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CITY DOCUMENT

ANNUAL REPORT

of the

WATER SUPPLY BOARD

of the

CITY OF PROVIDENCE

RHODE ISLAND

IN CITY COUNCIL
AUG 5 1982

READ:
WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.

Rose M Mendonca CLERK

For the Year Ended June 30, 1981

ADMINISTRATIVE OFFICE

Water Supply Board
City of Providence

July 1, 1981

To the Honorable Vincent A. Cianci, Jr., Mayor
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 forty-first annual report of the Water Supply Board, for the year ended June 30, 1981.

Alfred T. Ciccone, husband of Elsie Ciccone, died on December 16, 1980.

He served as a member of the City of Providence Water Supply Board from November 5, 1975 in a distinguished and exemplary manner, ever determined that the activities of the Board were conducted in the best interests of the city and the water users.

On July 30, 1980, Wiley J. Archer, P.E., Acting Chief Engineer, was appointed Chief Engineer.

The Board held regular 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
Robert F. Howard
Vincent J. Cirelli
Laurence K. Flynn
Jerome I. Baron, Ex-Officio
John A. Doherty, Coordinator

REPORT OF THE CHIEF ENGINEER

Providence, R.I.
July 1, 1981

WATER SUPPLY BOARD
CITY OF PROVIDENCE

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1981.

Precipitation on the 92.8 square mile drainage area this past year amounted to 38.37 inches; this was 10.92 inches less than the total of 49.29 for the 1980 year and 29.09 less than the maximum of record . . . . . 67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 13.08 inches compared with 22.21 for the previous year and the 40.97 inches maximum of record for the fiscal 1956.

Consumption increased to 66,287,000 gallons per day, up 3,035,000 gallons per day from the June 30, 1980, figure of 63,252,000 gallons. The maximum day's use was 129,739,000 gallons on July 21, 1980; this established a new record, exceeding by 11,759,000 gallons the previous high of 117,980,000 gallons set June 24, 1976. The maximum hourly rate of 192,624,000 gallons per day on July 21 marks a new high in the 65-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 7,591,521,343 gallons, an average of 20,798,688 gallons per day. These seven wholesale customers accounted for 31.38% 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 38.37 inches was recorded which was 10.86 inches less than the 65-year (July 1916-June 1980) average of 49.23 inches and 56.9% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 13.08 inches; this was 11.77 inches less than the 65-year average of 24.85 inches and 31.9% of the maximum 40.97 inches, which occurred during the July 1955-1956 year.

STORAGE DRAFT AND YIELD On July 1, 1980 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs, amounted to 39,596,000,000 gallons or 95.9% of capacity. At the end of the year, the combined storage was 32,806,000,000 gallons or 79.5% of capacity.

The total draft from the Scituate watershed for the year was 27,891,340,000 gallons, an average of 76,410,000 gallons daily. The draft for water supply purposes was 25,069,330,000 gallons and discharge into the north branch of the Pawtuxet River totaled 2,822,010,000.

The yield from the watershed for the year totaled 21,101,340,000 gallons, an average of 57,810,000 gallons per day. This was 51,910,000 per day less than the 109,720,000 gallons average daily yield for the 65-year period July 1916-June 1981.

WATERSHED MANAGEMENT - FORESTRY OPERATIONS The keystone of management on the Scituate Reservoir watershed remains protection of the valued water resources. The protective mantle of departmentally owned woodlands which surrounds the Scituate and five tributary reservoirs helps to insure runoff of high quality. Seventy-five percent of the watershed, however, is privately owned, and land-use practices on these 68.87 square miles in five communities is a major concern. Much of this area is characterized by wetlands and soils with high water tables which present severe constraints when land is considered for developmental purposes. The department continually monitors any land alteration which may effect the quality of water entering streams tributary to the reservoir system.

The Water Supply Board is represented as a cooperating agency in the ongoing studies of corridors/design and supplemental environmental impact statement for the proposed Interstate Route 84. In addition, the department is integrally active on the Scituate Watershed Task Force, an intergovernmental and citizen group formed to act as a sounding board in a U.S. Environmental Protection Agency grant awarded to the R.I. Department of Environmental Management. The purpose of the grant is to study ways to maintain water quality on the Scituate Reservoir Watershed.

Eight incidents of spills involving fuel oil, gasoline, sludge, or transformer oil were known to occur on the watershed during the year. The sources of spills varied from road accidents to a public school and a private business. An incident of "moonlight dumping" of hazardous waste was discovered on the watershed in August 1980. State and local authorities assisted in cleanup and resolution of the spills and the hazardous-waste occurrence.

Enforcement activity on the watershed, aqueducts, and distribution reservoirs yielded a combined total of 742 violation incidents. Acts of vandalism accounted for about 50 percent of total violations with significant damage done to facilities at Tunk Hill Fire Tower and Neutaconkanut Distribution Reservoir. Off-road vehicle impacts persist on aqueduct lands and certain sections of watershed property. Prosecutions numbered 47.

A minimal number of high-hazard days during the spring 1981 forest-fire season limited operation of the Tunk Hill Fire Tower. Fourteen small fires occurred on departmental lands during the year.

The most severe infestation of gypsy-moth (Lymantria dispar L.) noted in more than four decades enveloped the watershed forest in 1981. In cooperation with the R.I. Department of Environmental Management and U.S. Forest Service, 2,204 acres of watershed forests were included in aerial-spray control measures using the insecticide carbaryl. Forest areas sprayed were selected based on egg-mass survey counts and forest stands where significant damage to high-quality hardwoods or understory conifers was anticipated. The infestation exploded both in degree of spread and intensity of defoliation. Preliminary estimates indicate extensive damage and mortality to understory white pine, hemlock and spruce in the northern, eastern and southern portions of watershed property which were not included in spray operations. Gypsy-moth populations are expected to be high in the southern and western portions of the watershed in 1982. Without protection, gypsy-moth infestation severely jeopardize attempts to create ecological diversity in the forest.

Forest-culture operations were limited to reforestation and contractual cordwood harvest. Forest stands where low-quality hardwoods were removed to provide for release of understory white pine proved less vulnerable to gypsy-moth damage.

Turfed areas at the Purification Works, Gainer Dam, Rockland Cemetery, distribution reservoirs, aqueducts, and other facilities received necessary maintenance. Herbicidal brush control was applied to 9.45 miles of forest access roads and at certain other selected sites. Downstream areas at Gainer and Barden Reservoir Dams were cleared of tree-vegetative growth in response to Phase I Corps of Engineers studies. Other operations included repair of vandalized facilities; installation, maintenance, and repair of fencing and gates; and routine maintenance of pipelines, firelanes, and grounds.

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 chemi-

cal, sanitary chemical and mineral analyses, and bacteriological and microscopic examinations. The total number of tests made during the year (July 1980-June 1981) approximated to 92,500. Based on a 35-hour week, the water was receiving one test or another every 71 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 3,104, an average of 259 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 availability 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 microorganisms 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 1980-June 1981): 2,735,415 pounds of Ferri-Floc before influent aeration, 2,497,652 pounds of quicklime after influent aeration and before mixing, 107,383 pounds of chlorine prior to filtration and 280,239 pounds of sodium silicofluoride after filtration . . . . a grand total of 5,620,689 pounds.

During the year, 24,196.13 million gallons were delivered into the distribution system, an average of 66.29 million gallons daily. The maximum hourly demand in the system was at a rate of 192.62 million gallons daily; consumption during the maximum day, July 21, 1980, amounted to 129.74 million gallons. The difference between plant production and system demand 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 4,546,405.94 feet (861.06 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 69,121 services, 17,092 valves and 5,191 hydrants in use on June 30, 1981.

The amount of pipe laid during the year totaled 11,315.74 feet; 1,530.12 feet were removed, resulting in a net increase to the system of 9,785.62 feet. Services installed and removed were 307 and 61 respectively, a gain of 246. There was an increase of 36 valves, 47 having been installed and 11 removed, and a gain of 5 hydrants .... 58 installed and 53 removed. The number of meters on active services totaled 69,827.

The Marieville section of North Providence, with 85,660.02 feet of main, 1,201 services, 293 valves and 72 hydrants, became part of the City of Providence water distribution system on July 30, 1980. This area was formerly serviced by the City of Pawtucket.

Total water distribution was 24,194.60 million gallons or 66.29 million gallons per day. The low service, a gravity supply, consumed 77.7%; 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 22.3%. Registration on customers' meters totaled 22,977.38 million gallons, accounting for 95% of the amount distributed.

Leaks in the transmission and distribution mains totaled 85 during the year, 27 occurring at joints and 58 as a result of ruptured mains. Leaks at joints averaged one for every 32 miles of pipe and total leaks averaged one for every 10 miles of main. Of the 85 leaks, 7 were caused by various contractors 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 develop-

ments, 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.

Construction of the new 24-inch high service force main from Neutaconkanut Pumping Station to Longview Reservoir is nearing completion. Plans and specifications of the discharge manifold were completed by CE Maguire, Inc., consulting engineers, and it is anticipated that this work will commence in early 1982.

Installation of 12-inch and 16-inch feeder mains and 6-inch and 8-inch mains in various streets in the Marieville section of North Providence was completed and on July 30, 1980, this area became part of the Providence Water Supply Board distribution system.

In order to increase the water pressure in the Dean Estates section, the City of Cranston engaged F.N. Zaino and Associates to prepare plans and specifications in coordination with the Providence Water Supply Board for the construction of a booster pumping station. Bids were solicited and the contract for this work has been awarded. The full expense of this installation will be borne by the City of Cranston.

COMMERCIAL AND ACCOUNTING

At the end of the fiscal year the Water Supply Board had 69,121 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 of meters, preparation of water bills, collection of delinquent accounts, investigating complaints, furnishing information to title companies and banks, processing new applications and preparing payrolls and job cost data.

During the year conversion of meters to a remote reading system continued and 28 installations were made, bringing the total to 30,979 since the program was initiated in May 1968.

FINANCIAL

The gross income for the year totaled $7,956,363.13. Revenue from sale of water alone amounted to $7,446,989.28. The remaining income of $509,373.85 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 $1,663,488.98 or 20.3% of this year's total net billing.

Expenses for the year, including principal payments of $350,000.00 on serial bonds outstanding and $610,300.00 in interest charges, amounted to $7,963,795.20 . . . . up $767,599.60 from the previous year. Bonded debt at the close of the year was $10,695,000.00.

It is anticipated that for the year ending June 30, 1982 expenses will rise substantially due to higher material costs, higher wages and fringe benefits, and higher energy costs.

In February, 1981 the Water Supply Board filed a request for a 30% revenue increase with the Rhode Island Public Utilities Commission. Numerous public hearings were held by the P.U.C. and included testimony by the rate consultant, Camp, Dresser and McKee, the Chief Engineer and other financial and insurance consultants. On June 17, 1981 the P.U.C. approved 98% of the request and a rate increase was immediately implemented which would allow the collection of an additional $2,366,680 per year.

The Attorney General of Rhode Island filed an appeal of the P.U.C.'s decision to the Rhode Island Supreme Court indicating that the P.U.C. had erred in not considering various sums of money which had previously been transferred to the City by the Water Supply Board. The appeal is pending at this time.

As a condition of the rate increase, the Rhode Island Public Utilities Commission specifically required the City to establish the Water Supply Board as an "Enterprise Fund" agency with revenue and expenses segregated from the City of Providence General Fund.

Financial accounts of the department, together with other statistical data for the year ended June 30, 1981, are appended to this report.

Respectfully submitted,

Wiley J. Archer, P.E.
Chief Engineer

APPENDIX

CONTENTS

TABLE 1

MONTHLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1981

STATIONS ON WATERSHED

1980-1981

	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	6.31	6.62	4.88	5.23	3.12	5.23
Aug.	3.00	2.78	2.15	2.58	1.91	2.48
Sept.	1.27	1.38	1.02	0.97	0.74	1.08
Oct.	4.70	5.56	4.25	4.45	4.23	4.64
Nov.	3.75	4.42	4.30	4.27	3.47	4.04
Dec.	1.08	0.92	1.07	1.12	1.24	1.09
Jan.	0.78	0.74	0.86	0.80	0.74	0.78
Feb.	8.45	8.52	7.70	7.25	6.39	7.66
Mar.	0.96	0.91	0.84	0.85	0.95	0.90
Apr.	4.44	4.79	4.59	4.41	4.18	4.48
May	4.07	3.30	3.21	3.43	2.43	3.29
June	3.70	3.14	2.27	2.44	1.96	2.70
TOTAL	42.51	43.08	37.14	37.80	31.36	* 38.37
Monthly Average	3.54	3.59	3.10	3.15	2.61	3.20

*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	-----
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	42.77
1980-1981	5.23	2.48	1.08	4.64	4.04	1.09	0.78	7.66	0.90	4.48	3.29	2.70	38.37	1981	-----
65 Years Average	3.76	4.32	4.14	3.77	4.71	4.40	4.27	3.93	4.49	4.17	3.68	3.51	*49.15	Avg.	*49.23
65 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	14.42	7.66	9.65	7.56	9.36	8.62	67.46	Max.	75.24
65 Years Minimum	0.75	1.33	0.20	0.21	0.48	0.72	0.74	1.15	0.90	0.89	0.94	0.10	33.43	Min.	33.21

*Total of Monthly Averages.

NOTES: The 65-year calendar year average is for the years 1916-1980.
A new maximum of record was established for February.
A new minimum of record was established for March.

TABLE 3

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
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	17.64
1980-1981	0.46	-0.03	-0.28	0.39	0.92	0.69	0.34	4.38	1.72	2.44	1.65	0.40	13.08	1981	-----
65 Years Average	0.57	0.48	0.62	0.87	1.90	2.63	3.00	2.82	4.73	3.73	2.39	1.11	*24.85	Avg.	*25.04
65 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
65 Years Minimum	-0.41	-0.38	-0.41	-0.20	0.15	0.42	0.70	0.50	1.72	1.10	0.58	-0.18	9.97	Min.	11.82

*Total of Monthly Averages.

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

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	45.1	1980	41.2
1980-1981	8.8	-1.2	-25.9	8.4	22.8	63.3	43.6	57.2	191.1	54.5	50.2	14.8	34.1	1981	----
65 Years Average	15.2	11.1	15.0	23.1	40.3	59.8	70.3	71.8	105.3	89.4	64.9	31.6	50.6	Avg.	50.9
65 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
65 Years Minimum	-42.7	-24.1	-205.0	-12.5	8.5	22.6	11.8	20.3	57.8	54.5	32.1	-25.0	27.9	Min.	30.5

NOTE: The 65-year calendar year average is for the years 1916-1980.
A new minimum of record was established for April.

