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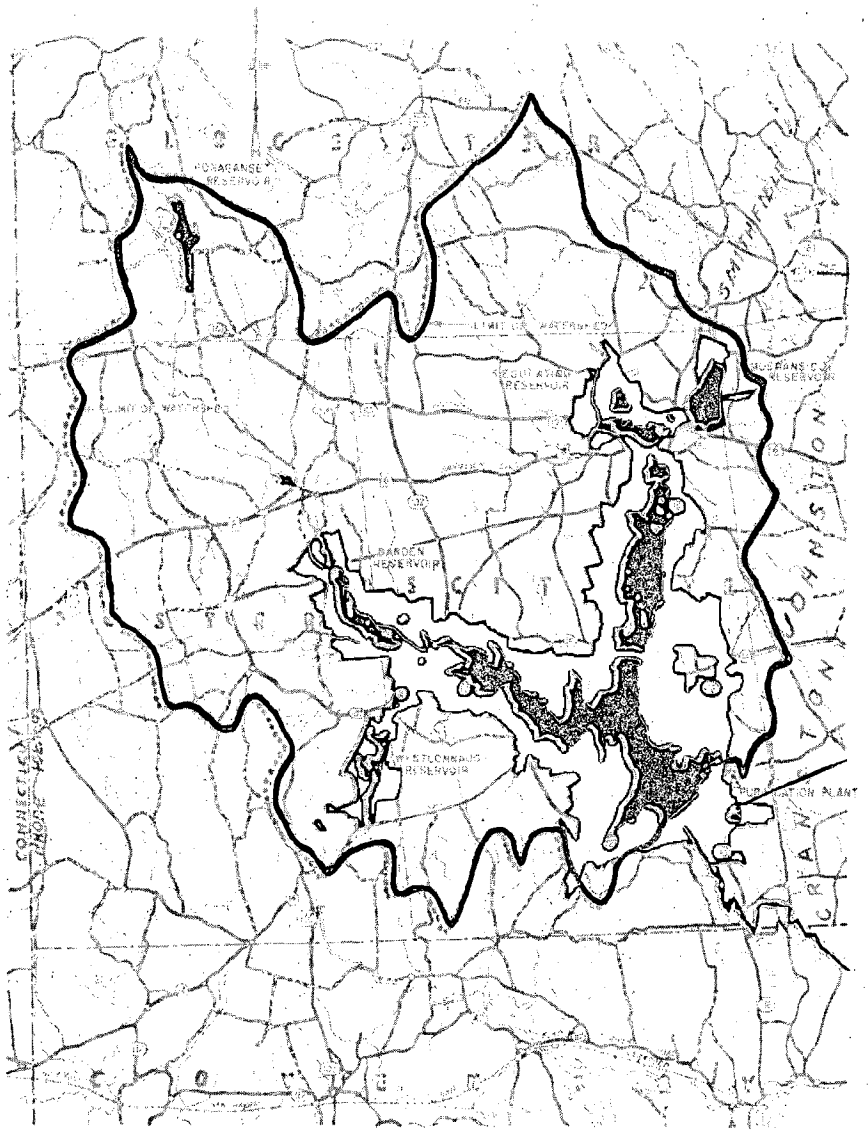
IN CITY COUNCIL
MAY 4 1978
READ:
WHEREUPON IT IS ORDERED THAT THE SAME BE RECEIVED.
Rose M Henderson CLERK

CITY DOCUMENT



ANNUAL REPORT

of the

WATER SUPPLY BOARD

of the

CITY OF PROVIDENCE

For the Year Ended June 30, 1977

WATER SUPPLY BOARD

CITY OF PROVIDENCE

April 25, 1978

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, 1977, which has been signed by Mr. John A. Doherty, Chairman of the Board.

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,

Peter H. Granieri, Jr., P.E.
Chief Engineer

ms

enclosure

552 ACADEMY AVENUE • PROVIDENCE, RHODE ISLAND • 02908 • 401-521-6300

50 Years

On September 30, 1926 the present source of supply came into operation. Simultaneously, the Pettaconsett Pumping Station and Filter Plant were permanently closed and the Pawtuxet River Supply was officially abandoned after serving 55 years, since December 1, 1871, as the source of public drinking water. The new supply was formed by construction of the Main or Scituate Dam across the north branch of the Pawtuxet River just below the village of Kent. Scituate Reservoir, and five smaller reservoirs tributary to it, then became the water supply to Metropolitan Providence. Approximately 24 square miles of peripheral land was acquired to protect raw water quality, all within the 92.8 square mile, maple leaf shaped watershed area. The city-owned land mass is over five square miles larger than the city of Providence. Water flowing from Scituate Reservoir Dam, rededicated in 1949 as the Joseph H. Gainer Memorial Dam in honor of Mayor Gainer, in office when the project was built, passes through the Philip J. Holton Water Purification Works, the largest filtration plant in New England, and into the Scituate Tunnel and Aqueduct system, all by gravity flow. On September 30, 1976 we commemorated the golden anniversary of these facilities which now furnish high quality water to almost half the population of Rhode Island.

Water Supply Board
John A. Doherty
Chairman

PHILIP J. HOLTON, JR.

Philip J. Holton, Jr., 77, died December 30, 1976.

He was born in Providence, R.I. on July 12, 1899. A graduate of the R.I. School of Design in 1920, he worked for 10 years as Assistant Chief Engineer of the United States Finishing Company, which operated five large mills in New England and two in the South.

In 1933 Mr. Holton was appointed Superintendent of the Scituate Reservoir Division of the Department of Public Works, and upon enactment of a new city charter in 1940 became Chief Engineer of the Providence Water Supply Board. He retired from this position in 1968 and was retained as a consultant by CE Maguire, Inc.

Known throughout the waterworks industry for his engineering and administrative abilities, he began a modernization program in 1938 at the Water Purification Works which now bears his name. The plant was changed from hydraulic to all-electric operation, the highlight of which was a Central Control Board.... the first in the industry. Treatment capacity was increased from 44 to 61.6 mgd, and was again increased from 61.6 to 105 mgd in 1954. In 1962, a 43.4 mg underground, covered distribution reservoir was built, bringing the storage in the low service part of the system from 42.1 to 85.5 mg. Work in progress at the time of his retirement consisted of another raise in capacity from 105 to 144 mgd, together with the construction of 4.36 miles of 78-inch and 5.15 miles of 102-inch aqueduct to accept the higher flow from the Philip J. Holton Water Purification Works, plus water from the future Big River Reservoir complex. In addition, a Raw Water Booster Pumping Station, housing an auxiliary diesel generator, was built as part of this expansion program. The total cost of these most recent improvements, completed in 1970, amounted to $18 million; an EDA grant of $7.25 million was obtained, the largest to date in the history of that governmental agency.

Mr. Holton was a member of the state Board of Registration for Professional Engineers and Land Surveyors, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Water Works Association, and the New England Water Works Association. In 1963 he was named Engineer of the Year by the Providence Engineering Society, and on June 6, 1964 received an honorary Doctor of Laws degree from Rhode Island College. In 1963 the department was given the American Water Works Association's Advancement Award . . . . a fitting recognition of the achievements of Rhode Island's "Mr. Water".

We now wish to further honor his contributions and accomplishments by respectfully dedicating this 37th edition of the Annual Report to his memory.

ADMINISTRATIVE OFFICE

Water Supply Board
City of Providence

July 1, 1977

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 thirty-seventh annual report of the Water Supply Board, for the year ended June 30, 1977.

John E. Rogers, P.E., Chief Engineer, retired on September 12, 1976, completing a career of 39 years with the Water Supply Board. Prior to serving in that capacity from 1972-1976, Mr. Rogers was Deputy Chief Engineer for 4 years. He was succeeded by Peter P. Granieri, P.E., who assumed the duties of Chief Engineer on December 20, 1976. John H. Seites, P.E., Deputy Chief Engineer, was Acting Chief Engineer in the interim.

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

The report of the Chief Engineer is appended hereto. It contains many 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

John A. Doherty, Chairman
Earl H. Ashley
Alfred T. Ciccone
Robert F. Howard
Vincent J. Cirelli
Raymond Cola
James R. Bernardo, Acting Ex-Officio

REPORT OF THE CHIEF ENGINEER

Providence, R.I.
July 1, 1977

WATER SUPPLY BOARD
CITY OF PROVIDENCE

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1977.

Precipitation on the 92.8 square mile drainage area this past year amounted to 52.24 inches; this was 5.55 inches less than the total of 57.79 for the 1976 year and 15.22 less than the maximum of record . . . 67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 23.35 inches compared with 30.24 for the previous year and the 40.97 inches maximum of record recorded for fiscal 1956.

Consumption decreased to 62,439,000 gallons per day, down 2,298,000 gallons per day from the figure of 64,737,000 for the year ended June 30, 1976. The maximum day's use was 98,616,000 gallons on July 28, 1976, the highest hourly rate that day being 132,744,000 gallons per day. These quantities compare with 61-year highs of 117,980,000 gallons and 162,912,000 gallons per day maximum hourly rate established June 24, 1976.

Water sold to Kent County Water Authority, the City of Cranston, (for distribution to its western section), Warwick, East Providence, East Smithfield Water Company, Smithfield Water Department and the Greenville Water District totaled 6,206,146,072 gallons, an average of 17,003,140 gallons per day. These seven wholesale customers accounted for 27.23% of the total consumption. Summaries relating to quantities metered to these users are shown in Tables 40, 41 and 42 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, and metering and billing.

In order to determine the revenue required to provide a reasonable rate of return and to meet the present day escalation in costs of operation and maintenance, Camp, Dresser and McKee, a firm of consulting engineers, was engaged. When the rate study is completed, it is anticipated an upward revision of our Water Rate Schedule will go into effect. A management study is to be included as part of this project.

Considerable efforts and activities were undertaken to harden Water Supply Board facilities throughout the system against the event of unauthorized intrusion.

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 52.24 inches was recorded which was 3.32 inches more than the 61-year (July 1916-June 1977) average of 48.92 inches and 77.4% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 23.35 inches; this was 1.46 inches less than the 61-year average of 24.81 inches, and 57% of the maximum, 40.97 inches, which occurred during the July 1955-1956 year.

STORAGE, DRAFT AND YIELD On July 1, 1976 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs, amounted to 39,144,000,000 gallons or 94.9% of combined capacity. At the end of the year the combined storage was 39,978,000,000 gallons or 96.9% of capacity.

The total draft from the Scituate watershed for the year was 36,304,070,000 gallons, an average of 99,460,000 gallons daily. The draft for water supply purposes was 23,200,070,000 gallons and the discharge into the north branch of the Pawtuxet River totaled 13,104,000,000 gallons.

The yield from the watershed for the year totaled 37,660,070,000 gallons, an average of 103,180,000 gallons per day. This was 6,370,000 gallons per day less than the 109,550,000 gallons average daily yield for the 61-year period July 1916-June 1977.

WATERSHED MANAGEMENT-FORESTRY OPERATIONS Watershed management efforts continuously emphasize protection of the water and forest resources at the source of supply. The forest cover on departmental lands insures runoff of the highest quality into the Scituate and five tributary reservoirs.

The Water Supply Board owns and controls less than 25 percent of the 92.8 square mile watershed. Development of privately-owned land must be monitored to detect those practices that may jeopardize the water system now and in the future. Major road arteries throughout the watershed provide potential for contamination from road accidents. An accident which involved a large gasoline tank truck along Route 6 on September 14, 1976 was such an incident. Local and state authorities have been advised of the department's concern. Caution signs which identify the limits of the watershed have been installed on highly traveled state roads. The state Department of Transportation is reinforcing guard-rail fencing at reservoir causeways on Routes 14 and 101.

Recorded trespass violations totaled 590. Almost 50 percent of the violations involved property damage. Fishing and swimming violations were significantly lower in number than the previous year. Effective prosecution procedures contributed to the reduction.

The Tunk Hill Fire Tower was operated by the department on 44 high-hazard days during the spring 1977 forest fire season. Prompt suppression efforts by local, state and Water Supply Board fire-protection personnel limited eight recorded fires to minimal acreage. No major fires occurred on the 92.8 square miles of watershed.

Insect and disease infestations were of endemic proportion. The department is alerted to the potential threat to its extensive red-pine plantations by two devastating forest pests. The red-pine scale **(Matsococcus resinosae)** is destroying whole plantations in eastern Connecticut and southeastern New York State. Severe damage by a disease known as scleroderris canker **(Gremmeniella abietina)** has brought about a quarantine on coniferous species in upstate counties of New York. The Water Supply Board is continually reviewing its forests for evidence of the pests. In addition, red-pine stands on the watershed were inspected by a representative of the U.S. Forest Service for the purpose of detecting scleroderris canker. Annosus root rot **(Fomitopsis annosa)**, formerly **Fomes annosus**, continues to cause mortality in plantations throughout the watershed.

Forest-culture practices included pruning, reforestation, forest aesthetics, release of planted conifers and thinning of plantations. Timber-stand improvement work continued in woodland adjacent to the Gainer Dam access road. Contractual and departmental woods operations resulted in the harvest of an estimated 316,905 board feet of timber products consisting of sawlogs, pulpwood, and fuelwood.

Turfed areas at the Purification Works, Gainer Dam, distribution reservoirs, aqueducts, and other facilities received necessary maintenance. Improvement to the firelane system in the Tunk Hill Block included the removal of overhanging hardwood trees. Repair of vandalized facilities and grounds, installation of fencing and gates, maintenance of aqueducts and rights-of-way, and other routine work were accomplished as required.

LABORATORIES The chemical and bacteriological laboratories that check the quality of the water supply from the raw water impoundments to the taps at the consumers' premises conducted tests on more than 13,000 samples during the year. They were obtained from brooks, streams and raw water reservoirs, as well as daily samples collected throughout the distribution system. Tests made on these samples included chemical, sanitary chemical and mineral analyses, and bacteriologic and miscroscopic examinations. The total number of tests made during the year (July 1976-June 1977) amounted to 92,576. Based on a 35-hour week, the water was receiving one test or another every 71 seconds.

Chemists carried out coagulation tests on the raw water with various amounts of chemicals, simulating all the 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. Interim Primary Drinking Water Regulations. The actual number of bacteriological samples collected from our distribution system amounted to 3,012, an average of 251 per month.

As has been reported, laboratory personnel cooperated with the E.P.A. during the previous fiscal year in a carefully planned corrosion control study which consisted of three early morning samplings at 15 locations throughout the system, all private homes. Elements of interest were copper, lead, iron and zinc. It may be reported that the results, which have been made available to the department but not publicly released to date by the E.P.A., our's being but one part of a multi-city survey, are favorable. Included also were determinations for hardness, alkalinity, pH, specific conductance, sulfate, chloride and sodium on treatment plant raw and finished water.

Phases II and III of the intended four-phase E.P.A. National Organics Monitoring Survey (NOMS study) took place during the period. Over 110 public water supplies were involved. As before, laboratory personnel assisted federal representatives in setting up the continuous monitoring and sampling device, disassembled it at the end of the specified time frame, obtained additional specimens for other analyses, and shipped the equipment and containers to designated governmental facilities. No date has yet been set for Phase IV. When the study is complete a compilation of the accumulated data is to be published by E.P.A. Intermediate press releases, however, and information forwarded to us by that federal agency indicate this supply to be near the top of the list for those low in total organics.

PURIFICATION The water supplied to 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 1976-June 1977): 2,507,527 pounds of Ferri-Floc before influent aeration, 2,384,196 pounds of quicklime after influent aeration and before mixing, 97,220 pounds of chlorine prior to filtration, and 271,576 pounds of sodium silicofluoride after filtration . . . . . a grand total of 5,260,519 pounds.

It is interesting to note that the cost of chemicals per million gallons of water treated was $4.54 for the year ended September 30, 1957; it was $9.49 for the year ended June 30, 1977, slightly more than double. How many other industries can make this statement? This speaks well for the recognized efficiency of the Water Supply Board operation.

During the year, 22,789.20 million gallons were delivered into the distribution system, an average of 62.44 million gallons daily. The maximum hourly demand in the system was at the rate of 132.74 million gallons daily; consumption during the maximum day, July 28, 1976, amounted to 98.62 million gallons. The difference between plant production and system demands was provided from storage reservoirs on our distribution system.

DISTRIBUTION

At the end of the year the Water Supply Board distribution system in Providence, Cranston, Johnston and North Providence contained 4,415,624.53 feet (836.29 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 66,394 services, 16,642 valves and 5,098 hydrants in use on June 30, 1977. The amount of pipe laid during the year totaled 10,161.32 feet; 4,160.68 feet were removed, resulting in a net increase to the system of 6,000.64 feet. Services installed and removed were 473 and 209 respectively, a gain of 264. There was an increase of 16 valves, 28 having been installed and 12 removed, and a gain of 2 hydrants . . . . . 57 installed and 55 removed. The number of meters on active services totaled 66,990.

Total water distribution was 22,790.36 million gallons or 62.44 million gallons per day. The low service, a gravity supply, consumed 77.1%; 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 22.9%. Registration on customers meters totaled 20,950.31 million gallons, accounting for 91.9% of the amount distributed.

Leaks in the transmission and distribution mains totaled 65 during the year, 25 occuring at joints and 40 as a result of reptured mains. Leaks at joints averaged one for every 33 miles of pipe and total leaks averaged one for every 13 miles of main. Of the 65 leaks, 11 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 developments, 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 and compiling pertinent data and records. Services included computations of quantities and preparation of monthly estimates for periodic payments on all outstanding contracts.

Repairs were made to eroded concrete surfaces on the meter chamber and blow-off structure at the base of Gainer Dam in Scituate. The surfaces had become seriously deteriorated and were rehabilitated by gunite application.

Electrical engineering tests were performed on the 1500 KVA and 225 KVA transformer banks at the substation in Scituate. The transformer banks are a component in the energy supply used to operate the Water Purification Works. Reconditioning work of the transformers was carried out in accordance with the recommendations of the testing firm.

Major repairs were made to the 1875 KVA generator and 28 KW exciter at the Hydro-Electric Station in order that it be restored to proper operating condition.

COMMERCIAL AND ACCOUNTING

At the end of the fiscal year the Water Supply Board had 66,394 services. To meet the various requirements of our customers, we operated as usual on a 24-hour schedule. This included switchboard operators around the clock and two-way radio communication with our crews in the field. Day to day operations of the division also were carried out during the year such as reading meters, preparation of water bills, collection of delinquent accounts, investigating complaints, furnishing information to title companies and banks, processing new applications and preparing payrolls and job cost data.

Conversion of installed meters to a remote reading system has progressed satisfactorily. During the year 1,425 installations were made, bringing the total to 29,240 since the program was initiated in May 1968.

FINANCIAL

The gross income for the year totaled $5,463,735.40. Revenue from the sale of water alone amounted to $4,957,595.20. The remaining income of $506,140.20 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 totaled $833,478.32, or 16.3% of the total net billing.

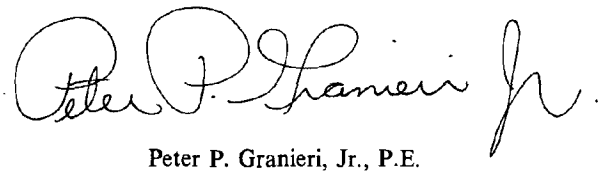
Delinquent accounts were submitted to a computerized rebilling system study expected to become functional in the fall of 1977. Following this, those accounts which have not been satisfied after a 20-day grace period will be readdressed.

Expenses for the year, including principal payments of $290,000.00 on serial bonds outstanding and $673,215.00 in interest charges, amounted to $5,541,256.86 . . . . up $491,277.45 from the previous year. Bonded debt at the close of the year was $12,005,000.00.

It is anticipated that for the year ending June 30, 1978 expenses will again rise substantially due to higher material costs, higher wages and fringe benefits, and higher energy costs.

Financial accounts of the department, together with other statistical data for the year ended June 30, 1977 are appended to this report.

