	7.1	6.8	6.0	6.2	5.9	6.6	5.9	7.4	6.7	6.7	6.5
750 Reservoir Ave.,Cranston	6.2	5.9	7.0	6.8	6.0	6.1	5.9	6.6	5.9	7.4	6.6	6.7	6.4
1520 Atwood Ave.,Johnston	6.1	5.8	7.0	6.8	5.9	6.1	5.9	6.5	5.8	7.4	6.7	6.6	6.4
774 Allens Ave.	6.3	6.1	7.3	6.9	6.1	6.2	6.1	6.7	6.1	7.5	7.0	6.8	6.6
Dexter Manor	6.2	5.9	7.1	6.8	5.9	6.1	6.0	6.6	6.1	7.4	6.8	6.7	6.5
*State Office Building	6.3	5.9	7.0	6.8	6.0	6.1	6.0	6.6	6.0	7.4	6.9	6.7	6.5
426 Admiral St.	6.2	6.2	7.1	6.8	6.0	6.1	6.0	6.6	6.1	7.7	6.9	6.7	6.5
238 Brook St.	6.2	6.0	7.2	6.8	6.0	6.1	6.0	6.7	6.2	7.4	6.9	6.8	6.5
Methyl Orange Alkalinity													
Neutaconkanut Reservoir	12.9	13.1	14.9	13.5	11.6	11.7	11.5	11.8	11.6	12.3	12.1	12.7	12.5
160 Sock.Crossroad,Cranston	14.0	14.3	16.1	13.7	12.1	12.3	12.0	12.2	11.9	13.3	13.0	13.5	13.2
630 Atwells Ave.	13.1	13.4	15.1	13.1	11.5	11.8	11.5	12.0	11.6	12.7	12.3	12.7	12.6
1384 Cranston St.,Cranston	13.0	13.4	15.1	13.0	11.5	11.8	11.4	12.0	11.6	12.7	12.3	12.8	12.6
750 Reservoir Ave.,Cranston	13.0	13.4	15.1	13.0	11.5	11.8	11.5	11.9	11.6	12.7	12.3	12.9	12.6
1520 Atwood Ave.,Johnston	13.0	13.5	15.2	13.2	11.4	11.8	11.5	12.0	11.6	12.7	12.4	12.8	12.6
774 Allens Ave.	13.2	13.6	15.5	13.3	11.7	11.9	11.6	12.1	12.0	13.0	12.7	13.0	12.8
Oexter Manor	13.0	13.5	15.3	13.1	11.6	11.9	11.5	11.9	11.8	12.8	12.4	12.9	12.6
*State Office Building	13.1	13.5	15.2	13.2	11.7	11.9	11.5	12.0	11.8	12.9	12.5	12.9	12.7
426 Admiral St.	13.1	13.5	15.2	13.2	11.7	11.9	11.5	12.0	11.8	12.9	12.6	13.0	12.7
238 Brook St.	13.1	13.5	15.3	13.2	11.8	11.9	11.6	12.0	11.9	12.9	12.6	13.0	12.7
Color													
Neutaconkanut Reservoir	3	3	3	3	2	3	3	3	3	3	3	3	3
160 Sock.Crossroad,Cranston	3	3	3	3	3	3	3	3	3	3	4	3	3
630 Atwells Ave.	3	3	3	3	3	3	3	3	3	3	3	3	3
1384 Cranston St.,Cranston	3	3	3	3	3	3	3	3	3	3	3	3	3
750 Reservoir Ave.,Cranston	3	3	3	3	3	3	3	3	3	3	3	3	3
1520 Atwood Ave.,Johnston	3	3	3	3	3	3	3	3	3	3	3	3	3
774 Allens Ave.	3	3	3	3	3	3	3	3	3	3	3	3	3
Oexter Manor	3	3	3	3	3	3	3	3	3	3	3	3	3
*State Office Building	3	4	3	3	3	3	3	3	3	3	3	3	3
426 Admiral St.	3	3	4	3	3	3	3	3	3	3	4	3	3
238 Brook St.	4	4	4	4	3	4	3	4	3	4	4	4	4
Iron													
Neutaconkanut Reservoir	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
160 Sock.Crossroad,Cranston	.03	.03	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	0.02
630 Atwells Ave.	.02	.02	.01	.01	.01	.01	.01	.01	.00	.01	.01	.02	0.01
1384 Cranston St.,Cranston	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	0.01
750 Reservoir Ave.,Cranston	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	0.01
1520 Atwood Ave.,Johnston	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	0.01
774 Allens Ave.	.03	.02	.02	.01	.02	.02	.02	.01	.01	.01	.02	.01	0.02
Oexter Manor	.02	.02	.02	.01	.02	.02	.02	.02	.02	.02	.02	.02	0.02
*State Office Building	.04	.03	.02	.02	.02	.02	.03	.02	.02	.02	.02	.02	0.02
426 Admiral St.	.03	.02	.03	.02	.02	.02	.02	.02	.02	.02	.03	.03	0.02
238 Brook St.	.05	.04	.04	.04	.04	.04	.03	.03	.04	.04	.04	.03	0.04

*Sample location changed to State Health Laboratory on November 22, 1978

TABLE 14 (Continued)
WATER PURIFICATION WORKS
CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER
IN VARIOUS PARTS OF THE DISTRIBUTION SYSTEM

YEAR ENDED JUNE 30, 1980

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
Chlorides													
Neutaconkanut Reservoir	11.5	11.5	11.5	11.5	11.5	11.5	11.9	12.2	12.3	11.7	11.1	11.5	11.6
160 Sock.Crossroad,Crans.	11.6	11.5	11.5	11.5	11.5	11.5	12.0	12.2	12.2	11.7	11.1	11.5	11.7
630 Atewlls Ave.	11.6	11.5	11.5	11.5	11.5	11.5	12.0	12.2	12.3	11.7	11.1	11.5	11.7
1384 Cranston St.,Crans.	11.5	11.5	11.5	11.5	11.5	11.5	12.0	12.2	12.2	11.7	11.1	11.6	11.7
750 Reservoir Ave.,Crans.	11.6	11.5	11.5	11.5	11.5	11.5	11.9	12.2	12.3	11.7	11.1	11.5	11.7
1520 Atwood Ave.,Jstn.	11.6	11.5	11.5	11.5	11.5	11.5	11.9	12.0	12.3	11.7	11.1	11.6	11.6
774 Allens Ave.	11.5	11.5	11.5	11.5	11.5	11.5	12.0	12.2	12.3	11.7	11.1	11.6	11.7
Dexter Manor	11.5	11.5	11.5	11.5	11.5	11.5	12.0	12.3	12.3	11.7	11.1	11.6	11.7
*State Office Building	11.5	11.5	11.5	11.5	11.5	11.5	12.0	12.2	12.3	11.7	11.1	11.5	11.7
426 Admiral St.	11.5	11.5	11.5	11.5	11.5	11.5	12.0	12.1	12.3	11.7	11.1	11.5	11.6
238 Brook St.	11.5	11.5	11.5	11.5	11.5	11.5	11.9	12.1	12.3	11.7	11.1	11.5	11.6
Nitrites													
Neutaconkanut Reservoir	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
160 Sock.Crossroad,Crans.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
630 Atwells Ave.	.001	.001	.001	.001	.001	.000	.001	.001	.001	.001	.001	.001	.001
1384 Cranston St.,Crans.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
750 Reservoir Ave.,Crans.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
1520 Atwood Ave.,Jstn.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
774 Allens Ave.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
Dexter Manor	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
*State Office Building	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
426 Admiral St.	.001	.001	.001	.001	.000	.000	.000	.001	.001	.001	.001	.001	.001
238 Brook St.	.001	.001	.000	.000	.000	.001	.000	.001	.001	.001	.001	.001	.001
Taste													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
Odor													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
Fluoride													
Neutaconkanut Reservoir	0.98	1.00	0.97	1.00	1.01	0.96	0.95	0.92	0.95	0.98	0.96	0.97	0.97
160 Sock.Crossroad,Crans.	1.00	1.00	1.02	1.08	1.04	1.02	.98	.98	1.00	1.00	.98	.98	1.01
630 Atwells Ave.	.99	1.01	1.01	1.06	1.02	1.00	1.03	.98	.99	.99	.98	.97	1.00
1384 Cranston St.,Crans.	1.00	1.01	1.01	1.09	1.07	1.06	1.01	1.00	1.00	1.00	.96	.98	1.02
750 Reservoir Ave.,Crans.	1.02	1.01	1.02	1.11	1.06	1.05	1.03	.99	1.01	1.00	.98	.98	1.02
1520 Atwood Ave.,Jstn.	.99	1.02	1.02	1.11	1.07	1.00	.98	.97	.96	1.00	.98	.98	1.01
774 Allens Ave.	1.00	1.03	1.01	1.09	1.07	1.02	1.00	.98	.98	1.00	.98	.98	1.01
Dexter Manor	.99	1.03	1.03	1.09	1.04	1.02	1.01	1.00	.99	1.00	.99	.99	1.02
*State Office Building	1.00	1.02	1.01	1.09	1.05	.99	1.00	.99	.99	.99	.99	.99	1.01
426 Admiral St.	1.00	1.03	1.00	1.06	1.06	.99	.98	.97	.98	.99	.99	.98	1.00
238 Brook St.	1.00	1.03	1.00	1.08	1.04	1.00	.99	.98	.99	.99	.99	.99	1.01

*Sample Location Changed to State Health Laboratory on November 22, 1978.

TABLE 15

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1980

Bacteria per Ml. (48 Hours on Agar at 20°C.)

1979-1980	Raw-A.M.			Raw-P.M.			Settled			Effluent-A.M.			Effluent-P.M.			Tap		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	52	3	13	40	0	12	18	0	2	1	0	0	34	0	2	3	0	0
August	45	3	18	62	1	16	370	0	40	1	0	0	0	0	0	8	0	1
September	55	9	25	110	0	29	21	0	3	0	0	0	10	0	1	0	0	0
October	68	14	34	93	19	38	2	0	0	3	0	0	0	0	0	1	0	0
November	110	32	60	150	20	64	120	0	11	6	0	0	4	0	0	2	0	0
December	110	4	26	36	4	22	11	0	1	6	0	0	2	0	0	1	0	0
January	18	0	7	14	2	8	80	0	5	30	0	1	25	0	2	3,000	0	13
February	23	1	8	11	0	6	300	0	51	150	0	16	26	0	2	2	0	0
March	105	1	26	104	1	27	300	0	24	64	0	12	18	0	4	37	0	7
April	200	12	77	540	8	83	240	0	13	65	0	11	240	0	15	7	0	1
May	85	15	39	100	0	36	5	0	0	60	0	5	28	0	3	2	0	0
June	65	5	20	42	0	19	12	0	1	1	0	0	1	0	0	40	0	4
For Year	200	0	29	540	0	30	370	0	13	150	0	4	240	0	2	3,000	0	2

A.M. refers to samples obtained in the morning; P.M. to samples obtained in the afternoon.

TABLE 16

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1980

Bacteria per M1. (24 Hours on Agar at 35°C.)

1979-1980	Raw-A.M.			Raw-P.M.			Settled			Effluent-A.M.			Effluent-P.M.			Tap		
	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	35	0	4	5	0	2	16	0	1	0	0	0	12	0	1	0	0	0
August	19	0	5	7	0	3	144	0	18	0	0	0	1	0	0	8	0	0
September	33	2	9	28	1	8	0	0	0	2	0	0	1	0	0	0	0	0
October	21	3	10	17	0	7	20	0	1	0	0	0	0	0	0	50	0	2
November	57	4	23	77	0	27	661	0	106	2	0	0	4	0	0	2	0	0
December	15	3	8	12	2	6	1150	0	152	63	0	4	12	0	1	0	0	0
January	6	0	3	8	0	2	1020	0	310	1	0	0	1	0	3	1	0	0
February	4	0	2	6	1	3	360	0	40	1	0	0	1	0	0	2	0	0
March	39	0	5	19	0	4	720	0	109	90	0	4	18	0	1	10	0	1
April	41	3	14	85	5	18	1860	0	353	2	0	0	4	0	0	6	0	1
May	11	0	6	37	0	9	210	0	20	1	0	0	3000	0	151	2	0	0
June	41	0	9	32	0	9	240	0	37	3	0	0	6	0	0	10	0	2
For Year	57	0	8	85	0	8	1860	0	96	90	0	1	3000	0	13	50	0	1

A.M. refers to samples obtained in the morning; P.M. samples obtained in the afternoon.