TABLE 5

SCITUATE WATERSHED

(92.8 Square Miles)

STATISTICS OF STORAGE - YEAR ENDED JUNE 30, 1981

1980-1981	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	285.64	432	454.22	456	345.31	870	301.95	720	633.25	708	3,186	101.6	282.40	34,888	38,074	95.8
August	285.61	430	454.30	460	345.52	887	302.04	729	633.52	729	3,235	103.2	280.28	32,663	35,898	90.3
September	285.08	388	453.91	438	345.16	858	301.75	700	633.03	691	3,075	98.1	277.81	30,110	33,185	83.5
October	283.91	304	453.31	404	344.93	839	301.34	659	632.49	652	2,858	91.2	275.00	27,300	30,158	75.9
November	284.22	325	453.49	414	345.27	867	301.57	682	632.67	665	2,953	94.2	272.97	25,489	28,442	71.6
December	285.64	432	454.19	454	345.56	890	302.00	725	633.31	713	3,214	102.5	272.07	24,597	27,811	70.0
January	285.50	421	454.50	472	345.30	869	301.91	716	633.45	724	3,202	102.1	270.96	23,652	26,854	67.6
February	285.50	421	454.47	470	345.19	860	301.94	719	633.45	724	3,194	101.9	269.13	22,019	25,213	63.4
March	285.71	438	454.85	492	345.80	909	302.18	744	634.07	771	3,354	107.0	274.70	27,027	30,381	76.4
April	285.61	430	454.42	467	345.37	875	301.97	722	633.44	723	3,217	102.6	275.56	27,856	31,073	78.2
May	285.62	431	454.50	472	345.45	881	302.05	730	633.57	733	3,247	103.6	277.38	29,680	32,927	82.8
June	285.61	430	454.42	467	345.35	873	301.95	720	633.47	725	3,215	102.6	277.70	30,000	33,215	83.6
Maximum for	2/21/81		2/21/81		2/21/81		2/21/81		2/21/81		2/21/81		7/1/80		7/1/80	
Year	285.84	449	454.94	497	346.19	941	302.22	748	634.18	780	3,415	108.9	282.40	34,888	38,074	95.8
Minimum for	10/18/80		10/18/80		10/1/80		10/1/80		10/18/80		10/18/80		2/2/81		1/31/81	
Year	283.57	281	453.23	400	344.93	839	301.34	659	632.47	651	2,849	90.9	269.08	21,977	25,213	63.4

1. Regulating Reservoir-Spillway Elev.	285.50;	Total Storage	428	M.G.;	Dead 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.;	Dead 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.;	Dead 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
1980-1981	282.40	280.28	277.81	275.00	272.97	272.07	270.96	269.13	274.70	275.56	277.38	277.70
53 Years Average	282.58	280.74	278.88	277.41	276.29	276.45	277.46	278.57	279.38	282.30	283.33	283.38
53 Years Maximum	285.05	285.14	283.08	282.87	285.21	285.16	285.65	284.00	284.32	285.48	285.62	285.56
53 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, 1981

	DRAFT FROM SCITUATE RESERVOIR Million Gallons						WATERSHED YIELD Million Gallons		
	To River Below Gainer Dam				Total			Average per Day	
1980-1981	Over Spill-way	Through Gate-house	Total	To Water Purification Works	For Month	Average per Day	For Month	1980-1981	65-Year Mean 1917-1981
July	0	265.02	265.02	2,646.34	2,911.36	93.92	735.36	23.72	29.65
August	0	241.99	241.99	2,415.22	2,657.21	85.72	-55.79	-1.80	24.97
September	0	240.01	240.01	2,336.22	2,576.23	85.87	-450.77	-15.03	33.33
October	0	239.67	239.67	2,109.94	2,349.61	75.79	633.61	20.44	45.26
November	0	230.95	230.95	1,879.52	2,110.47	70.35	1,479.47	49.32	102.14
December	0	156.91	156.91	1,910.77	2,067.68	66.70	1,110.68	35.83	136.82
January	0	249.36	249.36	1,947.14	2,196.50	70.86	555.50	17.92	156.07
February	0	212.18	212.18	1,691.63	1,903.81	67.99	7,071.81	252.57	160.99
March	0	257.95	257.95	1,821.58	2,079.53	67.08	2,771.53	89.41	246.07
April	0	247.77	247.77	1,833.07	2,080.84	69.36	3,934.84	131.16	200.52
May	0	240.15	240.15	2,136.93	2,377.08	76.68	2,665.08	85.97	124.34
June	0	240.05	240.05	2,340.97	2,581.02	86.04	650.02	21.67	59.67
For Year	0	2,822.01	2,822.01	25,069.33	27,891.34	76.41	21,101.34	57.81	109.72

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
1981	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000
Totals	1,000	4,140	2,638,427	2,861,215	20,928	101,221	136,000	121,750	821,781	227,549	88,000	48,961	7,075,312

*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
July 1980-June 1981	428,400	1,047,780	0	0.00

*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, 1981

1980-1981	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	2,646.338	85.366	2,628.154	84.779	23.293	0.751	0.9	2,604.861	84.028	744.0	18	5	12.1
August	744.0	2,415.395	77.916	2,387.583	77.019	18.383	0.593	0.8	2,369.200	76.426	744.0	17	4	11.0
September	720.0	2,336.220	77.874	2,270.490	75.683	18.732	0.624	0.9	2,251.758	75.059	720.0	15	6	10.9
October	745.0	2,109.940	68.063	1,969.912	63.546	25.892	0.835	1.3	1,944.020	62.710	745.0	14	7	10.6
November	719.0	1,879.519	62.651	1,762.889	58.763	17.066	0.569	1.0	1,745.823	58.194	720.0	15	7	11.5
December	744.0	1,910.768	61.638	1,844.180	59.490	25.897	0.835	1.4	1,818.283	58.654	744.0	15	8	11.9
January	744.0	1,947.138	62.811	1,935.737	62.443	32.079	1.035	1.7	1,903.658	61.408	744.0	15	8	12.5
February	672.0	1,691.633	60.415	1,696.549	60.591	27.500	0.982	1.6	1,669.049	59.609	672.0	15	8	12.1
March	744.0	1,821.582	58.761	1,830.845	59.060	33.376	1.077	1.8	1,797.469	57.983	744.0	13	8	11.8
April	719.0	1,833.066	61.102	1,806.931	60.231	24.194	0.806	1.3	1,782.737	59.425	719.0	14	5	10.8
May	739.8	2,136.936	68.933	2,054.113	66.262	23.458	0.757	1.1	2,030.655	65.505	744.0	15	6	10.8
June	720.0	2,340.973	78.032	2,307.119	76.904	28.501	0.950	1.2	2,278.618	75.954	720.0	17	6	11.0
Totals	8,754.8	25,069.508		24,494.502		298.371			24,196.131		8,760.0			
Average	729.6		68.684		67.108		0.817	1.3		66.291	730.0			11.4

Raw water treated woth 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, 1981

1980-1981	Average Rate of Filtration per Filter M.G.D.	Number of Filters Washed		Average Filter Run Hours	Ferri-Floc Used			Quicklime Used			Chlorine Used			Sodium Silicofluoride Used		
		Total	Avg. per Day		Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. per Day	Parts per Mil.	Lbs.	Avg. per Day	Parts per Mil.*
July	7.00	126	4.1	73.47	290,552	9,373	0.77	266,023	8,581	0.70	12,127	391	0.55	30,641	988	0.84
August	7.01	107	3.5	82.47	243,507	7,855	0.71	255,259	8,234	0.74	11,047	356	0.56	27,885	900	0.84
September	6.94	118	3.9	68.70	210,918	7,031	0.63	256,497	8,550	0.77	10,976	366	0.58	26,559	885	0.84
October	6.01	166	5.4	49.70	251,529	8,114	0.83	221,472	7,144	0.73	8,155	263	0.50	23,097	745	0.85
November	5.11	112	3.7	73.46	221,633	7,388	0.83	183,000	6,100	0.68	7,687	256	0.52	20,689	690	0.84
December	5.00	173	5.6	53.48	207,016	6,678	0.76	181,613	5,858	0.67	7,778	251	0.51	21,194	684	0.83
January	5.02	215	6.9	46.70	207,196	6,684	0.74	177,974	5,741	0.64	7,566	244	0.47	22,473	725	0.84
February	5.02	184	6.6	46.27	181,006	6,465	0.75	155,575	5,556	0.64	6,694	239	0.47	20,271	724	0.86
March	5.01	220	7.1	42.56	199,668	6,441	0.77	165,287	5,332	0.64	7,229	233	0.47	12,315	684	0.84
April	5.57	161	5.4	49.83	208,141	6,938	0.79	176,838	5,895	0.68	8,311	277	0.55	21,978	733	0.88
May	6.13	148	4.8	57.98	246,785	7,961	0.81	210,151	6,779	0.69	9,452	305	0.55	24,959	805	0.88
June	7.01	173	5.8	49.09	267,464	8,915	0.80	247,963	8,265	0.74	10,361	345	0.54	28,178	939	0.88
Totals		1,903			2,735,415			2,497,652			107,383			280,239		
Average	5.88		5.2	55.21		7,494	0.76		6,843	0.70		294	0.53		768	0.82

Total filter hours for year, 99,899.86; average per day, 273.70.
Average quantity of water filtered per filter per run, 13.53 m.g.
*Dosage expressed as p.p.m. of Fluoride ion.

TABLE 11

WATER PURIFICATION WORKS

CHEMICALS USED -- YEAR ENOED JUNE 30, 1981

	Pounds of Chemicals Used Lbs. per Oay		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	2,735,415	7,494	25,069,508,000	$162,269.56	109.11	$ 6.47
Quicklime	2,497,652	6,843	25,069,508,000	89,955.58	99.63	3.59
Chlorine	107,383	294	24,494,502,000	16,107.45	4.38	0.66
Sodium Silicofluoride	280,239	768	23,447,494,000	54,833.56	12.00	2.34
Totals	5,620,689			$323,166.15		$13.06

Price of Ferri-Floc -- On July 1, 1980 was $111.87 per ton and varied to $124.51 per ton on June 30, 1981.

Price of Quicklime -- On July 1, 1980 was $72.05 per ton and varied and dropped to $72.00 per ton on June 30, 1981.

Price of Chlorine -- From July 1, 1980 to June 30, 1981 -- $300.00 per ton.

Price of Sodium Silicofluoride -- From July 1, 1980 to March 30, 1981 - $383.00 per ton; from April 1, 1981 to June 30, 1981 - $414.00 per ton.

TABLE 12

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION
YEAR ENDED JUNE 30, 1981

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
pH													
Raw	5.9	5.9	5.9	6.4	6.6	6.5	6.2	6.3	6.5	6.4	6.2	6.0	6.2
Aerated Influent	4.1	4.2	4.3	4.1	4.0	4.0	4.1	4.1	4.1	4.0	3.9	4.0	4.1
Treated	10.3	10.3	10.3	10.3	10.1	10.3	10.2	10.1	10.4	10.3	10.3	10.2	10.3
Settled	10.2	10.2	10.2	10.2	10.3	10.3	10.2	10.1	10.2	10.2	10.2	10.1	10.2
Filtered	10.2	10.2	10.2	10.2	10.3	10.2	10.2	10.1	10.2	10.2	10.1	10.1	10.2
**Effluent	10.2	10.2	10.2	10.2	10.3	10.2	10.1	10.1	10.2	10.2	10.1	10.1	10.2
Tap	10.0	10.1	10.0	10.0	10.1	10.1	10.0	10.0	10.1	10.0	10.0	9.9	10.0
Acidity													
Raw	4.4	5.9	7.0	3.0	1.1	1.0	1.5	2.3	1.4	1.5	2.1	3.8	2.9
Aerated Influent	8.2	8.6	8.1	7.8	7.4	7.3	6.2	7.4	6.9	7.4	8.3	8.7	7.7
Phenolphthalein Alkalinity													
Treated	9.9	10.2	11.0	10.2	9.8	9.4	8.9	8.5	8.7	9.1	9.1	9.9	9.6
Settled	8.3	8.8	9.9	9.4	9.1	8.4	7.9	7.6	7.2	7.5	7.6	8.5	8.4
Filtered	8.2	8.7	9.8	9.3	9.0	8.4	7.8	7.4	7.1	7.4	7.6	8.4	8.3
**Effluent	8.2	8.7	9.9	9.3	9.0	8.4	7.6	7.2	7.1	7.4	7.6	8.4	8.2
Tap	6.7	6.9	8.0	7.7	7.3	6.7	6.3	6.0	6.1	6.0	6.0	6.9	6.7
Methyl Orange Alkalinity													
Raw	3.5	3.8	4.3	4.3	4.0	3.9	3.9	4.0	3.9	3.8	3.7	3.8	3.9
Treated	16.0	17.3	19.3	16.5	15.1	14.8	14.5	13.9	13.9	14.3	14.4	16.6	15.6
Settled	14.7	16.0	18.2	16.1	14.2	13.7	13.4	13.4	12.5	13.3	13.3	15.4	14.5
Filtered	14.6	15.9	18.0	16.0	14.1	13.7	13.2	13.1	12.4	13.2	13.2	15.3	14.4
**Effluent	14.5	15.9	18.1	16.0	14.0	13.8	13.2	13.1	12.4	13.1	13.2	15.3	14.4
Tap	13.3	14.8	16.6	14.9	13.0	12.5	12.1	11.8	11.8	11.8	12.0	14.0	13.2
Color													
Raw	9	9	12	10	6	6	7	7	10	10	9	10	9
Settled	11	11	11	9	6	6	8	8	10	9	9	10	9
**Effluent	3	3	3	3	2	2	2	2	3	4	3	3	3
Tap	3	3	3	3	3	3	2	3	5	6	5	4	4
Turbidity													
Raw	0.3	0.4	0.8	0.7	0.4	0.4	0.4	0.4	0.6	0.5	0.4	0.5	0.5
Settled	0.5	0.5	0.6	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4
**Effluent	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hardness													
Raw	10	10	11	11	11	11	11	11	10	10	9	10	10
**Effluent	29	30	31	31	31	31	31	28	27	28	29	31	30
Tap	30	31	31	32	31	31	31	28	27	28	29	30	30
Iron													
Raw	0.04	0.06	0.18	0.19	0.05	0.04	0.05	0.03	0.04	0.03	0.02	0.06	0.07
Settled	.36	.35	.30	.25	.22	.25	.36	.24	.29	.24	.20	.21	0.27
**Effluent	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
Tap	.02	.01	.02	.03	.04	.03	.02	.06	.05	.06	.04	.01	0.03
Manganese													
Raw	0.02	0.05	0.20	0.12	0.02	0.02	0.03	---	0.04	0.03	0.01	0.02	0.05
Settled	.00	.01	.05	.03	.00	.00	.00	---	.01	.01	.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	0.20	0.19	0.20	0.21	0.19	0.21	0.20	0.19	0.19	0.15	0.17	0.15	0.19
**Effluent	.20	.19	.20	.21	.19	.21	.20	.19	.19	.15	.17	.15	0.19
Tap	.95	1.00	.99	.97	.99	.96	1.00	1.04	.63	1.05	1.03	.97	0.97
Chlorine Residual													
Filtered	0.11	0.15	0.25	0.26	0.25	0.23	0.20	0.19	0.16	0.18	0.16	0.24	0.20
**Effluent	.11	.13	.19	.26	.23	.22	.18	.18	.14	.17	.16	.23	0.18
160 Sock.Crossroad,Crans.	.03	.06	.14	.14	.07	.06	.07	.07	.05	.05	.05	.10	0.07
Neut. Reservoir	.02	.03	.09	.08	.05	.06	.07	.06	.04	.04	.04	.06	0.05
Tap	0.01	0.02	0.06	0.07	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.07	0.04
Temperatures													
Raw	53	55	56	58	47	37	35	38	39	46	52	54	48
Tap	64	64	64	63	57	46	43	45	47	51	57	62	55

