

245

CITY DOCUMENT

IN CITY COUNCIL
MAR 1 1979

READ:

WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.

Rose M. Meadows CLERK



ANNUAL REPORT

of the

WATER SUPPLY BOARD

of the

CITY OF PROVIDENCE
For the Year Ended June 30, 1978

WATER SUPPLY BOARD



CITY OF PROVIDENCE

February 12, 1979

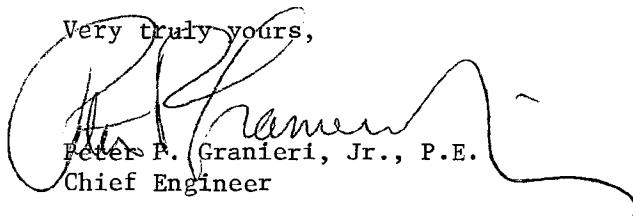
Mrs. Rose Mendonca
City Clerk
City Hall
Providence, Rhode Island

Dear Mrs. Mendonca:

I am enclosing a copy of the Annual Report of the Water Supply Board for the fiscal year ended June 30, 1978, 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,

A handwritten signature in dark ink, appearing to read "Peter P. Granieri, Jr.", written over the typed name and title.

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

ms

enclosure

ADMINISTRATIVE OFFICE

Water Supply Board
City of Providence

July 1, 1978

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-eighth annual report of the Water Supply Board, for the year ended June 30, 1978.

John A. Doherty was reappointed a member of the Board for an ensuing term ending in 1982.

At a reorganization meeting held on April 28, 1978, John A. Doherty was reelected Chairman and James A. Lombardi was reappointed Secretary.

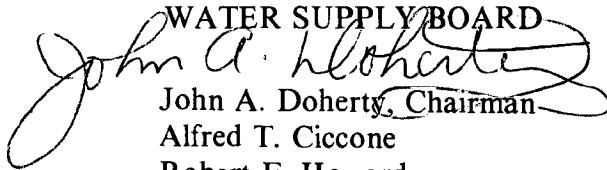
Earl H. Ashley, husband of Rachael C. Ashley, and a member of the Providence Water Supply Board since 1948, died on December 9, 1977.

During his tenure, many improvements were made within the system and Mr. Ashley will be remembered for the distinguished and exemplary manner in which he served the Board for more than 29 years, ever determined that the activities of the Board were conducted in the best interests of the city and the water users.

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

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

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "John A. Doherty", is written over the printed name.

WATER SUPPLY BOARD

John A. Doherty, Chairman

Alfred T. Ciccone

Robert F. Howard

Vincent J. Cirelli

Raymond Cola

James R. Bernardo, Acting Ex-officio

REPORT OF THE CHIEF ENGINEER

WATER SUPPLY BOARD
CITY OF PROVIDENCE

Providence, R.I.
July 1, 1978

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1978.

Precipitation on the 92.8 square mile drainage area this past year amounted to 61.76 inches; this was 9.52 inches more than the total of 52.24 for the 1977 year and 5.70 less than the maximum of record 67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 36.29 inches compared with 23.35 for the previous year and the 40.97 inches maximum of record for fiscal 1956.

Consumption increased to 62,834,000 gallons per day, up 395,000 gallons per day from the June 30, 1977 figure of 62,439,000 gallons. The maximum day's use was 115,985,000 gallons on July 18, 1977, compared with the 62-year high of 117,980,000 established on June 24, 1976. The maximum hourly rate of 167,472,000 gallons per day on July 18 marks a new high in the 62-year record.

Water sold to Kent County Water Authority, the City of Cranston (for distribution to its western section and southwestern Johnston), Warwick, East Providence, East Smithfield Water Company, Smithfield Water Department and the Greenville Water District totaled 6,523,612,250 gallons, an average of 17,872,910 gallons per day. These seven wholesale customers accounted for 28.44% 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.

The Water Supply Board engaged Camp Dresser and McKee, Inc., consultants, to carry out a study toward proposing new water rates and to perform a management activities assessment of accounting, financial, billing and meter systems. The water rate study was completed and it resulted in an increased cost schedule. These new rates were submitted to the Public Utilities Commission for their review and ruling. The management systems study will be completed next year.

An agreement between the City of Cranston and Town of Johnston for Cranston to deliver a maximum of 766,000 gallons per day to sections of southwestern Johnston was approved by the Water Supply Board. Also the City of Cranston received approval for an additional 500,000 gallons per day maximum allotment for the southern portion of Cranston's western section.

An agreement was completed with the Town of North Providence to purchase the Marieville Distribution System which that community had previously bought from the City of Pawtucket. The system serves an area of .82 sq. mi., east of Route 146 to the Pawtucket line, and bounded northerly by the Town of Lincoln and southerly by the City of Providence. The system distributes 300,000 gallons per day to 1,150 customers. The network will be turned over to the Water Supply Board and receive our water upon completion of necessary work by the Town of North Providence.

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 61.76 inches was recorded which was 12.62 inches more than the 62-year (July 1916-June 1978) average of 49.14 inches and 91.6% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 36.29 inches; this was 11.29 inches more than the 62-year average of 25.00 inches and 88.6% of the maximum 40.97 inches, which occurred during the July 1955-1956 year.

STORAGE, DRAFT AND YIELD On July 1, 1977 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs, amounted to 40,500,000,000 gallons or 98.1% of combined capacity. At the end of the year, the combined storage was 40,314,000,000 gallons or 97.7% of capacity.