Respectfully submitted,



Peter P. Granieri, Jr., P.E.
Chief Engineer

APPENDIX

LIST OF TABLES

TABLE 1

MONTHLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1977

1976-1977	STATIONS ON WATERSHED					
	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	6.93	5.95	6.78	6.17	7.00	6.57
August	7.40	7.51	6.58	6.56	6.39	6.89
September	3.63	3.67	3.00	3.18	2.46	3.19
October	5.70	6.08	5.65	6.04	5.24	5.74
November	0.60	0.46	0.49	0.49	0.37	0.48
December	3.95	3.95	3.77	3.74	3.44	3.77
January	4.81	4.13	4.65	4.65	4.22	4.49
February	3.49	3.23	3.15	2.92	2.68	3.09
March	7.01	6.96	6.94	6.63	6.52	6.81
April	4.24	4.17	3.94	3.77	3.85	3.99
May	3.75	3.25	3.31	2.87	3.01	3.24
June	3.94	4.35	3.48	4.28	3.87	3.98
Total	55.45	53.71	51.74	51.30	49.05	*52.24
Monthly Average	4.62	4.48	4.31	4.28	4.09	4.35

*Total of Averages

TABLE 2

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan. Dec. Year	Jan. Dec. Total
1915-1916	2.75(e	2.88	5.86	1.88	5.88	2.46	3.60	4.83	5.71	7.38	1.33	1.24	45.80	1916	42.56
1916-1917	2.61	2.34	3.30	3.96	2.18	4.91	2.70	4.15	4.54	1.51	6.13	2.66	40.99	1917	43.16
1917-1918	6.71	0.48	3.23	3.56	3.73	2.15	4.56	3.12	4.49	5.13	4.14	8.79	50.09	1918	47.09
1918-1919	1.07	2.60	3.75	4.89	3.42	6.05	4.31	5.99	3.65	5.47	6.65	6.07	53.92	1919	56.42
1919-1920	2.29	5.05	2.58	3.03	6.10	4.90	6.28	3.95	7.93	4.44	3.86	3.04	53.45	1920	55.81
1920-1921	1.34	5.85	5.09	3.46	3.06	3.72	5.45	3.73	4.30	6.80	2.97	2.53	48.30	1921	47.84
1921-1922	1.26	8.02	2.54	1.91	2.67	6.40	1.98	5.22	6.34	8.36	9.09	5.35	59.14	1922	54.76
1922-1923	2.92	1.41	3.11	6.78	1.82	3.73	5.92	1.48	4.93	2.78	2.35	2.15	39.38	1923	48.39
1923-1924	5.67	5.68	5.10	4.49	2.92	2.80	6.12	3.66	1.49	1.72	5.85	5.28	50.78	1924	39.15
1924-1925	0.21	2.23	2.38	4.41	2.22	4.76	2.85	2.72	2.36	6.14	1.70	2.96	34.94	1925	44.45
1925-1926	4.32	4.83	5.18	3.26	6.10	3.73	2.46	2.27	1.74	3.80	3.94	1.89	43.52	1926	43.33
1926-1927	5.04	5.55	3.55	2.98	3.31	1.59	2.56	3.41	3.36	3.99	8.55	2.61	46.50	1927	52.45
1927-1928	5.24	9.22	5.63	2.72	4.32	2.70	5.43	1.45	3.91	5.06	5.50	4.80	55.98	1928	45.59
1928-1929	3.99	2.50	3.21	5.20	4.89	3.92	7.56	3.47	2.27	2.06	2.93	1.35	43.35	1929	43.95
1929-1930	3.09	3.06	4.15	2.86	2.88	3.23	2.03	2.74	3.05	3.33	3.00	1.35	34.77	1930	35.58
1930-1931	3.36	4.65	3.10	3.55	2.57	6.37	3.36	4.19	6.31	3.74	5.96	1.97	49.13	1931	44.43
1931-1932	2.22	1.03	3.16	6.16	2.38	6.16	1.97	2.57	2.75	2.57	6.44	11.75	49.16	1932	58.60
1932-1933	6.63	7.13	2.09	2.02	3.81	6.55	6.18	3.76	4.04	2.00	3.60	7.56	55.37	1933	48.13
1933-1934	3.41	1.48	3.72	3.87	4.53	4.03	5.24	3.98	4.79	2.20	3.89	7.37	48.51	1934	51.14
1934-1935	3.25	4.44	3.55	7.24	3.09	1.93	4.76	2.27	5.12	4.10	1.42	3.59	44.76	1935	41.30
1935-1936	1.04	5.86	0.88	8.81	4.16	9.31	3.80	1.98	2.98	2.63	3.28	7.72	52.45	1936	57.75
1936-1937	2.00	1.25	9.83	5.02	2.45	4.09	5.42	3.05	3.40	1.58	6.47	4.19	48.75	1937	50.58
1937-1938	3.92	8.10	2.89	5.29	2.91	2.70	2.60	4.17	8.62	11.49	3.10	6.76	62.55	1938	57.83
1938-1939	2.64	3.91	3.64	3.08	5.06	5.86	4.53	0.94	2.95	1.20	6.52	3.47	43.80	1939	44.17
1939-1940	5.76	1.40	3.40	2.82	5.97	4.04	6.00	5.76	2.45	4.41	2.01	2.63	46.65	1940	47.18
1940-1941	2.00	6.81	2.28	3.12	3.37	2.97	1.36	3.16	4.92	5.90	4.00	0.20	40.09	1941	37.88
1941-1942	1.75	3.35	3.78	4.95	3.30	8.35	0.89	2.80	3.88	5.38	4.32	1.94	44.69	1942	51.98
1942-1943	4.26	5.52	6.39	3.56	1.95	3.68	3.90	3.87	1.99	3.41	2.15	1.30	41.98	1943	36.84
1943-1944	6.38	3.43	1.22	1.79	2.50	5.05	4.11	1.35	3.75	1.74	2.01	11.03	44.36	1944	48.82
1944-1945	2.71	8.45	4.33	3.45	5.79	2.13	3.36	4.89	5.17	2.74	3.06	2.84	48.92	1945	52.25
1945-1946	2.21	9.03	7.58	3.82	3.81	1.42	2.37	4.92	3.31	2.49	11.48	3.69	56.13	1946	43.01
1946-1947	0.48	1.32	3.90	2.98	2.60	3.85	5.40	3.37	4.10	4.86	2.91	4.02	39.79	1947	47.68
1947-1948	3.26	6.42	3.91	7.14	2.57	4.26	3.97	9.36	4.20	3.73	3.14	1.59	53.55	1948	55.70
1948-1949	4.86	7.43	3.45	4.38	3.62	2.47	4.65	4.03	0.10	1.24	6.07	3.49	45.79	1949	38.58
1949-1950	2.27	3.47	2.79	3.68	4.62	3.99	3.68	3.51	2.93	1.62	5.04	2.03	39.63	1950	45.11

(e Estimated

TABLE 2 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1950-1951	2.23	7.21	4.57	4.95	4.48	5.91	3.97	5.20	2.71	3.36	3.08	2.41	50.08	1951	55.38
1951-1952	4.14	9.64	5.53	4.88	4.81	4.13	4.41	3.97	3.16	1.20	7.33	2.21	55.41	1952	45.26
1952-1953	1.94	3.02	4.20	7.38	4.64	9.33	7.54	3.24	1.67	4.27	2.94	2.74	52.91	1953	61.10
1953-1954	5.57	6.22	5.56	2.91	3.16	4.36	5.37	4.91	1.55	2.76	9.10	7.63	59.10	1954	57.44
1954-1955	3.13	5.65	6.91	1.00	4.96	4.17	4.16	1.78	4.53	2.43	12.75	4.53	56.00	1955	57.74
1955-1956	11.48	5.23	0.72	5.39	4.39	7.91	3.84	2.42	2.10	4.13	1.56	3.98	53.15	1956	49.06
1956-1957	2.96	4.92	5.46	2.90	2.46	3.33	5.01	1.55	0.72	0.96	1.58	1.58	33.43	1957	36.13
1957-1958	3.07	5.50	7.47	8.46	4.50	5.46	7.55	3.84	2.69	7.04	4.58	6.12	66.28	1958	58.88
1958-1959	3.83	3.03	1.78	2.56	4.12	7.13	4.41	1.15	5.55	6.74	2.27	0.57	43.14	1959	53.82
1959-1960	8.37	5.35	5.60	3.59	5.65	3.27	3.06	4.49	1.15	4.86	2.55	8.10	56.04	1960	47.42
1960-1961	3.58	2.86	4.26	3.24	3.48	4.27	5.92	5.65	2.25	3.01	4.02	9.43	51.97	1961	50.52
1961-1962	2.60	3.18	3.47	4.55	6.15	3.67	2.16	2.05	4.68	1.33	3.37	3.49	40.70	1962	47.58
1962-1963	8.95	4.20	2.98	3.23	3.41	3.71	2.03	3.06	3.36	3.59	1.65	4.41	4/.58	1963	40.63
1963-1964	1.59	7.82	2.77	6.32	5.36	2.63	5.65	1.15	1.98	3.86	2.14	3.56	44.83	1964	45.58
1964-1965	2.84	3.81	6.28	4.13	4.51	2.13	2.54	2.03	2.71	2.61	2.58	1.96	38.13	1965	33.21
1965-1966	3.58	2.48	1.95	5.93	5.09	1.59	1.95	3.57	2.40	3.71	3.10	5.28	40.63	1966	45.45
1966-1967	3.65	5.41	3.77	2.10	4.00	6.15	4.81	8.33	3.12	6.71	4.50	3.86	56.41	1967	57.49
1967-1968	2.24	3.45	8.22	4.28	2.12	8.07	1.65	4.01	6.21	1.27	2.77	2.90	47.19	1968	50.30
1968-1969	2.46	7.00	7.56	1.73	6.88	3.65	5.82	4.22	1.37	5.01	2.57	4.02	52.29	1969	54.51
54 Years Average	3.54	4.67	4.14	4.10	3.90	4.39	4.13	3.57	3.55	3.81	4.25	4.07	*48.12	Avg.	*48.25
54 Years Maximum	11.48	9.64	9.83	8.81	6.88	9.33	7.56	9.36	8.62	11.49	12.75	11.75	66.28	Max.	61.10
54 Years Minimum	0.21	0.48	0.72	1.00	1.82	1.42	0.89	0.94	0.10	0.96	1.33	0.20	33.43	Min.	33.21

*Total of Monthly Averages.

TABLE 3

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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
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

TABLE 3 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
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 3 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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	-----
61 Years Average	3.78	4.24	4.17	3.67	4.73	4.47	4.11	3.94	4.50	4.13	3.61	3.57	*48.92	Avg.	*48.90
61 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	8.81	6.88	9.33	7.56	9.36	8.62	67.46	Max.	75.24
61 Years Minimum	0.75	1.33	0.20	0.21	0.48	0.72	0.74	1.82	1.42	0.89	0.94	0.10	33.43	Min.	33.21

*Total of Monthly Averages.

NOTE: The 61-Year calendar year average is for the years 1916-1976.

TABLE 4

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

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1915-1916	0.75(e	1.24(e	3.03(e	2.50	3.70	3.99	4.64	3.69	3.42	2.74	1.09	0.42	31.21	1916	28.25
1916-1917	0.51	0.58	0.97	1.91	1.30	4.29	3.05	2.79	2.18	0.79	0.71	0.63	19.71	1917	22.41
1917-1918	1.79	1.59	1.38	1.83	4.04	3.17	3.40	2.24	1.24	0.47	0.82	1.81	23.78	1918	23.75
1918-1919	1.02	1.34	2.37	3.81	2.27	5.01	4.43	3.86	1.27	1.35	0.91	3.33	30.97	1919	32.65
1919-1920	1.45	2.25	2.71	1.19	1.69	9.60	5.10	3.73	4.15	1.38	0.79	0.34	34.38	1920	33.29
1920-1921	0.37	1.73	3.22	2.79	1.69	4.19	3.68	2.85	0.95	2.56	0.93	0.31	25.27	1921	24.52
1921-1922	0.24	1.65	2.68	1.13	1.80	4.81	3.92	3.50	2.39	3.50	3.59	4.39	33.60	1922	33.32
1922-1923	1.66	1.26	1.37	4.16	2.46	6.10	4.06	2.68	1.15	0.64	0.40	0.25	26.19	1923	29.75
1923-1924	1.27	2.01	4.57	4.52	1.88	3.43	5.70	3.38	1.05	0.20	0.56	0.68	29.25	1924	23.31
1924-1925	0.49	0.45	0.97	0.91	3.65	3.41	2.46	1.46	0.52	0.58	0.39	0.32	15.61	1925	19.04
1925-1926	0.61	1.48	3.25	2.23	3.11	4.38	3.00	1.70	0.62	0.40	0.42	0.17	21.37	1926	21.03
1926-1927	0.76	2.15	2.09	3.34	2.64	3.05	1.71	2.03	1.44	0.32	1.59	0.64	21.76	1927	30.14
1927-1928	1.95	6.73	4.70	2.62	3.76	2.86	3.18	2.05	1.15	1.08	1.17	0.80	32.05	1928	23.03
1928-1929	1.21	1.16	1.99	4.02	3.65	5.56	6.09	3.56	0.48	0.06	0.07	-0.09	27.76	1929	25.18
1929-1930	0.07	0.53	1.18	1.96	2.38	2.74	1.84	0.88	0.42	0.09	0.04	-0.11	12.02	1930	11.82
1930-1931	0.12	0.63	0.83	1.56	2.11	5.95	3.21	3.10	2.97	0.69	0.85	0.10	22.12	1931	21.67
1931-1932	0.07	0.15	0.91	3.35	2.16	4.10	3.08	1.35	0.39	0.07	0.35	3.27	19.25	1932	30.15
1932-1933	3.48	6.29	2.26	2.24	2.70	6.28	6.88	1.93	1.57	0.17	0.25	1.52	35.57	1933	27.13
1933-1934	0.95	0.82	1.82	3.78	1.18	5.48	6.08	2.88	1.47	0.08	0.14	1.40	26.08	1934	28.94
1934-1935	1.33	1.91	3.21	4.78	2.83	4.22	4.05	1.71	1.78	0.62	-0.14	0.26	26.56	1935	21.82
1935-1936	-0.13	1.09	0.75	3.94	1.93	11.51	4.45	1.59	0.44	0.03	-0.02	0.82	26.40	1936	31.64
1936-1937	0.46	0.43	6.06	4.59	2.77	3.34	3.79	2.52	0.75	0.02	0.60	0.57	25.90	1937	27.16
1937-1938	0.79	4.17	3.25	4.15	2.99	2.99	2.29	1.84	2.85	6.93	1.32	1.66	35.23	1938	33.76
1938-1939	1.22	1.90	3.62	2.11	4.12	5.24	4.90	1.08	0.31	-0.24	0.22	0.09	24.57	1939	21.35
1939-1940	0.63	1.35	1.54	2.03	1.51	4.86	6.89	3.17	1.65	0.84	-0.14	-0.04	24.29	1940	23.98
1940-1941	-0.07	1.63	1.65	1.53	2.88	2.42	1.65	1.16	1.33	0.54	0.10	-0.41	14.41	1941	12.43
1941-1942	-0.15	0.52	0.86	1.87	2.54	7.14	1.75	1.06	0.59	0.86	0.26	-0.17	17.13	1942	22.77
1942-1943	0.45	1.86	4.56	2.45	3.46	4.40	2.68	3.01	0.36	0.02	-0.16	-0.22	22.87	1943	17.97
1943-1944	0.60	0.95	0.42	0.73	1.23	3.24	3.53	1.08	0.43	-0.26	-0.31	1.73	13.37	1944	18.61
1944-1945	0.50	3.16	3.55	2.91	2.58	5.61	2.15	3.10	1.26	0.15	-0.12	-0.15	24.70	1945	24.02
1945-1946	0.06	1.88	4.59	3.93	2.98	3.70	1.43	2.50	1.65	0	2.35	0.56	25.63	1946	21.08
1946-1947	0.49	0.30	1.19	2.16	1.52	4.01	3.31	2.86	1.09	0.53	0.12	0.31	17.89	1947	20.47
1947-1948	0.23	2.94	1.39	1.55	3.15	7.16	3.76	5.25	3.12	0.56	0.15	-0.21	29.05	1948	29.08
1948-1949	0.35	2.24	2.00	3.57	3.22	2.92	3.20	1.78	-0.02	-0.26	0.02	0.09	19.11	1949	16.40
1949-1950	0.05	0.57	1.26	2.03	2.42	4.16	3.01	2.20	1.00	-0.11	0.22	-0.02	16.79	1950	19.39

(e Estimated

TABLE 4 (Continued)

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

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1950-1951	0.04	1.85	2.59	3.24	4.95	4.36	4.30	2.70	1.21	0.14	0.07	-0.07	25.38	1951	30.16
1951-1952	0.34	4.62	4.30	4.24	3.30	5.02	2.97	2.46	0.98	-0.35	0.53	-0.20	28.21	1952	20.27
1952-1953	-0.20	0.37	1.15	4.61	4.35	7.24	6.36	3.20	0.20	0.07	-0.05	-0.13	27.17	1953	32.41
1953-1954	0.38	1.86	4.32	2.12	2.66	3.56	4.01	3.71	0.33	-0.01	0.93	3.96	27.83	1954	32.15
1954-1955	1.33	3.65	5.90	2.46	3.61	4.26	2.76	1.62	0.89	0.02	4.04	1.19	31.73	1955	35.13
1955-1956	7.22	5.56	1.50	3.27	4.09	4.57	6.57	1.98	0.96	0.37	-0.22	0.05	35.92	1956	25.87
1956-1957	0.23	1.10	2.90	2.41	2.10	2.78	4.54	0.58	-0.18	-0.41	-0.38	-0.22	15.45	1957	14.20
1957-1958	0.06	0.52	2.40	6.59	2.69	6.03	6.89	3.88	0.83	0.85	0.86	1.31	32.91	1958	35.66
1958-1959	2.05	1.85	1.83	1.65	2.58	5.86	4.52	1.45	1.23	2.09	0.07	-0.23	24.95	1959	26.97
1959-1960	1.17	2.18	4.40	3.29	5.09	3.15	4.01	2.19	0.35	0.38	0.00	1.54	27.75	1960	25.51
1960-1961	0.98	2.11	2.42	2.21	3.68	4.97	4.75	3.63	1.30	0.25	0.20	2.30	28.80	1961	27.93
1961-1962	1.28	1.53	1.83	4.32	1.66	5.24	3.61	1.53	0.98	-0.09	0.04	0.07	22.01	1962	24.34
1962-1963	1.89	2.97	2.12	1.81	1.88	4.47	1.69	1.88	0.54	0.10	-0.25	-0.02	19.08	1963	15.25
1963-1964	-0.11	1.59	1.67	4.68	2.82	3.47	4.61	0.87	0.01	0.03	-0.14	-0.11	19.39	1964	19.30
1964-1965	0.11	0.47	2.48	1.68	3.43	3.02	1.89	1.04	0.44	-0.10	-0.14	-0.06	14.26	1965	11.89
1965-1966	0.04	0.21	0.44	0.70	2.26	3.11	1.10	1.68	0.73	0.11	0.09	0.36	10.83	1966	13.88
1966-1967	0.50	1.87	1.37	2.25	1.60	4.52	4.92	4.94	1.61	1.67	1.58	0.61	27.44	1967	30.51
1967-1968	0.80	1.50	4.51	2.91	2.76	7.53	2.00	1.78	2.26	0.27	0.03	0.11	26.46	1968	24.79
1968-1969	0.00	1.61	3.53	1.72	1.40	5.38	5.72	2.74	0.70	0.41	0.22	0.23	23.66	1969	25.97
54 Years Average	0.81	1.82	2.48	2.78	2.73	4.70	3.81	2.40	1.16	0.61	0.50	0.66	*24.46	Avg.	*24.51
54 Years Maximum	7.22	6.73	6.06	6.59	5.09	11.51	6.89	5.25	4.15	6.93	4.04	4.39	35.92	Max.	35.66
54 Years Minimum	-0.20	0.15	0.42	0.70	1.18	2.42	1.10	0.58	-0.18	-0.41	-0.38	-0.41	10.83	Min.	11.82

*Total of Monthly Averages.

TABLE 5

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

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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
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

TABLE 5 (Continued)

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

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
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 5 (Continued)

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

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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	-----
61 Years Average	0.60	0.48	0.65	0.84	1.90	2.65	2.88	2.83	4.74	3.74	2.37	1.13	*24.81	Avg.	*24.90
61 Years Maximum	6.93	4.04	4.39	7.22	6.75	6.60	6.77	5.49	11.51	6.89	5.25	4.15	40.97	Max.	43.96
61 Years Minimum	-0.41	-0.38	-0.41	-0.20	0.15	0.42	0.70	1.18	2.42	1.10	0.58	-0.18	9.97	Min.	11.82

*Total of Monthly Averages.

NOTE: The 61-year calendar year average is for the years 1916-1976.

TABLE 6

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1915-1916	27.3(e	43.0(e	51.7(e	133.0	62.9	162.2	128.9	76.4	59.9	37.1	82.0	33.9	68.1	1916	66.4
1916-1917	19.5	24.8	29.4	48.2	59.6	87.4	113.0	67.2	48.0	52.3	11.6	23.7	48.1	1917	51.9
1917-1918	26.7	331.2	42.7	51.4	108.3	147.4	74.6	71.8	27.6	9.2	19.8	20.6	47.5	1918	50.4
1918-1919	95.3	51.5	63.2	77.9	66.4	82.8	102.8	64.4	34.8	24.7	13.7	54.8	57.4	1919	57.9
1919-1920	63.3	44.6	105.0	39.3	27.7	195.9	81.2	94.4	52.3	31.1	20.5	11.2	64.3	1920	59.6
1920-1921	27.6	29.6	63.3	80.6	55.2	112.6	67.5	76.4	22.1	37.6	31.3	12.2	52.3	1921	51.2
1921-1922	19.0	20.6	105.5	59.2	67.4	75.2	198.0	67.0	37.7	41.9	39.5	82.0	56.8	1922	60.8
1922-1923	56.8	89.4	44.0	61.4	135.2	163.5	68.6	181.1	23.3	23.0	17.0	11.6	66.5	1923	61.5
1923-1924	22.4	35.4	89.6	100.7	64.4	122.5	93.1	92.3	70.5	11.6	9.6	12.9	57.6	1924	59.5
1924-1925	233.3	20.2	40.8	20.6	164.4	71.6	86.3	53.7	22.0	9.4	22.9	10.8	44.7	1925	42.8
1925-1926	14.1	30.6	62.7	68.4	51.0	117.4	122.0	74.9	35.6	10.5	10.6	9.0	49.1	1926	48.5
1926-1927	15.1	38.7	58.9	112.1	79.8	191.8	66.8	59.5	42.8	8.0	18.6	24.5	46.8	1927	57.5
1927-1928	37.2	73.0	83.5	96.3	87.0	105.9	58.6	141.4	29.4	21.3	21.3	16.7	57.2	1928	50.5
1928-1929	30.3	46.4	62.0	77.3	74.6	141.8	80.6	102.6	21.1	2.9	2.4	-6.7	64.0	1929	57.3
1929-1930	2.3	17.3	28.4	68.5	82.6	84.8	90.6	32.1	13.8	2.7	1.3	-8.1	34.6	1930	33.2
1930-1931	3.6	13.5	26.8	43.9	82.1	93.4	95.5	74.0	47.1	18.4	14.3	5.1	45.0	1931	48.8
1931-1932	3.2	14.6	28.8	54.4	90.8	66.6	156.3	52.5	14.2	2.7	5.4	27.8	39.2	1932	51.4
1932-1933	52.5	88.2	108.1	110.9	70.9	95.9	111.3	51.3	38.9	8.5	6.9	20.1	64.2	1933	56.4
1933-1934	27.9	55.4	48.9	97.7	26.0	136.0	116.0	72.4	30.7	3.6	3.6	19.0	53.8	1934	56.6
1934-1935	40.9	43.0	90.4	66.0	91.6	218.6	85.1	75.3	34.8	15.1	-9.8	7.2	59.3	1935	52.8
1935-1936	-12.5	18.6	85.2	44.7	46.4	123.6	117.1	80.3	14.8	1.1	-0.6	10.6	50.3	1936	54.8
1936-1937	23.0	34.4	61.6	91.4	113.1	81.7	69.9	82.6	22.0	1.3	9.3	13.6	53.1	1937	53.7
1937-1938	20.2	51.5	112.5	78.4	102.7	110.7	88.1	44.1	33.1	60.3	42.6	24.6	56.3	1938	58.4
1938-1939	46.2	48.6	99.4	68.5	81.4	89.4	108.2	114.9	10.5	-20.0	3.4	2.6	56.1	1939	48.3
1939-1940	10.9	96.4	45.3	72.0	25.3	120.3	114.8	55.0	67.3	19.0	-7.0	-1.5	52.1	1940	50.8
1940-1941	-3.5	23.9	72.4	49.0	87.4	81.5	121.3	36.7	27.0	9.2	2.5	-205.0	35.9	1941	32.8
1941-1942	-8.6	15.5	22.8	37.8	77.0	85.5	196.6	37.8	15.2	16.0	6.0	-8.8	38.3	1942	43.8
1942-1943	10.6	33.7	71.4	68.8	177.4	119.6	68.7	77.8	18.1	0.6	-7.4	-16.9	54.5	1943	48.8
1943-1944	9.4	27.7	34.4	40.8	49.2	64.2	85.9	80.0	11.5	-14.9	-15.4	15.7	30.1	1944	38.1
1944-1945	18.4	37.4	82.0	84.3	44.6	263.4	64.0	63.4	24.4	5.5	-3.9	-5.3	50.5	1945	46.0
1945-1946	2.7	20.8	60.6	102.9	78.2	260.6	60.3	50.8	49.8	0	20.5	15.2	45.7	1946	49.0
1946-1947	102.1	22.7	30.5	72.5	58.5	104.2	61.3	84.9	26.6	10.9	4.1	7.7	45.0	1947	42.9
1947-1948	7.0	45.8	35.5	21.7	122.6	168.1	94.7	56.1	74.3	15.0	4.8	-13.2	54.2	1948	52.2
1948-1949	7.2	30.1	58.0	81.5	89.0	118.2	68.8	44.2	-20.0	-21.0	0.3	2.6	41.7	1949	42.5
1949-1950	2.2	16.4	45.2	55.2	52.4	104.3	81.8	62.7	34.1	-6.8	4.4	-1.0	42.4	1950	43.0