*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, 1981

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Color													
Ponaganset Reservoir	4	12	6	8	--	1	--	--	9	--	--	--	7
Coventry Brook	11	12	28	80	--	8	--	--	16	22	--	--	25
Wilbur Brook	230	110	**	90	--	22	--	--	28	35	--	--	86
Westconnaug Reservoir	5	8	8	65	--	6	--	--	15	11	--	--	17
Barden Reservoir	20	42	44	22	--	16	--	--	25	17	--	--	27
Cork Brook	8	12	**	**	--	8	--	--	16	13	--	--	11
Rush Brook	60	12	8	16	--	8	--	--	18	18	--	--	20
Huntinghouse Brook	19	12	**	**	--	8	--	--	16	13	--	--	14
Harrisdale Brook	12	12	9	10	--	8	--	--	17	13	--	--	12
Blanchard Brook	65	130	**	**	--	60	--	--	80	80	--	--	83
Moswansicut Pond	11	9	8	13	--	7	--	--	17	12	--	--	11
Regulating Reservoir	6	15	23	11	--	8	--	--	21	11	--	--	14
Quonopaug Brook	275	65	**	**	--	27	--	--	20	62	--	--	90
Hemlock Brook	12	19	22	22	--	23	--	--	26	34	--	--	23
Betty Pond Stream	8	9	**	**	--	17	--	--	14	11	--	--	12
Spruce Brook	24	21	**	35	--	14	--	--	14	29	--	--	23
Brandy Brook	32	24	23	40	--	34	--	--	32	27	--	--	30
Moswansicut-South	30	23	11	32	6	8	6	--	9	10	--	--	15
Windsor Brook	14	**	**	90	--	8	--	--	12	12	--	--	27
Paine Pond	35	**	**	**	**	**	--	--	28	44	--	70	44
Unnamed Brook-A	**	**	**	**	**	**	--	--	31	44	--	--	38
Unnamed Brook-B	26	**	18	40	--	11	--	--	23	44	--	--	27
Turbidity													
Ponaganset Reservoir	0.6	0.9	0.6	1.4	0.6	0.3	--	--	0.3	--	--	--	0.7
Coventry Brook	0.3	0.5	0.4	0.4	0.3	0.2	--	--	0.4	--	--	--	0.4
Wilbur Brook	4.2	0.6	**	0.5	0.5	0.3	--	--	0.5	--	--	--	1.1
Westconnaug Reservoir	0.5	0.6	0.2	0.3	0.3	0.3	--	--	0.6	--	--	--	0.4
Barden Reservoir	0.7	0.8	2.0	1.4	0.5	0.3	--	--	0.5	--	--	--	0.9
Cork Brook	0.5	0.4	**	**	0.2	0.2	--	--	0.4	--	--	--	0.3
Rush Brook	0.4	0.5	0.4	0.9	0.6	0.4	--	--	0.8	--	--	--	0.6
Huntinghouse Brook	0.3	0.5	**	**	0.3	0.2	--	--	0.4	--	--	--	0.3
Harrisdale Brook	0.5	0.4	0.2	0.5	0.6	0.3	--	--	0.5	--	--	--	0.4
Blanchard Brook	0.8	0.8	**	**	0.4	0.2	--	--	0.9	--	--	--	0.6
Moswansicut Pond	0.4	0.6	0.6	0.4	0.4	0.5	--	--	0.6	--	--	--	0.5
Regulating Reservoir	0.5	0.7	0.6	0.7	0.6	0.3	--	--	0.4	--	--	--	0.5
Quonopaug Brook	1.7	1.0	**	**	0.4	0.3	--	--	0.5	--	--	--	0.8
Hemlock Brook	0.3	0.7	0.4	0.7	0.3	0.4	--	--	0.4	--	--	--	0.5
Betty Pond Stream	1.0	0.6	**	**	0.7	0.6	--	--	0.3	--	--	--	0.6
Spruce Brook	0.5	0.9	**	0.6	0.8	0.2	--	--	0.2	--	--	--	0.5
Brandy Brook	0.7	0.7	0.4	0.5	1.5	0.8	--	--	0.7	--	--	--	0.8
Moswansicut-South	2.1	0.4	0.6	11.0	2.3	1.0	0.5	--	0.3	0.7	--	--	2.1
Windsor Brook	0.3	**	**	0.3	0.2	0.3	--	--	0.3	--	--	--	0.3
Paine Pond	1.5	**	**	**	**	**	--	--	0.4	0.4	--	0.6	0.7
Unnamed Brook-A	**	**	**	**	**	**	--	--	0.3	0.4	--	--	0.4
Unnamed Brook-B	0.6	**	0.5	0.5	0.4	0.2	--	--	0.6	--	--	--	0.5

*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, 1981

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Iron													
Ponaganset Reservoir	0.12	0.04	0.02	0.14	---	0.00	---	---	0.00	---	---	---	0.05
Coventry Brook	.02	.05	.06	.33	---	.02	---	---	.00	---	---	---	.08
Wilbur Brook	.40	.27	**	.54	---	.09	---	---	.03	---	---	---	.27
Westconnaug Reservoir	.05	.10	.02	.12	---	.06	---	---	.01	---	---	---	.06
Barden Reservoir	.42	.46	.88	.24	---	.04	---	---	.02	---	---	---	.34
Cork Brook	.04	.03	**	**	---	.01	---	---	.00	---	---	---	.02
Rush Brook	.07	.13	.10	.45	---	.02	---	---	.05	---	---	---	.14
Huntinghouse Brook	.04	.03	**	**	---	.01	---	---	.00	---	---	---	.02
Harrisdale Brook	.12	.13	.01	.04	---	.01	---	---	.01	---	---	---	.05
Blanchard Brook	.50	.60	**	**	---	.14	---	---	.04	---	---	---	.32
Moswansicut Pond	.12	.04	.02	.06	.02	.03	.01	---	.00	.00	---	---	.03
Regulating Reservoir	.10	.26	.54	.22	---	.01	---	---	.01	---	---	---	.19
Quonopaug Brook	1.68	.28	**	**	---	.13	---	---	.07	---	---	---	.54
Hemlock Brook	.26	.17	.24	.32	---	.05	---	---	.05	---	---	---	.18
Betty Pond Stream	.12	.01	**	**	---	.05	---	---	.01	---	---	---	.05
Spruce Brook	.28	.42	**	.21	---	.00	---	---	.06	---	---	---	.19
Brandy Brook	.53	.15	.10	.17	---	.02	---	---	.04	---	---	---	.17
Moswansicut-South	.70	.04	.15	.50	---	.02	---	---	.00	---	---	---	.24
Windsor Brook	.03	**	**	.18	---	.00	---	---	.02	---	---	---	.06
Paine Pond	.05	**	**	**	---	**	**	**	.06	.07	---	---	.06
Unnamed Brook-A	**	**	**	**	---	**	**	**	.01	.07	---	---	.04
Unnamed Brook-B	.04	**	.14	.24	---	.01	---	---	.50	---	---	---	.19
Manganese													
Ponaganset Reservoir	0.04	0.06	0.04	0.04	---	---	---	---	---	---	---	---	0.05
Coventry Brook	.00	.00	.00	.00	---	---	---	---	---	---	---	---	.00
Wilbur Brook	.04	.00	**	.30	---	---	---	---	---	---	---	---	.11
Westconnaug Reservoir	.04	.00	.00	.00	---	---	---	---	---	---	---	---	.01
Barden Reservoir	.02	.14	.00	.01	---	---	---	---	---	---	---	---	.04
Cork Brook	.00	.00	**	**	---	---	---	---	---	---	---	---	.00
Rush Brook	.04	.02	.01	.08	---	---	---	---	---	---	---	---	.04
Huntinghouse Brook	.05	.00	**	**	---	---	---	---	---	---	---	---	.03
Harrisdale Brook	.00	.00	.00	.00	---	---	---	---	---	---	---	---	.00
Blanchard Brook	.15	.04	**	**	---	---	---	---	---	---	---	---	.10
Moswansicut Pond	.04	.03	.04	.04	.00	.02	.00	---	.00	.00	---	---	.02
Regulating Reservoir	.00	.02	.02	.00	---	---	---	---	---	---	---	---	.01
Quonopaug Brook	.36	.04	**	**	---	---	---	---	---	---	---	---	.20
Hemlock Brook	.04	.00	.00	.01	---	---	---	---	---	---	---	---	.01
Betty Pond Stream	.00	.00	**	**	---	---	---	---	---	---	---	---	.00
Spruce Brook	.04	.06	**	.01	---	---	---	---	---	---	---	---	.04
Brandy Brook	.05	.01	.00	.00	---	---	---	---	---	---	---	---	.02
Moswansicut-South	.08	.06	.02	.14	---	---	---	---	---	---	---	---	.08
Windsor Brook	.00	**	**	.00	---	---	---	---	---	---	---	---	.00
Paine Pond	.05	**	**	**	---	---	**	**	.00	.00	---	---	.02
Unnamed Brook-A	**	**	**	**	---	---	**	**	.01	.00	---	---	.01
Unnamed Brook-8	.04	**	.00	.28	---	---	---	---	---	---	---	---	.11

*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 WARERSHED

YEAR ENDED JUNE 30, 1981

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Ponaganset Reservoir	5.4	5.2	5.1	5.1	4.7	4.5	4.5	--	4.8	--	--	--	4.9
Coventry Brook	6.4	6.2	6.4	5.8	6.2	6.1	6.0	--	6.0	5.9	--	--	6.1
Wilbur Brook	6.2	6.4	**	5.9	6.0	5.3	5.6	--	5.8	5.9	--	--	5.9
Westconnaug Reservoir	6.7	6.7	6.7	6.6	6.4	6.3	6.2	--	6.2	6.0	--	--	6.4
Barden Reservoir	6.3	6.1	6.1	6.4	6.2	6.0	5.9	--	5.5	5.3	--	--	6.0
Cork Brook	6.3	6.4	**	**	6.1	5.7	5.6	--	5.7	5.3	--	--	5.9
Rush Brook	6.4	6.4	6.2	5.9	6.3	6.6	6.3	--	6.3	6.3	--	--	6.3
Huntinghouse Brook	6.3	6.7	**	**	6.5	6.7	6.1	--	6.1	6.3	--	--	6.4
Harrisdale Brook	6.6	6.5	6.7	6.7	6.8	6.9	5.9	--	6.2	6.3	--	--	6.5
Blanchard Brook	6.1	5.9	**	**	5.8	6.3	4.9	--	5.5	5.7	--	--	5.7
Moswansicut Pond	6.7	6.8	7.2	6.3	6.5	6.5	6.5	--	6.7	7.0	--	--	6.7
Regulating Reservoir	6.7	6.8	7.0	6.9	6.7	6.6	6.0	--	6.1	6.9	--	--	6.6
Quonopaug Brook	6.5	6.2	**	**	5.6	6.0	5.4	--	3.8	6.0	--	--	5.6
Hemlock Brook	6.4	6.0	6.3	6.5	5.7	6.4	5.8	--	4.0	5.6	--	--	5.9
Betty Pond Stream	5.9	5.8	**	**	6.2	6.6	5.6	--	5.7	6.4	--	--	6.0
Spruce Brook	6.5	6.2	**	6.4	6.3	5.4	5.8	--	5.5	5.7	--	--	6.0
Brandy Brook	6.9	7.0	8.7	6.8	6.6	8.7	7.8	--	6.2	6.5	--	--	7.2
Moswansicut-South	6.8	6.5	6.7	6.8	6.8	8.3	5.7	--	6.2	6.5	--	6.4	6.7
Windsor Brook	6.2	**	**	6.2	6.2	5.9	6.0	--	5.9	6.1	--	--	6.1
Paine Pond	6.0	**	**	**	**	**	**	**	6.2	6.0	--	--	6.1
Unnamed Brook-A	**	**	**	**	**	**	**	**	6.4	6.4	--	--	6.4
Unnamed Brook-B	5.1	**	6.1	5.5	5.0	5.7	5.2	--	5.1	5.7	--	--	5.4
Acidity													
Ponaganset Reservoir	1.0	1.5	1.0	3.0	3.0	2.0	--	--	4.0	--	--	--	2.2
Coventry Brook	2.0	5.5	3.0	12.5	4.0	3.5	--	--	4.0	5.0	--	--	4.9
Wilbur Brook	3.5	5.0	**	10.0	7.0	5.0	--	--	6.0	7.0	--	--	6.2
Westconnaug Reservoir	1.5	1.5	1.5	2.5	2.0	3.0	--	--	3.0	4.0	--	--	2.4
Barden Reservoir	1.5	3.0	3.5	1.5	2.0	3.5	--	--	4.0	3.0	--	--	2.8
Cork Brook	1.5	0.5	**	**	4.0	3.0	--	--	3.5	4.0	--	--	2.8
Rush Brook	2.0	2.0	5.5	17.0	3.0	1.5	--	--	4.0	5.0	--	--	5.0
Huntinghouse Brook	2.0	0.5	**	**	4.0	1.0	--	--	5.0	3.0	--	--	2.6
Harrisdale Brook	3.5	2.0	3.0	3.0	2.0	1.0	--	--	4.0	5.0	--	--	2.9
Blanchard Brook	2.5	3.5	**	**	6.0	2.5	--	--	9.0	10.0	--	--	5.6
Moswansicut Pond	2.5	1.5	2.0	4.5	4.0	2.0	1.5	--	1.0	2.0	--	--	2.3
Regulating Reservoir	1.0	1.0	1.0	1.5	2.0	1.0	--	--	4.0	1.5	--	--	1.6
Quonopaug Brook	12.5	2.0	**	**	7.5	3.5	--	--	--	5.5	--	--	6.2
Hemlock Brook	1.0	1.5	1.0	2.5	3.0	1.5	--	--	7.0	4.0	--	--	2.7
Betty Pond Stream	1.0	3.5	**	**	3.5	1.5	--	--	3.0	2.0	--	--	2.4
Spruce Brook	1.0	1.0	**	6.5	3.0	3.5	--	--	5.0	3.5	--	--	3.4
Brandy Brook	1.5	3.0	--	4.0	3.0	0.0	1.0	--	4.0	4.0	--	--	2.6
Moswansicut-South	2.5	1.5	2.0	10.5	6.0	0.0	--	--	3.0	4.0	--	8.0	4.2
Windsor Brook	1.0	**	**	7.1	3.0	2.0	--	--	2.0	2.0	--	--	2.9
Paine Pond	8.0	**	**	**	**	**	**	**	3.0	5.0	--	--	5.3
Unnamed Brook-A	**	**	**	**	**	**	**	**	6.0	7.0	--	--	6.5
Unnamed Brook-B	2.5	**	1.0	6.0	3.0	1.5	--	--	4.0	5.0	--	--	3.3