TABLE 17

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1980

COLIFORM BACTERIA

	R A W ---- A.M.				Effluent	Effluent		
					Settled	A.M.	P.M.	*Tap
					M E M B R A N E F I L T E R M E T H O D			
	No. of Portions Positive Per No. Tested							
1979-1980	10 ml.	1.0 ml.	0.1 ml.	Geometric Mean MPN Per 100 ml.	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested
July	14/75	0/75	0/75	<3.8	0/2,500	0/2,500	0/2,100	0/25,600
August	19/78	2/78	1/78	<4.4	0/2,600	0/2,600	0/2,200	4/26,800
September	43/72	7/72	3/72	9.3	0/2,400	0/2,400	0/1,900	2/23,300
October	69/78	16/78	5/78	26.1	0/2,600	0/2,600	0/2,200	0/26,800
November	68/69	28/69	9/69	61.7	0/2,300	0/2,300	0/1,900	0/23,200
December	75/75	31/75	15/75	68.8	0/2,500	0/2,500	0/1,800	0/22,300
January	44/78	7/78	2/78	<9.5	0/2,600	0/2,600	0/2,200	0/26,800
February	10/72	0/72	0/72	<3.6	0/2,400	0/2,400	0/2,000	0/24,400
March	10/78	0/78	0/78	<3.6	0/2,600	2/2,600	0/2,100	5/25,700
April	8/78	0/78	1/78	<3.4	0/2,600	0/2,600	0/2,100	0/26,000
May	1/75	1/75	0/75	<3.0	0/2,500	0/2,500	0/2,000	0/24,500
June	0/75	0/75	0/75	<3.0	0/2,500	0/2,500	0/2,100	2/25,600
For Year	361/903	92/903	36/903	<7.8	0/30,100	2/30,100	0/24,600	13/301,000

A.M. refers to samples obtained in the morning; P.M. to samples obtained in the afternoon.
*Twelve fixed sampling points in the distribution system. Of the 13 positives, 8 gave negative results in E.C. medium.

NOTE: Positive means through the confirmed test.

TABLE 18

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN VARIOUS BROOKS AND RESERVOIRS
ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Bacteria per ml. 48 Hours on Agar at 20°C.											
Ponaganset Reservoir	60	360	210	130	66	70	165	100	32	244	30	89
Coventry Brook	660	660	360	380	179	260	175	200	200	230	74	185
Wilbur Brook	1170	720	600	520	310	325	600	550	400	187	132	240
Westconnaug Reservoir	1200	480	230	440	230	220	145	320	250	223	83	120
Barden Reservoir	300	240	300	220	150	100	200	48	350	100	85	95
Cork Brook	530	480	120	290	170	180	270	160	200	240	83	132
Rush Brook	1740	500	740	500	550	500	210	260	300	210	240	240
Huntinghouse Brook	1430	780	1000	460	250	200	480	300	350	240	121	275
Harrisdale Brook	540	480	210	290	200	200	175	90	900	300	77	165
Blanchard Brook	1020	540	1050	380	270	220	155	450	750	410	141	300
Moswansicut Pond	620	660	280	310	89	56	90	210	200	93	77	152
Regulating Reservoir	230	720	168	120	130	320	350	95	350	72	48	143
Quonopaug Brook	2220	720	1180	390	210	400	400	200	450	560	97	240
Hemlock Brook	150	540	190	360	150	230	520	600	300	400	86	73
Betty Pond Stream	2340	480	360	230	90	150	160	500	500	130	150	132
Spruce Brook	900	420	390	1060	200	520	320	400	280	240	48	134
Brandy Brook	650	360	270	520	370	440	550	500	200	200	131	420
Moswansicut-South	1400	480	1180	590	290	490	400	720	1000	320	145	300
Windsor Brook	1700	720	270	220	120	170	450	1500	500	220	87	124
Paine Pond	2580	240	*	760	460	320	1200	*	450	1200	300	240
Unnamed Brook-A	*	*	*	*	370	490	360	*	*	384	125	*
Unnamed Brook-B	540	420	310	360	170	150	145	180	600	300	142	234
	Bacteria per ml. 24 Hours on Agar at 35°C.											
Ponaganset Reservoir	98	420	150	31	15	52	77	90	8	120	59	78
Coventry Brook	280	120	180	85	45	73	39	50	35	54	120	76
Wilbur Brook	810	300	300	190	150	97	87	150	350	146	70	172
Westconnaug Reservoir	650	480	120	90	92	74	48	56	120	164	68	74
Barden Reservoir	190	160	170	72	58	76	1500	40	72	38	87	65
Cork Brook	170	105	30	83	53	21	104	40	70	360	17	140
Rush Brook	1620	360	280	120	160	120	90	64	120	120	75	135
Huntinghouse Brook	330	480	520	120	40	TNTC	119	100	80	85	73	240
Harrisdale Brook	310	170	170	84	130	60	13	200	160	130	85	144
Blanchard Brook	830	900	410	140	120	150	122	100	450	108	112	183
Moswansicut Pond	320	120	310	78	49	46	72	95	40	55	57	140
Regulating Reservoir	240	420	96	57	67	310	80	15	65	64	68	180
Quonopaug Brook	980	360	330	100	130	190	97	250	80	61	95	74
Hemlock Brook	140	420	100	87	43	110	78	80	150	385	45	68
Betty Pond Stream	2500	300	350	100	180	120	120	130	450	175	89	84
Spruce Brook	180	140	220	180	80	160	54	20	90	210	32	95
Brandy Brook	460	112	170	82	240	150	150	300	95	240	150	280
Moawansicut-South	2100	240	1100	160	240	100	160	180	420	210	112	275
Windsor Brook	330	180	42	57	80	72	88	60	350	134	83	48
Paine Pond	3000	600	*	230	260	240	48	*	350	500	360	135
Unnamed Brook-A	*	*	*	*	110	170	172	*	*	360	116	*
Unnamed Brook-B	720	360	160	64	21	48	72	130	160	114	120	89

*No Sample Obtained--Dry.
TNTC means too numerous to count.

NOTE: Unnamed Brook A is just north of Scituate Town Dump. Unnamed Brook B is southwest of the former Foster Nike Site.

TABLE 18 (Continued)

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN VARIOUS BROOKS AND RESERVOIRS ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1980

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Coliform Bacteria Index per 100 ml.											
Ponanganset Reservoir	6	60	25	6	-3	-3	6	-5	6	-3	5	25
Coventry Brook	250	250	250	700	25	700	25	6	25	700	-3	25
Wilbur Brook	1100+	700	700	130	25	60	60	130	130	6	25	50
Westconnaug Reservoir	1100+	700	700	250	5	6	60	50	6	25	250	25
Barden Reservoir	25	25	20	6	25	6	25	-5	25	-3	-3	-3
Cork Brook	60	700	25	60	-3	13	25	50	25	-3	5	25
Rush Brook	250	700	700	130	25	250	130	60	25	700	60	25
Huntinghouse Brook	1100	700	250	60	6	130	6	250	60	-3	13	130
Harrisdale Brook	700	700	25	60	130	60	13	6	60	-3	-3	-3
Blanchard Brook	1100+	250	700	60	50	25	60	13	700	-3	60	250
Moswansicut Pond	25	43	93	43	4	4	4	9	460	-3	9	4
Regulating Reservoir	50	60	6	25	6	6	25	50	700	-3	700	6
Quonopaug Brook	250	1100+	700	250	25	130	700	250	50	25	60	60
Hemlock Brook	60	60	700	50	50	60	60	25	25	-3	-3	6
Betty Pond Stream	250	50	25	6	6	-3	-5	-5	0	-3	-3	25
Spruce Brook	60	60	700	250	6	700	-5	25	25	6	60	6
Brandy Brook	60	250	700	25	60	25	250	20	60	-3	25	700
Moswansicut-South	1100+	1100+	1100+	250	700	1100+	700	1100+	700	25	130	700
Windsor Brook	1100+	60	25	25	6	25	60	250	5	-3	-3	6
Paine Pond	2400+	43	*	23	39	15	23	23	15	23	240	15
Unnamed Brook-A	*	*	*	*	75	150	9	*	*	23	150	*
Unnamed Brook-B	250	700	200	60	25	6	250	-5	25	6	-3	50

*No sample obtained--Dry.
-5 indicates less than 5.

NOTE: Unnamed Brook A is just north of Scituate Town Dump. Unnamed Brook B is southwest of the former Foster Nike Site.

TABLE 19

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN VARIOUS PARTS OF THE DISTRIBUTION SYSTEM

YEAR ENDED JUNE 30, 1980

Monthly Averages	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
						Bacteria per ml. 48 Hours on Agar at 20°C.							
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	4	2	0	0	1
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	1	D	3	3	0	0	1
630 Atwells Ave.	0	2	0	0	0	0	0	0	2	2	0	0	1
1384 Cranston St.;Cranston	0	0	0	0	0	0	1	0	6	2	0	0	1
750 Reservoir Ave.,Cranston	1	1	0	0	0	0	0	0	2	3	0	0	1
1520 Atwood Ave.,Johnston	0	0	0	0	0	0	0	0	8	3	1	0	1
774 Allens Ave.	0	0	0	0	0	0	0	0	3	5	0	0	1
Dexter Manor	0	0	0	0	0	0	0	0	5	4	0	1	1
*State Health Laboratory	1	0	0	0	0	0	0	0	4	2	0	0	1
426 Admiral St.	0	0	0	0	0	0	0	0	5	3	0	1	1
238 Brook St.	1	1	0	0	0	0	0	0	5	1	3	8	2
						*Bacteria per ml. 48 Hours on Agar at 35°C.							
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	2	0	0	29	3
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	1	0	0	0	0	0	0	0	0	0	1	0
1384 Cranston St.,Cranston	0	0	0	0	4	25	1	3	5	1	1	1	3
750 Reservoir Ave.,Cranston	43	0	4	0	2	20	0	0	1	1	0	0	6
1520 Atwood Ave.,Johnston	0	0	0	0	0	1	0	D	5	2	1	0	1
774 Allens Ave.	0	0	D	0	0	0	0	0	0	64	0	1	5
Dexter Manor	1	0	0	0	0	0	0	0	0	4	0	96	8
*State Health Laboratory	1	0	0	0	0	0	0	0	0	0	0	1	0
426 Admiral St.	0	1	0	0	0	0	0	0	0	3	3	6	1
238 Brook St.	0	0	0	0	0	0	0	0	1	1	3	6	1
						Coliform colonies per 100 ml.							
Neutaconkanut Reservoir	0.00	0.00	0.00	0.00	0.DO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160 Sock.Crossroad,Crans.	.00	.00	.11	.00	.00	.0D	.00	.00	.00	.00	.00	.00	.01
630 Atwells Ave.	.00	.14	.0D	.00	.00	.00	.00	.00	.05	.00	.00	.00	.02
1384 Cranston St.,Cranston	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.DD	.05	.D2
750 Reservoir Ave.,Cranston	.00	.00	.0D	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
1520 Atwood Ave.,Johnston	.0D	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.01
774 Allens Ave.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Dexter Manor	.00	.0D	.00	.00	.00	.00	.00	.00	.00	.00	.00	.D0	.00
*State Health Laboratory	.00	.0D	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
426 Admiral St.	.D0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0D
238 Brook St.	.00	.00	.0D	.0D	.00	.00	.00	.00	.00	.00	.00	.00	.00

*November 1, 1979, 35°C began 48 Hour Incubation Period.