(e Estimated

TABLE 6 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1950-1951	1.8	25.6	56.7	65.4	110.5	73.8	108.3	51.9	44.6	4.2	2.3	-2.9	50.7	1951	54.5
1951-1952	8.2	47.9	77.8	86.9	68.6	121.5	67.3	61.7	31.0	-29.2	7.2	-9.0	50.9	1952	44.8
1952-1953	-10.3	12.2	27.4	62.5	93.8	77.6	84.4	98.8	12.0	1.6	-1.7	-4.7	51.4	1953	53.0
1953-1954	6.8	29.9	77.7	72.8	84.2	81.6	74.7	75.6	21.3	-0.4	10.2	51.9	47.1	1954	56.0
1954-1955	42.5	64.6	85.4	246.0	72.8	102.2	66.3	91.0	19.6	0.8	32.7	26.3	56.7	1955	60.8
1955-1956	62.9	122.7	208.3	60.7	93.2	57.8	171.1	81.8	45.7	8.9	-14.1	1.2	67.6	1956	52.7
1956-1957	7.8	22.4	53.1	83.1	85.4	83.5	90.6	37.4	-25.0	-42.7	-24.1	-13.9	46.2	1957	39.3
1957-1958	2.0	9.5	32.1	77.9	59.8	110.4	91.3	101.0	30.9	12.1	18.8	21.4	49.7	1958	60.6
1958-1959	53.5	61.1	102.8	64.5	62.6	82.2	102.5	126.1	22.2	31.0	3.1	-40.4	57.8	1959	50.1
1959-1960	14.0	40.7	78.6	91.6	90.1	96.3	131.0	48.8	30.4	7.8	-0.1	19.0	49.6	1960	53.8
1960-1961	27.4	73.8	56.8	68.2	105.7	116.4	80.2	64.2	57.8	8.3	5.0	24.4	55.4	1961	55.3
1961-1962	49.2	48.1	52.7	94.9	27.0	142.8	167.1	74.6	20.9	-6.8	1.2	2.0	54.1	1962	51.1
1962-1963	21.1	70.7	71.1	56.0	55.1	120.5	83.3	61.4	16.1	2.8	-15.2	-0.5	42.8	1963	37.5
1963-1964	-6.8	20.3	60.3	74.1	52.6	131.9	81.6	75.7	0.5	0.8	-6.5	-3.1	43.3	1964	42.3
1964-1965	3.9	12.3	39.5	40.7	76.1	141.8	74.4	51.2	16.2	-3.8	-5.4	-3.1	37.4	1965	35.8
1965-1966	1.1	8.5	22.6	11.8	44.4	195.6	56.4	47.1	30.4	3.0	2.9	6.8	26.7	1966	30.5
1966-1967	1.4	34.6	36.3	107.1	40.0	73.5	102.3	59.3	51.6	2.5	3.5	1.6	48.6	1967	53.1
1967-1968	35.7	43.5	54.9	68.0	130.2	93.3	121.2	44.4	36.4	21.3	1.1	3.8	56.1	1968	49.3
1968-1969	0.0	23.0	46.7	99.4	20.3	147.4	98.3	64.9	51.1	8.2	8.6	5.7	45.2	1969	47.6
54 Years Average	22.9	39.0	59.9	67.8	70.0	107.1	92.3	67.2	32.7	16.0	11.8	16.2	50.8	Avg.	50.8
54 Years Maximum	233.3	331.2	208.3	246.0	177.4	263.4	198.0	181.1	74.3	60.3	82.0	82.0	68.1	Max.	66.4
54 Years Minimum	-12.5	8.5	22.6	11.8	20.3	57.8	56.4	32.1	-25.0	-42.7	-24.1	-205.0	26.7	Min.	30.5

TABLE 7

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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
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

TABLE 7 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
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 7 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:- YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	Jan.-Dec. Total
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	----
61 Years Average	15.8	11.3	15.6	22.9	40.2	59.3	70.1	71.8	105.3	90.6	65.7	31.7	50.7	Avg.	50.9
61 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	68.1	Max.	61.5
61 Years Minimum	-42.7	-24.1	-205.0	-12.5	8.5	22.6	11.8	20.3	57.8	56.4	32.1	-25.0	26.7	Min.	30.5

NOTE: The 61-Year calendar year average is for the years 1916-1976.

TABLE 8

SCITUATE WATERSHED

(92.8 Square Miles)

STATISTICS OF STORAGE - YEAR ENDED JUNE 30, 1977

1976-1977	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	285.49	420	454.31	461	345.35	873	301.98	723	633.09	696	3,173	101.2	281.99	34,449	37,622	94.7
August	285.67	435	454.45	469	345.35	873	302.09	734	632.82	676	3,187	101.7	280.03	32,410	35,597	89.6
September	285.51	422	454.20	455	345.23	863	301.98	723	632.85	678	3,141	100.2	279.49	31,839	34,980	88.0
October	285.29	404	454.19	454	345.21	862	301.88	713	632.66	665	3,098	98.8	277.55	29,850	32,948	82.9
November	285.62	431	454.42	467	345.87	915	302.06	731	633.00	689	3,233	103.1	277.10	29,400	32,633	82.1
December	285.55	425	454.35	463	345.28	867	301.98	723	633.02	691	3,169	101.1	275.63	27,923	31,092	78.2
January	285.56	426	454.42	467	345.28	867	302.01	726	633.40	720	3,206	102.3	275.70	27,994	31,200	78.5
February	285.60	429	454.41	466	345.29	868	302.03	728	633.43	722	3,213	102.5	276.31	28,610	31,823	80.1
March	285.76	442	454.75	486	345.90	917	302.18	744	633.70	743	3,332	106.3	277.25	29,550	32,882	82.7
April	285.68	436	454.69	482	345.59	892	302.06	731	633.87	756	3,297	105.2	284.75	37,440	40,737	102.5
May	285.62	431	454.49	471	345.41	878	302.03	728	633.54	731	3,239	103.3	284.84	37,541	40,780	102.6
June	285.57	427	454.29	459	345.23	863	301.98	723	633.28	711	3,183	101.5	284.49	37,149	40,332	101.5
Maximum for Year	March 5 285.90	454	March 5 455.00	500	March 5 346.24	945	March 5 302.33	759	March 26 634.07	771	3,416	109.0	April 9 285.29	38,039	April 9 41,348	104.0
Minimum for Year	July 24 285.03	384	July 17 454.11	449	July 17 345.10	853	July 24 301.85	710	October 2 632.60	660	3,072	98.0	December 4 275.42	27,712	December 4 30,878	77.7

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;	" "	835 "	" "	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 9

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

TABLE 9 (Continued)

SCITUATE RESERVOIR ELEVATIONS

YEARS ENDED JUNE 30

1st of Month

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
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
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	274.90	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
49 Years Average	282.53	280.76	278.90	277.47	276.31	276.48	277.55	278.54	279.42	282.34	283.36	283.40
49 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
49 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 10

SCITUATE WATERSHED

(92.8 Square Miles)

DRAFT AND YIELD - YEAR ENDED JUNE 30, 1977

	DRAFT FROM SCITUATE RESERVOIR Million Gallons						WATERSHED YIELD Million Gallons		
	To River Below Gainer Dam				Total			Average per Day	
1976-1977	Over Spill-way	Through Gate-house	Total	To Water Purification Works	For Month	Average per Day	For Month	1976-1977	61-Year Mean 1917-1977
July	0	226.29	226.29	2,336.21	2,562.50	82.66	537.50	17.34	31.21
August	0	484.69	484.69	2,210.62	2,695.31	86.95	2,078.31	67.04	24.97
September	0	575.54	575.54	2,005.17	2,580.71	86.02	548.71	18.29	34.94
October	0	647.27	647.27	1,900.69	2,547.96	82.19	2,232.96	72.03	43.70
November	0	701.55	701.55	1,836.80	2,538.35	84.61	997.35	33.25	102.14
December	0	359.01	359.01	1,795.72	2,154.73	69.51	2,262.73	72.99	137.86
January	0	336.17	336.17	1,789.98	2,126.15	68.59	2,749.15	88.68	149.83
February	0	721.83	721.83	1,628.53	2,350.36	83.94	3,409.36	121.76	161.56
March	42.48	2,445.73	2,488.21	1,803.56	4,291.77	138.44	12,146.77	391.83	246.59
April	245.45	3,897.24	4,142.69	1,756.95	5,899.64	196.66	5,942.64	198.09	201.06
May	248.43	1,708.94	1,957.37	2,080.28	4,037.65	130.25	3,589.65	115.80	123.30
June	22.85	440.53	463.38	2,055.56	2,518.94	83.97	1,164.94	38.83	60.75
For Year	559.21	12,544.79	13,104.00	23,200.07	36,304.07	99.46	37,660.07	103.18	109.55

TABLE 11

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

TABLE 11 (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
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
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
Totals	1,000	4,140	2,638,427	2,854,215	19,928	101,221	136,000	121,750	821,781	223,549	80,000	48,961	7,055,312

*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 12

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

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

TABLE 13

WATER PURIFICATION WORKS

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

1976 1977	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	Wash Water Mil. Gals. % 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.	Number of Filters in Operation Min.	Number of Filters in Operation Avg.
July	744.0	2,336.213	75.362	2,337.206	75.394	19.572	0.631	0.9	2,317.634	74.762	744.0	17	5	10.8
August	744.0	2,210.618	71.310	2,191.751	70.702	18.812	0.607	0.9	2,172.939	70.095	744.0	17	5	10.1
September	720.0	2,005.169	66.839	1,970.145	65.672	19.464	0.671	1.0	1,950.681	65.022	720.0	13	5	9.4
October	744.3	1,900.688	61.313	1,832.320	59.107	23.510	0.784	1.3	1,808.810	58.349	745.0	17	7	11.8
November	720.0	1,836.799	61.227	1,802.876	60.096	23.088	0.825	1.4	1,779.788	59.326	720.0	15	6	12.1
December	744.0	1,795.722	57.927	1,791.459	57.789	28.286	0.912	1.6	1,763.173	56.877	744.0	15	8	11.6
January	744.0	1,789.976	57.741	1,780.127	57.423	22.913	0.739	1.3	1,757.214	56.684	744.0	15	5	11.6
February	672.0	1,628.533	58.162	1,607.698	57.418	14.719	0.545	1.0	1,592.979	56,892	672.0	15	7	11.6
March	744.0	1,803.562	58.179	1,782.227	57.491	15.496	0.500	0.9	1,766.731	56.991	744.0	15	8	11.6
April	719.0	1,756.948	58.565	1,748.550	58.285	15.442	0.515	0.9	1,733.108	57.770	719.0	17	6	11.7
May	744.0	2,080.284	67.106	2,104.653	67.892	23.485	0.758	1.1	2,081.168	67.134	744.0	17	4	12.8
June	720.0	2,052.920	68.431	2,083.598	69.453	18.627	0.621	0.9	2,064.971	68.832	720.0	17	4	11.0
Totals	8,759.3	23,197.432		23,032.610		243.414			22,789.196		8,760.0			
Average	729.9		63.555		63.103		0.667	1.1		62.436	730.0			11.3

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

TABLE 13 (Continued)

WATER PURIFICATION WORKS

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

1976-1977	Average Rate of Filtration per Filter M.G.D.	Number of Filters Washed Total	Avg. per Day	Average Filter Run Hours	Ferri-Floc Used Lbs.	Avg. per Day	Gr. per Gal.	Quicklime Used Lbs.	Avg. per Day	Gr. per Gal.	Chlorine Used Lbs.	Avg. per Day	Parts per Mil.	Sodium Silicofluoride Used Lbs.	Avg. per Day	Parts per Mil.*
July	6.97	109	3.5	76.80	239,724	7,733	0.72	250,796	8,090	0.75	10,155	328	0.52	26,748	863	0.82
August	6.98	105	3.4	73.22	227,323	7,333	0.72	237,268	7,654	0.75	9,367	302	0.51	25,463	821	0.83
September	6.99	108	3.6	67.12	206,423	6,881	0.72	218,626	7,288	0.76	8,363	279	0.51	22,912	764	0.84
October	5.00	131	4.2	69.98	197,911	6,384	0.73	182,074	5,873	0.67	7,028	227	0.46	21,184	683	0.83
November	4.99	130	4.3	69.35	189,160	6,305	0.72	167,296	5,577	0.64	6,922	231	0.46	20,986	700	0.84
December	5.00	168	5.4	53.92	182,486	5,887	0.71	167,084	5,390	0.65	6,823	220	0.46	21,245	685	0.86
January	4.97	145	4.7	61.53	190,784	6,154	0.74	174,251	5,621	0.68	6,830	220	0.46	21,138	682	0.86
February	4.95	93	3.3	85.50	199,163	7,113	0.86	178,488	6,375	0.77	6,205	222	0.46	19,174	685	0.86
March	4.96	97	3.1	92.32	206,884	6,674	0.80	190,942	6,159	0.74	6,802	219	0.46	21,374	689	0.86
April	4.97	91	3.0	97.65	199,895	6,663	0.80	184,672	6,156	0.74	7,316	244	0.50	20,772	692	0.85
May	5.29	134	4.3	76.53	234,102	7,552	0.79	218,328	7,043	0.74	10,729	346	0.61	25,586	825	0.88
June	6.34	103	3.4	80.77	233,672	7,789	0.80	214,371	7,146	0.73	10,680	356	0.62	24,994	833	0.86
Totals		1,414			2,507,527			2,384,196			97,220			271,576		
Average	5.62		3.9	73.40		6,870	0.76		6,532	0.72		266	0.51		744	0.85

Total filter hours for year, 99,337.25; average per day, 272.16.
Average quantity of water filtered per filter per run, 17.19 m.g.
*Dosage expressed as p.p.m. of Fluoride ion.

TABLE 14

WATER PURIFICATION WORKS

CHEMICALS USED - YEAR ENDED JUNE 30, 1977

	Pounds of Chemicals Used		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	Lbs. per Day (Average)				
Ferri-Floc	2,507,527	6,870	23,197,432,000	$123,497.86	108.10	$5.32
Quicklime	2,384,196	6,532	23,197,432,000	52,333.10	102.78	2.26
Chlorine	97,220	266	23,032,610,000	10,694.20	4.22	0.46
Sodium Silicofluoride	271,576	744	22,789,196,000	33,119.57	11.92	1.45
Totals	5,260,519			$219,644.73		$9.49

Price of Ferri-Floc--From July 1 to Sept. 14, 1976--$83.40 per ton; from Sept. 15, 1976 to April 7, 1977--$102.40 per ton; from April 8 to June 30, 1977--$85.81 per ton.

Price of Quicklime--From July 1, 1976 to June 30, 1977--$43.90 per ton.

Price of Chlorine--From July 1, 1976 to June 30, 1977--$220.00 per ton.

Price of Sodium Silicofluoride--From July 1 to Oct. 27, 1976--$226.60 per ton; from Oct. 28, 1976 to June 30, 1977--$275.00 per ton.

TABLE 15

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1977

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
pH													
Raw	5.9	5.8	5.8	6.4	6.5	6.5	6.2	6.2	6.2	6.2	6.1	6.0	6.2
Aerated Influent	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.0	4.0	4.2
Treated	10.3	10.2	10.2	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.3	10.2	10.3
Settled	10.2	10.1	10.0	10.2	10.2	10.3	10.3	10.3	10.2	10.3	10.2	10.1	10.2
Filtered	10.2	10.1	10.0	10.2	10.2	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.2
**Effluent	10.2	10.1	10.0	10.2	10.2	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.2
Tap	10.1	10.0	9.9	10.0	10.1	10.2	10.1	10.2	10.1	10.1	10.0	10.0	10.1
Acidity													
Raw	4.2	5.3	7.2	2.2	1.2	1.3	2.0	3.1	2.7	1.9	2.0	2.7	3.0
Aerated Influent	8.3	8.4	8.9	6.8	7.0	7.2	7.8	8.9	8.3	8.6	8.2	8.3	8.1
Phenolphthalein Alkalinity													
Treated	10.8	10.5	11.0	10.1	9.2	9.5	9.5	9.9	10.1	10.1	10.1	10.1	10.1
Settled	9.3	9.5	9.6	9.1	8.1	8.2	8.3	8.6	8.3	8.6	8.6	8.5	8.7
Filtered	9.3	9.4	9.4	8.9	8.0	8.1	8.2	8.5	8.2	8.5	8.5	8.5	8.6
**Effluent	9.4	9.5	9.5	9.0	8.0	8.0	8.2	8.5	8.3	8.5	8.7	8.5	8.7
Tap	7.7	7.7	7.9	7.5	6.4	6.6	6.5	7.0	6.9	7.0	6.7	6.9	7.1
Methyl Orange Alkalinity													
Raw	3.4	3.8	4.2	4.3	4.6	4.8	4.4	4.6	4.0	4.3	4.1	4.6	4.3
Treated	17.4	17.5	18.4	16.1	14.9	15.6	16.1	16.9	16.6	16.2	16.2	16.6	16.5
Settled	15.9	16.6	16.8	15.2	13.8	14.2	14.4	15.4	14.8	14.8	14.6	15.0	15.1
Filtered	15.8	16.4	16.7	15.1	13.7	14.1	14.2	15.2	14.7	14.7	14.6	14.8	15.0
**Effluent	15.7	16.4	16.7	15.1	13.7	14.0	14.3	15.2	15.0	14.7	14.6	14.9	15.0
Tap	14.4	15.3	15.5	14.3	12.9	12.9	12.9	13.9	13.6	13.8	13.5	13.9	13.9
Color													
Raw	8	9	13	9	8	7	11	9	9	12	11	10	10
Settled	10	10	10	9	10	10	12	10	9	10	10	10	10
**Effluent	3	3	3	3	3	3	3	3	3	3	3	3	3
Tap	4	3	3	3	3	3	3	3	3	3	3	3	3
Turbidity													
Raw	0.1	0.2	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Settled	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
**Effluent	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Hardness													
Raw	10	10	11	11	11	11	11	11	11	11	11	11	11
**Effluent	28	29	30	29	27	28	28	30	31	29	30	30	29
Tap	29	29	30	29	28	28	28	31	31	29	29	30	29
Iron													
Raw	0.04	0.08	0.24	0.13	0.04	0.05	0.08	0.08	0.07	0.06	0.04	0.04	0.08
Settled	.35	.31	.27	.19	.24	.43	.57	.47	.39	.38	.36	.36	.36
**Effluent	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00
Tap	.01	.02	.02	.02	.02	.02	.03	.02	.02	.02	.01	.01	.02
Manganese													
Raw	0.02	0.05	0.21	0.06	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04
Settled	.01	.01	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
**Effluent	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Tap	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Fluoride													
Raw	0.19	0.16	0.18	0.18	0.20	0.20	0.19	0.20	0.20	0.18	0.15	0.16	0.18
**Effluent	.19	.16	.18	.18	.19	.20	.17	.20	.20	.18	.15	.16	.18
Tap	.96	.99	.99	.99	.96	.96	.95	.99	.99	.97	.94	.96	.97
Chlorine Residual													
Filtered	0.15	0.16	0.18	0.15	0.15	0.15	0.12	0.12	0.12	0.11	0.13	0.15	0.14
**Effluent	.13	.15	.17	.15	.14	.14	.12	.12	.12	.09	.12	.13	.13
160 Sock.Crossroad,Cran.	.03	.07	.11	.07	.03	.03	.04	.06	.05	.02	.02	.03	.05
Neut. Reservoir -	.03	.03	.04	.03	.01	.02	.02	.03	.04	.01	.01	.01	.02
Tap	.02	.02	.05	.03	.02	.02	.02	.04	.04	.02	.02	.02	.03
Temperatures													
Raw	55	57	59	59	46	37	36	35	38	44	51	54	48
Tap	62	62	61	60	50	41	39	39	41	47	54	58	51

*Parts per million, except pH.
**Before treatment w th sodium silicofluoride.