*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, 1981

Monthly Analyses Alkalinity	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Ponaganset Reservoir	1.5	2.0	1.5	1.5	1.0	1.0	--	--	1.0	--	--	--	1.4
Coventry Brook	6.5	7.0	6.0	6.0	5.0	5.0	--	--	3.5	3.5	--	--	5.3
Wilbur Brook	7.5	9.0	**	8.0	4.5	2.0	--	--	4.0	5.0	--	--	5.7
Westconnaug Reservoir	7.5	7.0	6.0	7.0	7.0	6.0	--	--	4.0	4.0	--	--	6.1
Barden Reservoir	4.5	3.5	5.0	4.0	3.5	2.5	--	--	2.0	2.5	--	--	3.4
Cork Brook	5.5	5.5	**	**	3.5	4.0	--	--	3.0	3.5	--	--	4.2
Rush Brook	10.0	12.5	9.5	10.5	8.0	6.0	--	--	5.0	6.0	--	--	8.4
Huntinghouse Brook	13.0	9.5	**	**	7.0	5.0	--	--	4.5	5.0	--	--	7.3
Harrisdale Brook	13.5	12.5	14.5	13.0	12.0	9.0	--	--	6.5	7.0	--	--	11.0
Blanchard Brook	8.0	6.0	**	**	4.0	3.5	--	--	4.0	4.5	--	--	5.0
Moswansicut Pond	8.0	6.5	12.5	7.5	6.5	6.0	--	--	6.0	5.0	--	--	7.3
Regulating Reservoir	10.5	9.5	9.0	7.5	6.0	6.0	--	--	4.5	6.0	--	--	7.4
Quonopaug Brook	14.5	13.5	**	**	2.5	4.0	--	--	--	6.0	--	--	8.1
Hemlock Brook	4.0	4.0	3.5	3.5	2.5	4.5	--	--	--	2.0	--	--	3.4
Betty Pond Stream	4.5	4.0	**	**	5.0	6.0	--	--	4.0	4.5	--	--	4.7
Spruce Brook	6.0	7.0	**	9.0	4.0	2.0	--	--	3.0	2.5	--	--	4.8
Brandy Brook	11.5	13.5	14.5	13.0	8.5	10.0	12.5	--	7.0	7.0	--	--	10.8
Moswansicut-South	15.5	9.5	7.0	35.0	23.0	20.5	6.5	--	8.0	11.5	--	16.0	15.3
Windsor Brook	8.0	**	**	5.0	3.0	3.0	--	--	4.0	3.0	--	--	4.3
Paine Pond	6.5	**	**	**	**	**	--	--	4.5	4.0	--	7.0	5.5
Unnamed Brook-A	**	**	**	**	**	**	--	--	7.5	12.0	--	--	9.8
Unnamed Brook-B	4.0	**	2.5	2.0	2.0	2.5	--	--	3.0	4.0	--	6.0	3.3

*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, 1981

	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	10.0	10.1	10.0	9.9	9.9	10.0	10.0	10.0	10.0	10.0
160 Sock.Crossroad,Cranston	10.1	10.2	10.1	10.1	10.1	10.0	9.9	9.9	10.1	10.0	10.0	10.0	10.0
630 Atwells Ave.	10.1	10.1	10.1	10.0	10.1	10.0	9.9	9.9	10.1	10.0	10.0	10.0	10.0
1384 Cranston St.,Cranston	10.1	10.1	10.1	10.0	10.1	10.0	9.9	9.9	10.1	10.0	10.0	10.0	10.0
750 Reservoir Ave.,Cranston	10.1	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
1520 Atwood Ave.,Johnston	10.0	10.1	10.1	10.0	10.1	10.0	10.0	9.8	10.1	10.0	10.0	9.9	10.0
774 Allens Ave.	10.1	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
Dexter Manor	10.1	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
*State Office Building	10.1	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
426 Admiral St.	10.0	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
238 Brook St.	10.1	10.1	10.1	10.0	10.1	10.0	10.0	9.9	10.1	10.0	10.0	10.0	10.0
Phenophthalein Alkalinity													
Neutaconkanut Reservoir	6.1	6.4	7.7	7.7	7.2	6.8	6.3	6.0	6.0	6.0	6.0	6.5	6.6
160 Sock.Crossroad,Cranston	7.0	7.6	9.0	8.3	7.6	7.1	6.2	6.1	6.3	6.0	6.3	7.2	7.1
630 Atwells Ave.	6.5	6.8	8.3	7.9	7.3	6.9	6.2	6.1	6.1	6.1	6.0	6.9	6.8
1384 Cranston St.,Cranston	6.4	6.9	8.3	7.8	7.2	6.9	6.2	6.0	6.1	6.0	6.0	6.9	6.7
750 Reservoir Ave.,Cranston	6.6	6.9	8.4	7.9	7.2	6.9	6.2	5.9	6.1	6.1	6.1	7.0	6.8
1520 Atwood Ave.,Johnston	6.4	6.8	8.1	7.8	7.2	6.8	6.3	6.0	6.0	5.9	5.9	6.8	6.7
774 Allens Ave.	6.7	7.0	8.3	8.0	7.4	7.0	6.3	6.1	6.2	6.0	6.1	7.0	6.8
Dexter Manor	6.5	6.8	8.1	8.0	7.3	7.0	6.3	6.0	6.2	6.0	6.0	6.9	6.8
*State Office Building	6.5	6.8	8.2	7.9	7.4	6.8	6.3	6.0	6.1	6.1	6.1	7.0	6.8
426 Admiral St.	6.5	6.9	8.2	7.9	7.4	6.9	6.4	6.1	6.1	6.1	6.0	6.9	6.8
238 Brook St.	6.6	6.8	8.2	7.9	7.4	7.0	6.4	6.0	6.1	6.1	6.1	6.9	6.8
Methyl Orange Alkalinity													
Neutaconkanut Reservoir	13.1	14.2	16.3	15.3	13.2	12.8	12.1	12.0	11.9	11.8	11.9	13.3	13.2
160 Sock.Crossroad,Cranston	14.2	15.8	17.8	15.7	13.5	13.0	12.2	12.2	12.2	11.8	12.5	14.6	13.8
630 Atwells Ave.	13.5	14.7	16.9	14.8	12.9	12.6	12.0	12.0	11.9	11.8	11.9	13.8	13.2
1384 Cranston St.,Cranston	13.3	14.8	16.8	14.5	12.8	12.4	12.0	11.8	11.8	11.8	12.0	13.9	13.2
750 Reservoir Ave.,Cranston	13.6	14.8	16.8	14.7	12.8	12.4	12.0	11.8	11.8	11.8	12.0	13.9	13.2
1520 Atwood Ave.,Johnston	13.3	14.8	16.8	14.7	12.9	12.6	12.1	11.9	12.0	11.7	11.9	13.7	13.2
774 Allens Ave.	13.6	14.9	17.0	15.0	13.0	12.8	12.1	11.9	11.9	11.9	12.1	14.0	13.4
Dexter Manor	13.5	14.7	16.7	14.8	12.9	12.6	12.0	11.9	11.8	11.7	12.0	13.8	13.2
*State Office Building	13.5	14.7	16.7	15.5	13.0	12.6	12.0	11.9	11.9	11.9	12.1	13.9	13.3
426 Admiral St.	13.5	14.8	16.8	14.8	13.1	12.7	12.1	12.1	11.9	12.0	12.1	13.9	13.3
238 Brook St.	13.7	14.8	16.8	14.9	13.2	12.8	12.1	12.0	12.0	12.0	12.1	14.0	13.4
Color													
Neutaconkanut Reservoir	3	3	3	3	2	2	2	2	4	4	3	3	3
160 Sock.Crossroad,Cranston	3	3	3	3	2	2	2	2	4	4	4	4	3
630 Atwells Ave.	3	3	3	3	2	2	2	2	3	4	3	3	3
1384 Cranston St.,Cranston	3	3	3	3	2	2	2	2	3	4	3	3	3
750 Reservoir Ave.,Cranston	3	3	3	3	2	2	2	2	3	4	3	3	3
1520 Atwood Ave.,Johnston	3	3	3	3	2	2	2	2	3	4	3	3	3
774 Allens Ave.	4	3	3	3	2	2	2	2	3	4	3	3	3
Dexter Manor	4	3	3	3	2	2	2	2	3	4	3	3	3
*State Office Building	3	3	3	3	2	2	2	2	3	4	3	3	3
426 Admiral St.	3	3	3	3	2	2	2	2	3	4	3	3	3
238 Brook St.	4	4	4	3	2	2	2	3	4	4	4	4	3
Iron													
Neutaconkanut Reservoir	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
160 Sock.Crossroad,Cranston	.02	.02	.02	.02	.01	.01	.01	.01	.05	.03	.02	.01	0.02
630 Atwells Ave.	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
1384 Cranston St.,Cranston	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
750 Reservoir Ave.,Cranston	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
1520 Atwood Ave.,Johnston	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
774 Allens Ave.	.02	.02	.01	.01	.01	.00	.01	.02	.03	.02	.01	.00	0.01
Dexter Manor	.02	.02	.01	.01	.01	.00	.01	.00	.00	.00	.00	.00	0.01
*State Office Building	.02	.02	.02	.02	.01	.01	.01	.01	.00	.00	.01	.01	0.01
426 Admiral St.	.02	.02	.02	.01	.01	.00	.01	.01	.00	.00	.00	.00	0.01
238 Brook St.	.04	.03	.04	.03	.03	.01	.02	.04	.03	.02	.01	.02	0.03

TABLE 14 (Continued)

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

YEAR ENDED JUNE 30, 1981

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
Chlorides													
Neutaconkanut Reservoir	11.6	11.5	12.1	11.9	11.7	12.4	12.5	12.5	12.5	12.6	12.5	12.7	12.2
160 Sock.Crossroad,Crans.	11.6	11.5	12.1	11.9	11.7	12.4	12.5	12.5	12.5	12.5	12.5	12.7	12.2
630 Atwells Ave.	11.6	11.5	12.1	12.0	11.8	12.4	12.5	12.5	12.5	12.6	12.5	12.6	12.2
1384 Cranston St.,Crans.	11.6	11.5	12.0	11.9	11.7	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.2
750 Reservoir Ave.,Crans.	11.6	11.4	12.1	11.9	11.7	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.2
1520 Atwood Ave.,Jstn.	11.6	11.5	12.1	11.9	11.7	12.5	12.5	12.5	12.6	12.5	12.5	12.5	12.2
774 Allens Ave.	11.6	11.5	12.1	11.9	11.7	12.5	12.5	12.5	12.5	12.6	12.5	12.5	12.2
Dexter Manor	11.6	11.5	12.1	11.9	11.7	12.4	12.5	12.5	12.5	12.5	12.5	12.6	12.2
*State Office Building	11.6	11.5	12.1	11.9	11.7	12.4	12.5	12.5	12.6	12.5	12.5	12.6	12.2
426 Admiral St.	11.6	11.5	12.1	11.9	11.7	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.2
238 Brook St.	11.6	11.5	12.1	11.9	11.7	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.2
Nitrites													
Neutaconkanut Reservoir	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
160 Sock.Crossroad,Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
630 Atwells Ave.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1384 Cranston St.,Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
750 Reservoir Ave.,Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1520 Atwood Ave.,Jstn.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
774 Allens Ave.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Dexter Manor	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
*State Office Building	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
426 Admiral St.	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
238 Brook St.	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
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	0.97	0.99	0.96	0.97	0.96	0.95	1.00	1.01	0.60	0.88	1.00	0.99	0.94
160 Sock.Crossroad,Crans.	.96	.99	.99	.97	.99	.98	1.00	1.07	.67	1.07	1.08	1.03	.98
630 Atwells Ave.	.97	1.00	1.00	.96	.99	.95	1.01	1.01	.62	1.04	1.08	1.01	.97
1384 Cranston St.,Crans.	.98	1.00	1.00	.92	1.03	.99	1.04	1.10	.73	1.11	1.11	1.07	1.01
750 Reservoir Ave.,Crans.	.98	1.00	1.00	.95	.99	.99	1.02	1.07	.68	1.09	1.08	1.06	.99
1520 Atwood Ave.,Jstn.	.98	1.00	.98	.96	.98	.97	.98	1.01	.64	.99	1.06	1.06	.97
774 Allens Ave.	.98	1.00	.99	.93	.97	.93	.98	1.06	.64	1.06	1.10	1.07	.98
Dexter Manor	.98	1.00	1.00	.94	.98	.93	1.00	1.07	.67	1.09	1.11	1.07	.99
*State Office Building	.98	1.00	.99	.94	.98	.95	.99	1.04	.66	1.05	1.08	1.06	.98
426 Admiral St.	.97	.99	.99	.93	.97	.95	1.00	1.03	.63	1.04	1.08	1.07	.97
238 Brook St.	.99	1.00	1.00	.96	.98	.95	1.02	1.06	.66	1.06	1.09	1.07	.99