TABLE 20

WATER PURIFICATION WORKS

MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1980

	*RAW WATER					TAP WATER				
	1979		1980			1979		1980		
Parts per Million	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	Avg.	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	Avg.
Aluminum	----	----	----	----	----	----	----	----	----	----
Arsenic		----		----	----		0.00		----	0.00
Calcium	----	2.4	----	----	2.4	----	10.2	----	----	10.2
Chloride	10.9	11.2	11.6	10.6	11.1	11.5	11.5	12.1	11.4	11.6
Copper	----	----	0.03	----	0.03	----	----	0.00	----	0.00
Fluoride	0.16	0.16	0.16	0.20	0.17	0.99	1.05	0.99	0.98	1.00
Hardness	9	10	11	11	10	29	28	29	29	29
Iron	0.06	0.08	0.04	0.04	0.06	0.02	0.04	0.02	0.02	0.03
Lead	----	----	0.00	----	0.00	----	----	0.00	----	0.00
Magnesium	----	0.97	----	----	0.97	----	0.61	----	----	0.61
Manganese	0.07	0.06	0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.00
Phenolic Compounds	----	----	----	----	----	----	----	----	----	----
Selenium		0.00		----	0.00		0.00		----	0.00
Silica	----	----	----	----	----	----	----	----	----	----
Sulfate	----	5.0	----	----	5.0	----	13.0	----	----	13.0
Total Solids	----	48	----	----	48	----	55	----	----	55
Loss on Ignition	----	17	----	----	17	----	11	----	----	11
Total Alkalinity	3.2	3.7	3.6	3.4	3.4	13.8	12.1	11.7	12.6	12.6
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	6.3	6.3	6.1	6.9	6.4
Zinc		0.00		----	0.00		0.00		----	0.00

*Water from bottom of Scituate Reservoir as received at Purification Works.

TABLE 21

WATER PURIFICATION WORKS

SANITARY CHEMICAL ANALYSIS (P.P.M.) - YEAR ENDED JUNE 30, 1980

1979-1980	*RAW WATER Ammonia N	Nitrite N	Nitrate N	Chlorides	Dissolved Oxygen P.P.M.	Dissolved Oxygen % Sat.	Total Solids	Loss on Ignition	TAP WATER Ammonia N	Nitrite N	Nitrate N	Chlorides	**Dissolved Oxygen P.P.M.	**Dissolved Oxygen % Sat.	Total Solids	Loss on Ignition
July	---	0.000	0.16	10.7	8.6	75.1	--	--	---	0.001	0.08	11.6	10.7	99.5	--	--
August	---	0.000	---	11.0	--	---	--	--	---	0.001	---	11.5	---	---	--	--
September	---	0.000	---	11.0	--	---	--	--	---	0.001	---	11.5	---	---	--	--
October	---	0.000	---	11.0	--	---	--	--	---	0.001	---	11.5	---	---	--	--
November	---	0.001	---	11.5	--	---	--	--	---	0.001	---	11.5	---	---	--	--
December	---	0.000	---	11.0	--	---	--	--	---	0.000	---	11.5	---	---	--	--
January	---	0.000	---	11.4	--	---	--	--	---	0.001	---	12.0	---	---	--	--
February	---	0.000	---	11.6	--	---	--	--	---	0.001	---	12.2	---	---	--	--
March	---	0.000	---	11.7	--	---	--	--	---	0.001	---	12.2	---	---	--	--
April	---	0.000	---	10.9	--	---	--	--	---	0.001	---	11.7	---	---	--	--
May	---	0.000	---	10.4	--	---	--	--	---	0.001	---	11.1	---	---	--	--
June	---	0.000	---	10.5	--	---	--	--	---	0.001	---	11.5	---	---	--	--
Averages	---	0.000	0.16	11.1	8.6	75.1	--	--	---	0.001	0.08	11.7	10.7	99.5	--	--

*Water from bottom of Scituate Reservoir as received at Purification Works.

**Plant effluent.

TABLE 22

WATER DISTRIBUTION SYSTEM

NEUTACONKANUT HIGH SERVICE PUMPING STATION

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

	Electrically-Driven Pumps								Gasoline Engine-Driven Pump			
	No. 1 16" Pump 7000 GPM. TDH 99'		No.2 12" Pump 3800 GPM. TDH 104'		No. 3 16" Pump 7000 GPM. TDH 96'		*Power Used		No. 4 16" Pump 7000 GPM. TDH 96'			
1979-1980	Operated		Operated		Operated				**Operated		Gas.	Oil
	Days	Hours and Minutes	Days	Hours and Minutes	Days	Hours and Minutes	KWH	Cost	Days	Hours and Minutes	Used Gals.	Used Qts.
July	30	526-15	20	251-00	27	489-30	121,900	$ 6,264.27	0	0-00	0	0
August	23	293-45	26	352-40	21	272-00	121,900	6,264.26	0	0-00	0	0
September	22	296-30	28	460-15	22	248-30	137,700	7,467.53	0	0-00	0	50
October	23	297-45	30	595-30	22	259-15	137,700	7,467.53	0	0-00	0	0
November	27	355-45	27	358-45	21	262-15	135,134	7,081.79	0	0-00	0	0
December	17	212-30	31	518-30	24	304-30	135,133	7,081.79	1	1-00	15	0
January	16	292-30	29	435-45	16	265-00	135,133	7,081.79	0	0-00	0	0
February	14	266-30	29	487-00	15	284-00	134,300	7,338.05	0	0-00	0	50
March	17	297-30	30	476-30	14	266-00	134,300	7,338.06	0	0-00	0	0
April	15	259-00	29	470-30	15	278-00	125,800	6,806.08	0	0-00	0	0
May	18	319-00	30	553-00	15	277-00	150,200	8,359.29	0	0-00	0	0
June	23	368-45	24	377-30	24	401-15	194,000	10,796.70	0	0-00	0	0
Totals	245	3,785-45	333	5,336-55	236	3,607-15	1,663,200	$89,347.14	1	1-00	15	100

*Narragansett Electric Co. Power Rate G.
**Engine Test Run.

TABLE 22 (Continued)

WATER DISTRIBUTION SYSTEM

NEUTACONKANUT HIGH SERVICE PUMPING STATION

OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1980

	Electrically-Driven Pumps			Gasoline Engine-Driven Pump		
	No. 1 16" Pump 7000 GPM. TDH 99'	No. 2 12" Pump 3800 GPM. TDH 104'	No. 3 16" Pump 7000 GPM. TDH 96'	No. 4 16" Pump 7000 GPM. TDH 96'	Total Water Pumped Mil. Gals.	
1979-1980	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	176.422	62.676	158.683	0.000	397.781	12.832
August	116.771	82.868	105.538	0.000	305.177	9.844
September	117.398	102.875	97.964	0.000	318.237	10.608
October	108.268	144.348	100.029	0.000	352.645	11.376
November	146.020	81.553	97.000	0.000	324.573	10.819
December	86.940	126.309	110.313	0.475	324.037	10.453
January	134.830	97.583	102.144	0.000	334.557	10.792
February	108.000	104.517	104.595	0.000	317.112	10.935
March	120.307	106.417	102.868	0.000	329.592	10.632
April	106.814	103.065	106.598	0.000	316.477	10.549
May	127.975	122.730	100.539	0.000	351.244	11.330
June	130.160	85.978	139.343	0.000	355.481	11.849
Totals	1,479.905	1,220.919	1,325.614	0.475	4,026.913	11.002

TABLE 23

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1980

	Electrically-Driven Pumps						Gasoline Engine-Driven Pump		
	Pump No. 1 2500 GPM. TDH 100'		Pump No. 2 2500 GPM. TDH 100'		*Power Used		Pump No. 3 5000 GPM. TDH 100' 150 HP Climax Engine		
1979-1980	Operated		Operated				**Operated		
	Days	Hours and Minutes	Days	Hours and Minutes	KWH	Cost	Days	Hours and Minutes	Gas. Used Gals.
July	31	635-50	29	579-52	63,770	$ 3,166.35	3	32-45	487
August	25	569-15	27	587-15	63,770	3,166.35	0	0-00	0
September	22	461-00	19	417-00	55,160	2,965.21	0	0-00	0
October	21	334-05	18	297-55	22,960	1,441.09	0	0-00	0
November	29	600-15	3	56-00	39,807	2,080.05	0	0-00	0
December	22	455-55	11	199-00	39,807	2,080.05	0	0-00	0
January	17	363-00	14	290-30	39,806	2,080.04	0	0-00	0
February	14	309-30	16	336-30	42,350	2,334.49	0	0-00	0
March	17	379-00	15	333-15	42,350	2,334.49	0	0-00	0
April	15	338-00	15	341-00	37,520	2,116.15	0	0-00	0
May	18	370-00	18	373-00	53,200	2,934.42	0	0-00	0
June	26	437-30	26	516-45	68,040	3,713.94	4	88-00	1,320
Totals	257	5,253-20	211	4,328-02	568,540	$30,412.63	7	120-45	1,807

*Narragansett Electric Co. Power Rate G.
**Engine Test Run.

TABLE 23-(Continued)

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

	Electrically-Driven Pumps		Gasoline Engine-Driven Pump		Total Water Pumped
	Pump No. 1 2500 GPM. TDH 100'	Pump No. 2 2500 GPM. TDH 100'	Pump No. 3 5000 GPM. TDH 100' 150 HP Climax Engine		Mil. Gallons
1979-1980	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg.per Day
July	82.999	74.520	6.028	163.547	5.276
August	81.456	71.075	0.000	152.531	4.920
September	60.269	54.556	0.000	114.825	3.827
October	45.322	39.935	0.000	85.257	2.750
November	84.144	7.802	0.000	91.946	3.064
December	61.690	26.792	0.000	88.482	2.854
January	48.791	39.116	0.000	87.907	2.836
February	42.122	45.700	0.000	87.822	3.028
March	49.817	45.288	0.000	95.105	3.068
April	45.917	46.462	0.000	92.379	3.079
May	49.544	49.879	0.000	99.423	3.207
June	51.190	64.029	16.366	131.585	4.386
Totals	703.261	565.154	22.394	1,290.809	3.527

TABLE 24

WATER DISTRIBUTION SYSTEM

*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

1979-1980	7 A.M. Statistics on First Day of Month		Operating Characteristics During Month											
			Water Level			Storage-Mil.Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
	Water Level	Storage Mil. Gals.	Max.	Min.	**Avg.	Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	229.85	41.49	230.71	225.46	229.89	42.92	33.96	41.55	4.62	0.33	2.57	7.91	0.55	4.38
August	230.00	41.74	230.40	225.77	229.31	42.40	34.49	40.56	4.02	0.90	2.35	6.88	1.54	4.03
September	230.40	42.40	230.40	224.76	229.19	42.40	32.76	40.36	4.40	0.69	2.39	7.52	1.18	4.10
October	227.75	37.89	230.08	224.77	228.91	41.87	32.77	39.88	4.74	1.24	2.48	8.13	2.13	4.25
November	229.98	41.71	230.10	226.30	229.31	41.91	35.40	40.56	3.30	1.78	2.40	5.66	3.06	4.11
December	228.80	39.69	230.30	225.52	229.29	42.24	34.06	40.53	3.91	1.03	2.59	6.71	1.76	4.43
January	228.26	38.76	230.18	225.29	228.76	42.03	33.66	39.62	3.87	0.84	2.39	6.63	1.39	4.08
February	228.44	39.07	229.97	225.09	228.91	41.69	33.32	39.86	4.69	1.38	2.60	7.28	2.37	4.46
March	227.40	37.28	229.95	225.63	229.01	41.66	34.25	40.05	3.55	0.10	2.49	6.09	0.17	4.26
April	228.61	39.36	230.12	225.02	229.08	41.93	33.20	40.17	3.80	1.47	2.74	6.52	2.53	4.70
May	228.90	39.86	230.52	225.85	229.32	42.60	34.62	40.58	3.95	0.80	2.76	6.75	1.34	4.73
June	229.83	41.45	230.71	225.67	229.43	42.92	34.32	40.78	4.30	1.13	2.87	7.35	1.92	4.90
For Year			230.71	224.76	229.20	42.92	32.76	40.38	4.74	0.10	2.55	8.13	0.17	4.37

*Storage capacity at overflow elevation of 231.00=43,400,000 gallons. **Average of 7 A.M. statistics.
NOTE: Water levels are elevations in feet above mean high water in Providence Harbor.