TABLE 16

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Color													
Ponaganset Reservoir	5	120	6	12	7	3	2	5	6	4	2	2	15
Coventry Brook	12	49	16	36	14	15	18	13	13	7	20	33	21
Wilbur Brook	60	110	89	90	48	30	45	29	28	42	48	64	57
Westconnaug Reservoir	9	57	12	40	4	5	10	12	9	12	9	14	16
Barden Reservoir	17	35	16	34	24	30	24	18	14	17	28	12	22
Cork Brook	11	54	17	34	8	10	13	11	12	13	17	24	19
Rush Brook	12	75	29	45	16	17	20	13	12	23	27	46	28
Huntinghouse Brook	8	37	23	36	24	20	13	12	12	13	18	28	20
Harrisdale Brook	11	23	12	23	6	70	18	12	11	13	18	14	19
Blanchard Brook	300	320	230	280	65	17	74	56	54	92	170	54	143
Moswansicut Pond	9	8	12	13	19	20	12	12	12	12	14	12	13
Regulating Reservoir	12	40	18	27	35	50	19	12	8	12	19	8	22
Quonopaug Brook	120	25	112	130	55	27	60	40	36	60	96	48	67
Hemlock Brook	12	36	21	26	24	15	36	19	22	27	48	14	25
Betty Pond Stream	17	41	22	22	12	22	12	9	8	9	11	9	16
Spruce Brook	22	115	64	58	22	60	26	22	17	23	33	28	41
Brandy Brook	37	108	45	52	88	50	57	33	38	47	22	12	49
Moswansicut-South	22	58	24	115	10	60	25	8	8	13	24	16	32
Windsor Brook	80	51	17	28	14	12	18	9	17	18	26	27	26
Paine Pond	**	60	**	**	23	72	36	23	27	22	23	54	38
Unnamed Brook-A	27	56	26	23	23	17	12	12	16	18	22	29	23
Unnamed Brook-B	**	140	**	**	23	23	**	**	27	28	45	**	48
Turbidity													
Ponaganset Reservoir	1.0	0.3	1.0	1.4	0.7	0.3	0.2	0.5	0.3	0.2	0.1	0.1	0.5
Coventry Brook	0.1	.2	.2	.1	1.2	.2	.2	.2	.1	.1	.1	.1	.2
Wilbur Brook	.2	.4	1.0	.3	.4	.3	.2	.2	.1	.1	.2	.3	.3
Westconnaug Reservoir	.1	.3	.2	.2	.3	.1	.2	.2	.1	.1	.2	.1	.2
Barden Reservoir	.2	.2	.3	.2	1.5	.2	.2	.2	.1	.1	.2	.1	.3
Cork Brook	.1	.2	.2	.2	.2	.2	.1	.2	.1	.2	.1	.2	.2
Rush Brook	.1	.5	.8	.5	.5	.3	.2	.4	.2	.1	.2	.2	.3
Huntinghouse Brook	.1	.2	.3	.2	.2	.2	.1	.1	.1	.2	.1	.2	.2
Harrisdale Brook	.1	.2	.4	.1	.8	.2	.2	.3	.1	.2	.2	.1	.2
Blanchard Brook	.2	.2	1.4	.2	.3	.2	.2	.2	.1	.2	.3	.2	.3
Moswansicut Pond	.4	.2	.4	.3	4.4	.7	.3	.2	.3	.2	.2	.2	.7
Regulating Reservoir	.1	.3	.4	.3	.3	.2	.4	.2	.1	.2	.3	.1	.2
Quonopaug Brook	.2	.3	1.2	.4	.4	.3	.2	.2	.1	.1	.2	.3	.3
Hemlock Brook	.1	.2	.6	.3	.2	.2	.2	.2	.1	.2	.2	.1	.2
Betty Pond Stream	.1	.2	.7	.4	.3	.2	.1	.2	.1	.1	.2	.3	.2
Spruce Brook	.1	.1	.4	.2	1.3	.2	.5	.2	.1	.2	.1	.1	.3
Brandy Brook	.1	.2	.5	.3	.7	.4	1.0	.7	.4	.8	.5	.1	.5
Moswansicut-South	.8	.1	3.2	7.3	1.0	.4	.2	.6	.2	.4	1.6	1.2	1.4
Windsor Brook	.0	.2	.2	.4	.2	.1	.2	.2	.1	.1	.1	.1	.2
Paine Pond	**	.3	**	**	.4	.7	1.2	.4	.2	.2	.2	.5	.5
Unnamed Brook-A	0.1	.3	.4	.2	.2	.2	.1	.7	.2	.1	.1	.2	.2
Unnamed Brook-B	**	.4	**	**	.8	.9	**	**	.3	.2	.3	**	.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 16 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Iron													
Ponaganset Reservoir	0.16	0.05	0.07	0.10	0.10	0.07	0.06	0.11	0.09	0.07	0.07	0.04	0.08
Coventry Brook	.05	.20	.07	.10	.05	.04	.05	.05	.03	.02	.05	.10	.07
Wilbur Brook	.40	.50	.45	.50	.14	.10	.15	.12	.09	.12	.20	.24	.25
Westconnaug Reservoir	.15	.14	.07	.08	.08	.04	.05	.11	.07	.05	.06	.10	.08
Barden Reservoir	.38	.20	.21	.29	.16	.10	.13	.03	.09	.04	.12	.06	.15
Cork Brook	.04	.26	.16	.10	.04	.04	.05	.14	.04	.03	.05	.14	.09
Rush Brook	.52	.60	.30	.43	.18	.14	.15	.12	.14	.16	.20	.36	.28
Huntinghouse Brook	.14	.37	.10	.14	.04	.02	.06	.04	.03	.05	.08	.14	.10
Harrisdale Brook	.30	.47	.36	.10	.02	.12	.12	.09	.02	.10	.13	.07	.16
Blanchard Brook	1.00	3.25	1.00	.30	.25	.28	.32	.23	.14	.24	.37	.40	.65
Moswansicut Pond	.08	.07	.05	.05	.10	.07	.05	.05	.05	.05	.05	.04	.06
Regulating Reservoir	.45	.36	.49	.44	.14	.04	.08	.08	.04	.13	.14	.08	.21
Quonopaug Brook	.70	2.50	.52	.30	.21	.16	.29	.14	.07	.14	.29	.45	.48
Hemlock Brook	.18	.37	.26	.23	.07	.12	.17	.09	.05	.10	.14	.05	.15
Betty Pond Stream	.20	.24	.15	.07	.05	.02	.36	.27	.02	.05	.07	.04	.13
Spruce Brook	.20	.39	.33	.28	.24	.06	.12	.05	.03	.06	.10	.15	.17
Brandy Brook	.32	1.65	.32	.25	.24	.23	.38	.78	.16	.31	.15	.07	.41
Moswansicut-South	1.45	2.10	1.92	1.40	.37	.33	.35	.25	.14	.30	.97	.48	.84
Windsor Brook	.06	.24	.06	.07	.03	.02	.05	.03	.04	.05	.04	.10	.07
Paine Pond	**	.65	**	**	.06	.26	.25	.44	.16	.14	.15	.72	.31
Unnamed Brook-A	.33	.47	.24	.15	.07	.08	.07	.15	.06	.07	.08	.16	.16
Unnamed Brook-B	**	.54	**	**	.13	.31	**	**	.18	.14	.27	**	.26
Manganese													
Ponaganset Reservoir	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.06	0.05	0.06	0.01	0.06	0.06
Coventry Brook	.00	.01	.02	.00	.01	.01	.02	.00	.00	.00	0.01	.00	.01
Wilbur Brook	.02	.04	.02	.04	.02	.00	.01	.01	.00	.01	.02	.04	.02
Westconnaug Reservoir	.01	.02	.03	.01	.00	.02	.02	.00	.04	.00	.04	.00	.02
Barden Reservoir	.02	.02	.01	.00	.00	.00	.00	.04	.04	.04	.04	.00	.02
Cork Brook	.00	.04	.02	.01	.00	.03	.05	.02	.03	.02	.02	.02	.02
Rush Brook	.05	.02	.02	.02	.00	.04	.06	.04	.02	.02	.02	.00	.03
Huntinghouse Brook	.04	.01	.01	.01	.01	.00	.00	.00	.00	.01	.00	.00	.01
Harrisdale Brook	.00	.03	.01	.00	.00	.02	.00	.01	.00	.00	.01	.00	.01
Blanchard Brook	.00	.04	.04	.02	.02	.02	.04	.01	.01	.01	.01	.01	.02
Mowsansicut Pond	.05	.04	.02	.02	.04	.04	.00	.00	.04	.01	.01	.02	.02
Regulating Reservoir	.00	.04	.01	.00	.00	.01	.00	.00	.00	.00	.02	.00	.01
Quonopaug Brook	.08	.05	.04	.03	.00	.02	.04	.02	.02	.04	.01	.01	.03
Hemlock Brook	.00	.03	.04	.02	.02	.04	.08	.00	.00	.00	.04	.02	.02
Betty Pond Stream	.00	.01	.02	.00	.00	.00	.03	.01	.01	.00	.00	.00	.01
Spruce Brook	.00	.03	.00	.02	.02	.01	.01	.00	.00	.02	.00	.00	.01
Brandy Brook	.00	.02	.01	.01	.04	.04	.08	.08	.04	.02	.02	.01	.03
Moswansicut-South	.09	.08	.12	.07	.05	.05	.08	.08	.02	.02	.04	.08	.07
Windsor Brook	.02	.01	.00	.00	.00	.01	.00	.03	.04	.02	.02	.01	.01
Paine Pond	**	.04	**	**	.00	.03	.14	.07	.02	.02	.02	.04	.04
Unnamed Brook-A	.04	.05	.03	.04	.04	.07	.08	.04	.05	.04	.04	.04	.05
Unnamed Brook-B	**	.02	**	**	.00	.02	**	**	.01	.00	.04	**	.02

*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 16 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Ponaganset Reservoir	5.0	5.0	5.1	5.3	4.9	4.7	4.6	4.7	4.8	4.9	5.0	4.7	4.9
Coventry Brook	6.3	6.0	6.9	5.9	6.0	6.2	5.8	6.0	5.7	5.9	5.7	5.8	6.0
Wilbur Brook	6.5	6.0	6.8	5.9	6.0	5.9	5.2	5.6	5.6	5.9	5.7	6.0	5.9
Westconnaug Reservoir	6.6	6.2	6.8	6.3	6.3	6.1	5.8	6.2	5.8	6.0	5.9	6.3	6.2
Barden Reservoir	6.3	6.2	6.8	6.4	5.9	5.7	5.4	5.8	5.4	5.7	5.6	6.0	5.9
Cork Brook	6.4	5.7	6.3	6.0	6.0	5.7	5.4	5.8	5.6	5.6	5.7	5.9	5.8
Rush Brook	6.2	6.5	6.6	6.5	6.4	6.1	5.9	6.3	6.1	6.3	6.2	6.5	6.3
Huntinghouse Brook	6.6	6.3	6.8	6.4	6.4	6.2	5.7	6.2	6.0	6.3	6.0	6.5	6.3
Harrisdale Brook	6.8	6.7	6.8	6.6	6.6	6.3	5.9	6.2	6.2	6.4	6.4	6.7	6.5
Blanchard Brook	5.8	5.7	5.8	5.7	5.5	5.6	5.0	5.2	5.6	6.3	5.7	5.8	5.6
Moswansicut Pond	6.5	6.5	6.5	6.4	6.7	6.9	6.4	6.8	6.4	5.8	6.7	6.7	6.5
Regulating Reservoir	6.8	6.7	6.7	6.8	6.5	6.0	5.9	6.1	6.2	6.5	6.5	6.8	6.5
Quonopaug Brook	6.5	5.8	6.2	5.8	5.8	5.5	4.9	5.3	5.5	5.7	5.7	6.1	5.7
Hemlock Brook	6.6	6.1	6.1	6.0	5.6	5.8	5.1	5.7	5.2	5.5	5.1	6.0	5.7
Betty Pond Stream	6.0	5.9	5.7	6.1	5.9	5.6	5.4	5.5	5.9	5.9	5.8	5.9	5.8
Spruce Brook	6.3	5.5	6.2	6.0	5.8	5.8	5.4	5.7	5.6	5.7	5.5	5.7	5.8
Brandy Brook	6.8	6.8	6.6	6.8	6.8	6.2	6.4	6.7	6.5	6.5	6.3	6.3	6.6
Moswansicut-South	6.5	6.6	6.5	6.5	6.5	6.1	6.4	6.3	6.3	6.4	6.3	6.5	6.4
Windsor Brook	6.8	6.1	6.8	6.4	6.1	6.3	5.7	5.7	5.5	6.2	5.8	6.3	6.1
Paine Pond	**	5.8	**	**	6.0	5.8	5.5	5.8	5.9	5.8	5.7	5.9	5.8
Unnamed Brook-A	5.2	5.0	5.8	5.3	5.0	5.5	4.7	4.9	4.8	4.9	4.7	4.8	5.1
Unnamed Brook-B	**	6.5	**	**	6.8	6.5	**	**	6.4	6.3	6.3	**	6.5
Acidity													
Ponaganset Reservoir	2.0	1.5	1.5	2.0	3.0	3.0	2.5	6.5	4.5	3.5	3.5	3.0	3.0
Coventry Brook	3.0	4.0	2.0	6.0	5.0	3.5	3.0	3.5	5.0	4.0	4.5	4.0	4.0
Wilbur Brook	5.0	4.5	3.5	4.5	7.0	5.5	4.5	10.5	5.5	6.0	6.5	7.0	5.8
Westconnaug Reservoir	2.5	2.5	2.0	3.0	2.5	4.0	4.0	2.5	3.0	2.5	3.0	2.0	2.8
Barden Reservoir	3.5	2.0	2.5	4.0	3.5	4.5	4.0	4.0	4.0	3.0	3.0	2.0	3.3
Cork Brook	2.5	4.5	2.5	5.5	3.5	4.0	5.5	3.5	4.0	2.0	3.0	3.5	3.7
Rush Brook	9.5	4.0	4.5	6.0	3.5	6.5	7.0	3.0	3.0	3.0	3.5	4.0	4.8
Huntinghouse Brook	5.0	3.5	3.0	5.5	4.0	6.0	5.0	4.0	3.5	2.5	3.5	4.0	4.1
Harrisdale Brook	7.5	2.5	2.5	4.5	3.5	5.5	6.0	6.0	4.5	2.5	2.5	3.0	4.2
Blanchard Brook	15.0	11.0	12.5	14.0	12.0	15.5	5.0	19.5	7.0	3.5	7.0	10.5	11.0
Moswansicut Pond	3.5	3.5	4.5	2.5	2.5	2.0	2.5	3.5	4.0	2.0	1.5	1.5	2.8
Regulating Reservoir	2.0	2.0	2.0	2.0	2.0	4.5	2.5	4.5	3.5	1.5	2.0	1.0	2.5
Quonopaug Brook	8.5	10.0	11.0	15.0	10.0	17.0	6.5	17.0	5.5	3.5	7.0	11.5	10.2
Hemlock Brook	2.0	2.5	2.5	4.0	4.0	6.0	7.0	4.0	4.5	3.0	5.0	3.0	4.0
Betty Pond Stream	6.5	5.0	12.5	4.5	6.5	12.5	12.0	22.5	5.0	3.0	3.0	3.5	8.0
Spruce Brook	3.5	6.5	4.5	6.0	5.0	6.0	5.0	4.5	4.0	3.5	5.0	7.0	5.0
Brandy Brook	2.5	6.0	4.0	4.0	3.5	6.5	3.0	3.5	3.5	1.5	3.0	1.5	3.5
Moswansicut-South	9.5	4.0	15.5	4.5	7.0	15.0	3.5	6.0	6.0	2.5	5.0	8.0	7.2
Windsor Brook	2.0	3.5	3.0	4.0	4.5	4.0	2.5	4.0	4.0	2.0	2.5	3.0	3.3
Paine Pond	**	5.5	**	**	8.5	20.0	18.5	20.0	7.0	4.5	6.0	9.0	11.0
Unnamed Brook-A	4.5	5.0	4.5	5.5	5.0	5.0	5.5	5.0	5.0	4.5	5.0	6.0	5.0
Unnamed Brook-B	**	7.0	**	**	4.0	6.5	**	**	5.5	5.5	7.5	**	6.0

*Parts per million, except pH.
**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 16 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

Monthly Analyses Alkalinity	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Ponaganset Reservoir	2.0	2.5	2.5	2.5	3.0	1.0	1.5	2.0	2.0	3.0	3.0	3.0	2.3
Coventry Brook	6.5	3.5	8.0	6.0	5.5	5.0	4.5	4.0	4.0	4.5	5.0	5.0	5.1
Wilbur Brook	9.0	5.0	7.5	6.5	6.0	6.0	4.0	4.5	2.5	5.5	5.5	6.0	5.7
Westconnaug Reservoir	7.5	4.0	7.0	7.5	5.5	5.0	4.5	4.5	3.0	4.0	6.0	6.0	5.4
Barden Reservoir	4.5	3.5	4.0	4.0	4.0	4.0	3.5	3.5	2.5	3.0	4.0	4.0	3.7
Cork Brook	5.5	3.0	4.0	4.0	4.0	5.0	3.5	4.0	3.0	3.0	4.0	5.5	4.0
Rush Brook	10.5	6.0	11.5	9.5	8.5	7.0	4.5	6.0	4.5	6.5	6.5	10.5	7.6
Huntinghouse Brook	12.0	5.0	7.0	7.5	7.0	5.5	4.5	6.0	3.5	5.5	5.0	7.5	6.3
Harrisdale Brook	13.0	8.5	14.0	10.0	9.5	9.0	6.5	9.0	6.0	7.5	7.0	11.5	9.3
Blanchard Brook	8.0	7.0	7.5	7.0	7.5	5.0	5.0	4.0	4.5	5.0	5.5	7.0	6.1
Moswansicut Pond	7.5	7.0	7.5	8.0	8.0	8.0	8.0	7.0	7.0	7.5	6.5	6.5	7.4
Regulating Reservoir	11.5	7.5	7.5	8.0	7.0	8.5	6.5	7.5	6.0	5.5	6.0	9.0	7.5
Quonopaug Brook	16.0	7.0	11.5	8.5	6.5	6.0	3.5	4.5	3.5	5.0	6.0	10.0	7.3
Hemlock Brook	4.5	3.0	5.5	4.0	4.5	4.0	6.0	3.5	2.5	3.0	4.0	4.5	4.1
Betty Pond Stream	4.5	3.0	5.5	5.0	6.0	6.0	3.5	6.5	4.0	4.0	4.5	5.0	4.8
Spruce Brook	6.0	2.5	5.5	5.0	4.5	4.0	3.0	3.5	2.5	3.0	4.0	5.5	4.1
Brandy Brook	13.5	10.5	12.5	12.0	10.5	13.0	10.0	16.0	7.0	8.0	6.0	7.0	10.5
Moswansicut-South	17.0	17.0	16.5	18.0	7.0	12.0	10.0	10.0	6.5	9.5	12.0	17.5	12.8
Windsor Brook	7.0	3.0	6.0	5.0	4.5	3.5	3.0	3.5	2.5	4.0	4.0	6.5	4.4
Paine Pond	**	7.0	**	**	6.5	7.5	6.0	7.0	3.5	5.5	5.0	5.0	5.9
Unnamed Brook-A	2.5	2.5	3.0	3.0	5.0	2.0	1.5	2.5	1.5	3.0	2.5	3.0	2.7
Unnamed Brook-B	**	17.0	**	**	29.5	16.5	**	**	8.0	13.0	14.0	**	16.3

*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 17

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

Monthly Averages

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Neutaconkanut Reservoir	10.0	10.0	9.9	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
160 Sock.Crossroad,Cranston	10.1	10.1	10.0	10.1	10.2	10.2	10.1	10.2	10.2	10.1	10.1	10.0	10.1
630 Atwells Ave.	10.0	10.0	9.8	10.0	10.0	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.0
1384 Cranston St.,Cranston	10.1	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
750 Reservoir Ave.,Cranston	10.1	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
1520 Atwood Ave.,Johnston	10.1	10.0	9.8	10.1	10.0	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
774 Allens Ave.	10.1	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
Dexter Manor	10.0	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
State Office Building	10.0	10.1	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
426 Admiral St.	10.0	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
238 Brook St.	10.0	10.0	9.8	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.0	9.9	10.1
Phenolphthalein Alkalinity													
Neutaconkanut Reservoir	7.4	7.4	7.6	7.5	6.4	6.2	6.3	6.5	6.4	6.9	6.6	6.7	6.8
160 Sock.Crossroad,Cranston	8.7	8.9	8.9	8.6	7.3	7.1	6.8	7.3	7.2	7.4	7.7	7.8	7.8
630 Atwells Ave.	7.7	7.8	8.0	7.6	6.5	6.5	6.5	7.0	6.8	7.0	6.8	6.8	7.1
1384 Cranston St.,Cranston	7.8	7.8	7.9	7.8	6.5	6.5	6.5	7.0	6.9	7.1	6.9	6.9	7.1
750 Reservoir Ave.,Cranston	7.9	7.9	8.0	7.7	6.6	6.6	6.5	7.0	7.0	7.1	6.9	6.8	7.2
1520 Atwood Ave.,Johnston	7.8	7.9	8.0	7.8	6.7	6.5	6.6	6.9	6.8	7.1	6.8	6.9	7.2
774 Allens Ave.	8.2	8.0	8.4	8.3	7.0	6.8	6.8	7.1	7.1	7.4	7.2	7.2	7.5
Dexter Manor	7.8	7.7	8.0	7.7	6.5	6.6	6.7	7.1	6.9	7.1	6.9	6.9	7.2
State Office Building	7.8	7.8	8.0	7.6	6.5	6.4	6.6	7.0	7.0	7.0	6.9	6.9	7.1
426 Admiral St.	7.7	7.8	7.9	7.6	6.6	6.7	6.6	7.1	7.0	7.1	6.8	6.9	7.2
238 Brook St.	7.8	8.0	8.0	7.7	6.7	6.6	6.6	7.2	7.1	7.3	7.0	7.0	7.3
Methyl Orange Alkalinity													
Neutaconkanut Reservoir	14.2	15.0	15.5	14.9	12.9	12.9	12.8	12.8	13.3	13.8	13.4	13.9	13.8
160 Sock.Crossroad,Cranston	15.8	16.6	16.8	15.7	13.9	13.5	13.2	14.4	14.1	14.4	14.4	14.9	14.8
630 Atwells Ave.	14.6	15.4	15.6	14.3	12.8	13.0	12.9	14.0	13.6	13.9	13.5	13.8	14.0
1384 Cranston St.,Cranston	14.6	15.3	15.6	14.5	12.9	13.1	12.9	14.0	13.6	13.8	13.5	13.9	14.0
750 Reservoir Ave.,Cranston	14.6	15.4	15.7	14.4	12.9	13.0	13.0	14.0	13.7	13.9	13.6	13.8	14.0
1520 Atwood Ave.,Johnston	14.6	15.5	15.7	14.5	13.0	12.9	13.1	14.0	13.6	14.0	13.6	13.9	14.0
774 Allens Ave.	15.1	15.6	16.2	14.8	13.4	13.3	13.1	14.1	13.8	14.1	13.8	14.3	14.3
Dexter Manor	14.7	15.3	15.7	14.4	12.8	13.0	13.1	14.1	13.6	13.9	13.6	14.0	14.0
State Office Building	14.6	15.4	15.5	14.4	12.8	13.0	13.0	14.0	13.8	13.8	13.5	14.0	14.0
426 Admiral St.	14.6	15.4	15.6	14.4	13.0	13.0	13.1	14.1	13.8	13.9	13.6	13.9	14.0
238 Brook St.	14.7	15.5	15.7	14.6	13.0	13.0	13.0	14.1	13.9	14.1	13.7	14.1	14.1
Color													
Neutaconkanut Reservoir	3	3	3	3	3	3	3	3	3	3	3	3	3
160 Sock.Crossroad,Cranston	4	4	4	4	4	3	3	3	3	3	3	3	3
630 Atwells Ave.	3	3	3	3	3	3	3	3	3	3	3	3	3
1384 Cranston St.,Cranston	3	3	3	3	3	3	3	3	3	3	3	3	3
750 Reservoir Ave.,Cranston	3	3	3	3	3	3	3	3	3	3	3	3	3
1520 Atwood Ave.,Johnston	3	3	3	3	3	3	3	3	3	3	3	3	3
774 Allens Ave.	4	4	3	3	3	3	3	3	3	3	3	3	3
Dexter Manor	3	3	3	3	3	3	3	3	3	3	3	3	3
State Office Building	3	3	3	3	3	3	3	3	3	3	3	3	3
426 Admiral St.	5	5	4	3	4	3	3	3	3	3	3	3	4
238 Brook St.	5	5	5	4	4	3	4	3	4	3	4	4	4
Iron													
Neutaconkanut Reservoir	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.04	0.01	0.02
160 Sock.Crossroad,Cranston	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03
630 Atwells Ave.	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02
1384 Cranston St.,Cranston	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
750 Reservoir Ave.,Cranston	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
1520 Atwood Ave.,Johnston	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01
774 Allens Ave.	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02
Dexter Manor	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
State Office Building	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
426 Admiral St.	0.05	0.06	0.04	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.03
238 Brook St.	0.07	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.04	0.04	0.04