TABLE 15

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDEO JUNE 30, 1981

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

1980-1981	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	45	0	21	60	0	24	98	0	6	6	0	0	7	0	1	1	0	0
August	675	12	62	641	0	51	700	0	36	700	0	35	28	0	3	3	0	0
September	80	8	27	91	0	23	7	0	1	3	0	0	21	0	1	2	0	0
October	195	17	45	170	14	49	95	0	9	88	0	5	28	0	2	1	0	0
November	220	2	29	46	0	17	900	0	72	65	0	5	55	0	5	5	0	1
December	360	0	38	50	0	16	900	0	128	420	0	77	420	0	37	3	0	0
January	34	7	14	23	0	8	200	0	29	585	0	47	35	0	4	7	0	0
February	132	5	25	95	0	30	3000	0	283	1150	0	76	785	0	70	65	0	5
March	620	2	168	360	0	118	88	0	11	15	0	4	265	0	26	25	0	1
April	840	10	312	1100	1	296	10	0	1	760	0	37	45	0	5	11	0	1
May	210	40	131	645	25	157	250	0	24	5	0	1	50	0	3	3	0	0
June	1200	10	104	90	5	46	1020	0	87	10	0	1	1	0	0	2	0	0
For Year	1200	0	81	1100	0	70	1020	0	57	1150	0	24	785	0	13	65	0	1

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, 1981

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

1980-1981	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	50	0	16	40	1	16	720	0	85	2	0	0	8	0	1	6	0	0
August	680	9	53	670	7	50	710	0	82	685	0	35	17	0	1	2	0	0
September	32	8	19	80	0	17	28	0	6	1	0	0	320	0	17	24	0	2
October	120	4	40	88	11	36	900	0	52	480	0	23	24	0	1	14	0	1
November	41	6	16	35	0	14	300	0	51	130	0	11	28	0	5	4	0	1
December	60	0	9	125	0	13	600	0	72	460	0	25	210	0	14	1	0	0
January	11	1	6	9	2	5	345	0	57	180	0	9	4	0	1	2	0	0
February	50	0	4	70	0	7	2400	0	218	40	0	3	140	0	9	75	0	6
March	30	1	10	15	0	7	3000	0	185	760	0	36	15	0	2	20	0	3
April	400	3	31	875	3	55	1400	0	120	30	0	2	10	0	2	4	0	1
May	45	0	13	34	2	10	600	0	40	2	0	0	6	0	1	28	0	2
June	1000	5	78	450	3	40	1300	0	144	1	0	0	310	0	15	4	0	1
For Year	1000	0	25	875	0	23	3000	0	93	685	0	12	320	0	6	75	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, 1981

COLIFORM BACTERIA

	R A W ---- A.M.				Effluent Settled	Effluent A.M.	Effluent P.M.	*Tap
					MEMBRANE FILTER METHOD			
1980-1981	No. of Portions Positive Per No. Tested 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	2/78	0/78	1/78	< 3.0	2/2,600	3/2,600	0/2,200	2/26,800
August	14/75	1/75	1/75	< 4.0	1/2,500	0/2,500	0/2,000	0/24,500
September	29/75	5/75	1/75	< 6.0	0/2,500	0/2,500	0/2,100	0/25,500
October	47/75	11/75	0/75	<10.8	0/2,600	0/2,600	0/2,100	0/25,600
November	57/63	9/63	2/63	26.2	0/2,100	0/2,100	0/1,600	0/19,700
December	30/66	5/66	2/66	< 7.0	0/2,400	0/2,400	0/1,700	0/21,200
January	15/78	3/78	0/78	< 3.8	0/2,600	0/2,600	0/2,100	2/25,700
February	16/69	1/69	0/69	< 4.8	0/2,300	0/2,300	0/1,900	1/23,200
March	18/78	0/78	0/78	< 3.8	10/2,600	0/2,600	0/2,200	6/26,800
April	29/78	0/78	1/78	< 5.5	0/2,600	0/2,600	0/2,200	1/25,800
May	17/72	0/72	0/72	< 4.2	0/2,400	0/2,400	0/1,900	13/23,300
June	28/78	2/78	0/78	< 5.9	1/2,600	0/2,600	0/2,200	77/26,800
For Year	302/885	37/885	8/885	< 5.6	14/29,800	3/29,800	0/24,200	102/294,900

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 102 positives, 97 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, 1981

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
					Bacteria per ml. 48 Hours on Agar at 20°C.							
Ponaganset Reservoir	420	160	760	325	60	24	100	1	0	125	160	2280
Coventry Brook	660	280	775	595	85	83	90	150	140	150	180	460
Wilbur Brook	1200	300	--	520	180	94	75	450	95	215	420	1645
Westconnaug Reservoir	420	120	295	480	85	64	210	360	185	570	410	650
Barden Reservoir	540	215	325	240	90	49	140	1400	100	120	135	800
Cork Brook	600	200	--	--	110	61	60	240	190	175	320	780
Rush Brook	900	420	310	685	135	93	160	450	170	205	375	2100
Huntinghouse Brook	720	250	--	--	90	105	120	630	230	450	225	3700
Harrisdale Brook	900	210	245	385	64	91	95	1300	175	620	310	1075
Blanchard Brook	600	540	--	--	188	89	100	690	155	420	510	5120
Moswansicut Pond	720	280	610	510	170	84	55	165	60	110	200	1350
Regulating Reservoir	200	140	270	355	125	39	240	1240	135	200	175	160
Quonopaug Brook	1200	360	--	--	65	94	70	--	105	240	300	1650
Hemlock Brook	540	142	180	310	78	120	50	290	170	265	205	290
Betty Pond Stream	420	300	--	--	510	80	500	180	160	80	150	820
Spruce Brook	480	230	--	410	105	79	150	110	220	330	525	1250
Brandy Brook	600	205	590	475	310	110	350	280	295	510	550	1110
Moswansicut-South	720	435	745	710	340	200	720	500	235	370	380	1530
Windsor Brook	660	175	*	430	70	94	230	85	85	250	290	2250
Paine Pond	900	*	*	*	*	*	*	2206	225	480	880	500
Unnamed Brook-A	*	*	*	*	*	*	*	150	210	345	800	*
Unnamed Brook-B	480	210	580	485	54	83	150	45	90	170	200	1250
					Bacteria per ml. 24 Hours on Agar at 35°C.							
Ponaganset Reservoir	360	210	440	210	48	18	45	0	0	90	55	1375
Coventry Brook	480	170	485	210	50	32	150	35	40	40	120	800
Wilbur Brook	600	275	--	495	80	81	100	60	40	95	235	70
Westconnaug Reservoir	540	130	210	248	75	70	220	65	60	170	200	900
Barden Reservoir	420	240	295	190	105	65	240	90	55	70	70	750
Cork Brook	540	123	--	--	80	80	50	49	90	55	195	1500
Rush Brook	600	360	314	345	78	25	200	50	105	140	180	1200
Huntinghouse Brook	300	300	--	--	85	71	540	32	95	120	215	3110
Harrisdale Brook	660	340	310	295	95	84	21	90	150	125	230	1275
Blanchard Brook	540	480	--	--	125	92	480	40	55	80	240	2080
Moswansicut Pond	600	300	595	370	425	73	240	15	30	50	140	820
Regulating Reservoir	140	420	240	240	110	28	20	85	80	95	110	375
Quonopaug Brook	720	300	--	--	82	44	5	55	30	100	150	1275
Hemlock Brook	420	150	210	285	65	29	24	75	115	205	180	210
Betty Pond Stream	720	310	--	--	440	68	160	100	140	115	185	1260
Spruce Brook	780	340	--	310	85	120	20	68	65	50	135	760
Brandy Brook	600	210	545	280	195	79	45	135	115	250	90	1290
Moswansicut-South	900	420	765	445	210	70	10	80	100	115	215	1080
Windsor Brook	360	240	*	410	85	101	60	30	80	100	165	1100
Paine Pond	900	*	*	*	*	*	*	115	75	210	550	620
Unnamed Brook-A	*	*	*	*	*	*	*	45	50	80	145	*
Unnamed Brook-B	420	280	310	380	43	39	70	16	95	155	175	1020

*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, 1981

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Coliform Bacteria Index per 100 ml.											
Ponaganset Reservoir	5	6	60	-3	-3	6	6	0	25	6	0	250
Coventry Brook	700	700	30	13	6	6	6	25	5	20	6	250
Wilbur Brook	60	700	*	700	250	25	60	25	13	13	130	700
Westconnaug Reservoir	700	60	13	60	-3	-3	130	6	25	20	130	250
Barden Reservoir	-3	13	250	60	6	25	-3	25	6	0	25	700
Cork Brook	6	25	*	*	13	20	250	60	25	60	60	250
Rush Brook	60	130	250	60	25	25	250	25	13	1100+	1100+	250
Huntinghouse Brook	60	700	*	*	60	25	6	25	60	25	250	1100+
Harrisdale Brook	25	50	25	250	-3	-3	13	25	6	13	250	130
Blanchard Brook	700	700	*	*	250	60	700	25	20	700	130	700
Moswansicut Pond	43	150	150	15	-3	9	43	4	9	13	43	460
Regulating Reservoir	200	6	6	25	-3	-3	1100+	25	6	25	60	700
Quonopaug Brook	700	250	*	*	60	60	250	25	60	6	250	50
Hemlock Brook	6	6	12	-3	60	700	6	60	60	0	60	250
Betty Pond Stream	60	60	*	*	12	-3	-3	0	0	6	25	60
Spruce Brook	700	60	*	25	6	-3	60	0	130	13	700	250
Brandy Brook	130	250	20	60	6	13	130	25	50	25	60	1100+
Moswansicut-South	700	250	25	250	200	250	1100+	0	250	20	700	700
Windsor Brook	660	60	--	4	6	60	60	5	0	25	25	250
Paine Pond	900	*	--	*	*	*	*	23	23	43	460	*
Unnamed Brook-A	*	*	--	*	*	*	*	*	7	75	460	1100
Unnamed Brook-B	480	250	25	700	6	25	25	0	20	25	20	60

*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, 1981

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	36	0	0	0	1	0	10	1	1	0	1	4
160 Sock.Crossroad,Crans.	0	34	0	0	0	0	1	2	1	2	0	0	3
630 Atwells Ave.	0	37	0	0	24	0	1	2	1	0	0	0	5
1384 Cranston St.,Crans.	0	36	0	0	0	1	1	3	1	0	0	0	4
750 Reservoir Ave.,Crans.	0	34	0	0	0	1	1	22	1	0	0	1	5
1520 Atwood Ave.,Jstn.	0	35	0	0	0	1	3	3	0	0	0	0	4
774 Allens Ave.	0	0	0	0	0	0	0	1	1	0	1	0	0
Dexter Manor	2	2	0	0	0	0	3	2	2	0	1	0	1
State Health Laboratory	0	18	0	0	0	0	1	2	1	0	0	0	2
426 Admiral St.	0	0	1	0	0	0	1	3	2	2	0	0	1
238 Brook St.	1	1	0	0	0	1	4	3	1	1	0	1	1
						Bacteria per ml. 48 Hours on Agar at 35°C.							
Neutaconkanut Reservoir	1	35	1	4	0	1	0	4	3	0	0	1	4
160 Sock.Crossroad,Crans.	0	24	1	0	0	1	0	16	2	1	0	0	4
630 Atwells Ave.	0	35	0	0	0	1	0	4	2	0	2	0	4
1384 Cranston St.,Crans.	3	48	0	0	0	1	0	23	1	0	0	1	6
750 Reservoir Ave.,Crans.	1	29	3	1	0	0	1	48	15	1	1	0	8
1520 Atwood Ave.,Jstn.	1	22	0	0	0	2	8	12	13	3	8	2	6
774 Allens Ave.	2	8	1	0	0	0	2	13	7	8	1	3	4
Dexter Manor	5	38	0	0	2	0	3	12	2	9	1	2	6
State Health Laboratory	2	6	8	0	2	0	1	18	2	10	1	1	4
426 Admiral St.	2	0	33	2	0	0	1	30	2	2	1	1	6
238 Brook St.	0	1	5	TNTC	0	0	6	21	3	2	1	2	TNTC
						Coliform colonies per 100 ml.							
Neutaconkanut Reservoir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01
160 Sock.Crossroad,Crans.	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
630 Atwells Ave.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1384 Cranston St.,Crans.	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.01
750 Reservoir Ave.,Crans.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.63	.00	.05
1520 Atwood Ave.,Jstn.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.14	.02
774 Allens Ave.	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
Dexter Manor	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
State Health Laboratory	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
426 Admiral St.	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00	.02
238 Brook St.	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

TNTC means too numerous to count.