TABLE 25

WATER DISTRIBUTION SYSTEM

*NEUTACONKANUT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

1979-1980	7 A.M. Statistics on First Day of Month		Water Level			Operating Characteristics During Month								
						Storage-Mil. Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
	Water Level	Storage Mil. Gals.	Max.	Min.	**Avg.	Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	226.25	40.77	226.61	222.27	225.88	41.41	33.78	40.13	3.93	0.64	2.48	6.91	1.12	4.36
August	226.40	41.04	226.94	223.04	226.14	42.00	35.13	40.58	3.16	0.81	2.14	5.57	1.42	3.74
September	226.55	41.30	226.80	223.18	226.19	41.75	35.38	40.67	3.16	0.64	1.99	5.55	1.12	3.49
October	225.52	39.50	226.80	222.28	226.07	41.75	33.79	40.44	3.32	0.35	1.93	5.85	0.62	3.40
November	226.25	40.77	226.40	223.50	226.11	41.04	35.94	40.53	2.70	0.40	1.43	4.75	0.70	2.50
December	226.22	40.72	226.79	223.13	226.13	41.73	35.29	40.56	2.94	0.44	1.60	5.17	0.77	2.81
January	225.80	39.98	226.53	223.52	225.90	41.27	35.97	40.15	2.43	0.60	1.75	4.28	1.05	3.08
February	226.08	40.48	227.17	223.82	226.12	42.39	36.50	40.55	2.70	0.92	1.84	4.75	1.62	3.23
March	226.23	40.74	226.95	223.07	226.09	42.01	35.18	40.49	3.50	0.56	1.89	6.16	0.99	3.32
April	225.70	39.81	226.53	223.41	226.04	41.27	35.78	40.41	2.83	0.29	1.81	4.98	0.51	3.19
May	225.82	40.02	226.70	223.38	226.08	41.57	35.72	40.48	2.83	1.00	1.99	4.98	1.76	3.50
June	226.15	40.60	226.90	221.20	225.96	41.92	31.89	40.26	4.72	0.98	2.35	8.30	1.72	4.13
For Year			227.17	221.20	226.06	42.39	31.89	40.44	4.72	0.29	1.93	8.30	0.51	3.40

*Storage capacity at overflow elevation of 227.00=42,090,000 gallons. **Average of 7 A.M. statistics.
NOTE: Water levels are elevations in feet above mean high water in Providence Harbor.

TABLE 26

WATER DISTRIBUTION SYSTEM

*LONGVIEW DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1980

1979-1980	7 A.M. Statistics on First Day of Month		Operating Characteristics During Month											
			Water Level			Storage-Mil. Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
	Water Level	Storage Mil. Gals.	Max.	Min.	**Avg.	Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	305.22	12.04	305.85	292.79	304.38	12.33	6.27	11.65	10.67	1.25	4.97	4.95	0.58	2.31
August	304.45	11.68	305.91	299.59	305.03	12.36	9.43	11.95	5.58	0.63	2.23	2.59	0.30	1.04
September	305.70	12.26	305.94	300.66	304.28	12.37	9.92	11.60	4.28	1.21	2.59	1.99	0.56	1.20
October	304.60	11.75	305.36	300.85	304.38	12.10	10.01	11.65	3.64	0.75	2.28	1.52	0.35	1.05
November	304.50	11.71	305.50	300.90	304.24	12.17	10.03	11.58	3.50	0.50	1.80	1.63	0.23	0.84
December	304.00	11.47	306.47	302.08	304.58	12.59	10.59	11.74	4.03	1.00	2.27	1.85	0.51	1.05
January	305.05	11.96	306.30	302.18	304.87	12.52	10.63	11.88	3.60	1.74	2.65	1.67	0.81	1.23
February	303.56	11.27	306.17	302.13	304.64	12.48	10.60	11.78	3.47	1.61	2.57	1.61	0.75	1.19
March	304.71	11.80	306.30	301.73	304.69	12.52	10.42	11.79	4.10	1.66	2.75	1.90	0.77	1.28
April	305.40	12.12	306.19	301.75	304.50	12.48	10.43	11.71	3.67	1.79	2.50	1.70	0.83	1.16
May	305.09	11.98	305.72	300.05	304.54	12.27	9.64	11.72	5.53	1.34	2.87	2.56	0.62	1.33
June	304.49	11.70	306.57	291.17	303.55	12.62	5.52	11.25	9.38	1.34	4.19	4.35	0.62	1.94
For Year			306.57	291.17	304.47	12.62	5.52	11.69	10.67	0.50	2.81	4.95	0.23	1.30

*Storage capacity at overflow elevation of 306.00=12,400,000 gallons. **Average of 7 A.M. statistics.
NOTE: Water levels are elevations in feet above mean high water in Providence Harbor.

TABLE 27

WATER PIPE LAID, REMOVED & ADDED

YEAR ENDED JUNE 30, 1980

Pipe Laid in Feet

City or Town	6"	8"	16"	24"	Total
Providence	2,438.95	1,655.65	--	78.00	4,172.60
Cranston	676.83	909.71	--	--	1,586.54
Johnston	1,352.45	3,462.10	--	--	4,814.55
North Providence	1,482.51	767.55	--	--	2,250.06
Totals	5,950.74	6,795.01	--	78.00	12,823.75

Pipe Removed in Feet

	6"	8"	16"	24"	Total
Providence	918.30	--	259.00	71.00	1,248.30
Cranston	43.20	--	--	--	43.20
Johnston	855.40	2,967.38	--	--	3,822.78
North Providence	--	2.30	--	--	2.30
Totals	1,816.90	2,969.68	259.00	71.00	5,116.58

Net Length Added to Distribution System

	6"	8"	16"	24"	Total
Providence	1,520.65	1,655.65	- 259.00	7.00	2,924.30
Cranston	633.63	909.71	--	--	1,543.34
Johnston	497.05	494.72	--	--	991.77
North Providence	1,482.51	765.25	--	--	2,247.76
Totals	4,133.84	3,825.33	- 259.00	7.00	7,707.17

TABLE 28

PUBLIC WATER MAINS IN USE ON JUNE 30, 1980

	Providence		Cranston		Johnston		North Providence		*Total		Special High Pressure Fire Service Providence	
	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles
6-inch	1,443,139.68	273.32	648,360.10	122.80	137,199.57	25.98	176,820.35	33.49	2,405,519.70	455.59	82.06	0.02
8-inch	364,342.19	69.00	399,884.83	75.74	231,997.78	43.94	166,423.55	31.52	1,162,648.35	220.20	1,221.65	0.23
10-inch	10,183.96	1.93	0	0	0	0	0	0	10,183.96	1.93	0	0
12-inch	251,781.80	47.69	114,447.73	21.68	13,556.11	2.57	33,169.10	6.28	412,954.74	78.21	7,458.17	1.41
16-inch	148,364.51	28.10	9,803.11	1.86	6,393.63	1.21	0	0	164,561.25	31.17	55,735.19	10.56
20-inch	20,172.24	3.82	0	0	0	0	0	0	20,172.24	3.82	0	0
24-inch	56,642.63	10.73	6,301.43	1.19	32,749.23	6.20	9,269.26	1.76	104,962.55	19.88	4,164.47	0.79
30-inch	50,205.19	9.51	31,894.62	6.04	0	0	4,009.29	0.76	86,109.10	16.31	0	0
36-inch	4,555.68	0.86	5,511.13	1.04	0	0	0	0	10,066.81	1.91	0	0
42-inch	2,893.25	0.55	22,607.49	4.28	0	0	0	0	25,500.74	4.83	0	0
48-inch	14,918.00	2.83	1,710.97	0.32	394.00	0.07	0	0	17,022.97	3.22	0	0
60-inch	5,559.00	1.05	12,910.89	2.45	4,340.00	0.82	0	0	22,809.89	4.32	0	0
66-inch	0	0	8,448.00	1.60	0	0	0	0	8,448.00	1.60	0	0
Totals	2,372,758.13	449.39	1,261,880.30	238.99	426,630.32	80.80	389,691.55	73.81	4,450,960.30	842.98	68,661.54	13.00

*Special High Pressure Fire Service Included.
The length of 6-inch mains tabulated for Providence includes 691.45 feet in Pawtucket.
" " " 12-inch mains " " " " 44.47 " " "
" " " 12-inch mains " " Johnston " 146.00 " " Smithfield.
" " " 6-inch mains " " North Prov. " 179.30 " " Pawtucket.

TABLE 29

GATES IN USE ON JUNE 30, 1980

Stop Gates													Gates on Public Fire Hydrants			Gates on Unwatering Hydrants			Gates on Blow-offs				Total number of Gates
6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"	60"	Total	6"	8"	Total	6"	8"	Total	6"	8"	12"	Total	
PROVIDENCE																							
4,414	1,048	14	660	284	28	75	39	6	3	10	0	6,581	1,737	1,407	3,144	8	14	22	1	2	1	4	9,751
CRANSTON																							
1,800	1,001	0	239	15	0	11	16	13	14	4	3	3,116	1,204	11	1,215	3	14	17	0	2	28	30	4,378
Johnston																							
382	509	1	31	12	6	5	0	0	0	1	0	947	347	11	358	3	0	3	0	0	2	2	1,310
NORTH PROVIDENCE																							
496	356	0	72	0	0	5	1	1	0	0	0	931	387	0	387	0	3	3	0	0	0	0	1,321
TOTALS																							
7,092	2,914	15	1,002	311	34	96	56	20	17	15	3	11,575	3,675	1,429	5,104	14	31	45	1	4	31	36	16,760

NOTE: The above table includes all gates in the special high pressure fire system in Providence, gates on the Neutaconkanut Conduit, Scituate Aqueduct east of the Siphon Chamber, and Supplemental Tunnel and Aqueduct.

TABLE 30

SERVICE PIPES INSTALLED AND REMOVED -- YEAR ENDED JUNE 30, 1980

City or Town	INSTALLED				REMOVED			
	General		Fire Supply		General		Fire Supply	
	Copper 3/4"-2"	Cast Iron 4"-12"	Cast Iron 4"-12"	Total	Lead or Copper 1/2"-2"	Cast Iron 4"-12"	Cast Iron 4"-12"	Total
Providence	220	8	22	250	53	5	2	60
Cranston	96	5	12	113	7	0	0	7
Johnston	121	0	2	123	51	0	0	51
North Providence	124	1	3	128	0	0	0	0
Totals	561	14	39	614	111	5	2	118

TABLE 31

NUMBER AND SIZE OF ACTIVE SERVICES -- YEAR ENDED JUNE 30, 1980

	1/2"	5/8"	3/4"	1"	1¼"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	42"	Total
Providence	194	23,148	7,583	2,353	436	561	709	6	1,029	1,008	107	3	10	2	0	0	0	37,149
Cranston	5	6,822	8,524	2,561	39	577	416	0	143	140	44	0	4	0	1	2	2	19,280
Johnston	0	742	2,562	1,589	9	367	98	0	21	41	8	0	1	0	0	0	0	5,438
North Providence	0	1,056	2,763	1,430	5	347	126	0	47	25	6	0	2	0	0	0	0	5,807
Totals	199	31,768	21,432	7,933	489	1,852	1,349	6	1,240	1,214	165	3	17	2	1	2	2	67,674

TABLE 32

PUBLIC FIRE HYDRANTS

HYDRANT ACTIVITIES DURING YEAR ENDED JUNE 30, 1980

	Providence	Cranston	Johnston	North Providence	Totals
Post Hydrants Installed	58	10	4	4	76
Post Hydrants Removed	56	9	11	2	78

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1980

Post Hydrants	3,144	1,219	364	387	5,114

TABLE 33

NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES

YEAR ENDED JUNE 30, 1980

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
							*PROVIDENCE									
Make																
Trident	29,233	3,240	1,077	1,288	1,891	72	60	60	17	5	-	-	-	-	-	36,943
Thomson	378	61	46	25	83	-	2	-	-	-	-	-	-	-	-	595
Empire	29	-	6	-	-	-	-	-	-	-	-	-	-	-	-	35
Crown	14	2	2	-	-	-	-	-	-	-	-	-	-	-	-	18
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Totals	29,654	3,303	1,131	1,315	1,977	74	75	120	23	5	1	2	-	-	-	37,680

*Includes 1-12" Flow Meter Supplying City of East Providence.