TABLE 17 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

	Monthly Averages												
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Chlorides													
Neutaconkanut Reservoir	12.9	12.4	12.7	12.9	13.4	13.5	13.6	14.2	14.4	13.5	13.5	13.5	13.4
160 Sock.Crossroad,Cranston	12.9	12.5	12.6	13.0	13.4	13.5	13.6	14.3	14.5	13.5	13.5	13.5	13.4
630 Atwells Ave.	13.0	12.5	12.7	12.9	13.4	13.5	13.6	14.3	14.5	13.5	13.5	13.5	13.4
1384 Cranston St.,Cranston	13.0	12.5	12.6	13.0	13.4	13.5	13.6	14.3	14.4	13.5	13.5	13.5	13.4
750 Reservoir Ave.,Cranston	12.9	12.5	12.7	13.0	13.4	13.5	13.6	14.3	14.4	13.5	13.4	13.5	13.4
1520 Atwood Ave.,Johnston	12.9	12.6	12.7	13.0	13.4	13.5	13.6	14.3	14.4	13.5	13.4	13.5	13.4
774 Allens Ave.	12.9	12.5	12.6	13.0	13.4	13.5	13.6	14.2	14.4	13.5	13.5	13.5	13.4
Dexter Manor	12.9	12.5	12.6	12.3	13.4	13.5	13.6	14.3	14.4	13.4	13.5	13.5	13.3
State Office Building	12.9	12.6	12.7	13.0	13.4	13.5	13.6	14.2	14.4	13.5	13.5	13.5	13.4
426 Admiral St.	12.9	12.5	12.7	13.0	13.4	13.5	13.5	14.3	14.5	13.4	13.5	13.5	13.4
238 Brook St.	13.0	12.5	12.7	13.0	13.4	13.5	13.6	14.2	14.4	13.5	13.5	13.5	13.4
Nitrites													
Neutaconkanut Reservoir	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
160 Sock.Crossroad,Cranston	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
630 Atwells Ave.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
1384 Cranston St.,Cranston	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
750 Reservoir Ave.,Cranston	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
1520 Atwood Ave.,Johnston	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
774 Allens Ave.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
Dexter Manor	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
State Office Building	.001	.001	.001	.001	.000	.001	.001	.001	.001	.001	.001	.001	.001
426 Admiral St.	.000	.000	.000	.000	.000	.000	.001	.000	.001	.001	.001	.001	.000
238 Brook St.	.000	.000	.000	.000	.000	.000	.001	.000	.001	.001	.001	.001	.000
Taste													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Cranston	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.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Johnston	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,Cranston	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.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Johnston	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	0.98	0.98	0.98	0.95	0.94	0.95	0.97	0.98	0.97	0.94	0.97	0.97
160 Sock.Crossroad,Cranston	0.96	0.99	1.01	0.98	0.90	0.96	0.95	0.98	1.00	1.03	0.96	1.01	0.98
630 Atwells Ave.	0.98	1.00	1.01	0.99	0.92	0.95	0.95	0.99	1.01	0.99	0.94	0.97	0.98
1384 Cranston St.,Cranston	1.00	1.00	1.02	0.98	0.91	0.96	0.96	0.98	0.99	1.02	0.96	0.99	0.98
750 Reservoir Ave.,Cranston	0.98	1.00	1.03	0.99	0.91	0.97	0.96	1.00	1.00	1.01	0.95	0.98	0.98
1520 Atwood Ave.,Johnston	0.98	1.01	1.02	0.98	0.94	0.95	0.96	0.98	0.99	0.99	0.95	0.98	0.98
774 Allens Ave.	1.00	1.01	1.02	0.99	0.92	0.97	0.96	0.99	1.00	1.01	0.98	0.97	0.99
Dexter Manor	1.00	1.01	1.03	0.99	0.95	0.96	0.97	1.00	1.00	1.02	0.97	0.98	0.99
State Office Building	1.01	1.01	1.02	1.01	0.96	0.95	0.96	0.99	0.99	1.01	0.97	0.96	0.99
426 Admiral St.	1.06	1.01	1.02	0.99	0.94	0.96	0.97	0.98	0.99	1.00	0.97	0.97	0.99
238 Brook St.	1.00	1.01	1.02	0.99	0.92	0.96	0.98	1.00	0.99	1.01	0.97	0.97	0.99

TABLE 18

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1977

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

1976-1977	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	53	2	21	51	2	23	4	0	0	10	0	1	3	0	0	5	0	0
August	156	11	56	78	7	38	240	0	12	16	0	1	12	0	1	7	0	0
September	80	12	45	96	0	52	2	0	0	4	0	0	3	0	0	1	0	0
October	150	19	58	90	9	64	0	0	0	70	0	4	13	0	2	1	0	0
November	72	7	33	96	13	44	6	0	0	104	0	15	21	0	7	7	0	2
December	72	3	35	128	10	37	21	0	3	56	0	8	64	2	13	15	0	4
January	104	5	37	79	0	31	100	0	12	96	0	11	78	0	10	14	0	2
February	72	7	32	72	7	26	4	0	1	5	0	2	12	0	2	0	0	0
March	144	19	68	480	0	93	3	0	1	72	0	5	70	0	4	18	0	1
April	104	13	42	120	9	58	12	0	2	72	0	24	68	0	11	19	0	7
May	86	6	40	120	9	44	36	0	4	51	0	9	18	0	5	5	0	1
June	78	4	19	24	1	11	140	0	8	7	0	1	120	0	7	1	0	0
For Year	156	2	41	480	0	43	240	0	4	104	0	7	120	0	5	19	0	1

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

TABLE 19

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1977

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

1976-1977	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	5	1	2	6	0	2	3	0	0	1	0	0	2	0	0	0	0	0
August	11	0	4	13	0	5	11	0	1	1	0	0	2	0	0	14	0	1
September	28	3	13	35	2	14	9	0	1	2	0	0	0	0	0	0	0	0
October	45	5	17	32	0	17	1	0	0	28	0	2	0	0	0	0	0	0
November	9	0	3	8	0	2	1	0	0	0	0	0	1	0	0	1	0	0
December	4	0	1	89	0	6	4	0	0	10	0	0	1	0	0	420	0	18
January	7	1	4	7	0	3	26	0	2	1	0	0	0	0	0	5	0	1
February	48	0	4	4	0	1	5	0	1	0	0	0	0	0	0	0	0	0
March	45	0	4	8	0	2	49	0	3	2	0	0	0	0	0	2	0	0
April	12	1	6	12	2	6	4	0	1	1	0	0	1	0	0	0	0	0
May	8	0	3	9	0	4	75	0	7	0	0	0	3	0	0	1	0	0
June	670	1	41	18	1	3	46	0	4	1	0	0	0	0	0	1	0	0
For Year	670	0	9	89	0	5	75	0	2	28	0	0	3	0	0	420	0	2

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

TABLE 20

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1977

COLIFORM BACTERIA

	R A W ---- A. M.				Settled	Effluent A.M.	Effluent P.M.	*Tap
					M E M B R A N E F I L T E R M E T H O D			
	No. of Portions Positive Per No. Tested				Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested
1976-1977	10 ml.	1.0 ml.	0.1 ml.	Geometric Mean MPN Per 100 ml.				
July	2/78	0/78	0/78	< 3.1	0/2,600	0/2,600	0/2,000	43/24,600
August	8/75	0/75	0/75	< 3.4	0/2,500	0/2,500	1/2,100	1/25,900
September	16/75	2/75	0/75	< 4.9	2/2,500	0/2,500	0/2,100	0/25,600
October	44/72	5/72	0/72	< 10.6	0/2,400	0/2,400	0/1,900	5/23,300
November	42/72	7/72	1/72	< 10.8	0/2,400	0/2,400	0/2,000	0/25,200
December	65/78	8/78	1/78	18.6	0/2,600	0/2,600	2/2,100	0/25,300
January	25/75	0/75	0/75	< 4.8	0/2,500	0/2,500	0/2,100	0/24,800
February	2/69	0/69	0/69	< 3.1	0/2,300	0/2,300	0/1,900	0/23,200
March	22/81	1/81	2/81	< 4.8	16/2,700	0/2,700	0/2,300	0/28,000
April	17/78	1/78	1/78	< 4.0	0/2,600	0/2,600	0/2,000	0/24,900
May	8/72	2/72	0/72	< 3.6	0/2,400	0/2,400	0/2,000	0/24,400
June	9/78	1/78	0/78	< 3.3	64/2,600	0/2,600	0/2,200	0/26,000
For Year	260/903	27/903	5/903	< 5.2	82/30,100	0/30,100	3/24,700	49/301,200

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 49 positives, 49 gave negative results in E.C. medium.

NOTE: Positive means through the confirmed test.

TABLE 21

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

	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.						
Ponaganset Reservoir	110	300	110	178	47	10	480	194	184	56	300	112	173
Coventry Brook	480	480	900	600	600	320	270	194	72	360	420	540	436
Wilbur Brook	780	720	420	540	240	420	240	171	200	210	840	900	473
Westconnaug Reservoir	420	1,200	660	300	144	131	300	192	264	240	900	660	451
Barden Reservoir	360	540	300	420	54	480	360	120	300	112	440	480	331
Cork Brook	420	420	660	540	540	120	250	240	180	480	480	660	416
Rush Brook	780	900	540	1,200	320	600	540	176	300	600	660	780	616
Huntinghouse Brook	720	1,200	1,200	600	200	540	480	56	480	360	600	600	586
Harrisdale Brook	360	275	280	300	272	480	600	280	216	300	540	420	360
Blanchard Brook	900	660	840	360	480	300	220	480	168	420	660	1,200	557
Moswansicut Pond	540	360	300	600	540	240	660	53	72	56	272	480	348
Regulating Reservoir	420	300	300	100	66	300	720	300	300	48	224	720	317
Quonopaug Brook	720	1,200	900	480	276	600	600	136	128	420	270	480	518
Hemlock Brook	600	210	480	420	152	540	780	600	360	104	360	420	419
Betty Pond Stream	420	600	360	720	540	480	660	960	600	160	780	660	578
Spruce Brook	144	420	480	480	480	420	130	1,140	360	360	720	900	503
Brandy Brook	420	480	600	600	780	300	900	1,080	480	540	600	106	574
Moswansicut-South	1,080	1,140	TNTC	900	900	180	540	1,200	720	780	720	960	TNTC
Windsor Brook	420	420	300	600	300	76	300	136	480	240	660	600	378
Paine Pond	*	420	*	*	300	360	1,200	540	480	600	660	420	553
Unnamed Brook-A	300	480	170	360	240	240	360	300	300	420	1,200	780	429
Unnamed Brook-B	*	900	*	*	360	300	*	*	300	720	900	*	580
							Bacteria per ml. 24 Hours on Agar at 35°C.						
Ponaganset Reservoir	48	110	148	23	3	1	7	8	8	6	12	35	34
Coventry Brook	220	480	420	176	96	88	25	13	21	15	87	420	172
Wilbur Brook	480	1,200	360	300	24	48	51	37	45	144	360	276	277
Westconnaug Reservoir	360	720	300	47	31	33	20	13	31	28	240	115	162
Barden Reservoir	260	420	176	96	21	42	32	12	79	23	43	210	118
Cork Brook	72	540	88	71	19	24	12	19	22	31	120	189	101
Rush Brook	200	600	480	420	48	32	26	29	48	42	206	540	223
Huntinghouse Brook	420	480	300	240	34	41	23	38	25	70	145	420	186
Harrisdale Brook	480	300	240	42	56	21	31	6	27	39	72	480	150
Blanchard Brook	720	420	420	300	67	52	44	15	47	71	157	780	258
Moswansicut Pond	600	192	360	360	89	14	6	4	2	13	84	230	163
Regulating Reservoir	250	540	211	88	18	34	53	11	19	22	28	420	141
Quonopaug Brook	480	420	320	184	42	66	120	19	44	32	49	840	218
Hemlock Brook	360	480	98	48	38	49	28	18	28	56	136	72	118
Betty Pond Stream	900	420	240	420	21	6	46	5	15	39	84	360	213
Spruce Brook	109	360	300	300	98	17	48	15	28	72	77	224	137
Brandy Brook	360	540	420	480	80	480	32	37	420	360	137	360	309
Moswansicut-South	900	600	6,000	360	136	75	72	32	71	78	186	720	769
Windsor Brook	300	420	96	59	19	40	33	18	18	40	56	300	117
Paine Pond	*	540	*	*	88	72	64	16	21	96	120	300	146
Unnamed Brook-A	540	480	300	48	31	17	16	22	18	80	192	540	190
Unnamed Brook-B	*	600	*	*	56	48	*	*	31	115	300	*	192

*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 21 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1977

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Coliform Bacteria Index per 100 ml.											
Ponaganset Reservoir	50	60	25	6	-5	-5	6	25	6	25	25	60
Coventry Brook	700	700	700	130	60	250	6	60	25	25	60	130
Wilbur Brook	130	1,100	700	130	50	250	60	6	6	60	25	60
Westconnaug Reservoir	250	1,100+	700	250	50	60	250	25	25	6	200	130
Barden Reservoir	60	250	60	25	6	60	60	25	25	-5	25	60
Cork Brook	6	1,100+	60	60	25	60	130	25	60	-5	5	25
Rush Brook	700	700	1,100+	60	60	130	60	25	250	250	6	700
Huntinghouse Brook	60	1,100+	1,100	250	25	25	25	25	60	60	25	700
Harrisdale Brook	50	130	250	250	60	60	25	25	25	60	25	25
Blanchard Brook	1,100+	130	1,100+	700	60	250	700	60	200	130	25	700
Moswansicut Pond	210	43	240	93	240	43	4	4	20	4	23	23
Regulating Reservoir	60	60	25	25	60	250	25	130	12	6	60	25
Quonopaug Brook	700	1,100+	1,100	700	700	200	250	25	-5	130	25	700
Hemlock Brook	60	25	6	60	700	13	700	25	25	25	25	60
Betty Pond Stream	250	250	130	25	-5	60	25	6	60	-5	25	60
Spruce Brook	250	1,100+	250	250	60	60	25	60	25	6	25	700
Brandy Brook	250	1,100+	250	60	60	50	1,100+	6	60	50	250	60
Moswansicut-South	1,100+	1,100+	1,100	1,100+	1,100	60	700	250	250	60	250	1,100+
Windsor Brook	250	700	60	25	250	700	60	250	130	60	200	25
Paine Pond	*	2,400	*	*	23	7	43	9	23	93	2,400+	210
Unnamed Brook-A	700	700	700	60	60	25	25	25	25	25	25	60
Unnamed Brook-B	*	2,400	*	*	460	1,100	*	*	43	240	460	*

*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 22

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN VARIOUS PARTS OF THE DISTRIBUTION SYSTEM

YEAR ENDED JUNE 30, 1977

Monthly Averages	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
					Bacteria per ml. 48 Hours on Agar at 20°C.								
Neutaconkanut Reservoir	0	0	0	0	0	1	0	0	0	2	0	0	0
160 Sock.Crossroad,Cran.	0	0	0	0	1	2	1	0	0	4	1	0	1
630 Atwells Ave.	0	0	0	0	1	3	1	0	0	9	1	0	1
1384 Cranston St.,Cranston	0	0	0	0	1	3	1	0	0	5	1	0	1
750 Reservoir Ave.,Cranston	0	0	0	0	1	2	1	0	0	3	1	0	1
1520 Atwood Ave.,Johnston	0	0	0	0	0	2	6	0	0	4	1	0	1
774 Allens Ave.	0	0	0	0	2	1	0	0	0	5	4	0	1
Dexter Manor	0	0	0	0	1	2	0	0	0	4	1	0	1
State Office Building	0	0	0	0	2	2	2	0	0	5	1	0	1
426 Admiral St.	0	0	0	0	2	3	1	0	0	7	1	0	1
238 Brook St.	2	3	2	2	4	4	1	0	4	7	1	0	3
					Bacteria per ml. 24 Hours on Agar at 35°C.								
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	1	0	0
160 Sock.Crossroad,Cran.	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.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Cranston	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Johnston	0	0	5	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	8	0	1
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	1	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
					Coliform colonies per 100 ml.								
Neutaconkanut Reservoir	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
160 Sock.Crossroad,Cran.	.00	.00	.00	.00	.00	.00	.00	.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.,Cranston	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
750 Reservoir Ave.,Cranston	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1520 Atwood Ave.,Johnston	1.38	.05	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.13
774 Allens Ave.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Dexter Manor	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00	.01
State Office Building	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
426 Admiral St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
238 Brook St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 23

WATER PURIFICATION WORKS

MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1977

Parts per Million	*R A W W A T E R					T A P W A T E R				
	1976		1977			1976		1977		
	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	Avg.	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	Avg.
Aluminum	0.03	0.04	0.03	----	0.03	0.02	0.02	0.02	----	0.02
Arsenic		0.00		----	0.00		0.00		----	
Calcium	3.17	4.12	3.80	4.00	3.77	11.00	10.50	11.30	10.90	10.93
Chloride	12.0	12.7	13.5	12.5	12.7	12.8	13.3	14.0	13.2	13.3
Copper	0.03	0.02	0.02	----	0.02	0.01	0.00	0.00	----	0.00
Fluoride	0.18	0.19	0.20	0.16	0.18	0.98	0.97	0.98	0.96	0.97
Hardness	10	11	11	11	11	29	28	30	29	29
Iron	0.12	0.07	0.08	0.05	0.08	0.02	0.02	0.02	0.01	0.02
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Magnesium	0.58	0.13	0.36	0.24	0.33	0.35	0.43	0.49	0.43	0.43
Manganese	0.09	0.03	0.02	0.02	0.04	0.00	0.00	0.00	0.00	0.00
Phenolic Compounds		0.000		----	0.000		0.000		----	0.000
Selenium		0.00		----	0.00		0.00		----	0.00
Silica	5.0	3.0	3.5	----	3.8	6.0	3.0	3.0	----	4.0
Sulfate	5.2	5.4	6.3	----	5.6	17.4	17.6	16.8	----	17.3
Total Solids	4.7	4.4	4.4	----	4.5	63	65	65	----	64
Loss on Ignition	18	13	10	----	14	16	11	11	----	13
Total Alkalinity	3.8	4.6	4.3	4.3	4.3	15.1	13.4	13.5	13.7	13.9
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	7.8	6.8	6.8	6.9	7.1
Zinc		0.00		0.00	0.00		0.00		0.00	0.00

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

TABLE 24

WATER PURIFICATION WORKS

SANITARY CHEMICAL ANALYSIS (P.P.M.) - YEAR ENDED JUNE 30, 1977

1976-1977	*R A W W A T E R Ammonia Free	Ammonia Alb.	Nitrites	Nitrates	Chlorides	Dissolved Oxygen P.P.M.	Dissolved Oxygen % Sat.	Total Solids	Loss on Ignition	T A P W A T E R Ammonia Free	Ammonia Alb.	Nitrites	Nitrates	Chlorides	Dissolved Oxygen P.P.M.	Dissolved Oxygen % Sat.	Total Solids	Loss on Ignition
July	0.033	0.071	0.000	0.15	12.0	9.7	86.0	44	14	0.018	0.046	0.001	0.03	13.0	---	---	65	15
August	.025	.063	.000	.50	12.0	5.0	50.0	51	15	.032	.037	.001	.35	12.5	---	---	60	15
September	.031	.086	.000	.10	12.0	4.7	48.7	46	25	.022	.093	.001	.10	13.0	---	---	65	17
October	.017	.046	.000	.10	12.0	6.8	72.6	40	9	.017	.063	.001	.10	13.0	---	---	65	12
November	.013	.065	.000	.03	13.0	12.5	102.5	48	19	.004	.033	.001	.07	13.5	---	---	67	10
December	.018	.066	.000	.07	13.0	13.6	98.6	44	12	.013	.044	.001	.07	13.5	---	---	62	12
January	.036	.075	.000	.07	13.0	12.5	92.6	45	13	.022	.048	.001	.10	13.5	---	---	61	11
February	.028	.066	.000	.05	13.5	13.2	99.9	47	8	.018	.042	.001	.07	14.0	---	---	63	9
March	.041	.082	.000	.07	14.0	11.6	87.9	41	8	.021	.044	.001	.07	14.5	---	---	72	12
April	---	---	.000	.07	12.5	12.5	100.0	---	--	---	---	.001	.05	13.0	---	---	--	--
May	---	---	.000	---	12.5	---	---	---	--	---	---	.001	---	13.0	---	---	--	--
June	---	---	.000	---	12.5	---	---	---	--	---	---	.001	---	13.5	---	---	--	--
Averages	0.027	0.069	0.000	0.12	13.0	10.2	83.9	45	14	0.019	0.050	0.001	0.10	13.3	---	---	64	13

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

TABLE 25

WATER PURIFICATION WORKS

LABORATORY EXAMINATIONS MADE DURING THE FISCAL YEAR ENDED JUNE 30, 1977

	Source of Water Tested	Frequency of Test or Examination	Number of Tests or Analyses Made During the Fiscal Year						
			Chemical	Bacteriological	Microscopical	Sanitary Chemical	Mineral	Miscellaneous	Total
I	Brooks and Streams on Watershed								
	Fourteen Brooks, Two Streams and One Pond	Monthly	1,365	2,318		45			3,728
II	Smaller Storage Reservoirs on Watershed								
	Regulating Reservoir	Monthly	84	127					211
	Westconnaug Reservoir	Monthly	84	141					225
	Barden Reservoir	Monthly	84	124					208
	Moswansicut Pond	Monthly	84	176					260
	Ponaganset Reservoir	Monthly	84	116					200
III	Scituate Reservoir								
	Surface Water	Bi-Weekly	214		7	142			363
	Subsurface Water (See Purif. Wks.-Raw Water)								
IV	Pawtuxet River-Below Gainer Dam								
	Gainer Dam Meter Chamber	Bi-Weekly	188			142			330
	Fiskeville, R. I.	Bi-Weekly	188			142			330
	Twelve Other Locations on Pawtuxet River	Bi-Weekly	2,414			1,932			4,346
V	Water Purification Works								
	Raw Water (from Bottom of Scituate Reservoir)	Daily	2,847	4,246		1,332		365	8,790
	Raw Water (from Bottom of Scituate Reservoir)	Bi-Weekly			7				7
	Raw Water (from Bottom of Scituate Reservoir)	Monthly				56			56
	*Raw Water (from Bottom of Scituate Reservoir)	Every 13 weeks					29		29
	Aerated Influent	Daily	712						712
	Mixer	Daily	1,818						1,818
	Settled	Daily	2,333	964		298		365	3,960
	Settled	Bi-Weekly			7				7
	Settled	Monthly				34			34
	Filtered	Daily	2,084	804		1,622			4,510
	Filtered	Monthly				10			10
	Effluent	Daily	2,979	802		1,622			5,403
	Effluent	Bi-Weekly			7				7
	Effluent	Monthly				20			20
	Raw Water (from Bottom of Scituate Reservoir)	Daily at 1:00 P.M.	988	733		972			2,693
	Effluent	Daily at 1:00 P.M.	988	733		972			2,693

*Composite of 13 Weekly Samples.