TABLE 20

WATER PURIFICATION WORKS

MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1981

	*RAW WATER					TAP WATER				
	1980		1981			1980		1981		
Parts per Million	July - Sept.	Oct. - Dec.	Jan. - Mar.	Apr. - June	Avg.	July - Sept.	Oct. - Dec.	Jan. - Mar.	Apr. - June	Avg.
Aluminum	---	---	---	---	---	---	---	---	---	---
Arsenic		---		---	---	0.005		---	---	0.005
Calcium	2.4	---	---	---	2.4	12.0	---	---	---	12.0
Chloride	12.0	---	---	---	12.0	12	---	---	---	12.0
Copper	---	---	---	---	---	<0.02	---	---	---	<0.02
Fluoride	0.20	0.20	0.19	0.16	0.19	0.98	0.97	0.89	1.02	0.97
Hardness	10	11	11	10	11	31	31	29	29	30
Iron	0.09	0.09	0.04	0.04	0.07	0.02	0.03	0.04	0.04	0.03
Lead	---	---	---	---	---	<0.005	---	---	---	<0.005
Magnesium	0.97	---	---	---	0.97	0.48	---	---	---	0.48
Manganese	0.09	0.05	0.04	0.02	0.05	0.00	0.00	0.00	0.00	0.00
Phenolic Compounds	---	---	---	---	---	---	---	---	---	---
Selenium		---		---	---	<0.005	---	---	---	<0.005
Silica	---	---	---	---	---	---	---	---	---	---
Sulfate	5	---	---	---	5	12	---	---	---	12
Total Solids	45	---	---	---	45	75	---	---	---	75
Loss on Ignition	11	---	---	---	11	20	---	---	---	20
Total Alkalinity	3.9	4.1	3.9	3.8	3.9	14.9	13.5	11.9	12.6	13.2
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	7.2	7.2	6.1	6.3	6.7
Zinc		---		---	---	<0.02	---	---	---	<0.02

*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, 1981

1980 1981	*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	0.02	0.000	0.1	10.5	---	---	45	11	< 0.02	0.001	0.1	11.7	---	---	75	20
August	---	0.000	---	10.5	---	---	--	--	----	0.001	---	11.4	---	---	--	--
September	---	0.000	---	11.3	---	---	--	--	----	0.001	---	12.1	---	---	--	--
October	---	0.000	---	11.4	---	---	--	--	----	0.000	---	11.9	---	---	--	--
November	---	0.000	---	11.2	---	---	--	--	----	0.001	---	11.7	---	---	--	--
December	---	0.000	---	11.0	---	---	--	--	----	0.001	---	11.5	---	---	--	--
January	---	0.000	---	11.8	---	---	--	--	----	0.001	---	12.5	---	---	--	--
February	---	0.000	---	11.9	---	---	--	--	----	0.001	---	12.5	---	---	--	--
March	---	0.000	---	12.1	---	---	--	--	----	0.001	---	12.6	---	---	--	--
April	---	0.000	---	12.0	---	---	--	--	----	0.001	---	12.6	---	---	--	--
May	---	0.000	---	11.8	---	---	--	--	----	0.001	---	12.6	---	---	--	--
June	---	0.000	---	11.9	---	---	--	--	----	0.001	---	12.6	---	---	--	--
Averages	0.02	0.000	0.1	11.5	---	---	45	11	< 0.02	0.001	0.1	12.1	---	---	75	20

*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, 1981

	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'			
1980-1981	Operated Hours and		Operated Hours and		Operated Hours and				**Operated Hours and		Gas. Used	Oil Used
	Days	Minutes	Days	Minutes	Days	Minutes	KWH	Cost	Days	Minutes	Gals.	Qts.
July	28	546-50	22	303-55	24	474-00	167,600	$ 9,449.31	0	0-00	0	0
August	23	460-30	27	452-30	18	362-45	171,400	9,521.42	0	0-00	0	0
September	21	368-35	21	424-45	17	328-30	121,800	8,231.01	0	0-00	0	50
October	6	73-00	24	462-00	29	555-30	142,400	9,421.06	0	0-00	0	0
November	17	252-00	29	466-05	19	308-00	124,800	9,765.58	0	0-00	0	0
December	16	258-30	31	560-13	20	300-30	139,000	10,850.39	1	0-45	12	0
January	19	273-30	31	556-00	16	282-00	185,200	14,465.86	1	1-00	15	0
February	20	345-45	25	402-45	19	340-15	144,800	11,321.74	2	1-30	23	50
March	23	274-30	30	494-30	24	274-45	97,200	7,665.29	1	1-00	15	0
April	21	262-00	30	487-25	19	255-45	135,200	10,313.41	0	0-00	0	0
May	25	349-45	29	477-50	22	301-15	152,000	12,059.96	0	0-00	0	0
June	26	438-50	20	263-15	28	472-05	178,000	12,520.30	0	0-00	0	0
TOTALS	245	3,903-45	319	5,351-13	255	4,255-20	1,759,400	$125,585.33	5	4-15	65	100

TABLE 22 (Continued)

WATER DISTRIBUTION SYSTEM

NEUTACONKANUT HIGH SERVICE PUMPING STATION

OPERATING STATISTICS — YEAR ENDED JUNE 30, 1981

	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.	
1980-1981	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	167.900	64.071	139.030	0.000	371.001	11.968
August	148.295	84.584	112.103	0.000	344.982	11.128
September	134.390	92.878	110.972	0.000	338.240	11.275
October	27.654	94.885	215.463	0.000	338.002	10.903
November	101.754	93.671	109.704	0.000	305.129	10.171
December	91.981	102.490	98.050	0.207	292.728	9.443
January	94.079	104.068	91.780	0.414	290.341	9.366
February	110.952	76.743	105.518	0.403	293.616	10.486
March	110.914	103.586	102.242	0.503	317.245	10.234
April	114.096	127.202	91.326	0.000	332.624	11.088
May	133.982	113.744	112.187	0.000	359.913	11.610
June	143.238	53.765	156.455	0.000	353.458	11.782
Totals	1,379.235	1,111.687	1,444.830	1.527	3,937.279	10.787

TABLE 23

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1981

	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		
1980-1981	Operated		Operated				**Operated		
	Days	Hours and Minutes	Days	Hours and Minutes	KWH	Cost	Days	Hours and Minutes	Gas. Used Gals.
July	30	597-00	28	599-15	61,250	$3,381.03	8	126-00	1,890
August	24	496-30	22	456-25	61,250	3,381.03	0	0-00	0
September	29	615-00	28	552-45	52,920	3,414.31	0	0-00	0
October	22	387-00	21	385-00	42,140	2,872.44	0	0-00	0
November	14	316-00	18	379-00	44,450	3,501.25	0	0-00	0
December	18	406-45	15	341-00	44,450	3,501.25	1	1-00	15
January	18	417-00	17	358-00	42,840	3,421.57	1	1-00	15
February	11	243-45	13	263-00	41,580	3,252.41	1	1-00	15
March	19	399-00	15	309-30	40,880	3,152.29	2	2-00	30
April	16	337-00	16	375-00	46,340	3,548.10	3	3-00	45
May	27	529-45	28	512-00	67,620	5,230.92	1	1-00	15
June	30	614-40	30	663-50	79,030	5,420.56	4	34-20	515
TOTALS	258	5,359-25	251	5,194-45	624,750	$44,077.16	21	169-20	2,540

TABLE 23 (Continued)

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS - YEAR ENOED JUNE 30, 1981

	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 TOH 100' 150 HP Climax Engine	Mil. Gallons	
1980-1981	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	69.871	70.461	23.090	163.422	5.272
August	62.080	56.344	0.000	118.424	3.820
September	78.047	67.148	0.000	145.195	4.840
October	50.626	50.310	0.000	100.936	3.256
November	42.495	51.018	0.000	93.513	3.118
Oecember	54.439	45.248	0.207	99.894	3.223
January	53.878	47.129	0.224	101.231	3.266
February	31.023	33.597	0.220	64.840	2.316
March	60.849	46.549	0.426	107.824	3.479
April	59.280	56.846	0.809	116.935	3.898
May	85.674	71.473	0.265	157.412	5.078
June	86.420	92.562	8.337	187.319	6.244
Totals	734.682	688.685	33.578	1,456.945	3.992

TABLE 24

WATER DISTRIBUTION SYSTEM

*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1981

1980-1981	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	229.56	40.99	230.68	225.16	229.75	42.86	33.44	41.31	5.06	0.72	2.81	8.63	1.20	4.80
August	229.15	40.29	230.31	225.63	229.24	42.25	34.25	40.44	3.60	0.60	2.24	6.18	1.01	3.85
September	229.50	40.89	230.40	225.75	229.67	42.40	34.45	41.18	4.10	1.98	2.84	7.03	3.37	4.86
October	229.40	40.72	230.25	225.68	229.16	42.15	34.33	40.31	4.32	1.29	2.69	7.41	2.22	4.60
November	229.73	41.28	230.22	225.86	229.31	42.10	34.64	40.57	3.60	1.48	2.60	6.18	2.54	4.46
December	229.00	40.03	229.80	225.80	229.00	41.40	34.54	40.03	3.30	1.24	2.41	5.66	2.13	4.14
January	229.10	40.20	230.33	225.27	229.05	42.28	33.63	40.11	3.70	1.47	2.46	6.35	2.52	4.21
February	230.33	42.28	230.40	225.29	228.91	42.40	33.66	39.88	3.95	0.70	2.42	6.76	1.20	4.16
March	228.80	39.69	230.05	225.75	229.17	41.82	34.45	40.32	3.95	1.23	2.57	6.78	2.11	4.41
April	229.64	41.13	230.34	225.24	229.16	42.30	33.58	40.31	4.60	1.49	2.79	7.89	2.56	4.79
May	230.00	41.74	230.39	225.48	229.22	42.38	33.99	40.41	4.66	1.07	3.01	7.97	1.83	5.15
June	229.66	41.16	230.89	225.33	229.80	43.21	33.73	41.40	4.64	1.17	2.87	7.96	1.99	4.90
For Year			230.89	225.16	229.29	43.21	33.44	40.52	5.06	0.60	2.64	8.63	1.01	4.53

*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 ENOED JUNE 30, 1981

1980-1981	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	226.28	40.83	226.60	219.07	225.60	41.39	28.14	39.64	5.74	1.11	2.79	10.10	1.95	4.91
August	225.94	40.23	226.53	222.30	225.81	41.27	33.82	40.01	3.35	0.68	2.15	5.89	1.20	3.78
September	226.10	40.51	226.18	222.29	225.43	40.65	33.81	39.34	3.61	0.43	2.16	6.35	0.76	3.80
October	224.86	38.33	226.38	222.66	225.76	41.00	34.46	39.92	2.74	0.47	1.69	4.82	0.83	2.97
November	226.10	40.51	226.45	223.21	226.10	41.13	35.42	40.51	2.75	0.38	1.54	4.84	0.67	2.72
December	225.90	40.16	226.75	223.40	226.11	41.66	35.76	40.54	2.70	0.65	1.58	4.75	1.14	2.79
January	226.27	40.81	226.60	223.48	226.17	41.39	35.90	40.64	2.89	0.65	1.70	5.09	1.14	2.99
February	226.35	40.95	226.62	222.78	226.10	41.43	34.67	40.51	3.07	0.66	1.59	5.40	1.16	2.80
March	226.23	40.74	226.70	223.57	226.25	41.57	36.06	40.77	2.73	0.54	1.64	4.80	0.95	2.88
April	226.40	41.04	226.81	223.58	226.16	41.76	36.08	40.62	3.09	0.59	1.83	5.43	1.04	3.22
May	226.55	41.30	226.63	222.50	226.12	41.44	34.18	40.56	3.66	0.98	2.25	6.44	1.73	3.96
June	226.40	41.04	226.91	222.10	226.15	41.94	33.47	40.59	3.90	0.86	2.54	6.87	1.51	4.47
For Year			226.91	219.07	225.98	41.94	28.14	40.30	5.74	0.38	1.96	10.10	0.67	3.44

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

TABLE 26

WATER DISTRIBUTION SYSTEM

*LONGVIEW DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1981

1980-1981	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	304.90	11.89	304.90	292.68	303.56	11.89	6.22	11.27	11.43	1.85	5.11	5.30	0.86	2.37
August	303.55	11.26	305.50	297.73	304.69	12.17	8.56	11.79	6.65	1.10	3.65	3.09	0.52	1.69
September	304.10	11.52	305.75	296.72	304.69	12.28	8.09	11.79	8.08	2.23	4.57	3.75	1.04	2.13
October	304.75	11.82	305.42	300.16	304.63	12.13	9.69	11.76	4.44	1.24	2.95	2.06	0.57	1.37
November	304.95	11.92	305.38	300.70	304.32	12.11	9.94	11.62	4.30	1.20	2.50	2.00	0.56	1.16
December	304.40	11.66	305.43	300.48	304.24	12.13	9.84	11.58	4.95	1.39	2.48	2.29	0.64	1.15
January	304.07	11.50	305.50	301.53	304.20	12.17	10.32	11.56	3.47	1.25	2.53	1.61	0.58	1.17
February	304.30	11.61	305.67	300.35	304.45	12.25	9.78	11.68	4.49	1.63	2.78	2.08	0.76	1.29
March	304.90	11.89	305.78	301.32	304.79	12.30	10.23	11.84	4.39	1.33	2.26	2.03	0.62	1.05
April	305.78	12.30	305.82	302.08	304.77	12.32	10.58	11.83	3.17	1.40	2.19	1.47	0.65	1.02
May	304.70	11.80	305.54	297.07	304.27	12.19	8.26	11.60	7.58	0.85	2.85	3.51	0.39	1.32
June	303.84	11.40	306.97	296.31	304.35	12.68	7.90	11.63	7.10	0.85	4.07	4.05	0.39	1.88
For Year			306.97	292.68	304.41	12.68	6.22	11.66	11.43	0.85	3.16	5.30	0.39	1.47

*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, 1981

Pipe Laid in Feet

City or Town	6"	8"	10"	12"	16"	24"	Total
Providence	555.85	534.68	--	--	114.34	282.70	1,487.57
Cranston	461.47	4,821.10	--	--	--	--	5,282.57
Johnston	384.40	1,002.50	--	--	--	--	1,386.90
North Providence	2,519.40	639.30	--	--	--	--	3,158.70
Totals	3,921.12	6,997.58	--	--	114.34	282.70	11,315.74

Pipe Removed in Feet

	6"	8"	10"	12"	16"	24"	Total
Providence	352.58	545.11	77.43	--	192.00	101.00	1,268.12
Cranston	251.60	--	--	--	--	--	251.60
Johnston	--	--	--	--	--	--	--
North Providence	--	--	--	10.40	--	--	10.40
Totals	604.18	545.11	77.43	10.40	192.00	101.00	1,530.12

Net Length Added to Distribution System

	6"	8"	10"	12"	16"	24"	Total
Providence	203.27	10.43	-77.43	--	-77.66	181.70	219.45
Cranston	209.87	4,821.10	--	--	--	--	5,030.97
Johnston	384.40	1,002.50	--	--	--	--	1,386.90
North Providence	2,519.40	639.30	--	-10.40	--	--	3,148.30
Totals	3,316.94	6,452.47	-77.43	-10.40	-77.66	181.70	9,785.62

NOTE: In addition, we purchased 85,660.02' of main, ranging in sizes 6" to 16", in the Marieville section of North Providence.