							*CRANSTON									
Make																
Trident	16,343	1,517	620	337	474	2	6	15	7	-	1	-	-	-	-	19,322
Thomson	-	6	-	8	5	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	-	1	-	-	7	5	-	-	-	-	-	-	13
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,343	1,523	620	345	480	2	6	22	13	-	2	1	1	1	2	19,361

*Includes 1-6" Trident Compound Meter supplying City of Warwick.
2-6" Trident Protectus Meters supplying City of Warwick.
1-12" Trident Crest Meter supplying Kent County Water Authority.
1-16" Flow Meter supplying Western Cranston.
1-24" Flow Meter supplying City of Warwick.
1-30" Flow Meter supplying Kent County Water Authority pumping station, Clinton Avenue, Hope, R.I. from 30-inch connection off 78-inch aqueduct.
1-36" Flow Meter supplying City of East Providence.
1-36" Flow Meter supplying City of Warwick.

							*JOHNSTON									
Make																
Trident	3,987	979	278	79	115	-	-	5	3	-	-	-	-	-	-	5,446
Thomson	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Hersey	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,011	979	278	79	115	-	-	6	3	-	1	-	-	-	-	5,472

*Includes 1-8" Trident Crest Meter supplying East Smithfield Water Co.
1-12" Flow Meter supplying Greenville Water District.

							*NORTH PROVIDENCE									
Make																
Trident	4,394	824	360	78	121	1	2	5	-	-	-	-	-	-	-	5,785
Thomson	35	2	-	1	1	-	-	-	-	-	-	-	-	-	-	39
Hersey	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	7
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,429	826	360	79	122	1	2	12	-	-	1	-	-	-	-	5,832

*Includes 1-6" Trident Protectus Meter supplying East Smithfield Water Co.
1-12" Flow Meter supplying Town of Smithfield.

TABLE 34

CAPACITY AND CONSUMPTION

Year Ended Sept. 30	Purification Works Capacity M.G.D.	C O N S U M P T I O N Total During Year M.G.	Average M.G.D.	Total M.G.	Maximum Day Percent of Plant Capacity	Maximum Day Percent of Average Day	Maximum Hour Rate in M.G.D.	Maximum Hour Percent of Plant Capacity	Maximum Hour Percent of Average Day
1941	61.6	11,020.9	30.2	40.8	66.2	135.1	66.7	108.3	220.9
1942	61.6	11,409.3	31.3	38.3	62.2	122.4	54.7	88.8	174.8
1943	61.6	11,586.8	31.7	46.7	75.8	147.3	77.0	125.0	242.9
1944	61.6	12,538.9	34.3	49.5	80.4	144.3	69.8	113.3	203.5
1945	61.6	12,528.9	34.3	43.6	70.8	127.1	71.3	115.7	207.9
1946	61.6	12,685.3	34.8	50.5	82.0	145.1	82.1	133.3	235.9
1947	61.6	13,169.0	36.1	49.8	80.8	138.0	71.8	116.6	198.7
1948	61.6	13,644.7	37.3	54.7	88.8	146.6	82.3	133.6	220.6
1949	61.6	13,510.3	37.0	60.2	97.7	162.7	89.3	145.0	241.4
1950	61.6	13,373.8	36.6	62.0	100.6	169.4	98.4	159.7	268.9
1951	61.6	13,721.6	37.6	56.4	91.6	150.0	91.2	148.1	242.6
1952	61.6	13,829.3	37.8	70.0	113.6	185.2	110.4	179.2	292.1
1953	61.6	14,182.8	38.9	66.4	107.8	170.7	100.8	163.6	259.1
1954	105.0	13,840.6	37.9	68.6	65.3	181.0	118.1	112.5	311.6
1955	105.0	14,933.0	40.9	70.2	66.9	171.6	117.1	111.5	286.3
1956	105.0	15,145.2	41.4	68.8	65.5	166.2	103.6	98.7	250.2
1957	105.0	15,963.8	43.7	84.7	80.7	193.8	131.0	124.8	299.8
1958	105.0	14,761.0	40.4	68.5	65.2	169.6	108.7	103.5	269.1
1959	105.0	15,430.0	42.3	71.1	67.7	168.1	111.5	106.2	263.6
1960	105.0	15,859.0	43.3	77.4	73.7	178.8	120.3	114.6	277.8
1961	105.0	16,495.9	45.2	69.3	66.0	153.3	112.3	107.0	248.5
1962	105.0	16,687.5	45.7	73.8	70.3	161.5	112.5	107.1	246.2
1963	105.0	17,488.8	47.9	87.2	83.0	182.0	129.3	123.1	269.9
1964	105.0	18,383.0	50.2	86.0	81.9	171.3	139.6	133.0	278.1
1965	105.0	19,470.6	53.3	88.5	84.3	166.0	134.1	127.7	251.6
1966	105.0	18,425.5	50.5	82.3	78.4	163.0	118.9	113.2	235.4
1967	105.0	17,561.3	48.1	74.2	70.7	154.3	108.6	103.4	225.8
1968	105.0	18,609.1	50.8	84.6	80.6	166.5	122.8	117.0	241.7
1969	105.0	19,416.5	53.2	94.0	89.5	176.7	137.3	130.8	258.1
Year Ended June 30									
1970	144.0	19,852.2	54.4	94.0	65.3	172.8	137.3	95.3	252.4
1971	144.0	21,933.2	60.1	109.0	75.7	181.4	158.4	110.0	263.6
1972	144.0	23,570.4	64.4	100.6	69.9	156.2	146.9	102.0	228.1
1973	144.0	23,203.3	63.6	105.9	73.5	166.5	152.3	105.8	239.5
1974	144.0	23,468.1	64.3	104.7	72.7	162.8	147.5	102.4	229.4
1975	144.0	23,228.4	63.6	109.8	76.3	172.6	156.7	108.8	246.4
1976	144.0	23,693.6	64.7	118.0	81.9	182.4	162.9	113.1	251.8
1977	144.0	22,790.4	62.4	98.6	68.5	158.0	132.7	92.1	212.7
1978	144.0	22,934.6	62.8	116.0	80.6	184.7	167.5	116.3	266.7
1979	144.0	23,253.1	63.7	102.8	71.4	161.4	148.0	102.8	232.3
1980	144.0	23,150.3	63.3	115.6	80.3	182.6	163.7	113.7	258.6

TABLE 35

CONSUMPTION OF WATER - MILLION GALLONS

YEAR ENDED JUNE 30, 1980

1979-1980	Low Service (1) Max. Day	Min. Day	Avg. Day	Total	High Service (2) Max. Day	Min. Day	Avg. Day	Total	Total Service (1,2) Max. Day	Min. Day	Avg. Day	Total
July	86.097	38.924	63.441	1,966.660	22.854	12.925	18.119	561.688	108.528	51.849	81.560	2,528.348
August	79.204	34.093	53.949	1,672.426	20.098	10.745	14.746	457.128	99.302	46.271	68.695	2,129.554
September	68.897	36.204	50.622	1,518.656	15.887	12.358	14.452	433.572	84.784	48.603	65.074	1,952.228
October	56.791	31.387	46.728	1,448.559	17.066	11.145	14.127	437.942	69.259	44.098	60.855	1,886.501
November	51.841	31.803	44.248	1,327.432	14.952	11.831	13.892	416.759	66.575	43.634	58.140	1,744.191
December	52.249	32.272	42.668	1,322.710	14.610	11.363	13.291	412.029	66.008	44.718	55.959	1,734.739
January	50.771	34.885	44.195	1,370.049	14.859	11.867	13.650	423.159	65.332	47.738	57.845	1,793.208
February	50.950	32.133	44.438	1,288.699	15.478	12.233	13.945	404.404	65.838	44.882	58.383	1,693.103
March	51.758	33.890	44.487	1,379.097	14.771	12.144	13.690	424.377	65.409	46.034	58.177	1,803.474
April	50.971	33.734	44.581	1,337.426	14.965	12.008	13.633	408.998	64.882	45.742	58.214	1,746.424
May	61.018	35.590	48.102	1,491.180	17.081	12.016	14.547	450.947	78.099	47.917	62.649	1,942.127
June	92.305	35.909	56.985	1,709.545	23.314	12.095	16.229	486.876	115.619	48.004	73.214	2,196.421
For Year	92.305(a)	31.387(b)	48.723	17,832.439	23.314(c)	10.745(d)	14.530	5,317.879	115.619(e)	43.634(f)	63.252	23,150.318

(a) June 25 (b) October 7 (c) June 25 (d) August 12 (e) June 6 (f) November 22

(1) Includes water supplied to City of Warwick, Kent County Water Authority, City of East Providence and West Cranston.
(2) Includes water supplied to East Smithfield Water Co., Smithfield Water Department and Greenville Water District.

TABLE 36

WATER SOLD TO KENT COUNTY WATER AUTHORITY

AND THE WESTERN SECTION OF THE CITY OF CRANSTON

YEAR ENDED JUNE 30, 1980

	KENT COUNTY WATER AUTHORITY				WEST CRANSTON	
1979-1980	S.S.58985 Oaklawn Avenue Cranston 12" Tri-Crest Meter Gallons per Month	S.S.75430 Clinton Avenue Scituate 30" Flow Meter Gallons per Month	Total Gallons per Month	Average Gallons per Day	S.S.76957 Adjacent to Aqueduct Reservoir Cranston 16" Flow Meter Gallons per Month	Average Gallons per Day
July	14,160,000	159,545,900	173,705,900	5,603,416	8,543,600	275,600
August	13,785,000	114,128,750	127,913,750	4,126,250	5,039,900	162,577
September	10,694,250	130,686,750	141,381,000	4,712,700	4,075,700	135,857
October	11,874,000	102,879,700	114,753,700	3,701,732	4,478,600	144,471
November	12,094,500	88,673,100	100,767,600	3,358,920	3,155,200	105,173
December	11,243,250	103,456,400	114,699,650	3,699,989	3,672,200	118,458
January	10,788,000	101,920,900	112,708,900	3,635,771	4,239,300	136,752
February	11,834,250	97,314,450	109,148,700	3,763,748	3,843,300	132,528
March	10,769,250	105,616,950	116,386,200	3,754,394	3,975,900	128,255
April	11,757,750	93,942,400	105,700,150	3,523,338	4,271,000	142,367
May	9,837,000	118,319,600	128,156,600	4,134,084	5,005,500	161,468
June	2,313,000	126,799,150	129,112,150	4,303,738	9,277,700	309,257
For Year	131,150,250	1,343,284,050	1,474,434,300	4,028,509	59,577,900	162,781

TABLE 37

WATER SOLD TO THE CITY OF WARWICK
AND THE CITY OF EAST PROVIDENCE

YEAR ENDED JUNE 30, 1980

	CITY OF WARWICK				CITY OF EAST PROVIDENCE	
1979-1980	S.S.47269 Petta-consett Cranston 24" Flow Meter Gallons per Month	S.S.76834 Natick Avenue W. Warwick 36" Flow Meter Gallons per Month	Total Gallons per Month	Average Gallons per Day	S.S.76257 Budlong Road Cranston 36" Flow Meter Gallons per Month	Average Gallons per Day
July	190,395,000	188,578,700	378,973,700	12,224,958	262,092,900	8,454,610
August	141,593,000	116,471,058	258,064,058	8,324,647	193,429,500	6,239,661
September	101,888,000	106,797,415	208,685,415	6,956,181	184,254,600	6,141,820
October	110,183,000	99,805,192	209,988,192	6,773,813	170,576,500	5,502,468
November	105,567,000	95,343,450	200,910,450	6,697,015	153,673,400	5,122,447
December	97,247,000	102,201,500	199,448,500	6,433,823	172,169,400	5,553,852
January	96,521,000	92,816,400	189,337,400	6,107,658	153,353,800	4,946,897
February	104,149,000	87,496,500	191,645,500	6,608,466	144,295,100	4,975,693
March	96,290,000	100,491,050	196,781,050	6,347,776	165,337,900	5,333,481
April	104,371,000	98,248,100	202,619,100	6,753,970	149,921,100	4,997,370
May	110,326,000	126,875,800	237,201,800	7,651,671	175,240,000	5,652,903
June	161,910,000	142,890,550	304,800,550	10,160,018	190,204,000	6,340,133
For Year	1,420,440,000	1,358,015,715	2,778,455,715	7,591,409	2,114,548,200	5,777,454