TABLE 25 (Continued)

WATER PURIFICATION WORKS

LABORATORY EXAMINATIONS MADE DURING THE FISCAL YEAR ENDED JUNE 30, 1977

	Source of Water Tested	Frequency of Test or Examination	Number of Tests or Analyses Made During the Fiscal Year						
			Chemical	Bacteri-ological	Micro-scopical	Sanitary Chemical	Mineral	Miscel-laneous	Total
VI	Neutaconkanut Distribution Reservoir								
	Sample from nearby Tap	Daily	1,506	779		1,238			3,523
	Sample from nearby Tap	Bi-Weekly			7				7
VII	Longview Distribution Reservoir								
	Sample from nearby Tap	Daily	1,532	750		984			3,266
	Sample from nearby Tap	Bi-Weekly			7				7
VIII	Distribution System								
	Providence City Hall Tap Water	Daily	1,992	737		1,245		249	4,223
	Providence City Hall Tap Water	Bi-Weekly			7				7
	Providence City Hall Tap Water	Monthly				46			46
	*Providence City Hall Tap Water	Every 13 Weeks					29		29
	Consumers' Complaints (7 during the year)		45	17		18			80
	Disinfection of Newly Laid Mains			178		35			213
	**Sectional Tests	Daily	13,455	6,658		9,111		50	29,274
IX	Miscellaneous Tests								
	Coagulation Tests to Determine Chemical Dosages		48					24	72
	Analysis of Ferri-Floc used for Treatment		51					17	68
	Analysis of Quicklime used for Treatment		36					72	108
	Analysis of Sod. Silicofluoride used for Treatment		5						5
	Water, Filter Sand and Other Materials		2,674	6,993		1,011		20	10,698
	Totals		40,882	27,396	49	23,029	58	1,162	92,576

*Composite of 13 weekly samples.
**Samples from nine fixed locations.

TABLE 26

WATER DISTRIBUTION SYSTEM

NEUTACONKANUT HIGH SERVICE PUMPING STATION

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

	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'			
1976-1977	Operated Days	Hours and Minutes	Operated Days	Hours and Minutes	Operated Days	Hours and Minutes	KWH	Cost	**Operated Days	Hours and Minutes	Gas. Used Gals.	Oil Used Qts.
July	29	459-45	27	473-45	18	290-45	173,800	$ 6,089.91	0	0	50	0
August	22	331-50	30	571-20	20	234-20	144,400	5,248.02	3	2-35	172	0
September	17	227-30	30	646-15	23	299-30	146,000	5,058.32	4	4-00	55	50
October	24	338-05	19	376-15	15	211-00	144,200	5,051.29	4	4-00	150	0
November	15	272-15	0	0-0	16	278-45	88,200	3,434.85	4	4-00	225	0
December	16	250-00	0	0-0	21	340-30	105,600	4,163.39	4	4-00	90	0
January	19	253-00	15	243-30	22	321-25	104,400	4,232.32	2	2-00	98	0
February	16	211-00	27	437-30	20	294-00	133,600	5,456.89	4	4-00	0	50
March	20	325-15	30	650-15	21	310-45	157,800	6,449.02	4	4-00	0	0
April	21	252-30	27	528-15	23	276-00	153,600	6,403.45	3	3-00	40	0
May	24	261-15	25	328-05	18	212-25	89,800	4,008.16	2	2-25	30	0
June	25	256-30	30	384-00	11	135-30	105,200	4,533.47	3	3-00	30	0
Totals	248	3,438-55	260	4,639-10	228	3,204-55	1,546,600	$60,129.09	37	37-00	940	100

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

TABLE 26 (Continued)

WATER DISTRIBUTION SYSTEM

NEUTACONKANUT HIGH SERVICE PUMPING STATION

OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1977

	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.	
1976-1977	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg.per Day
July	174.817	111.467	100.172	0	386.456	12.466
August	143.341	135.459	83.396	1.358	363.554	11.728
September	88.215	155.033	117.953	2.072	363.273	12.109
October	148.753	90.287	92.241	2.022	333.303	10.751
November	129.138	0.000	133.558	2.164	264.860	8.829
December	121.015	0.000	161.227	2.037	284.279	9.170
January	118.412	59.826	142.781	1.038	322.057	10.389
February	91.801	104.413	119.078	2.004	317.296	11.332
March	134.543	145.882	119.682	2.007	402.114	12.971
April	106.907	126.836	111.621	1.525	346.889	11.563
May	117.579	80.417	89.851	0.858	288.705	9.313
June	116.289	95.903	56.740	1.424	270.356	9.012
Totals	1,490.810	1,105.523	1,328.300	18.509	3,943.142	10.803

TABLE 27

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1977

1976-1977	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		
	Operated		Operated				**Operated		
	Days	Hours and Minutes	Days	Hours and Minutes	KWH	Cost	Days	Hours and Minutes	Gas. Used Gals.
July	31	444-15	30	412-15	52,920	$1,885.11	4	13-35	220
August	29	386-30	27	326-15	44,800	1,645.52	4	4-00	30
September	28	259-45	28	238-30	31,220	1,231.67	5	5-00	48
October	31	416-06	31	267-26	35,000	1,356.97	4	4-00	66
November	30	539-45	30	565-45	63,560	2,204.73	3	3-00	75
December	31	493-45	31	476-15	63,560	2,341.52	4	4-00	112
January	31	398-45	30	380-00	46,340	1,860.48	4	4-00	82
February	26	269-30	24	262-30	38,080	1,618.90	4	4-00	60
March	15	89-00	7	52-00	6,300	465.30	4	4-00	104
April	20	276-00	18	226-00	18,900	985.30	5	5-00	72
May	31	736-00	31	738-00	78,680	3,134.54	4	4-00	35
June	30	712-30	30	697-30	82,460	3,240.69	4	4-00	1,346
Totals	333	5,021-51	317	4,642-26	561,820	$21,970.73	49	58-35	2,250

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

TABLE 27 (Continued)

WATER DISTRIBUTION SYSTEM

BATH STREET HIGH SERVICE PUMPING STATION

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

	Electrically-Driven Pumps		Gasoline Engine-Driven Pump	Total Water Pumped	
	Pump No. 1 2500 GPM. TDH 100'	Pump No. 2 2500 GPM. TDH 100'	Pump No. 3 5000 GPM. TDH 100' 150 HP Climax Engine	Mil. Gallons	
1976-1977	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	56.120	51.882	2.525	110.527	3.565
August	49.870	40.155	0.937	90.962	2.934
September	33.984	30.481	1.170	65.635	2.188
October	56.190	34.785	1.017	91.992	2.967
November	69.859	73.725	0.761	144.345	4.812
December	66.522	63.211	1.010	130.743	4.218
January	54.592	48.269	0.990	103.851	3.350
February	34.307	33.404	0.978	68.689	2.453
March	12.445	6.990	0.974	20.409	0.658
April	36.943	30.041	1.192	68.176	2.272
May	95.596	95.925	0.997	192.518	6.210
June	92.511	90.303	0.968	183.782	6.126
Totals	658.939	599.171	13.519	1,271.629	3.484

TABLE 28

WATER DISTRIBUTION SYSTEM

*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

1976-1977	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	229.73	41.28	230.46	225.22	229.40	42.50	33.55	40.72	5.03	0.88	2.57	8.61	1.51	4.40
August	228.50	39.18	230.43	225.08	229.35	42.45	33.31	40.63	5.20	0.78	2.90	8.89	1.32	4.97
September	229.37	40.67	229.77	225.47	228.91	41.25	35.75	40.62	3.83	1.07	2.19	6.57	1.84	3.75
October	228.55	39.26	230.10	224.90	228.78	41.91	33.00	39.66	3.73	1.50	2.69	6.40	2.57	4.61
November	229.50	40.89	230.33	225.63	229.60	42.29	34.25	41.05	3.96	1.52	2.49	6.79	2.60	4.26
December	229.95	41.66	230.19	225.29	229.21	42.06	33.67	40.48	3.57	1.40	2.57	6.12	2.40	4.40
January	228.95	39.95	230.11	224.36	229.02	41.92	32.07	40.06	4.24	1.31	2.40	7.28	2.24	4.09
February	229.14	40.27	229.64	224.97	228.40	41.13	33.12	39.00	3.54	1.54	2.54	6.07	2.64	4.35
March	228.45	39.09	229.85	225.22	228.41	41.49	33.55	39.02	3.92	1.40	2.39	6.73	2.40	4.12
April	227.82	38.01	229.43	224.97	228.40	40.70	33.12	39.00	3.54	0.83	2.29	6.07	1.42	3.92
May	227.95	38.23	230.27	224.45	228.66	42.19	32.22	39.45	5.21	1.07	2.58	8.94	1.84	4.43
June	230.18	42.04	230.21	224.47	228.57	42.09	32.26	39.31	5.36	1.00	2.54	9.19	1.72	4.33
For Year			230.46	224.36	228.89	42.50	32.07	39.92	5.36	0.78	2.51	9.19	1.32	4.30

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

TABLE 29

WATER DISTRIBUTION SYSTEM

*NEUTACONKANUT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

1976-1977	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	226.31	40.88	226.70	221.80	226.10	41.57	32.95	40.51	4.62	0.75	2.41	8.12	1.31	4.23
August	226.40	41.04	226.79	222.48	226.31	41.73	34.14	40.89	4.20	0.99	2.57	7.40	1.74	4.52
September	225.88	40.13	226.52	223.39	226.16	41.25	35.75	40.62	2.91	1.31	2.11	5.11	2.30	3.70
October	225.95	40.25	226.59	223.05	226.09	41.37	35.15	40.50	3.30	0.53	1.93	5.80	0.93	3.39
November	226.37	40.98	226.72	224.12	226.44	41.61	37.03	41.12	2.47	0.38	1.67	4.34	0.66	2.93
December	226.68	41.54	226.68	223.83	226.20	41.54	36.52	40.68	2.57	0.65	1.63	4.52	1.14	2.87
January	224.95	38.49	226.62	222.72	225.91	41.43	34.57	40.18	3.43	0.64	1.75	6.03	1.12	3.08
February	225.98	40.30	226.16	223.11	225.75	40.62	35.25	39.90	3.00	0.54	2.04	5.28	0.95	3.59
March	225.60	39.64	226.24	223.24	225.77	40.76	35.48	39.94	2.50	1.19	1.92	4.40	2.09	3.38
April	225.35	39.20	226.22	222.97	225.80	40.72	35.01	39.99	3.02	0.70	2.13	5.31	1.23	3.76
May	225.50	39.46	226.46	221.68	225.81	41.14	32.74	40.01	4.10	0.85	2.62	7.21	1.49	4.64
June	226.16	40.62	226.39	222.19	225.91	41.02	33.63	40.18	3.88	1.00	2.49	6.82	1.76	4.37
For Year			226.79	221.68	226.02	41.73	32.74	40.38	4.62	0.38	2.11	8.12	0.66	3.71

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

TABLE 30

WATER DISTRIBUTION SYSTEM

*LONGVIEW DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1977

1976-1977	7 A.M. Statistics on First Day of Month: Water Level	7 A.M. Statistics on First Day of Month: Storage Mil. Gals.	Operating Characteristics During Month: Water Level Max.	Water Level Min.	Water Level **Avg.	Storage-Mil. Gals. Max.	Storage-Mil. Gals. Min.	Storage-Mil. Gals. **Avg.	Daily Water Level Fluctuation-Ft. Max.	Daily Water Level Fluctuation-Ft. Min.	Daily Water Level Fluctuation-Ft. Avg.	Daily Storage Fluctuation-M.G. Max.	Daily Storage Fluctuation-M.G. Min.	Daily Storage Fluctuation-M.G. Avg.
July	305.43	12.14	305.85	298.06	305.20	12.33	8.72	12.03	6.82	1.53	2.97	3.16	0.71	1.38
August	305.40	12.12	306.44	301.88	305.33	12.58	10.49	12.09	4.56	1.04	2.13	2.09	0.48	0.98
September	304.81	11.85	305.75	301.78	305.00	12.28	10.45	11.94	3.74	0.54	1.89	1.73	0.25	0.88
October	304.57	11.74	305.98	302.00	305.09	12.39	10.55	11.98	3.32	1.16	2.11	1.54	0.54	0.98
November	305.43	12.14	306.21	301.87	305.17	12.49	10.49	12.02	3.60	1.15	1.71	1.66	0.53	0.79
December	305.60	12.21	305.97	302.56	305.08	12.39	10.81	11.97	2.97	0.83	1.64	1.37	0.38	0.76
January	305.09	11.98	306.15	302.50	305.08	12.46	10.67	11.98	3.15	0.45	1.77	1.46	0.21	0.84
February	305.08	11.98	305.99	300.69	305.16	12.40	9.94	12.01	4.82	1.00	2.28	2.23	0.47	1.06
March	304.70	11.80	305.92	301.75	305.16	12.36	10.43	12.02	3.73	1.88	2.81	1.73	0.87	1.30
April	305.06	11.97	305.99	300.70	305.06	12.40	9.94	11.97	4.30	1.35	2.66	2.00	0.63	1.23
May	304.91	11.90	305.63	298.29	304.75	12.23	8.83	11.82	6.76	1.42	3.25	3.13	0.66	1.49
June	305.35	12.10	305.75	300.00	305.03	12.28	9.62	11.95	5.61	0.97	2.93	2.60	0.45	1.36
For Year			306.44	298.06	305.09	12.58	8.72	11.98	6.82	0.45	2.35	3.16	0.21	1.09

*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 31

WATER PIPE LAID, REMOVED AND ADDED

YEAR ENDED JUNE 30, 1977

Pipe Laid in Feet

City or Town	6"	8"	10"	12"	16"	20"	24"	30"	Total
Providence	336.93	106.30	0	0	594.98	0	0	0	1,038.21
Cranston	1,070.13	2,183.95	0	0	0	0	0	0	3,254.08
Johnston	1,108.33	2,192.20	0	0	0	0	0	0	3,300.53
North Providence	0	2,568.50	0	0	0	0	0	0	2,568.50
Totals	2,515.39	7,050.95	0	0	594.98	0	0	0	10,161.32

Pipe Removed in Feet

	6"	8"	10"	12"	16"	20"	24"	30"	Total
Providence	3,529.18	2.00	0	629.50	0	0	0	0	4,160.68
Cranston	0	0	0	0	0	0	0	0	0
Johnston	0	0	0	0	0	0	0	0	0
North Providence	0	0	0	0	0	0	0	0	0
Totals	3,529.18	2.00	0	629.50	0	0	0	0	4,160.68

Net Length Added to Distribution System

	6"	8"	10"	12"	16"	20"	24"	30"	Total
Providence	-3,192.25	104.30	0	-629.50	594.98	0	0	0	-3,122.47
Cranston	1,070.13	2,183.95	0	0	0	0	0	0	3,254.08
Johnston	1,108.33	2,192.20	0	0	0	0	0	0	3,300.53
North Providence	0	2,568.50	0	0	0	0	0	0	2,568.50
Totals	-1,013.79	7,048.95	0	-629.50	594.98	0	0	0	6,000.64

TABLE 32

PUBLIC WATER MAINS IN USE ON JUNE 30, 1977

	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	1,445,408.55	273.75	644,939.84	122.15	134,735.95	25.52	172,307.79	32.63	2,397,392.13	454.05	82.06	0.02
8-inch	358,452.73	67.89	395,669.48	74.94	222,910.07	42.22	156,911.59	29.72	1,133,943.87	214.76	1,221.65	0.23
10-inch	11,833.53	2.24	0	0	0	0	0	0	11,833.53	2.24	0	0
12-inch	251,809.06	47.69	114,447.73	21.68	13,556.11	2.57	33,169.10	6.28	412,982.00	78.22	7,458.17	1.41
16-inch	148,593.45	28.14	9,803.11	1.86	6,393.63	1.21	0	0	164,790.19	31.21	55,994.19	10.60
20-inch	20,172.24	3.82	0	0	0	0	0	0	20,172.24	3.82	0	0
24-inch	56,233.14	10.65	6,301.43	1.19	32,749.23	6.20	9,269.26	1.76	104,553.06	19.80	4,157.47	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	2,370,633.82	448.98	1,254,244.69	237.55	415,078.99	78.61	375,667.03	71.15	4,415,624.53	836.29	68,913.54	13.05

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

TABLE 33

GATES IN USE ON JUNE 30, 1977

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																							
4,424	1,026	16	660	286	28	73	39	6	3	10	0	6,571	1,700	1,427	3,127	8	14	22	1	2	1	4	9,724
CRANSTON																							
1,791	989	0	239	15	0	11	16	13	14	4	3	3,095	1,205	7	1,212	3	14	17	0	2	28	30	4,354
JOHNSTON																							
377	489	1	31	12	6	5	0	0	0	1	0	922	346	11	357	3	0	3	0	0	2	2	1,284
NORTH PROVIDENCE																							
484	340	0	72	0	0	5	1	1	0	0	0	903	374	0	374	0	3	3	0	0	0	0	1,280
TOTALS																							
7,076	2,844	17	1,002	313	34	94	56	20	17	15	3	11,491	3,625	1,445	5,070	14	31	45	1	4	31	36	16,642

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

TABLE 34

SERVICE PIPES INSTALLED AND REMOVED--YEAR ENDED JUNE 30, 1977

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	102	6	9	117	186	2	2	190
Cranston	132	2	8	142	11	1	0	12
Johnston	103	3	5	111	5	0	0	5
North Providence	99	2	2	103	2	0	0	2
Totals	436	13	24	473	204	3	2	209

TABLE 35

NUMBER AND SIZE OF ACTIVE SERVICES--YEAR ENDED JUNE 30, 1977

	½"	5/8"	3/4"	1"	1¼"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	42"	Totals
Providence	196	23,301	7,517	2,134	441	510	657	6	1,017	967	101	4	10	2	0	0	0	36,863
Cranston	5	6,839	8,406	2,396	39	534	402	0	131	116	36	0	4	0	1	1	2	18,912
Johnston	0	744	2,536	1,369	9	308	97	0	19	32	6	0	1	0	0	0	0	5,121
North Providence	0	1,058	2,708	1,216	6	319	120	0	43	21	5	0	2	0	0	0	0	5,498
Totals	201	31,942	21,167	7,115	495	1,671	1,276	6	1,210	1,136	148	4	17	2	1	1	2	66,394

*In addition, there is a 30-inch connection from the 78-inch aqueduct to the Kent County Water Authority pumping station located on Clinton Ave., Hope, R.I.

TABLE 36

PUBLIC FIRE HYDRANTS

HYDRANT ACTIVITIES DURING YEAR ENDED JUNE 30, 1977

	Providence	Cranston	Johnston	North Providence	Totals
Post Hydrants Installed	39	9	0	9	57
Post Hydrants Removed	44	5	0	6	55

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1977

Post Hydrants	3,144	1,213	366	375	5,098

TABLE 37

NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES

YEAR ENDED JUNE 30, 1977

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
***PROVIDENCE**																
Make																
Trident	28,950	3,075	1,027	1,234	1,782	74	60	61	17	5	-	-	-	-	-	36,285
Thomson	656	76	64	29	87	-	2	-	-	-	-	-	-	-	-	914
Empire	29	-	6	-	1	-	-	-	-	-	-	-	-	-	-	36
Crown	14	3	2	-	-	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Totals	29,659	3,154	1,099	1,265	1,873	76	75	121	23	5	1	2	-	-	-	37,343

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

***CRANSTON**

Make																
Trident	16,163	1,435	568	314	431	2	6	15	6	-	1	-	-	-	-	18,941
Thomson	-	6	-	8	8	-	-	-	-	-	-	-	-	-	-	22
Hersey	-	-	-	-	1	-	-	4	4	-	-	-	-	-	-	9
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,163	1,441	568	322	440	2	6	19	11	-	2	1	1	1	2	18,979

*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	3,904	831	195	74	103	-	-	3	3	-	-	-	-	-	-	5,113
Thomson	34	1	-	-	-	-	-	-	-	-	-	-	-	-	-	35
Hersey	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	3,938	832	195	74	103	-	-	4	3	-	1	-	-	-	-	5,150

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

***NORTH PROVIDENCE**

Make																
Trident	4,189	735	312	74	110	1	2	4	-	-	-	-	-	-	-	5,427
Thomson	77	4	1	1	1	-	-	-	-	-	-	-	-	-	-	84
Hersey	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	6
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,266	739	313	75	111	1	2	10	-	-	1	-	-	-	-	5,518

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

TABLE 38

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

TABLE 39

CONSUMPTION OF WATER - MILLION GALLONS

YEAR ENDED JUNE 30, 1977

1976-1977	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	78.813	39.706	58.793	1,822.591	20.407	13.085	16.032	497.003	98.616	52.926	74.825	2,319.594
August	73.319	35.125	55.414	1,717.843	18.057	9.534	14.671	454.786	89.982	46.250	70.085	2,172.629
September	61.829	34.550	50.769	1,523.063	15.707	11.810	14.298	428.938	77.215	46.360	65.067	1,952.001
October	56.040	30.409	44.553	1,381.155	15.097	11.653	13.706	424.895	71.137	42.673	58.259	1,806.050
November	53.509	32.692	45.642	1,369.253	14.868	11.532	13.638	409.135	67.558	44.224	59.280	1,778.388
December	52.269	30.231	43.642	1,352.911	14.569	11.412	13.395	415.252	66.097	41.643	57.037	1,768.163
January	49.459	29.489	42.877	1,329.176	14.977	11.526	13.739	425.908	64.073	41.015	56.616	1,755.084
February	47.999	32.282	43.173	1,208.834	15.246	11.569	13.791	386.165	62.622	43.851	56.964	1,594.999
March	49.130	33.541	43.411	1,345.728	14.865	12.139	13.624	422.353	63.846	45.680	57.035	1,768.081
April	53.722	31.821	43.919	1,317.563	15.424	11.498	13.838	415.135	69.146	43.319	57.757	1,732.698
May	67.965	34.892	51.451	1,594.975	18.613	12.947	15.517	481.023	86.300	48.053	66.968	2,075.998
June	69.355	35.129	53.784	1,613.523	17.725	11.899	15.105	453.148	87.035	47.686	68.889	2,066.671
For Year	78.813(a)	29.489(b)	48.155	17,576.615	20.407(c)	9.534(d)	14.284	5,213.741	98.616(e)	41.015(f)	62.439	22,790.356