TABLE 28

PUBLIC WATER MAINS IN USE ON JUNE 30, 1981

	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	1,443,378.35	273.37	648,569.97	122.84	137,583.97	26.06	223,122.46	42.26	2,452,654.75	464.52	82.06	0.02
8-inch	364,340.76	69.00	404,705.93	76.65	233,000.28	44.13	188,497.19	35.70	1,190,544.16	225.48	1,221.65	0.23
10-inch	10,106.53	1.91	0	0	0	0	250.00	0.05	10,356.53	1.96	0	0
12-inch	254,032.90	48.11	114,447.73	21.68	13,556.11	2.57	40,350.79	7.64	422,387.53	80.00	7,458.17	1.41
16-inch	148,286.85	28.09	9,803.11	1.86	6,393.63	1.21	10,705.38	2.03	175,188.97	33.18	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	56,824.33	10.76	6,301.43	1.19	32,749.23	6.20	9,269.26	1.76	105,144.25	19.91	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	2,375,273.08	449.86	1,266,911.27	239.95	428,017.22	81.06	476,204.37	90.19	4,546,405.94	861.06	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.

Included in the above tabulation are 85,660.02 feet of main ranging in sizes 6-inch to 16-inches in the Marieville section of North Providence which became part of the City of Providence Water Supply Board system July 30, 1980.

TABLE 29

GATES IN USE ON JUNE 30, 1981

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																							
4,412	1,052	13	661	284	28	77	39	6	3	10	0	6,585	1,737	1,407	3,144	8	14	22	1	2	1	4	9,755
CRANSTON																							
1,802	1,017	0	239	15	0	11	16	13	14	4	3	3,134	1,205	11	1,216	3	14	17	0	2	28	30	4,397
JOHNSTON																							
383	513	1	31	12	6	5	0	0	0	1	0	952	347	11	358	3	0	3	0	0	2	2	1,315
NORTH PROVIDENCE																							
645	411	1	88	10	0	5	1	1	0	0	0	1,162	460	0	460	0	3	3	0	0	0	0	1,625
TOTALS																							
7,242	2,993	15	1,019	321	34	98	56	20	17	15	3	11,833	3,749	1,429	5,178	14	31	45	1	4	31	36	17,092

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.

Included in the above tabulation are 293 gates, in sizes 6-inch to 16-inches, in the Marieville section of North Providence which became part of the City of Providence Water Supply Board system July 30, 1980.

TABLE 30

SERVICE PIPES INSTALLED AND REMOVED — YEAR ENDED JUNE 30, 1981

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	93	6	10	109	42	0	0	42
Cranston	75	2	11	88	8	0	0	8
Johnston	58	0	2	60	5	0	0	5
North Providence	49	1	0	50	6	0	0	6
Totals	275	9	23	307	61	0	0	61

TABLE 31

NUMBER AND SIZE OF ACTIVE SERVICES — YEAR ENDED JUNE 30, 1981

	1/2"	5/8"	3/4"	1"	1¼"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	42"	Total
Providence	194	23,119	7,595	2,397	435	579	718	6	1,031	1,018	110	2	10	2	0	0	0	37,216
Cranston	5	6,819	8,526	2,612	39	588	422	0	145	150	45	0	4	0	1	2	2	19,360
Johnston	0	739	2,568	1,628	9	377	99	0	22	42	8	0	1	0	0	0	0	5,493
North Providence	0	1,052	2,771	2,623	5	352	159	0	48	32	8	0	2	0	0	0	0	7,052*
Totals	199	31,729	21,460	9,260	488	1,896	1,398	6	1,246	1,242	171	2	17	2	1	2	2	69,121

*Includes 1,201 services in sizes 1", 2", 4", 6" & 8", in the Marieville section of North Providence, which became part of the City of Providence Water Supply Board distribution system July 30, 1980.

TABLE 32

PUBLIC FIRE HYDRANTS

HYDRANT ACTIVITIES DURING THE YEAR ENDED JUNE 30, 1981

	Providence	Cranston	Johnston	North Providence	Totals
Post Hydrants Installed	40	11	1	6	58
Post Hydrants Removed	39	11	1	2	53

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1981

Post Hydrants	3,145	1,219	364	463*	5,191

*Includes hydrants in the Marieville section of North Providence which became part of the City of Providence Water Supply Board distribution system July 30, 1980.

TABLE 33

NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES

YEAR ENDED JUNE 30, 1981

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
							*PROVIDENCE									
Make																
Trident	29,286	3,265	1,105	1,301	1,914	71	60	60	17	5	-	-	-	-	-	37,084
Thomson	328	57	45	23	80	-	2	-	-	-	-	-	-	-	-	535
Empire	29	-	6	-	-	-	-	-	-	-	-	-	-	-	-	35
Crown	14	2	2	-	-	-	-	-	-	-	-	-	-	-	-	18
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Rockwell Turbo	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Totals	29,657	3,324	1,158	1,326	1,997	73	75	120	24	5	1	2	-	-	-	37,762

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

							*CRANSTON									
Make																
Trident	16,353	1,546	641	343	488	2	6	15	7	-	1	-	-	-	-	19,408
Thomson	-	6	-	8	5	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	-	1	-	-	8	5	-	-	-	-	-	-	14
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,353	1,552	641	357	494	2	6	23	13	-	2	1	1	1	2	19,448

*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	3,999	989	307	83	115	-	-	5	3	-	-	-	-	-	-	5,501
Thomson	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Hersey	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,023	989	307	83	115	-	-	6	3	-	1	-	-	-	-	5,527

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

							*NORTH PROVIDENCE									
Make																
Trident	5,415	851	394	89	140	1	3	5	-	-	-	-	-	-	-	6,898
Thomson	57	2	-	1	1	-	-	-	-	-	-	-	-	-	-	61
Gamon	65	1	1	1	4	-	-	-	-	-	-	-	-	-	-	72
Arctic	14	-	1	-	-	-	-	-	-	-	-	-	-	-	-	15
Keystone	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Badger	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hersey	-	-	-	-	-	1	-	8	-	-	-	-	-	-	-	9
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	5,585	854	396	91	145	2	3	13	-	-	1	-	-	-	-	7,090

*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.	Maximum Day 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
1981	144.0	24,194.6	66.3	129.7	90.1	195.6	192.6	133.8	290.5

TABLE 35

CONSUMPTION OF WATER - MILLION GALLONS

YEAR ENDED JUNE 30, 1981

1980-1981	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	105.928	40.313	66.830	2,071.738	23.811	12.597	17.260	535.053	129.739	52.910	84.090	2,606.791
August	83.318	41.396	61.449	1,904.914	18.784	10.869	14.940	463.146	102.102	55.609	76.389	2,368.060
September	78.997	42.454	59.022	1,770.673	19.067	13.275	16.105	483.135	97.696	57.393	75.127	2,253.808
October	58.770	37.110	48.463	1,502.342	16.242	10.176	14.156	438.848	75.012	49.713	62.619	1,941.190
November	54.153	34.257	44.925	1,347.741	15.226	10.899	13.296	398.892	66.934	50.868	58.222	1,746.633
December	52.943	33.302	45.963	1,424.841	14.557	10.589	12.670	392.782	65.962	43.891	58.633	1,817.623
January	56.504	36.555	48.705	1,509.866	14.598	10.819	12.628	391.462	69.448	47.374	61.333	1,901.328
February	53.745	37.018	46.907	1,313.393	14.509	11.587	12.792	358.176	66.294	48.605	59.699	1,671.569
March	50.142	34.346	44.215	1,370.660	15.884	10.858	13.699	424.659	64.213	46.498	57.914	1,795.319
April	51.931	34.789	44.411	1,332.308	18.645	13.317	15.002	450.059	67.272	48.724	59.413	1,782.367
May	70.264	35.359	48.844	1,514.170	21.307	14.457	16.701	517.725	89.966	49.829	65.545	2,031.895
June	78.630	38.454	57.913	1,737.401	22.109	14.200	18.020	540.617	100.337	52.654	75.933	2,278.018
For Year	105.928(a)	33.302(b)	51.507	18,800.047	23.811(c)	10.176(d)	14.780	5,394.554	129.739(e)	43.891(f)	66.287	24,194.601

(a) 7/21/80 (b) 12/25/80 (c) 7/21/80 (d) 10/26/80 (e) 7/21/80 (f) 12/25/80

(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, 1981

	KENT COUNTY WATER AUTHORITY				WEST CRANSTON	
	S.S. 58985 Oaklawn Avenue Cranston 12" Tri-Crest Meter	S.S. 75430 Clinton Avenue Scituate 30" Flow Meter			S.S.76957 Adjacent to Aqueduct Reservoir Cranston 16" Flow Meter	
1980-1981	Gallons per Month	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
July	19,236,000	156,589,100	175,825,100	5,671,777	10,821,000	349,065
August	16,908,000	146,547,450	163,455,450	5,272,756	6,986,100	225,358
September	14,306,250	132,178,750	146,485,000	4,882,833	9,221,600	307,387
October	12,230,250	111,173,500	123,403,750	3,980,766	5,728,100	184,777
November	12,177,750	108,793,700	120,971,450	4,032,382	7,319,900	243,997
December	11,311,500	114,258,000	125,569,500	4,050,629	5,705,700	184,055
January	12,009,000	121,653,500	133,662,500	4,311,694	5,491,800	177,155
February	12,687,750	107,042,150	119,729,900	4,276,068	5,413,700	193,346
March	11,928,750	107,481,750	119,410,500	3,851,952	5,664,700	182,732
April	11,514,000	108,338,800	119,852,800	3,995,093	5,842,100	194,737
May	14,215,500	126,479,200	140,694,700	4,538,539	7,785,200	251,135
June	15,127,500	141,994,650	157,122,150	5,237,405	11,494,600	383,153
For Year	163,652,250	1,482,530,550	1,646,182,800	4,510,090	87,474,500	239,656

TABLE 37

WATER SOLD TO THE CITY OF WARWICK

AND THE CITY OF EAST PROVIDENCE

YEAR ENDED JUNE 30, 1981

	CITY OF WARWICK				CITY OF EAST PROVIDENCE	
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	196,089,000	183,372,000	379,461,000	12,240,677	232,178,600	7,489,632
August	161,252,000	149,521,875	310,773,875	10,024,964	218,923,700	7,062,055
September	138,826,000	128,176,455	267,002,455	8,900,082	206,497,300	6,883,243
October	101,477,000	102,860,150	204,337,150	6,591,521	186,024,600	6,000,794
November	96,060,000	97,826,923	193,886,923	6,462,897	189,031,200	6,301,040
December	92,352,000	98,117,400	190,469,400	6,144,174	191,112,900	6,164,932
January	91,098,000	100,494,350	191,592,350	6,180,398	207,755,200	6,701,781
February	97,532,000	87,962,900	185,494,900	6,624,818	172,321,800	6,154,350
March	90,718,000	95,223,700	185,941,700	5,998,119	166,370,900	5,366,803
April	---	100,244,590	100,244,590	3,341,486	165,808,600	5,526,953
May	---	125,218,150	125,218,150	4,039,295	188,107,600	6,067,987
June	379,672,000	148,276,950	527,948,950	17,598,298	209,080,900	6,969,363
For Year	1,445,076,000	1,417,295,443	2,862,371,443	7,842,114	2,333,213,300	6,392,365

TABLE 38

WATER SOLO TO EAST SMITHFIELO WATER COMPANY, SMITHFIELO WATER OEPARTMENT AND THE GREENVILLE WATER OISTRICT

YEAR ENOEO JUNE 30, 1981

	EAST SMITHFIELO WATER COMPANY				SMITHFIELO WATER OEPT.		GREENVILLE WATER OISTRICT	
	S.S. 51198 Waterman Avenue No. Prov. 6" Tri-Pro Meter	S.S. 52403 Oean 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	
1980-1981	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	21,349,500	6,963,750	28,313,250	913,331	13,980,400	450,981	24,250,600	782,277
August	21,384,750	6,986,250	28,371,000	915,194	13,067,500	421,532	19,747,400	637,013
September	12,307,500	6,106,500	18,414,000	613,800	15,605,500	520,183	18,851,500	628,383
October	8,091,750	6,405,000	14,496,750	467,637	13,601,800	438,768	17,157,300	553,461
November	14,874,750	5,904,750	20,779,500	692,650	12,953,600	431,787	16,792,600	559,753
Oecember	14,590,500	5,623,500	20,214,000	652,065	11,289,500	364,177	16,994,300	548,203
January	16,365,000	5,976,000	22,341,000	720,677	9,860,100	318,068	17,406,100	561,487
February	17,762,250	6,394,500	24,156,750	862,741	13,792,200	492,579	14,725,000	525,893
March	17,356,500	6,099,000	23,455,500	756,629	11,651,200	375,845	15,817,300	510,235
April	17,973,750	6,100,500	24,074,250	802,475	12,754,900	425,163	16,313,500	543,783
May	23,446,500	7,023,000	30,469,500	982,887	13,564,200	437,555	20,903,400	674,303
June	23,893,500	6,721,500	30,615,000	1,020,500	13,464,300	448,810	22,034,600	734,487
For Year	209,396,250	76,304,250	285,700,500	782,741	155,585,200	426,261	220,993,600	605,462

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
1891	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	39.96	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	45.05	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
1981	84.09	76.39	75.13	62.62	58.22	58.63	61.33	59.70	57.91	59.41	65.55	75.93	66.29

TABLE 40

FINANCIAL STATEMENT

YEAR ENDED JUNE 30, 1981

Operating Revenue		
Sale of Water		$7,446,989.28
Hydrant Rental		171,781.60
Electrical Power		0.00
Setting Meters		3,190.50
Repairing Meters		455.00
Repairs to Services		2,067.16
Repairs to Mains		7,441.76
Repairs to Hydrants		7,273.65
Installation of Services		109,315.26
Installation of Fire Supplies		6,620.00
Installation of Water Mains		111,576.00
Sale of Timber & Forestry Services		4,774.20
Transferred from Reserve Fund		38,200.00
Total Operating Revenue		$7,909,684.41
Operating Expenses		
Administration	$1,166,132.75	
Source of Supply	1,376,461.61	
Transmission & Distribution	1,970,029.62	
Accounting & Commercial	530,031.33	
Taxes	1,479,908.61	
Employees' Retirement System	333,028.00	
Social Security	147,903.28	
Unemployment Compensation	0.00	
Total Operating Expenses		*$7,003,495.20
Operating Income		$ 906,189.21
Add Non-Operating Income		
Rental of Real Estate	$ 4,829.15	
Other	41,849.57	
Total Non-Operating Income		$ 46,678.72
Sub Total		$ 952,867.93
Less Non-Operating Expenses		
Interest on Bonded Debt	$ 610,300.00	
Retirement - Serial Bonds	350,000.00	
Total Non-Operating Expenses		$ 960,300.00
DEFICIT		$ 7,432.07

*See Table 41 for detailed account of Operating Expenses.