TABLE 38

WATER SOLD TO EAST SMITHFIELD WATER COMPANY, SMITHFIELD WATER DEPARTMENT AND THE GREENVILLE WATER DISTRICT

YEAR ENDED JUNE 30, 1980

	EAST SMITHFIELD WATER COMPANY				SMITHFIELD WATER DEPT.		GREENVILLE WATER DISTRICT	
	S.S.51198 Waterman Avenue No. Prov. 6" Tri-Pro Meter	S.S.52403 Dean Avenue Smithfield 8" Tri-Crest Meter			S.S.71980 Smithfield Road North Providence 12" Flow Meter		S.S.76310 George Waterman Road Johnston 12" Flow Meter	
1979-1980	Gallons per Month	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
July	28,002,000	3,419,250	31,421,250	1,013,589	12,794,900	412,739	27,758,000	895,419
August	27,746,250	2,671,500	30,417,750	981,218	9,992,300	322,332	17,799,500	574,177
September	24,651,000	2,214,000	26,865,000	895,500	11,065,200	368,840	18,170,800	605,693
October	25,532,000	2,295,000	27,827,250	897,653	10,577,300	341,203	17,085,500	551,145
November	23,256,000	4,614,000	27,870,000	929,000	9,447,600	314,920	14,862,700	495,423
December	19,486,500	5,678,250	25,164,750	811,766	9,480,700	305,829	17,001,900	548,448
January	20,262,000	5,713,500	25,975,500	837,919	9,473,600	305,600	15,265,500	492,435
February	23,046,000	6,242,250	29,288,250	1,009,940	12,467,200	429,903	13,549,800	467,234
March	18,879,750	5,772,750	24,652,500	795,242	10,217,800	329,606	16,711,900	539,094
April	18,335,250	5,888,250	24,223,500	807,450	11,504,900	383,497	15,198,800	506,627
May	17,193,750	5,741,250	22,935,000	739,839	11,148,600	359,632	20,269,800	653,865
June	23,232,750	7,212,000	30,444,750	1,014,825	12,804,700	426,823	21,134,000	704,467
For Year	269,623,500	57,462,000	327,085,500	893,676	130,974,800	357,855	214,808,200	586,908

TABLE 39

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ended June 30	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
1877							2.27	2.26	1.84	2.25	2.53	2.94	*2.35
1878	2.91	2.76	3.01	2.61	2.22	2.30	2.16	2.15	2.20	2.32	2.85	2.89	2.53
1879	3.88	3.12	3.17	2.84	2.39	2.38	2.82	2.93	2.59	2.38	3.22	3.48	2.93
1880	3.78	3.52	3.32	3.38	2.89	2.97	2.94	2.86	2.90	2.96	3.68	5.05	3.35
1881	4.18	3.92	3.82	3.67	3.35	3.22	3.54	4.07	3.13	2.98	3.54	3.81	3.60
1882	4.05	4.46	4.16	3.92	3.60	3.38	3.30	3.27	3.06	3.05	3.24	4.02	3.63
1883	4.69	5.09	3.84	3.40	3.33	3.65	3.94	3.74	3.91	3.43	3.82	4.64	3.96
1884	5.24	5.18	4.70	3.81	3.67	3.58	4.24	3.87	3.90	3.43	3.79	4.70	4.18
1885	4.38	4.06	4.82	4.24	3.67	3.99	4.48	4.73	4.80	4.10	4.10	5.44	4.40
1886	5.56	5.01	4.92	4.37	4.20	4.71	4.82	4.75	4.83	4.33	4.53	4.93	4.75
1887	6.02	4.88	4.94	4.62	4.24	4.94	5.06	4.90	4.84	4.41	4.90	5.16	4.91
1888	5.58	5.00	5.08	4.80	4.40	5.10	5.44	5.79	5.39	4.86	4.84	6.17	5.20
1889	6.51	5.87	5.32	5.34	5.18	5.51	5.72	7.34	5.80	5.27	5.75	6.14	5.80
1890	5.69	5.59	5.52	5.41	5.17	6.14	6.34	6.79	6.28	6.84	6.60	6.90	6.10
1391	8.11	7.13	6.72	6.28	6.08	6.83	6.35	6.53	6.72	6.67	7.55	7.75	6.90
1892	7.73	7.78	7.57	7.53	7.32	7.69	7.65	7.83	7.62	7.27	6.77	8.37	7.59
1893	9.30	9.11	8.63	8.00	7.65	8.48	9.30	8.85	8.74	8.07	8.58	9.92	8.72
1894	10.78	10.50	9.48	8.79	7.85	8.61	9.11	9.07	9.09	8.73	9.97	11.28	9.44
1895	12.39	10.76	10.22	10.20	8.86	9.08	9.02	9.82	8.60	7.70	8.78	9.49	9.58
1896	8.99	9.50	9.10	8.15	8.19	9.56	10.19	8.79	8.74	8.60	9.26	9.64	9.06
1897	9.93	9.70	8.83	8.49	8.05	8.98	8.83	8.52	8.44	8.06	8.27	8.90	8.76
1898	9.13	8.70	9.07	8.76	8.29	8.63	8.56	9.09	8.68	8.38	8.35	10.04	8.80
1899	10.10	9.44	9.84	8.94	8.75	9.64	9.45	9.53	8.91	8.52	9.18	11.18	9.45
1900	10.21	10.12	9.70	9.15	9.27	9.53	9.81	9.49	9.66	9.23	8.59	10.48	9.60
1901	12.11	10.95	11.71	9.99	9.54	9.95	10.09	10.52	10.20	8.92	10.05	11.50	10.46
1902	12.02	11.69	11.15	10.91	10.70	11.02	11.65	11.00	10.92	10.52	10.48	11.85	11.16
1903	12.09	11.97	11.66	11.89	11.81	12.85	12.84	12.62	11.92	12.33	13.92	13.02	12.41
1904	13.54	12.91	13.76	13.09	13.89	13.49	14.29	14.58	13.42	12.07	12.72	13.94	13.47
1905	14.21	13.08	13.85	14.57	14.88	14.60	14.20	14.65	13.88	13.85	14.77	15.06	14.30
1906	16.34	14.30	13.99	13.73	14.96	14.63	15.00	15.07	14.77	14.49	15.01	15.69	14.83
1907	15.08	15.74	16.06	15.02	14.37	14.25	15.74	16.24	16.26	15.62	16.29	17.18	15.65
1908	18.50	18.00	15.02	15.34	15.13	15.34	15.46	16.07	15.21	14.53	14.67	16.63	15.83
1909	16.77	15.42	15.62	15.83	15.80	15.44	15.16	14.87	14.88	13.94	14.04	15.54	15.28
1910	17.71	16.15	14.80	14.76	14.66	15.28	15.62	15.65	15.22	14.74	14.72	15.53	15.41
1911	17.13	15.95	15.61	15.56	14.98	16.11	16.39	16.27	16.00	15.30	16.19	17.09	16.05
1912	19.36	17.09	16.08	16.29	16.49	16.44	18.12	18.14	17.16	16.39	16.70	17.32	17.13
1913	20.54	17.62	17.06	17.36	16.72	17.17	17.49	17.98	17.59	17.06	17.12	18.95	17.72
1914	19.55	18.40	17.12	16.76	16.87	17.27	17.83	18.52	17.60	16.99	17.43	20.24	17.88
1915	17.62	17.09	18.51	17.29	16.43	17.27	17.07	17.60	17.44	16.80	16.68	18.04	17.32

*Average for 6 months

TABLE 39 (Continued)

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ended June 30	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
1916	16.49	16.76	17.80	16.90	17.03	17.97	18.16	18.47	18.57	17.43	17.57	17.82	17.58
1917	17.90	16.58	18.76	18.51	18.08	18.50	19.73	20.62	19.31	18.09	17.67	18.28	18.49
1918	19.61	20.03	18.76	18.62	18.71	20.64	23.82	22.98	23.07	22.43	22.31	21.85	21.06
1919	22.23	21.50	20.63	20.42	20.31	21.04	21.72	20.94	19.35	19.45	19.60	21.77	20.75
1920	20.70	20.40	20.68	20.62	20.18	21.64	23.80	23.16	23.03	20.67	20.45	20.98	21.36
1921	21.06	21.58	21.89	21.41	20.46	20.97	21.64	21.43	20.77	20.21	20.92	22.84	21.26
1922	21.18	21.63	22.86	22.84	22.16	22.18	24.14	23.64	22.01	21.64	21.49	22.18	22.32
1923	21.91	22.11	22.53	22.78	23.23	23.08	23.66	24.96	23.84	22.95	24.12	24.49	23.29
1924	23.90	24.08	24.31	24.68	24.09	23.33	24.19	24.58	23.44	23.51	23.28	24.10	23.95
1925	25.11	22.48	22.51	22.84	23.70	23.76	24.22	23.61	22.70	23.13	23.03	24.82	23.49
1926	23.54	23.20	23.81	23.41	22.47	23.29	23.95	24.12	24.25	23.36	22.80	24.16	23.53
1927	24.80	23.94	23.53	21.76	22.60	23.24	22.92	22.41	22.57	22.32	22.68	23.62	23.04
1928	23.27	22.27	23.27	23.37	22.99	22.39	23.04	22.80	23.21	22.79	23.83	23.05	23.02
1929	24.31	26.69	25.38	26.82	25.54	26.17	26.84	27.01	25.42	23.05	22.91	25.73	25.48
1930	26.53	24.94	24.24	23.83	24.24	24.29	23.85	24.88	23.34	23.38	25.15	26.85	24.62
1931	26.81	25.95	27.45	26.30	24.04	23.80	23.71	24.36	23.64	23.11	23.76	25.35	24.86
1932	26.20	26.22	26.31	25.36	23.42	23.82	23.20	23.23	22.99	22.72	23.47	25.27	24.36
1933	25.34	25.16	24.59	24.15	23.65	23.51	24.00	24.25	24.01	23.41	25.32	26.92	24.53
1934	28.77	27.65	26.00	24.89	24.43	25.04	25.55	28.05	26.38	24.78	25.78	27.95	26.26
1935	31.00	28.77	26.39	26.50	25.39	25.16	26.35	27.06	26.31	25.71	27.02	27.47	26.93
1936	29.47	31.14	28.23	29.45	28.03	27.42	27.97	28.73	26.44	25.75	27.02	30.27	28.33
1937	30.23	30.79	29.23	27.94	26.72	27.06	25.77	26.13	27.16	25.73	25.93	28.45	27.61
1938	31.43	31.85	29.18	27.84	26.42	25.57	25.11	24.67	24.38	23.56	24.56	27.13	26.83
1939	26.34	28.82	28.34	27.90	27.21	26.85	27.07	27.62	27.16	26.25	27.48	30.84	27.65
1940	32.81	33.62	30.31	30.12	28.96	28.26	28.74	28.06	27.23	25.77	26.15	28.49	29.06
1941	30.10	31.57	28.96	29.55	27.86	28.36	28.67	29.02	28.78	29.07	29.91	31.74	29.47
1942	32.87	32.66	33.77	32.74	31.44	31.84	31.34	31.21	29.84	29.18	29.76	31.34	31.50
1943	32.13	32.14	32.11	29.88	29.27	30.40	29.93	30.67	30.35	30.05	29.65	35.13	30.97
1944	36.35	35.47	33.71	31.87	31.25	32.35	32.29	32.52	32.95	31.51	34.27	36.80	33.45
1945	39.10	40.60	35.43	33.77	32.77	33.33	34.89	34.57	33.78	33.37	33.23	35.44	35.04
1946	35.73	36.34	34.67	32.74	32.27	33.21	34.01	33.69	33.80	33.64	33.59	36.70	34.20
1947	40.70	35.92	36.69	36.37	35.34	35.58	35.95	35.83	35.01	33.27	33.94	35.72	35.87
1948	37.35	39.34	39.21	38.91	36.19	35.55	34.84	37.31	36.92	36.15	33.95	36.90	36.88
1949	39.33	41.55	39.76	36.27	35.34	35.11	33.98	34.00	33.88	33.12	35.12	46.65	37.01
1950	44.56	40.18	35.77	34.61	35.94	34.51	33.92	34.34	34.71	33.39	34.90	40.27	36.44
1951	43.27	41.40	38.24	39.56	36.91	34.80	36.10	35.92	34.81	34.21	37.21	39.31	37.70
1952	43.49	39.98	38.20	36.92	34.79	33.63	34.20	34.59	33.98	33.98	34.33	41.21	36.61
1953	54.79	40.66	40.11	37.09	35.75	35.27	34.59	33.95	34.20	34.61	35.63	50.68	38.97
1954	46.76	43.63	43.95	38.20	35.43	35.03	34.85	35.63	35.31	35.10	35.05	45.09	38.68
1955	45.27	40.72	39.22	39.84	37.82	37.17	37.24	38.42	37.85	37.00	41.54	44.52	39.73
1956	49.90	47.08	42.25	40.29	38.30	38.18	38.42	39.31	38.37	38.55	40.08	49.50	41.69
1957	44.93	48.86	41.70	40.78	38.65	36.74	39.14	38.43	36.98	38.50	44.48	60.45	42.48
1958	57.12	48.16	45.16	42.22	38.27	38.42	39.09	38.20	37.40	40.03	38.60	42.57	42.14
1959	45.35	43.60	41.63	40.35	38.01	39.35	39.34	39.46	38.65	39.04	44.02	45.05	41.14
1960	45.16	51.33	47.28	41.93	40.00	39.63	39.48	40.19	39.72	40.34	42.06	51.75	43.24
1961	49.75	49.49	45.57	42.22	42.53	40.99	41.24	43.54	42.26	41.00	42.96	51.71	44.44
1962	51.06	52.80	50.01	43.66	41.94	40.90	42.42	41.91	42.38	42.74	46.45	53.07	45.80
1963	51.39	54.38	47.10	45.66	44.44	43.38	44.26	44.81	44.80	45.77	47.96	55.81	47.49
1964	55.87	54.40	47.58	46.77	42.66	43.07	45.45	45.81	46.23	46.54	56.23	63.98	49.56
1965	57.44	53.33	55.16	51.52	49.17	47.99	47.66	47.94	46.33	46.89	53.98	65.25	51.90