(a) July 28; (b) January 1 (c) July 20; (d) August 8 (e) July 28; (f) January 1

(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 40

WATER SOLD TO KENT COUNTY WATER AUTHORITY

AND THE WESTERN SECTION OF THE CITY OF CRANSTON

YEAR ENDED JUNE 30, 1977

	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	
1976-1977	Gallons per Month	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
July	14,580,000	98,428,800	113,008,800	3,645,445	3,667,200	118,297
August	11,035,500	85,400,100	96,435,600	3,110,826	2,931,400	94,561
September	9,264,000	69,711,750	78,975,750	2,632,525	2,182,000	72,733
October	9,717,750	65,509,650	75,227,400	2,426,690	2,781,900	89,739
November	8,345,250	66,447,300	74,792,550	2,493,085	2,063,200	68,773
December	9,583,500	69,302,350	78,885,850	2,544,705	2,043,900	65,932
January	8,334,750	76,948,750	85,283,500	2,751,081	2,174,900	70,158
February	8,553,000	71,576,150	80,129,150	2,861,755	2,202,400	78,657
March	9,907,500	75,019,000	84,926,500	2,739,565	2,365,900	76,319
April	10,400,250	70,194,350	80,594,600	2,686,487	2,893,801	96,460
May	13,296,000	88,786,500	102,082,500	3,292,984	3,546,100	114,390
June	13,011,750	92,912,100	105,923,850	3,530,795	3,435,500	114,517
For Year	126,029,250	930,236,800	1,056,265,050	2,893,880	32,288,201	88,461

TABLE 41

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

YEAR ENDED JUNE 30, 1977

	CITY OF WARWICK				CITY OF EAST PROVIDENCE	
	S.S.47269 Petta-consett Cranston 24" Flow Meter	S.S.76834 Natick Avenue W. Warwick 36" Flow Meter			S.S.76257 Budlong Road Cranston 36" Flow Meter	
1976-1977	Gallons per Month	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
July	127,640,000	143,847,900	271,487,900	8,757,674	204,218,400	6,587,690
August	119,158,000	122,394,725	241,552,725	7,792,023	192,606,000	6,213,097
September	103,253,000	95,598,675	198,851,675	6,628,389	164,100,800	5,470,027
October	98,517,000	103,213,850	201,730,850	6,507,447	153,536,000	4,952,774
November	83,457,000	95,205,150	178,662,150	5,955,405	152,957,100	5,098,570
December	97,079,000	95,728,000	192,807,000	6,219,581	155,241,900	5,007,803
January	86,567,000	97,185,000	183,752,000	5,927,484	158,003,900	5,096,900
February	85,634,000	84,010,000	169,644,000	6,058,714	144,712,200	5,168,293
March	95,894,000	103,535,835	199,519,835	6,436,124	157,223,600	5,071,729
April	100,595,000	108,114,533	208,709,533	6,956,984	164,872,500	5,495,750
May	128,622,000	128,931,953	257,553,953	8,308,192	183,415,400	5,916,626
June	126,216,000	136,766,500	262,982,500	8,766,083	190,985,300	6,366,177
For Year	1,252,722,000	1,314,532,121	2,567,254,121	7,033,573	2,021,873,100	5,539,378

TABLE 42

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

YEAR ENDED JUNE 30, 1977

	EAST SMITHFIELD WATER COMPANY				SMITHFIELD WATER DEPT.		GREENVILLE WATER DISTRICT	
1976-1977	S.S.51198 Waterman Avenue No. Prov. 6" Tri-Pro. Meter Gallons per Month	S.S.52403 Dean Avenue Smithfield 8" Tri-Crest Meter Gallons per Month	Total Gallons per Month	Average Gallons per Day	S.S.71980 Smithfield Road North Providence 12" Flow Meter Gallons per Month	Average Gallons per Day	S.S.76310 George Waterman Road Johnston 12" Flow Meter Gallons per Month	Average Gallons per Day
July	17,008,500	6,115,500	23,124,000	745,935	9,155,100	295,326	16,560,600	534,213
August	16,863,000	5,394,750	22,257,750	717,992	6,686,500	215,694	15,038,600	485,116
September	14,697,000	5,239,500	19,936,500	664,550	8,023,600	267,453	13,053,600	435,120
October	12,825,000	5,871,000	18,696,000	603,097	8,810,700	284,216	12,988,400	418,981
November	19,017,000	5,162,250	24,179,250	805,975	7,768,500	258,950	12,441,800	414,727
December	13,465,500	5,808,750	19,274,250	621,750	6,647,300	214,429	13,676,400	441,174
January	11,916,000	5,223,750	17,139,750	552,895	5,682,900	183,319	13,331,800	430,058
February	20,193,750	5,459,250	25,653,000	916,179	7,679,800	274,279	10,531,900	376,139
March	16,509,000	5,863,500	22,372,500	721,694	8,334,800	268,865	12,333,300	397,848
April	16,440,750	5,646,000	22,086,750	736,225	9,657,300	321,910	13,780,900	459,363
May	18,702,000	5,832,000	24,534,000	791,419	11,231,300	362,300	17,160,600	553,568
June	17,191,500	5,414,250	22,605,750	753,525	8,386,800	279,560	17,642,600	588,087
For Year	194,829,000	67,030,500	261,859,500	717,423	98,064,600	268,670	168,540,500	461,755

TABLE 43

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ending Sept.30	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Avg.for Year
1877				2.27	2.26	1.84	2.25	2.53	2.94	2.91	2.76	3.01	2.53*
1878	2.61	2.22	2.30	2.16	2.15	2.20	2.32	2.85	2.89	3.88	3.12	3.17	2.66
1879	2.84	2.39	2.38	2.82	2.93	2.59	2.38	3.22	3.48	3.78	3.52	3.32	2.97
1880	3.38	2.89	2.97	2.94	2.86	2.90	2.96	3.68	5.05	4.18	3.92	3.82	3.46
1881	3.67	3.35	3.22	3.54	4.07	3.13	2.98	3.54	3.81	4.05	4.46	4.16	3.66
1882	3.92	3.60	3.38	3.30	3.27	3.06	3.05	3.24	4.02	4.69	5.09	3.84	3.70
1883	3.40	3.33	3.65	3.94	3.74	3.91	3.43	3.82	4.64	5.24	5.18	4.70	4.08
1884	3.81	3.67	3.58	4.24	3.87	3.90	3.43	3.79	4.70	4.38	4.06	4.82	4.02
1885	4.24	3.67	3.99	4.48	4.73	4.80	4.10	4.10	5.44	5.56	5.01	4.92	4.59
1886	4.37	4.20	4.71	4.82	4.75	4.83	4.33	4.53	4.93	6.02	4.88	4.94	4.78
1887	4.62	4.24	4.94	5.06	4.90	4.84	4.41	4.90	5.16	5.58	5.00	5.08	4.89
1888	4.80	4.40	5.10	5.44	5.79	5.39	4.86	4.84	6.17	6.51	5.87	5.32	5.37
1889	5.34	5.18	5.51	5.72	7.34	5.80	5.27	5.75	6.14	5.69	5.59	5.52	5.74
1890	5.41	5.17	6.14	6.34	6.79	6.28	6.84	6.60	6.90	8.11	7.13	6.72	6.54
1891	6.28	6.08	6.83	6.35	6.53	6.72	6.67	7.55	7.75	7.73	7.78	7.57	6.99
1892	7.53	7.32	7.69	7.65	7.83	7.62	7.27	6.77	8.37	9.30	9.11	8.63	7.92
1893	8.00	7.65	8.48	9.30	8.85	8.74	8.07	8.58	9.92	10.78	10.50	9.48	9.03
1894	8.79	7.85	8.61	9.11	9.07	9.09	8.73	9.97	11.28	12.39	10.76	10.22	9.66
1895	10.20	8.86	9.08	9.02	9.82	8.60	7.70	8.78	9.49	8.99	9.50	9.10	9.10
1896	8.15	8.19	9.56	10.19	8.79	8.74	8.60	9.26	9.64	9.93	9.70	8.83	9.13
1897	8.49	8.05	8.98	8.83	8.52	8.44	8.06	8.27	8.90	9.13	8.70	9.07	8.62
1898	8.76	8.29	8.63	8.56	9.09	8.68	8.38	8.35	10.04	10.10	9.44	9.84	9.01
1899	8.94	8.75	9.64	9.45	9.53	8.91	8.52	9.18	11.18	10.21	10.12	9.70	9.51
1900	9.15	9.27	9.53	9.81	9.49	9.66	9.23	8.59	10.48	12.11	10.95	11.71	10.00
1901	9.99	9.54	9.95	10.09	10.52	10.20	8.92	10.05	11.50	12.02	11.69	11.15	10.47
1902	10.91	10.70	11.02	11.65	11.00	10.92	10.52	10.48	11.85	12.09	11.97	11.66	11.23
1903	11.89	11.81	12.85	12.84	12.62	11.92	12.33	13.92	13.02	13.54	12.91	13.76	12.78
1904	13.09	13.89	13.49	14.29	14.58	13.42	12.07	12.72	13.94	14.21	13.18	13.85	13.56
1905	14.57	14.88	14.60	14.20	14.65	13.88	13.85	14.77	15.06	16.34	14.30	13.99	14.59
1906	13.73	14.96	14.63	15.00	15.07	14.77	14.49	15.01	15.69	15.08	15.74	16.06	15.02
1907	15.02	14.37	14.25	15.74	16.24	16.26	15.62	16.29	17.18	18.50	18.00	15.02	16.04
1908	15.34	15.13	15.34	15.46	16.07	15.21	14.53	14.67	16.63	16.77	15.42	15.62	15.52
1909	15.83	15.80	15.44	15.16	14.87	14.88	13.94	14.04	15.54	17.71	16.15	14.80	15.35
1910	14.76	14.66	15.28	15.62	15.65	15.22	14.74	14.72	15.53	17.13	15.95	15.61	15.40
1911	15.56	14.98	16.11	16.39	16.27	16.00	15.30	16.19	17.09	19.36	17.09	16.08	16.37
1912	16.29	16.49	16.44	18.12	18.14	17.16	16.39	16.70	17.32	20.54	17.62	17.06	17.36
1913	17.36	16.72	17.17	17.49	17.98	17.59	17.06	17.12	18.95	19.55	18.40	17.12	17.71
1914	16.76	16.87	17.27	17.83	18.52	17.60	16.99	17.43	20.24	17.62	17.09	18.51	17.73
1915	17.29	16.43	17.27	17.07	17.60	17.44	16.80	16.68	18.04	16.49	16.76	17.80	17.14
1916	16.90	17.03	17.79	18.16	18.47	18.57	17.43	17.57	17.82	17.90	16.58	18.76	17.75
1917	18.51	18.08	18.50	19.73	20.62	19.31	18.09	17.67	18.28	19.61	20.03	18.76	18.93
1918	18.62	18.71	20.64	23.82	22.98	23.07	22.43	22.31	21.85	22.23	21.50	20.63	21.56
1919	20.42	20.31	21.04	21.72	20.94	19.35	19.45	19.60	21.77	20.70	20.40	20.68	20.53
1920	20.62	20.18	21.64	23.80	23.16	23.03	20.67	20.45	20.98	21.06	21.58	21.89	21.59

*Average for 9 months.

TABLE 43 (Continued)

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ending Sept.30	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Avg.for Year
1921	21.41	20.46	20.97	21.64	21.43	20.77	20.21	20.92	22.84	21.18	21.63	22.86	21.36
1922	22.84	22.16	22.18	24.14	23.64	22.01	21.64	21.49	22.18	21.91	22.11	22.53	22.40
1923	22.78	23.23	23.08	23.66	24.96	23.84	22.95	24.12	24.49	23.90	24.08	24.31	23.78
1924	24.68	24.09	23.33	24.19	24.58	23.44	23.51	23.28	24.10	25.11	22.48	22.51	23.78
1925	22.84	23.70	23.76	24.22	23.61	22.70	23.13	23.03	24.82	23.54	23.20	23.81	23.53
1926	23.41	22.47	23.29	23.95	24.12	24.25	23.36	22.80	24.16	24.80	23.94	23.53	23.67
1927	21.76	22.60	23.24	22.92	22.41	22.57	22.32	22.68	23.62	23.27	22.27	23.27	22.74
1928	23.37	22.99	22.39	23.04	22.80	23.21	22.79	23.83	23.05	24.31	26.69	25.38	23.65
1929	26.82	25.54	26.17	26.84	27.01	25.42	23.05	22.91	25.73	26.53	24.94	24.24	25.43
1930	23.83	24.24	24.29	23.85	24.88	23.34	23.38	25.15	26.85	26.81	25.95	27.45	25.00
1931	26.30	24.04	23.80	23.71	24.36	23.64	23.11	23.76	25.35	26.20	26.22	26.31	24.73
1932	25.36	23.42	23.82	23.20	23.23	22.99	22.72	23.47	25.27	25.34	25.16	24.59	24.05
1933	24.15	23.65	23.51	24.00	24.25	24.01	23.41	25.32	26.92	28.77	27.65	26.00	25.14
1934	24.89	24.43	25.04	25.55	28.05	26.38	24.78	25.78	27.95	31.00	28.77	26.39	26.58
1935	26.50	25.39	25.16	26.35	27.06	26.31	25.71	27.02	27.47	29.47	31.14	28.23	27.15
1936	29.45	28.03	27.42	27.97	28.73	26.44	25.75	27.02	30.27	30.23	30.79	29.23	28.44
1937	27.94	26.72	27.06	25.77	26.13	27.16	25.73	25.93	28.45	31.43	31.85	29.18	29.79
1938	27.84	26.42	25.57	25.11	24.67	24.38	23.56	24.56	27.13	26.34	28.82	28.34	26.07
1939	27.90	27.21	26.85	27.07	27.62	27.16	26.25	27.48	30.84	32.81	33.62	30.31	28.77
1940	30.12	28.96	28.26	28.74	28.06	27.23	25.77	26.15	28.49	30.10	31.57	28.96	28.54
1941	29.55	27.86	28.36	28.67	29.02	28.78	29.07	29.91	31.74	32.87	32.66	33.78	30.19
1942	32.74	31.44	31.84	31.34	31.21	29.84	29.18	29.76	31.34	32.13	32.14	32.11	31.26
1943	29.88	29.27	30.40	29.93	30.67	30.35	30.05	29.65	35.13	36.35	35.47	33.71	31.74
1944	31.87	31.25	32.35	32.29	32.52	32.95	31.51	34.27	36.80	39.10	40.60	35.43	34.26
1945	33.77	32.77	33.33	34.89	34.57	33.78	33.37	33.23	35.44	35.73	36.34	34.67	34.32
1946	32.74	32.27	33.21	34.01	33.69	33.80	33.64	33.59	36.70	40.70	35.92	36.69	34.75
1947	36.37	35.34	35.58	35.95	35.83	35.01	33.27	33.94	35.72	37.35	39.34	39.21	36.08
1948	38.91	36.19	35.55	34.84	37.31	36.92	36.15	33.95	36.90	39.33	41.55	39.76	37.28
1949	36.27	35.34	35.11	33.98	34.00	33.88	33.12	35.12	46.65	44.56	40.18	35.77	37.01
1950	34.61	35.94	34.51	33.92	34.34	34.71	33.39	34.90	40.27	43.27	41.40	38.24	36.64
1951	39.96	36.91	34.80	36.10	35.92	34.81	34.21	37.21	39.31	43.49	39.98	38.20	37.59
1952	36.92	34.79	33.63	34.20	34.59	33.98	33.98	34.33	41.21	54.79	40.66	40.11	37.78
1953	37.09	35.75	35.27	34.59	33.95	34.20	34.61	35.63	50.68	46.76	43.63	43.95	38.86
1954	38.20	35.43	35.03	34.85	35.63	35.31	35.10	35.05	45.09	45.27	40.72	39.22	37.92
1955	39.84	37.82	37.17	37.24	38.42	37.85	37.00	41.54	44.52	49.90	47.08	42.25	40.91
1956	40.29	38.30	38.18	38.42	39.31	38.37	38.55	40.08	49.50	44.93	48.86	41.70	41.38
1957	40.78	38.65	36.74	39.14	38.43	36.98	38.50	44.48	60.45	57.12	48.16	45.16	43.74
1958	42.22	38.27	38.42	39.09	38.20	37.40	40.03	38.60	42.57	45.05	43.60	41.63	40.44
1959	40.35	38.01	39.35	39.34	39.46	38.65	39.04	44.02	45.05	45.16	51.33	47.28	42.27
1960	41.93	40.00	39.63	39.48	40.19	39.72	40.34	42.06	51.75	49.75	49.49	45.57	43.33
1961	42.22	42.53	40.99	41.24	43.54	42.26	41.00	42.96	51.71	51.06	52.80	50.01	45.19
1962	43.66	41.94	40.90	42.42	41.91	42.38	42.74	46.45	53.07	51.39	54.38	47.10	45.72
1963	45.66	44.44	43.38	44.26	44.81	44.80	45.77	47.96	55.81	55.87	54.40	47.58	47.91
1964	46.77	42.66	43.07	45.45	45.81	46.23	46.54	56.23	63.98	57.44	53.33	55.16	50.23
1965	51.52	49.17	47.99	47.66	47.94	46.33	46.89	53.98	65.25	63.33	63.37	56.32	53.34
1966	50.11	47.17	44.67	44.73	44.94	45.77	46.82	48.47	59.32	61.74	59.88	51.70	50.48
1967	48.22	46.08	44.52	45.59	45.91	45.98	43.99	44.96	55.39	50.26	53.10	53.36	48.11
1968	49.14	45.67	43.99	47.40	47.06	47.07	49.07	50.71	52.94	61.60	59.19	56.06	50.84
1969	52.07	47.54	46.88	47.90	46.73	46.39	48.84	52.69	63.91	63.74	62.15	59.09	53.20

TABLE 44

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	13.18	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
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

*Average for 6 months.

TABLE 44 (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
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 44 (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

TABLE 45

FUEL OIL CONSUMPTION

YEAR ENDED JUNE 30, 1977

1976-1977	Administration and Operations Building	Raw Water Booster Pumping Station	Water Purification Plant		Forestry and Maintenance Building	Neutaconkanut Pumping Station	Bath Street Pumping Station	Total	
	Gallons Used No. 4	Gallons Used No. 2	Gallons Used No. 2	No. 4	Gallons Used No. 2	Gallons Used No. 2	Gallons Used No. 2	Gallons Used No. 2	No. 4
July	95	0	1,600	0	0	0	0	1,600	95
August	50	0	1,928	0	47	0	0	1,975	50
September	2,798	27	1,552	641	428	0	0	2,007	3,439
October	3,028	43	1,728	1,832	705	0	0	2,476	4,860
November	5,559	495	280	4,122	1,423	0	768	2,966	9,681
December	8,796	707	0	8,111	2,362	350	200	3,619	16,907
January	7,585	995	0	7,832	2,971	600	250	4,816	15,417
February	6,207	833	0	8,107	2,393	873	200	4,299	14,314
March	4,468	1,179	0	6,091	2,196	800	172	4,347	10,559
April	3,867	221	328	3,435	677	0	0	1,226	7,302
May	632	0	0	3,206	612	0	0	612	3,838
June	261	0	584	2,427	0	0	0	584	2,688
Totals	43,346	4,500	8,000	45,804	13,814	2,623	1,590	30,527	89,150

TABLE 46

FINANCIAL STATEMENT

YEAR ENDED JUNE 30, 1977

Operating Revenues		
Sale of Water		$4,957,595.20
Hydrant Rental		113,390.95
Electric Power		5,860.44
Setting Meters		4,397.50
Repairing Meters		144.10
Repairs to Water Services		2,175.32
Repairs to Distribution Mains		7,453.10
Repairs to Hydrants		10,861.16
Installation of New Fire Supplies		19,340.00
Installation of New Water Mains		147,674.00
Installation of New Water Services		113,210.00
Water Meters-Revolving Fund		0
Sale of Pulpwood-Logs and Misc. Timber Products		4,871.32
Transferred from Reserve Fund		71,000.00
Total Operating Revenue		$5,457,973.09
Operating Expenses		
Administration	$ 361,537.78	
Source of Supply	910,218.01	
Transmission & Distribution	1,459,480.92	
Accounting & Commercial	426,364.61	
Taxes	1,097,818.17	
Employees' Retirement System	220,514.00	
Social Security	102,108.37	
Total Operating Expense		*$4,578,041.86
Operating Income		$ 879,931.23
Add Non-Operating Revenue		
Rental of Real Estate	$ 278.70	
Other	5,483.61	
Total Non-Operating Revenue		$ 5,762.31
Sub-Total		$ 885,693.54
Less Non-Operating Expenses		
Interest on Bonded Debt	$673,215.00	
Retirement-Serial Bonds	290,000.00	
Total Non-Operating Expense		$ 963,215.00
DEFICIT		$ 77,521.46

*See Table 47 for detailed account of Operating Expense.