TABLE 41

WATER SUPPLY BOARD - GENERAL FUND EXPENSES

YEAR ENDED JUNE 30, 1981

		ADMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & DISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
000	Salaries & Wages:						
	Regular Pay	$263,888.05	$407,856.36	$676,359.97	$300,814.27	$ 0	$1,648,918.65
	Overtime Pay	10,944.46	54,066.26	142,198.77	12,098.16	0	219,307.65
	Other(Sick Leave,Vacation,etc.)	34,444.13	71,627.49	152,458.01	60,954.10	0	319,483.73
	Total Salaries & Wages	$309,276.64	$533,550.11	$971,016.75	$373,866.53	$ 0	$2,187,710.03
100	Services Other Than Personal:						
	Fees Not Classified	$ 60,327.61	$ 10,176.00	$ 3,169.48	$ 6,029.95	$ 0	$ 79,703.04
	Telephone	1,707.54	3,253.28	14,507.09	10,833.29	0	30,301.20
	Electricity & Natural Gas	17,303.15	57,541.70	153,853.22	4,955.84	0	233,653.91
	Repairs & Maintenance	7,904.13	37,938.16	134,662.35	2,286.66	0	182,791.30
	Data Processing	0	0	0	36,663.94	0	36,663.94
	City Services Provided to Water Supply Board	495,772.20	0	0	20,000.00	0	515,772.20
	Other Services	207,814.63	17,981.32	11,280.62	10,529.45	0	247,606.02
	Total Services	$790,829.26	$126,890.46	$317,472.76	$ 91,299.13	$ 0	$1,326,491.61
200	Materials & Supplies:						
	Motor Fuel	$ 3,162.50	$ 20,454.06	$ 37,429.63	$ 2,811.87	$ 0	$ 63,858.06
	Repair Parts & Supplies	2,415.59	20,544.49	46,583.78	61.63	0	69,605.49
	Treatment Chemicals & Lab Supplies	0	320,587.19	401.10	0	0	320,988.29
	Heating Fuel	0	64,406.68	3,078.46	0	0	67,485.14
	Hydrants, Valves & Fittings	0	3,051.00	107,940.81	0	0	110,991.81
	Pipe	0	0	13,323.65	0	0	13,323.65
	Other Materials & Supplies	4,532.70	24,849.24	48,288.25	3,345.43	0	81,015.62
	Total Materials & Supplies	$ 10,110.79	$453,892.66	$257,045.68	$ 6,218.93	$ 0	$ 727,268.06
300	Special Items:						
	Claims & Damages	$ 10,138.69	$ 0	$ 425.00	$ 0	$ 0	$ 10,563.69
	Union Legal Fees	3,369.50	$ 5,873.50	12,742.50	5,635.50	0	27,621.00
	Blue Cross & RIGHA	21,136.46	33,872.72	68,127.51	25,028.34	0	148,165.03
	Drugs & Prescription Plan	1,009.20	1,795.80	3,856.95	1,700.85	0	8,362.80
	Expenses for Ceremonies	3,039.74	0	0	0	0	3,039.74
	Union Pension Fund	14,151.90	24,668.70	53,518.50	23,669.10	0	116,008.20
	Total Special Items	$ 52,845.49	$ 66,210.72	$138,670.46	$ 56,033.79	$ 0	$ 313,760.46

TABLE 41 (Continued)

WATER SUPPLY BOARD - GENERAL FUND EXPENSES

YEAR ENDED JUNE 30, 1981

		ADMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & DISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
500	Capital Outlay:						
	Office Furniture & Equipment	$ 2,326.85	$ 0	$ 0	$ 2,612.95	$ 0	$ 4,939.80
	Books, Maps & Charts	84.72	68.00	0	0	0	152.72
	Autos & Trucks	0	21,659.50	59,251.60	0	0	80,911.10
	Lab Equipment	0	1,723.74	0	0	0	1,723.74
	Agricultural Equipment	0	576.00	0	0	0	576.00
	Communication Equipment	659.00	3,345.18	0	0	0	4,004.18
	Shop & Plant Equipment	0	0	1,993.13	0	0	1,993.13
	Total Capital Outlay	$ 3,070.57	$ 27,372.42	$ 61,244.73	$ 2,612.95	$ 0	$ 94,300.67
600	Land & Buildings:						
	Improvements to Land	$ 0	$ 67,796.00	$ 0	$ 0	$ 0	$ 67,796.00
	Improvements to Buildings	0	100,749.24	3,290.67	0	0	104,039.91
	Total Land & Buildings	$ 0	$168,545.24	$ 3,290.67	$ 0	$ 0	$ 171,835.91
700	Other Structures & Improvements:						
	Main Extensions	$ 0	$ 0	$221,288.57	$ 0	$ 0	$ 221,288.57
	Total Other Structures	$ 0	$ 0	$221,288.57	$ 0	$ 0	$ 221,288.57
	Other Items:						
	Property Taxes	$ 0	$ 0	$ 0	$ 0	$1,479,908.61	$1,479,908.61
	Contributions to Retirement	0	0	0	0	333,028.00	333,028.00
	Federal Old Age	0	0	0	0	147,903.28	147,903.28
	Interest on Bonded Debt	0	0	0	0	610,300.00	610,300.00
	Retirement Bonds	0	0	0	0	350,000.00	350,000.00
	Total Other Items	$ 0	$ 0	$ 0	$ 0	$2,921,139.89	$2,921,139.89
	TOTAL	$1,166,132.75	$1,376,461.61	$1,970,029.62	$530,031.33	$2,921,139.89	$7,963,795.20

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
1981	7,446,989.28	509,373.85	7,956,363.13

*October 1, 1969 - June 30, 1970.

TABLE 43

STATEMENT OF REVENUES - ESTIMATED AND ACTUAL

YEAR ENDED JUNE 30, 1981

Account	Estimated Revenue	Actual Revenue
Water Rents	$7,247,400.00	$7,446,989.28
Hydrant Rentals	420,900.00	171,781.60
Electricity	0.00	0.00
Repairing & Setting Meters	0.00	3,645.50
Miscellaneous Repairs	0.00	16,782.57
Installation of Fire Supplies	109,300.00	6,620.00
New Service Installations	0.00	109,315.26
New Main Extensions	0.00	111,576.00
Transfers from Reserve Fund	0.00	38,200.00
Other Miscellaneous Receipts	522,400.00	51,452.92
TOTAL	$8,300,000.00	$7,956,363.13

TABLE 44

RESERVE FUND

YEAR ENDED JUNE 30, 1981

	Investment	Cash	Due from Other Funds	Total
Balance - June 30, 1980	$ 224,496.18	0	0	$224,496.18
Increase During Year Ended June 30, 1981	$ 932,474.59	$226,250.08		
Disbursements During Year Ended June 30, 1981	$1,135,021.47	*$226,250.08		
Balance - June 30, 1981	$ 21,949.30	0	0	$ 21,949.30

*Transfers from Reserve Fund to
a)Capital Account for partial financing of 24-inch Divisional Main for High Service System;
b) Main Extension Account.

TABLE 45

STATEMENT OF SERIAL BONDS OUTSTANDING

YEAR ENDED JUNE 30, 1981

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	$ 570,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3¼	1962	1992	$ 70,000.00	$ 2,050,000.00	$1,015,000.00
General Obligation Bonds	5	1971	2001	$240,000.00	$11,000,000.00	$9,110,000.00
Total Bonds and Requirements				$350,000.00	$14,150,000.00	$10,695,000.00

TABLE 46

STATEMENT OF METER REVOLVING FUND

YEAR ENDED JUNE 30, 1981

Unencumbered Balance - June 30, 1980	$ 13,239.73	
Outstanding Commitments - June 30, 1980	$ 30,278.60	
Receipts - July 1, 1980 - June 30, 1981	$ 55,675.07	
Total Available		$99,193.40
Expenditures - July 1, 1980 - June 30, 1981	$ 68,046.60	
Outstanding Commitments - June 30, 1981	$ 10,077.80	
Total Disbursements		$78,124.40
Unencumbered Balance - June 30, 1981		$21,069.00

TABLE 47

STATEMENT OF WATER METER CONVERSION REVOLVING FUND

YEAR ENDED JUNE 30, 1981

Unencumbered Balance - June 30, 1980	$ 1,210.36	
Outstanding Commitments - June 30, 1980	0	
Receipts - July 1, 1980 - June 30, 1981	$ 1,377.88	
Total Available		$ 167.52
Expenditures - July 1, 1980 - June 30, 1981	0	
Outstanding Commitments - June 30, 1981	0	
Total Disbursements		0
Unencumbered Balance - June 30, 1981		$ 167.52

TABLE 48

TAXES PAID TO VARIOUS CITIES & TOWNS

July 1, 1980 to June 30, 1981

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	----	$ 32.45
City of Cranston	110.627	62,840.00	1,241,240.00	1,304,080.00	----	104,287.63
Town of Foster	1,617.470	1,993,250.00	0	1,993,250.00	3.84	76,540.80
Town of Glocester	73.300	20,665.00	0	20,665.00	8.17	1,688.33
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	7.20	26,215.20
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	8.70	1,261,500.01
Town of West Warwick	8.940	33,060.00	0	33,060.00	7.35	1,875.38
Total Real Estate	15,071.086			$18,430,585.00		$1,479,908.61

*Includes $16,525.00 Tangible Personal.
**In addition to this amount, $91.97 was paid to the West Glocester Fire District and $23.55 to the Harmony Fire District.

NOTE: Two payments were made to the City of Warwick- the first based on a rate of $3.51 amounted to $15.80 and the second payment on a rate of $3.70 was $16.65.

The City of Cranston was paid three installments at a rate of $7.695 totaling $77,348.60 and one payment at a rate of $8.263 was $26,939.03.

The Town of West Warwick was paid three installments amounting to $1,820.76 and an interest payment of $54.62.

A yearly credit of $20,000.00 was applied to Johnston tax bill as a result of the sale of water lines to the Town. Actual payment was $6,215.20.

TABLE 49

SUMMARY OF STATISTICS,

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1981

*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		77.7% by gravity; 22.3% by pumping
STATISTICS OF CONSUMPTION OF WATER		
1. Estimated population supplied		450,000
2. Total raw water influent for the year, gallons		25,069,508,000
3. Average daily raw water influent, gallons		68,684,000
4. Raw water consumption per capita, gallons daily		152.6
5. Total consumption for the year, gallons		24,194,601,000
6. Total registration on customers' meters, gallons		22,977,381,735
7. Percentage of consumption accounted for on customers' meters		95.0%
8. Average daily consumption, gallons		66,287,000
9. Per capita consumption, gallons daily		147.3
10. Gallons per day to each tap		959

*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, 1981

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	24,494,502,000
6. Average quantity filtered per day, gallons	67,108,000
7. Total filtered water delivered to the distribution system during the year, gallons	24,196,131,000

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	11,315.74 feet
4. Removed	1,530.12 feet
5. Net increased	9,785.62 feet
6. Total now in use	861.06 miles
7. Number of leaks per mile	0.10
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	58
11. Number removed	53
12. Net increase	5
13. Number of hydrants now in use	5,191
14. Number of stop gates installed	47
15. Number removed	11
16. Net increase	36
17. Number of stop gates now in use	11,833

TABLE 49 (Continued)

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1981

STATISTICS RELATING TO THE DISTRIBUTION SYSTEM
(Continued)

18. Kind of services	Brass, Lead, Copper and Cast Iron
19. Sizes	½-inch to 42 inches
20. Number of service taps installed	307
21. Number removed	61
22. Net increase	246
23. Number of services now in use	69,121
24. Number of meters installed	385
25. Number removed or condemned	109
26. Net increase	276
27. Number of meters now in use	*69,827
28. Per cent of services metered	100

*Many large services have batteries of meters.

TABLE 50

YEAR ENDED JUNE 30, 1981

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

	E.P.A. Regulations (Maximum Permissible)	
Physical Characteristics:		
*Color	15 units	4
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 0.010
Cadmium	0.010	less than 0.002
Chromium	0.05	less than 0.02
*Copper	1.	less than 0.02
Fluoride	2.0	0.97
*Iron	0.30	0.03
Lead	0.05	less than 0.005
Mercury	0.002	less than 0.001
*Foaming Agents	0.05	less than 0.05
Nickel	----	less than 0.010
Nitrate (as N)	10.	0.1
Potassium	----	0.3
Selenium	0.01	less than 0.005
Silver	0.05	less than 0.02
Sodium	----	5.5
*Total Dissolved Solids	500.	75.
*Zinc	5.	less than 0.02
Characteristics		
Aldrin	----	less than 0.2 p.p.b.
Chlordane	----	less than 2. p.p.b.
DDT	----	less than 1. p.p.b.
Dieldrin	----	less than 0.06 p.p.b.
**Endrin (micrograms per liter)	0.2	less than 0.2 p.p.b.
Heptachlor	----	less than 0.1 p.p.b.
Heptachlor Epoxide	----	less than 0.1 p.p.b.
**Lindane (micrograms per liter)	4.	less than 1. p.p.b.
**Methoxychlor (micrograms per liter)	100.	less than 3. p.p.b.
**Toxaphene (micrograms per liter)	5.	less than 5. p.p.b.
**2,4-D (micrograms per liter)	100.	less than 0.05 p.p.m.
**2,4,5-TP Silvex (micrograms per liter)	10.	less than 0.005 p.p.m.
2,4,5-T	----	----

*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.

NOTE: p.p.b. (parts per billion)
p.p.m. (parts per million)

WATER SUPPLY BOARD

CITY OF PROVIDENCE

June 29, 1982

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, 1981.

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