TABLE 39 (Continued)

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ended June 30	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
1966	63.33	63.37	56.32	50.11	47.17	44.67	44.73	44.94	45.77	46.82	48.47	59.32	51.29
1967	61.74	59.88	51.70	48.22	46.08	44.52	45.59	45.91	45.98	43.99	44.96	55.39	49.53
1968	50.26	53.10	53.36	49.14	45.67	43.99	47.40	47.06	47.07	49.07	50.71	52.94	49.15
1969	61.60	59.19	56.06	52.07	47.54	46.88	47.90	46.73	46.39	48.84	52.69	63.91	52.51
1970	63.74	62.15	59.09	53.27	49.56	48.23	49.55	49.90	49.49	50.35	55.05	61.98	54.39
1971	66.91	64.96	58.53	56.07	55.17	55.04	54.96	57.12	56.79	56.85	59.33	79.39	60.09
1972	78.28	73.89	69.41	61.93	60.56	57.13	57.70	59.17	60.59	60.06	65.67	68.08	64.40
1973	68.15	72.36	67.64	63.07	62.36	58.35	59.15	58.32	58.54	58.85	60.83	75.02	63.57
1974	72.66	79.70	69.20	63.78	59.35	55.48	57.42	58.91	58.14	60.81	63.81	71.90	64.30
1975	79.08	84.06	64.81	60.12	58.70	55.81	56.84	56.76	56.67	57.86	63.15	69.01	63.64
1976	77.10	74.53	64.89	60.26	58.55	57.40	57.61	57.38	58.63	62.16	63.69	84.53	64.74
1977	74.83	70.09	65.07	58.26	59.28	57.04	56.62	56.96	57.04	57.76	66.97	68.89	62.44
1978	76.85	71.17	64.09	58.75	57.77	56.64	56.25	55.12	58.47	57.98	62.78	77.59	62.83
1979	80.61	70.25	64.91	61.21	58.82	56.99	57.79	58.99	58.38	58.71	63.78	73.62	63.71
1980	81.56	68.70	65.07	60.86	58.14	55.96	57.85	58.38	58.18	58.21	62.65	73.21	63.25

TABLE 40

FINANCIAL STATEMENT

YEAR ENDED JUNE 30, 1980

Operating Revenue		
Sale of Water		$6,676,163.23
Hydrant Rental		114,831.00
Electrical Power		68.93
Setting Meters		5,977.00
Repairing Meters		2,930.00
Repairs to Water Services		1,987.44
Repairs to Distribution Mains		8,938.74
Repairs to Hydrants		11,889.32
Installation of Services		158,856.82
Installation of Fire Supplies		44,521.66
Installation of Water Mains		151,461.31
Sale of Timber & Forestry Services		3,080.00
Transferred from Reserve Fund		22,000.00
Total Operating Revenue		$7,202,705.45
Operating Expenses		
Administration	$ 487,302.80	
Source of Supply	1,376,141.25	
Transmission & Distribution	1,946,100.43	
Accounting & Commercial	578,683.85	
Taxes	1,381,459.23	
Employees' Retirement System	327,436.00	
Social Security	135,619.00	
Unemployment Compensation	1,303.04	
Total Operating Expenses		*$6,234,045.60
Operating Income		$ 968,659.85
Add Non-Operating Income		
Rental of Real Estate	$ 6,835.60	
Other	62,037.10	
Total Non-Operating Income		$ 68,872.70
Sub-Total		$1,037,532.55
Less Non-Operating Expenses		
Interest on Bonded Debt	$ 627,150.00	
Retirement-Serial Bonds	335,000.00	
Total Non-Operating Expenses		$ 962,150.00
SURPLUS		$ 75,382.55

*See Table 41 for detailed account of Operating Expense.

TABLE 41

WATER SUPPLY BOARO EXPENSES

YEAR ENOEO JUNE 30, 1980

		AOMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & OISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
000	Salaries & Wages:						
	Regular Pay	$222,776.86	$425,598.20	$704,063.17	$288,687.91	0	$1,641,126.14
	Overtime Pay	5,519.31	38,757.51	117,713.29	3,183.95	0	165,174.06
	Other(Sick Leave,Vacation,etc.)	28,336.71	67,151.10	131,324.73	49,364.33	0	276,176.87
	Total Salaries & Wages	$256,632.88	$531,506.81	$953,101.19	$341,236.19	0	$2,082,477.07
100	Services Other Than Personal:						
	Fees Not Classified	$ 9,910.92	$ 17,825.00	$ 3,028.00	0	0	$ 30,763.92
	Telephone	6,469.25	3,521.69	9,622.43	4,830.53	0	24,443.90
	Electricity	2,463.02	31,037.77	107,284.43	22,234.52	0	163,019.74
	Repairs & Maintenance	3,645.44	24,309.89	151,860.19	2,483.72	0	182,299.24
	Other Services	21,168.32	24,568.71	8,891.68	93,265.42	0	147,894.13
	Total Services	$ 43,656.95	$101,263.06	$280,686.73	$122,814.19	0	$ 548,420.93
200	Materials & Supplies:						
	Motor Fuel	$ 3,840.56	$ 38,178.06	$ 28,452.90	$ 4,729.92	0	$ 75,201.44
	Repair Parts	510.03	17,189.05	35,444.10	0	0	53,143.18
	Chemical & Lab Supplies	0	287,382.25	771.90	0	0	288,154.15
	Heating Fuel	1,3B3.02	48,049.24	3,894.93	4,658.71	0	57,985.90
	Hydrants, Valves & Fittings	0	400.48	117,109.78	0	0	117,510.26
	Other Materials & Supplies	8,504.90	26,740.74	106,582.93	4,696.04	0	146,524.61
	Total Materials & Supplies	$ 14,238.51	$417,939.82	$292,256.54	$ 14,084.67	0	$ 738,519.54
300	Special Items:						
	Claims and Oamages	$ 29,338.87	$ 508.77	$ 1,018.58	$ 436.77	0	$ 31,302.99
	Union Legal Fees	3,048.00	6,970.00	14,037.00	5,767.50	0	29,822.50
	Blue Cross & RIGHA	18,652.24	34,378.70	67,075.86	25,015.45	0	145,122.25
	Expenses for Ceremonies	3,368.13	0	0	0	0	3,368.13
	Union Pension Fund	12,801.60	29,274.00	58,955.40	24,223.50	0	125,254.50
	Total Special Items	$ 67,208.84	$ 71,131.47	$141,086.84	$ 55,443.22	0	$ 334,870.37

TABLE 41 (Continued)

WATER SUPPLY BOARD EXPENSES

YEAR ENDED JUNE 30, 1980

		ADMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & DISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
500	Capital Outlay:						
	Office Furniture & Equip.	$ 3,673.50	$ 1,481.00	$ 0	$ 9,791.45	0	$ 14,945.95
	Books, Maps and Charts	155.12	1,972.30	0	0	0	2,127.42
	Autos and Trucks	0	47,832.36	69,147.68	5,414.13	0	122,394.17
	Lab Equipment	0	3,988.00	0	0	0	3,988.00
	Agricultural Equipment	0	12,512.13	0	0	0	12,512.13
	Shop and Plant Equipment	0	0	11,107.01	0	0	11,107.01
	Communication Equipment	1,341.00	34,537.17	2,826.00	0	0	38,704.17
	Equipment Not Classified	0	0	0	29,900.00	0	29,900.00
	Total Capital	$ 5,169.62	$ 102,322.96	$ 83,080.69	$ 45,105.58	0	$235,678.85
600	Land and Buildings:						
	Improvements to Land	$ 0	$ 40,371.13	$ 0	$ 0	0	$ 40,371.13
	Improvements to Buildings	100,396.00	111,606.00	31,992.60	0	0	243,994.60
	Total Land and Buildings	$100,396.00	$ 151,977.13	$ 31,992.60	$ 0	0	$284,365.73
700	Main Extensions	$ 0	$ 0	$ 163,895.84	$ 0	0	$163,895.84
	Other Items:						
	Property Taxes	$ 0	$ 0	$ 0	$ 0	$1,381,459.23	$1,381,459.23
	Contributions to Retirement	0	0	0	0	327,436.00	327,436.00
	Federal Old Age	0	0	0	0	135,619.00	135,619.00
	Interest on Bonded Oebt	0	0	0	0	627,150.00	627,150.00
	Retirement of Bonds	0	0	0	0	335,000.00	335,000.00
	Unemployment Compensation	$ 0	$ 0	$ 0	$ 0	$ 1,303.04	$ 1,303.04
	TOTAL EXPENOITURES:	$487,302.80	$ 1,376,141.25	$1,946,100.43	$578,683.85	$ 2,807,967.27	$7,196,195.60

TABLE 42

SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1980

Fiscal Years Ended September 30	Receipts from Sale of Water	Miscellaneous Receipts	Total
1930	$1,384,369.54	$218,844.87	$1,603,214.41
1931	1,414,836.00	237,172.64	1,652,008.64
1932	1,375,450.77	223,058.31	1,598,509.08
1933	1,345,444.69	212,066.79	1,557,511.48
1934	1,387,876.73	184,133.47	1,572,010.20
1935	1,409,269.47	237,518.68	1,646,788.15
1936	1,427,881.10	265,357.71	1,693,238.81
1937	1,429,107.08	229,317.39	1,721,424.47
1938	1,426,986.49	106,359.70	1,533,346.19
1939	1,491,918.63	124,901.37	1,616,820.00
1940	1,551,917.24	115,540.98	1,667,458.22
1941	1,615,351.79	114,960.58	1,730,312.37
1942	1,679,058.50	103,368.22	1,782,426.72
1943	1,629,268.35	86,580.98	1,715,849.33
1944	1,761,016.12	87,946.71	1,848,962.83
1945	1,812,311.82	99,271.44	1,911,583.26
1946	1,808,993.17	123,247.90	1,932,241.07
1947	1,877,471.18	124,372.47	2,001,843.65
1948	2,005,242.58	222,419.41	2,227,661.99
1949	2,031,633.37	229,317.72	2,260,951.09
1950	2,082,814.82	199,061.80	2,281,876.62
1951	2,078,209.84	214,868.70	2,293,078.54
1952	2,053,427.76	322,761.07	2,376,188.83
1953	2,093,625.85	343,477.23	2,437,103.08
1954	2,146,947.18	302,707.38	2,449,654.56
1955	2,166,180.84	379,010.13	2,545,190.97
1956	2,236,331.86	371,715.61	2,608,047.47
1957	2,262,879.80	322,948.62	2.585,828.42
1958	2,273,583.77	318,752.87	2,592,336.64
1959	2,255,865.23	374,493.67	2,630,358.90
1960	2,528,805.97	330,120.32	2,858,926.29
1961	2,758,603.26	351,179.65	3,109,782.91
1962	2,794,556.45	440,769.75	3,235,326.20
1963	2,947,872.00	366,756.30	3,314,628.30
1964	2,986,556.95	441,238.98	3,427,795.93
1965	3,113,868.26	362,201.67	3,476,069.93
1966	3,149,078.53	373,307.57	3,522,386.10
1967	3,033,036.68	369,911.49	3,402,948.17
1968	2,942,611.22	345,144.86	3,287,756.08
1969	3,097,831.73	310,117.04	3,407,948.77