TABLE 47

WATER SUPPLY BOARD OPERATING EXPENSES

YEAR ENDED JUNE 30, 1977

ADMINISTRATION

Salaries:			
001	Officials	$ 46,295.16	
	Clerical-Accounting	49,311.97	
	Engineering	73,859.98	
	Labor-General	17,392.18	
008	Sick Leave Payrolls	4,836.52	
009	Vacation Payrolls	12,318.39	
034	Holiday Payrolls	208.32	
	Total		$204,222.52
Services Other Than Personal:			
109	Fees Not Otherwise Classified	$ 15,487.00	
111	Telephone and Telegraph	4,181.47	
112	Postage, Freight and Express	3,164.25	
118	Travel Subsistence-Other	45.00	
121	Printing and Binding	3,045.70	
131	Heat, Light and Power	2,496.36	
141	Repairs-Office Machinery	348.00	
142	Repairs-Automobiles and Trucks	155.00	
150	Repairs-Buildings	2,831.17	
151	Maintenance and Servicing	178.30	
183	Dues and Subscriptions	743.21	
199	Miscellaneous Services	18,545.60	
	Total		$ 51,221.06
Materials and Supplies:			
201	Stationery and Office Supplies	$ 2,619.07	
211	Motor Fuel	2,494.50	
213	Tires and Tubes	391.30	
214	Repair Parts and Supplies-Trucks and Autos	30.22	
241	Fuel	3,807.00	
244	Housekeeping Supplies and Minor Equipment	677.44	
299	Miscellaneous Materials and Supplies	120.21	
	Total		$ 10,139.74
Special Items:			
331	Payment of Claims and Damages	$ 172.74	
338	Union Legal Fund	1,910.25	
350	Blue Cross-Major Medical and RIGHA	15,589.30	
361	Expenses for Various Ceremonies	664.62	
382	Laborers' Union Pension Fund	11,518.50	
	Total		$ 29,855.41
Capital Outlay:			
502	Books, Maps and Charts	$ 73.50	
	Total		$ 73.50
	Outstanding Commitments-Services Other Than Personal		65,350.78
	Outstanding Commitments-Materials and Supplies		674.77
	Total Administrative		$361,537.78

SOURCE OF SUPPLY

Hydro-Electric Station:			
Salaries:			
001	Labor-Operation	$ 19,735.35	
	Labor-Care of Grounds	705.70	
	Total		$ 20,441.05
Services Other Than Personal:			
150	Repairs-Buildings	$ 30,602.00	
	Total		$ 30,602.00
Materials and Supplies:			
268	Plumbing and Electrical Supplies	$ 875.32	
	Total		$ 875.32
Water Purification Works			
Salaries:			
001	Supervision	$ 31,575.96	
	Labor-Operation	124,873.27	
	Labor-Care of Grounds	5,670.88	
	Labor-Handling Chemicals	3,988.90	
	Clerical	884.10	
	Technical	15,029.72	
	Total		$182,022.83
Services Other Than Personal:			
131	Heat, Light and Power	$ 120.62	
146	Repairs-Plant Equipment	1,472.61	
150	Repairs-Buildings	2,449.62	
151	Maintenance and Servicing	1,138.38	
181	Laundry and Cleaning	2,740.00	
199	Miscellaneous Services	3,734.33	
	Total		$ 11,655.56
Materials and Supplies:			
201	Stationery and Office Supplies	$ 2,395.02	
202	Small Tools and Shop Supplies	268.73	
204	Wearing Apparel and Personal Supplies	508.96	
212	Lubricants	706.00	
222	Repair Parts and Supplies-Plant Equipment	2,687.39	
231	Ferric Sulfate	90,071.04	
231	Lime	23,276.68	
231	Chlorine	9,240.00	
231	Sodium Silicofluoride	30,084.00	
231	Chemical and Laboratory Supplies	60.30	
244	Housekeeping Supplies	584.84	
265	Fabricated Metal Products	23.10	
266	Lumber and Hardware	1,033.20	
267	Paint and Painters' Supplies	136.86	
268	Plumbing and Electrical Supplies	3,534.87	
269	Misc. Construction and Maintenance Supplies	361.37	
299	Miscellaneous Materials and Supplies	1,062.58	
	Total		$166,034.94
Laboratory:			
Salaries:			
001	Technical	$ 15,391.54	
	Total		$ 15,391.54

Services Other Than Personal:		
115 Transportation of Persons-Conventions	$ 418.00	
117 Travel Subsistence-Conventions	205.00	
Total		$ 623.00
Materials and Supplies:		
231 Chemical and Laboratory Supplies	$ 2,314.84	
Total		$ 2,314.84
Scituate Reservoir:		
Salaries:		
001 Labor-Operation	$ 2,188.75	
Labor-Care of Grounds	2,664.35	
Total		$ 4,853.10
Materials and Supplies:		
264 Fabricated Cement Products	$ 720.00	
267 Paint and Painters' Supplies	109.50	
Total		$ 829.50
Other Reservoirs:		
Salaries:		
001 Labor-Operation	$ 1,935.20	
Labor-Care of Grounds	459.60	
Total		$ 2,394.80
Rockland Cemetery:		
Salaries:		
001 Labor-Care of Grounds	$ 1,896.50	
Total		$ 1,896.50
Forestry and Maintenance:		
Salaries:		
001 Supervision	$29,581.39	
Labor-Operation	21,943.35	
Labor-Care of Grounds	22,638.97	
Total		$74,163.71
Services Other Than Personal:		
115 Transportation of Persons-Conventions	$ 120.00	
117 Travel Subsistence-Conventions	90.00	
146 Repairs-Plant Equipment	606.32	
149 Repairs-Other Equipment	232.36	
181 Laundry and Cleaning	858.00	
Total		$ 1,906.68
Materials and Supplies:		
201 Stationery and Office Supplies	$ 163.83	
202 Small Tools and Shop Supplies	231.29	
204 Wearing Apparel and Personal Supplies	593.59	
212 Lubricants	63.50	
214 Repair Parts and Supplies-Trucks and Autos	1,374.75	
222 Repair Parts and Supplies-Plant Equipment	958.31	
252 Seeds, Fertilizer, Trees and Shrubs	1,042.00	
259 Other Agricultural Supplies	997.85	
261 Gravel, Sand and Stone	391.50	
264 Fabricated Cement Products	230.60	
265 Fabricated Metal Products	812.01	
266 Lumber and Hardware	515.99	
267 Paint and Painters' Supplies	146.86	
268 Plumbing and Electrical Supplies	545.60	
Total		$ 8,067.68

General:			
Salaries:			
001	Clerical	$ 10,677.47	
	Engineering	23,663.56	
	Labor-Operation	24,132.80	
	Labor-Care of Grounds	13,443.21	
008	Sick Leave Payrolls	11,636.30	
009	Vacation Payrolls	20,916.75	
025	Injured Employees' Payrolls	418.00	
034	Holiday Payrolls	7,299.20	
	Total		$112,187.29
Services Other Than Personal:			
102	Medical Services	$ 156.43	
109	Fees Not Otherwise Classified	827.00	
111	Telephone and Telegraph	3,264.54	
112	Postage, Freight and Express	98.51	
121	Printing and Binding	251.25	
131	Heat, Light and Power	29,897.23	
142	Repairs-Trucks and Autos	2,908.55	
143	Repairs-Construction and Other Automotive Equipment	564.85	
148	Repairs-Communication Equipment	926.02	
151	Maintenance and Servicing	1,846.02	
183	Dues and Subscriptions	20.00	
	Total		$ 40,760.40
Materials and Supplies:			
211	Motor Fuel	$ 6,891.10	
212	Lubricants	423.50	
213	Tires and Tubes	2,265.95	
214	Repair Parts and Supplies-Trucks and Autos	7,717.55	
231	Chemical and Laboratory Supplies	141.55	
241	Fuel	34,601.32	
244	Housekeeping Supplies	343.15	
260	Loam	247.80	
272	Hydrants, Valves and Fittings	15.36	
	Total		$ 52,647.28
Special Items:			
338	Union Legal Fund	$ 3,729.00	
350	Blue Cross, Major Medical and RIGHA	28,487.08	
382	Laborers' Union Pension Fund	21,942.00	
	Total		$ 54,158.08
	Outstanding Commitments-Services Other Than Personal		17,637.23
	Outstanding Commitments-Materials and Supplies		108,754.68
	Total - Source of Supply		$910,218.01

TRANSMISSION AND DISTRIBUTION

Pumping Stations:			
Services Other Than Personal:			
131	Heat, Light and Power	$ 56,910.58	
146	Repairs-Plant Equipment	4,577.93	
150	Repairs-Buildings	3,895.00	
159	Repairs-Other Structures	610.00	
199	Miscellaneous Services	130.00	
	Total		$ 66,123.51

Materials and Supplies:			
222	Repair Parts and Supplies-Plant Equipment	$ 737.55	
268	Plumbing and Electrical Supplies	49.12	
	Total		$ 786.67
Pipe Lines:			
Salaries:			
001	Clerical	$ 17,717.66	
	Supervision	39,917.63	
	Labor-Operation	290,092.28	
	Repairs-Trucks and Autos	39,029.17	
	Repairs-Care of Grounds and Buildings	20,671.88	
	Repairs-Transmission Mains	3,790.23	
	Repairs-Distribution Mains	21,829.35	
	Repairs-Gates and Valves	12,377.15	
	Repairs-Hydrants	23,371.07	
	Repairs-Services	82,839.96	
	New Work-Distribution Mains	518.88	
	New Work-Gates and Valves	40.87	
	New Work-Hydrants	11,093.92	
	New Work-Services	66,547.93	
	Retirement Work-Distribution Mains	1,283.76	
	Retirement Work-Hydrants	180.35	
	Retirement Work-Services	11,684.46	
	Total		$642,986.55
Services Other Than Personal:			
102	Medical Services	$ 401.24	
142	Repairs-Trucks and Autos	9,331.74	
143	Repairs-Construction and Other Automotive Equipment	742.73	
146	Repairs-Plant Equipment	1,704.95	
148	Repairs-Communication Equipment	1,278.16	
153	Repairs-Utility Cuts on Highways	21,295.02	
163	Rentals-Other Equipment	1,464.00	
165	Rental of Land	290.73	
181	Laundry and Cleaning	247.51	
199	Miscellaneous Services	1,903.38	
	Total		$ 38,659.46
Materials and Supplies:			
202	Small Tools and Shop Supplies	$ 5,297.14	
204	Wearing Apparel and Personal Supplies	1,542.42	
211	Motor Fuel	22,426.24	
212	Lubricants	1,974.55	
213	Tires and Tubes	7,135.56	
214	Repair Parts and Supplies-Trucks and Autos	26,041.89	
229	Repair Parts and Supplies-Other Equipment	148.18	
262	Cement, Plaster and Related Products	731.00	
268	Plumbing and Electrical Supplies	2,815.22	
271	Pipe	13,092.57	
272	Hydrants, Valves and Fittings	61,193.35	
	Total		$142,398.12
Other Structures and Improvements:			
721	New Main Extensions	$123,136.77	
	Total		$123,136.77

Metering:			
Salaries:			
001	Supervision	$ 8,774.60	
	Repairing Meters	9,695.90	
	Removing and Setting Meters	33,479.79	
	Installation-New Encoder Registers	17,379.69	
	Setting and Repairing Encoder Registers	9,580.49	
	Testing Meters	473.44	
	Inspection-Services	15,009.95	
	Labor-Operation	21,682.21	
	Collections-Overdue Accounts	14,318.75	
	Total		$130,394.82
Materials and Supplies:			
202	Small Tools and Shop Supplies	$ 332.88	
274	Meters and Meter Parts	162.80	
	Total		$ 495.68
General:			
Salaries:			
001	Repairs-Trucks and Autos	$ 151.80	
008	Sick Leave Payrolls	38,393.05	
009	Vacation Payrolls	38,392.65	
025	Injured Employees' Payrolls	4,690.26	
034	Holiday Payrolls	18,882.80	
	Total		$100,510.56
Services Other Than Personal:			
109	Fees Not Otherwise Classified	$ 54.00	
111	Telephone and Telegraph	4,150.65	
112	Postage, Freight and Express	56.70	
131	Heat, Light and Power	3,198.23	
141	Repairs-Office Machinery and Equipment	50.00	
150	Repairs-Buildings	3,647.38	
151	Maintenance and Servicing	6.00	
153	Repairs-Utility Cuts on Highways	282.00	
199	Miscellaneous Services	472.45	
	Total		$ 11,917.41
Materials and Supplies:			
201	Stationery and Office Supplies	$ 1,073.72	
222	Repair Parts and Supplies-Plant Equipment	328.80	
231	Chemical and Laboratory Supplies	621.79	
241	Fuel	9,300.25	
244	Housekeeping Supplies	2,818.12	
261	Gravel, Sand and Stone	997.00	
265	Fabricated Metal Products	45.00	
266	Lumber and Hardware	1,496.82	
267	Paint and Painters' Supplies	339.10	
272	Hydrants, Valves and Fittings	2,249.48	
273	Special Castings	18,190.75	
299	Miscellaneous Materials and Supplies	136.00	
	Total		$ 37,596.83

Special Items:				
331	Payment of Claims and Damages	$ 550.00		
338	Union Legal Fund	8,387.25		
350	Blue Cross, Major Medical and RIGHA	58,507.47		
382	Laborers' Union Pension Fund	49,884.00		
	Total		$117,328.72	
	Outstanding Commitments-Services Other Than Personal		6,015.27	
	Outstanding Commitments-Materials and Supplies		20,202.13	
	Outstanding Commitments-Other Structures and Improvements		20,928.42	
	Total-Transmission and Distribution			$1,459,480.92

ACCOUNTING AND COMMERCIAL

Salaries:				
001	Supervision	$ 9,951.52		
	Clerical	144,003.55		
	Meter Reading	95,259.68		
	Labor-Operation	6,665.84		
008	Sick Leave Payrolls	18,706.50		
009	Vacation Payrolls	16,478.50		
025	Injured Employees' Payrolls	1,907.40		
034	Holiday Payrolls	3,087.20		
	Total		$296,060.19	
Services Other Than Personal:				
102	Medical Services	$ 45.00		
109	Fees Not Otherwise Classified	10.00		
111	Telephone and Telegraph	3,996.33		
112	Postage, Freight and Express	451.50		
116	Transportation of Persons-Other	1,103.50		
121	Printing and Binding	1,000.00		
131	Heat, Light and Power	4,119.27		
141	Repairs-Office Machinery and Equipment	1,443.75		
142	Repairs-Trucks and Autos	56.85		
151	Maintenance and Servicing	796.10		
161	Rental-Office Machinery and Equipment	890.21		
181	Laundry and Cleaning	1,687.44		
190	Data Processing	10,500.00		
199	Miscellaneous Services	45,000.00		
	Total		$ 71,099.95	
Materials and Supplies:				
201	Stationery and Office Supplies	$ 1,938.60		
211	Motor Fuel	777.08		
241	Fuel	4,531.56		
244	Housekeeping Supplies	721.70		
268	Plumbing and Electrical Supplies	176.40		
299	Miscellaneous Materials and Supplies	85.60		
	Total		$ 8,230.94	
Special Items:				
338	Union Legal Fund	$ 3,531.25		
350	Blue Cross, Major Medical and RIGHA	23,934.58		
382	Laborers' Union Pension Fund	21,205.50		
	Total		$ 48,671.33	
	Outstanding Commitments-Services Other than Personal		1,978.48	
	Outstanding Commitments-Materials and Supplies		323.72	
	Total-Accounting and Commercial			$426,364.61
Taxes				$1,097,818.17
Employees' Retirement System				220,514.00
Social Security F.O.A.S.I.				102,108.37
	TOTAL OPERATING EXPENSE			$4,578,041.86

TABLE 48

SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1977

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
Fiscal Year Ended June 30			
*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

*October 1, 1969 - June 30, 1970.

TABLE 49

STATEMENT OF REVENUE - ESTIMATED AND ACTUAL

YEAR ENDED JUNE 30, 1977

Account	Estimated Revenue	Actual Revenue
Water Rents	$5,200,000.00	$4,957,595.20
Hydrant Rental	252,000.00	113,390.95
Electricity	30,000.00	5,860.44
Meter Revolving Fund	10,000.00	0
Repairing and Setting Meters	6,500.00	4,541.60
Miscellaneous Repairs	45,000.00	20,489.58
Installation of Fire Supplies	25,000.00	19,340.00
New Service Installations	100,000.00	113,210.00
New Main Extensions	150,000.00	147,674.00
Transfer from Reserve Fund	0	71,000.00
Other Miscellaneous Receipts	18,275.00	10,633.63
Total	$5,836,775.00	$5,463,735.40

TABLE 50

RESERVE FUND

YEAR ENDED JUNE 30, 1977

	Investment	Cash	Due from Other Funds	Total
Balance - June 30, 1976	$ 750,000.00	$ 52.78	Nil	$750,052.78
Increase During Year Ended June 30, 1977	*5,990,000.00	6,083,639.87		
Disbursements During Year Ended June 30, 1977	6,045,000.00	**6,061,000.00		
Balance - June 30, 1977	$ 695,000.00	$ 22,692.65	Nil	$717,692.65

*Includes interest of $38,639.87 earned on Certificates of Deposit.
**Includes transfer of $71,000.00 to Operating Revenue.

TABLE 51

STATEMENT OF SERIAL BONDS OUTSTANDING

YEAR ENDED JUNE 30, 1977

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	$ 35,000.00	$ 1,100,000.00	$ 720,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3¼	1962	1992	65,000.00	2,050,000.00	1,290,000.00
Total				$100,000.00	$ 3,150,000.00	$ 2,010,000.00
General Obligation Bonds	5	1971	2001	$190,000.00	$11,000,000.00	$ 9,995,000.00
Total-Bonds and Requirements				$290,000.00	$14,150,000.00	$12,005,000.00

TABLE 52

A SUMMARY OF INVENTORIES OF PERSONAL PROPERTY

YEAR ENDED JUNE 30, 1977

REMOVABLE PROPERTY INVENTORY:		$190,066.27
SOURCE OF SUPPLY		
Purification Works	$5,120.57	
Laboratory	3,375.41	
Raw Water Pumping Station	3,846.22	
General and Reforestation	6,651.15	18,993.35
TRANSMISSION AND DISTRIBUTION:		
Pipe Lines	$156,595.59	
Pumping Stations	346.99	
Garage	17,516.20	174,458.78
METERING:		41,714.07
GENERAL SUPPLIES:		1,614.23
Total Personal Property Inventory		$426,846.70

TABLE 53

STATEMENT OF METER REVOLVING FUND

YEAR ENDED JUNE 30, 1977

Unencumbered Balance - June 30, 1976		$ 9,998.05
Outstanding Commitments-June 30, 1976		2,029.07
Receipts - July 1, 1976 - June 30, 1977		60,042.55
Total Available		$72,069.67
Expenditures - July 1, 1976 - June 30, 1977	$56,823.71	
Outstanding Commitments - June 30, 1977	5,212.41	
Transferred to Operating Revenue	0	
Total Disbursements	$62,036.12	
Unencumbered Balance - June 30, 1977		$10,033.55

TABLE 54

STATEMENT OF WATER METER CONVERSION REVOLVING FUND

YEAR ENDED JUNE 30, 1977

Unencumbered Balance - June 30, 1976		$ 2,910.02
Outstanding Commitments-June 30, 1976		6,866.76
Receipts - July 1, 1976 - June 30, 1977		9,506.94
Total Available		$19,283.72
Expenditures - July 1, 1976 - June 30, 1977	$13,747.87	
Outstanding Commitments-June 30, 1977	175.50	
Total Disbursements	$13,923.37	
Unencumbered Balance - June 30, 1977		$ 5,360.35

TABLE 55

TAXES PAID TO VARIOUS CITIES AND TOWNS

JULY 1, 1976 TO JUNE 30, 1977

Location of Property	Land Area (Acres)	ASSESSED VALUATIONS Land	Buildings and Improvements	Total	TAX Rate per $100	Amount Paid
City of Warwick	0.060	$ 160.00	$ 0	$ 160.00	$5.84	$ 9.34
City of Cranston	110.627	62,840.00	942,340.00	1,005,180.00	----	64,708.46
Town of Foster	1,617,470	837,460.00	0	837,460.00	5.40	45,222.84
Town of Glocester	73.300	17,970.00	0	17,970.00	5.885	1,118.99
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	----	23,106.70
Town of North Providence	8.529	321,880.00	1,122,780.00	1,444,660.00	2.716	-----
Town of Scituate	13,149.030	1,469,975.00	13,013,500.00	*14,500,000.00	6.43	932,350.00
Town of West Warwick	8.940	34,025.00	0	34,025.00	5.20	1,769.30
Total Real Estate	15,447.896			$18,203,555.00		**$1,097,818.17

*Includes $16,525.00 Tangible Personal.

**In addition to this amount, $95.97 was paid to the West Glocester Fire District and $8.85 to the Harmony Fire District. $29,427.72 was encumbered for the Town of North Providence but has not been paid.

NOTE: Cranston was paid three installments totaling $47,871.70 at a rate of $6.35 per $100 and one payment of $16,836.76 at a rate of $6.70 per $100.

Johnston was paid three installments totaling $17,135.46 at a rate of $6.275 per $100 and one payment of $5,971.24 at a rate of $6.56 per $100.

TABLE 56

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1977

*PROVIDENCE (City or Town)	PROVIDENCE (County)	RHODE ISLAND (State)
GENERAL STATISTICS		
Population of Providence (1970 Federal Census)		176,920
Estimated population supplied in suburbs		253,895
Total population supplied		430,815
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		77.1% by gravity; 22.9% by pumping
STATISTICS OF CONSUMPTION OF WATER		
1. Estimated population supplies		430,815
2. Total raw water influent for the year, gallons		23,197,432,000
3. Average daily raw water influent, gallons		63,555,000
4. Raw water consumption per capita, gallons daily		147.5
5. Total consumption for the year, gallons		22,790,360,000
6. Total registration on customers' meters, gallons		20,951,310,000
7. Percentage of consumption accounted for on customers' meters		91.9%
8. Average daily consumption, gallons		62,439,000
9. Per capita consumption, gallons daily		144.9
10. Gallons per day to each tap		940

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

TABLE 56 (Continued)

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1977

FILTRATION

1.	Type of filters	Rapid Sand
2.	Number of filter units	18
3.	Capacity of filter plant	18 units @ 8.0=144 m.g.d.
4.	Chemicals	Ferri-Floc, Quicklime, Chlorine and Sodium Silicofluoride
5.	Total water filtered during year, gallons	23,032,610,000
6.	Average quantity filtered per day, gallons	63,103,000
7.	Total filtered water delivered to the distribution system during the year, gallons	22,789,196,000

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	10,161.32 feet
4.	Removed	4,160.68 feet
5.	Net Increase	6,000.64 feet
6.	Total now in use	836.29 miles
7.	Number of leaks per mile	0.08
8.	Range of pressure on mains	14 to 95 pounds
9.	Range of pressure on mains (special high pressure fire service)	94 to 130 pounds
10.	Number of hydrants installed	57
11.	Number removed	55
12.	Net Increase	2
13.	Number of hydrants now in use	5,098
14.	Number of stop gates installed	28
15.	Number removed	12
16.	Net Increase	16
17.	Number of stop gates now in use	11,491

TABLE 56 (Continued)

SUMMARY OF STATISTICS

PROVIDENCE WATER SUPPLY BOARD

YEAR ENDED JUNE 30, 1977

STATISTICS RELATING TO THE DISTRIBUTION SYSTEM
(Continued)

18.	Kind of services	Lead, Copper and Cast Iron
19.	Sizes	$\frac{1}{2}$-inch to 42 inches
20.	Number of service taps installed	473
21.	Number removed	209
22.	Net increase	264
23.	Number of services now in use	*66,394
24.	Number of meters installed	680
25.	Number removed or condemned	390
26.	Net increase	290
27.	Number of meters now in use	**66,990
28.	Per cent of services metered	100

*In addition, there is a 30-inch connection off the 78-inch Aqueduct to the Kent County Water Authority pumping station on Clinton Avenue, Hope, R.I.

**Many large services have batteries of meters.

TABLE 57

YEAR ENDED JUNE 30, 1977

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

	E.P.A. Regulations (Maximum Permissible)	
Physical Characteristics:		
*Color	15 units	3
Turbidity	1 unit	0.0
*Odor	3 threshold number	no odor
Taste	----	no taste
Characteristics (milligrams per liter)		
Arsenic	0.05	0.00
Barium	1.	less than 0.2
Cadmium	0.010	less than 0.002
Chromium	0.05	less than 0.02
Copper	1.	0.00
Fluoride	2.0	0.98
*Iron	0.30	0.02
Lead	0.05	0.00
Mercury	0.002	less than 0.0005
*Foaming Agents	0.5	0.00
Nickel	---	less than 0.05
Nitrate (as N)	10.	0.10
Selenium	0.01	0.00
Silver	0.05	less than 0.02
*Total Dissolved Solids	500.	64.
*Zinc	5.	0.00
Characteristics (micrograms per liter)		
**Aldrin	1.	none found
**Chlordane	3.	none found
**DDT	50.	none found
**Dieldrin	1.	none found
Endrin	0.2	none found
**Heptachlor	0.1	none found
**Heptachlor Epoxide	0.1	none found
Lindane	4.	none found
Methoxychlor	100.	none found
Toxaphene	5.	none found
2,4-D	100.	none found
2,4,5-TP Silvex	10.	none found

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

**Unofficial drinking water standard at time of analysis.