TABLE 42 (Continued)

SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1980

Fiscal Year Ended June 30	Receipts from Sale of Water	Miscellaneous Receipts	Total
*1970	$2,332,916.90	$217,029.87	$2,549,946.77
1971	3,411,376.76	297,621.90	3,708,998.66
1972	3,747,073.12	360,753.98	4,107,827.10
1973	3,626,330.13	595,667.53	4,221,997.66
1974	3,803,468.01	855,859.09	4,659,327.10
1975	4,292,452.95	565,243.23	4,857,696.18
1976	4,855,378.47	472,976.86	5,328,355.33
1977	4,957,595.20	506,140.20	5,463,735.40
1978	4,762,111.28	459,261.40	5,221,372.68
1979	6,156,684.54	949,140.32	7,105,824.86
1980	6,676,163.23	595,414.92	7,271,578.15

*October 1, 1969 - June 30, 1970

TABLE 43

STATEMENT OF REVENUE - ESTIMATED AND ACTUAL

YEAR ENDED JUNE 30, 1980

Account	Estimated Revenue	Actual Revenue
Water Rents	$7,078,700.00	$6,676,163.23
Hydrant Rentals	418,500.00	114,831.00
Electricity	0	68.93
Repairing and Setting Meters	0	8,907.00
Miscellaneous Repairs	0	22,815.50
Installation of Fire Supplies	106,800.00	44,521.66
New Service Installations	0	158,856.82
New Main Extensions	0	151,461.31
Transfers from Reserve Fund	0	22,000.00
Other Miscellaneous Receipts	341,200.00	71,952.70
Total	$7,945,200.00	$7,271,578.15

TABLE 44

RESERVE FUND

YEAR ENDED JUNE 30, 1980

	Investment	Cash	Due from Other Funds	Total
Balance - June 30, 1979	0	$237,110.68	0	$237,110.68
Increase During Year Ended June 30,1980	*$224,496.18	285.32		
Disbursements During Year Ended June 30, 1980	0	**$237,396.00		
Balance - June 30, 1980	$224,496.18	0	0	$224,496.18

*Includes interest of $9,100.18 earned and reinvested on Certificates of Deposit.
**Includes transfer of $22,000.00 to Water Supply Board Operating Budget.

TABLE 45

STATEMENT OF SERIAL BONDS OUTSTANDING

YEAR ENDED JUNE 30, 1980

Description	Rate of Interest %	Year of Issue	Year of Maturity	Serial Requirement	Bonds Issued	Bonds Outstanding
Additions, Alterations and Improvements to the Water Purification Works	3¼	1962	1992	$ 40,000.00	$ 1,100,000.00	$ 610,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3¼	1962	1992	$ 70,000.00	$ 2,050,000.00	$ 1,085,000.00
General Obligation Bonds	5	1971	2001	$225,000.00	$11,000,000.00	$ 9,350,000.00
Total Bonds and Requirements				$335,000.00	$14,150,000.00	$11,045,000.00

TABLE 46

STATEMENT OF METER REVOLVING FUND

YEAR ENDED JUNE 30, 1980

Unencumbered Balance - June 30, 1979	$13,654.36	
Outstanding Commitments - June 30, 1979	2,986.76	
Receipts: July 1, 1979 - June 30, 1980	82,963.28	
Total Available		$99,604.40
Expenditures - July 1, 1979 - June 30, 1980	$56,086.07	
Outstanding Commitments - June 30, 1980	30,278.60	
Total Disbursements		$86,364.67
Unencumbered Balance - June 30, 1980		$13,239.73

TABLE 47

STATEMENT OF WATER METER CONVERSION REVOLVING FUND

YEAR ENDED JUNE 30, 1980

Unencumbered Balance - June 30, 1979	$ 592.09	
Outstanding Commitments - June 30, 1979	0	
Receipts - July 1, 1979 - June 30, 1980	1,891.52	
Total Available		$ 2,483.61
Expenditures - July 1, 1979 - June 30, 1980	$ 3,693.97	
Outstanding Commitments - June 30, 1980	0	
Total Disbursements		$ 3,693.97
Unencumbered Balance - June 30, 1980		$ 1,210.36

TABLE 48

TAXES PAID TO VARIOUS CITIES & TOWNS

July 1, 1979 to June 30, 1980

Location of Property	Land Area (Acres)	ASSESSED VALUATIONS Land	Buildings and Improvements	Total	TAX Rate per $100	Amount Paid
City of Warwick	0.060	$ 450.00	0	$ 450.00	$3.39	$ 15.26
City of Cranston	110.627	62,840.00	1,241,240.00	1,304,080.00	7.695	81,011.81
Town of Foster	1,617.470	1,570,860.00	0	1,570,860.00	7.15	112,316.50
Town of Glocester	73.300	20,665.00	0	20,665.00	7.36	1,580.53
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	6.85	18,705.64
Town of North Providence	8.529	29,880.00	185,100.00	214,980.00	3.56	7,653.29
Town of Scituate	13,149.030	1,469,975.00	13,013,500.00	14,500,000.00	7.98	1,157,100.01
Town of West Warwick	8.940	33,060.00	0	33,060.00	----	3,057.74
Total Real Estate	15,071.086			$18,008,195.00		**$1,381,440.78

*Includes $16,525.00 Tangible Personal.
**In addition to this amount, $18.45 was paid to the Harmony Fire District.

NOTE: Cranston was paid three quarterly installments totaling $75,261.72 and a partial payment of $5,750.07.

In addition to taxes, an interest payment of $59.59 was made to the Town of Glocester.

Three quarterly payments were made to the Town of Johnston.

The Town of West Warwick was paid four installments totaling $2,396.86 at a rate of $7.25 per $100; one installment of $606.95 at a rate $7.35 per $100 and an interest payment of $53.93.

TABLE 49

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1980

*PROVIDENCE (City or Town)	PROVIDENCE (County)	RHODE ISLAND (State)
GENERAL STATISTICS		
Population of Providence (1980 Federal Census)		156,421
Estimated population supplied in suburbs		293,579
Total population supplied		450,000
Date of Construction	1870-76; 1915-28; 1935; 1938-40; 1954; 1960-1962; 1966-1970	
By whom owned		City of Providence
Source of Supply	Surface water collected in Scituate Reservoir and five smaller reservoirs on north branch of Pawtuxet River.	
Available storage capacity of six impounding reservoirs		39,746 m.g.
Mode of Supply		77.0% by gravity; 23.0% by pumping
STATISTICS OF CONSUMPTION OF WATER		
1. Estimated population supplied		450,000
2. Total raw water influent for the year, gallons		23,572,571,000
3. Average daily raw water influent, gallons		64,406,000
4. Raw water consumption per capita, gallons daily		143.1
5. Total consumption for the year, gallons		23,150,318,000
6. Total registration on customers' meters, gallons		22,257,393,750
7. Percentage of consumption accounted for on customers' meters		96.1%
8. Average daily consumption, gallons		63,252,000
9. Per capita consumption, gallons daily		140.6
10. Gallons per day to each tap		935

*Supplying Providence, Cranston, East Providence and portions of Johnston, North Providence, Warwick, Smithfield, Greenville, Coventry, West Warwick and Scituate.

TABLE 49 (Continued)

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1980

FILTRATION

1. Type of filters	Rapid Sand
2. Number of filter units	18
3. Capacity of filter plant	18 units @ 8.0=144 m.g.d.
4. Chemicals	Ferri-Floc, Quicklime, Chlorine and Sodium Silicofluoride
5. Total water filtered during year, gallons	23,434,627,000
6. Average quantity filtered per day, gallons	64,029,000
7. Total filtered water delivered to the distribution system during the year, gallons	23,152,478,000

TRANSMISSION SYSTEM

90-inch Scituate aqueduct (concrete). Also, 78-inch and 102-inch supplemental tunnel and aqueduct (prestressed reinforced concrete steel cylinder pipe).

STATISTICS RELATING TO THE DISTRIBUTION SYSTEM

1. Kind of pipe	Asbestos-Cement, Cast Iron, Ductile Iron, Steel and Concrete
2. Sizes	From 6 to 66 inches
3. Installed	12,823.75 feet
4. Removed	5,116.58 feet
5. Net Increased	7,707.17 feet
6. Total now in use	842.98 miles
7. Number of leaks per mile	0.08
8. Range of pressure on mains	14 to 95 pounds
9. Range of pressure on mains (special high pressure fire service)	94 to 130 pounds
10. Number of hydrants installed	76
11. Number removed	78
12. Net decrease	2
13. Number of hydrants now in use	5,114
14. Number of stop gates installed	31
15. Number removed	10
16. Net increase	21
17. Number of stop gates now in use	11,575

TABLE 49 (Continued)

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1980

STATISTICS RELATING TO THE DISTRIBUTION SYSTEM
(Continued)

18. Kind of services	Lead, Copper and Cast Iron
19. Sizes	½-inch to 42 inches
20. Number of service taps installed	614
21. Number removed	118
22. Net increase	496
23. Number of services now in use	67,674
24. Number of meters installed	710
25. Number removed or condemned	181
26. Net increase	529
27. Number of meters now in use	*68,345
28. Per cent of services metered	100

*Many large services have batteries of meters.

TABLE 50

YEAR ENOEO JUNE 30, 1980

COMPARISON OF PROVIDENCE DISTRIBUTION
SYSTEM WATER CHARACTERISTICS WITH
E.P.A. REGULATIONS

	E.P.A. Regulations (Maximum Permissible)	
Physical Characteristics:		
*Color	15 units	3
Turbidity	1 unit	0.1
*Odor	3 threshold number	no odor
Taste	----	no taste
Characteristics (milligrams per liter)		
Arsenic	0.05	less than 0.005
Barium	1.	less than 0.02
Cadmium	0.010	less than 0.002
Chromium	0.05	less than 0.02
*Copper	1.	less than 0.02
Fluoride	2.0	1.00
*Iron	0.30	0.02
Lead	0.05	less than 0.005
Mercury	0.002	less than 0.001
*Foaming Agents	0.05	0.01
Nickel	----	less than 0.005
Nitrate (as N)	10.	0.08
Potassium	----	1.1
Selenium	0.01	less than 0.005
Silver	0.05	less than 0.02
Sodium	----	8.6
*Total Dissolved Solids	500.	55.
*Zinc	5.	less than 0.02
Characteristics (micrograms per liter)		
Aldrin	----	none found
Chlordane	----	none found
DDT	----	none found
Dieldrin	----	none found
**Endrin	0.2	none found
Heptachlor	----	none found
Heptachlor Epoxide	----	none found
**Lindane	4.	none found
**Methoxychlor	100.	none found
**Toxaphene	5.	none found
**2,4-D	100.	none found
**2,4,5-TP Silvex	10.	none found
2,4,5-T	----	none found

*E.P.A. Secondary Regulations (Federal Register, Vol. 42, No. 62, p. 17143....3/31/77) based on aesthetic consideration and not MCL's (Maximum Contaminant Levels) as set forth in E.P.A. Interim Primary Drinking Water Regulations.

**Drinking water standard at time of analysis.