The total draft from the Scituate watershed for the year was 58,818,590,000 gallons, an average of 161,150,000 gallons daily. The draft for water supply purposes was 22,923,070,000 gallons and discharge into the north branch of the Pawtuxet River totaled 35,895,520,000.

The yield from the watershed for the year totaled 58,632,590,000 gallons, an average of 160,530,000 gallons per day. This was 50,140,000 per day more than the 110,390,000 gallons average daily yield for the 62-year period July 1916-June 1978. We expect that the safe yield of the Scituate watershed will be reached in the near future, making the need for an additional source of supply at Big River mandatory. We are encouraged that the Department of Army, Corps of Engineers, New England Division, as one of its highest priorities, is considering Big River as a flood control and reservoir project and is presently conducting a feasibility study.

WATERSHED MANAGEMENT — FORESTRY OPERATIONS The keystone of management on the Scituate Reservoir watershed is protection of the valued water resource. The protective mantle of woodlands which surrounds the Scituate and five tributary reservoirs helps to insure runoff of highest quality.

A major concern of the watershed manager is land-use practices on the 75 percent of watershed which the department does not own and control. Much of the area is characterized by land which is not conducive to large scale development. Wetlands and soils with perked or high water tables are common throughout the watershed. The department continually monitors new development, existing housing sites, and land alteration which may affect the supply of a quality water both now and in the future.

It has become necessary to place added emphasis on the enforcement of regulations to protect departmental lands and facilities. Security personnel recorded 686 violations during the year. Costly vandalism continued at Neutaconkanut Distribution Reservoir and Gainer Memorial Dam. Closure of access roads at the base of the main dam to vehicular traffic significantly reduced the amount of property damage and added to the protection of vital facilities. Effective prosecution procedures in cooperation with local police agencies have maintained controls.

The Tunk Hill Fire Tower was manned on 32 high-hazard days during the spring 1978 forest fire season. A total of six fires occurred on departmental watershed lands. Prompt suppression efforts by local, state, and Water Supply Board fire protection personnel limited these and other fires on the remainder of the 92.8 square-mile watershed to minimal acreage.

Forest insect and disease infestations were at endemic levels. Heavy defoliation of larch by larch sawfly (*Pristiphora erichsonii*) occurred in the Kent Block of the watershed forest. Annosus root rot (*Fomitopsis annosa*) continues to cause mortality in coniferous plantations. The practice of stump treatment with borax has proven to be a highly effective control of root-rot disease.

Most timber stand improvement operations were conducted by contractual woods operators. The advent of a demand for fuelwood has provided opportunity to carry out forest improvement practices featuring removal of low quality hardwoods. Silvicultural techniques are chosen based on a number of factors to include site quality, species, watershed protection, storm impacts and stand composition. Whenever feasible, diversity of forest species is a goal in forest management decisions.

To prevent vehicle encroachment of turfed areas and add to the aesthetics of a particular one, 400 feet of rustic cedar-rail fencing were installed along the Gainer Dam access road west of the Purification Works. Cedar-boom gates were constructed at the three entry points to the Gainer Dam access road to control vehicular trespass.

Turfed areas at the Purification Works, Gainer Dam, distribution reservoirs, aqueducts, and other properties received necessary maintenance. Repair of vandalized facilities, installation of fencing and gates, maintenance of aqueducts and rights-of-way, and other routine work were accomplished as required. Restoration of fencing damaged by highway snow removal operations during the blizzard of February 6-7, 1978 has been an ongoing operation.

LABORATORIES The chemical and bacteriological laboratories that check the quality of the water supply from the raw water impoundments to the taps at the consumers' premises conducted tests on more than 13,000 samples during the year. They

were obtained from brooks, streams and raw water reservoirs, as well as daily samples collected throughout the distribution system. Tests made on these samples included chemical, sanitary chemical and mineral analyses, and bacteriologic and microscopic examinations. The total number of tests made during the year (July 1977-June 1978) amounted to 94,440. Based on a 35-hour week, the water was receiving one test or another every 69 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 3,125, an average of 260 per month.

In the report for the previous fiscal year (July 1, 1976-June 30, 1977), it was mentioned laboratory personnel cooperated with the Environmental Protection Agency in two separate water quality studies, one dealing principally with corrosion and the other organics (National Organics Monitoring Survey). By the end of that period published results were not yet available. The findings were released early in the present fiscal year. In the one dealing with corrosivity it was concluded our corrosion control treatment method appears to be very effective. A summary of the NOMS Phases I, II and III results indicated Providence Water Supply Board water placed tenth from the top of the list in lowest total trihalomethanes (TTHM) content among the 113 public drinking water supplies included in the nationwide study. Much attention was given to the survey release by the various news media throughout the country. At the time the EPA was proposing a limit of 100 parts per billion for TTHM. Providence water was shown to contain only 8 parts per billion.

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

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

The treatment process consists of influent aeration, mixing, coagulation and finally, filtration. Chemicals employed include Ferri-Floc (ferric sulfate) to coagulate microorganisms and particles that cause color and turbidity, lime to change the water from acid to alkaline to assist in the precipitation of iron and manganese and reduce corrosion in the distribution system, and chlorine to destroy harmful bacteria. Finally, fluoride is added to reduce the incidence of dental caries in children. The following

quantities of chemicals were used during the year (July 1977-June 1978): 2,559,298 pounds of Ferri-Floc before influent aeration, 2,337,727 pounds of quicklime after influent aeration and before mixing, 119,916 pounds of chlorine prior to filtration, and 277,654 pounds of sodium silicofluoride after filtration a grand total of 5,294,595 pounds.

It is interesting to note that the cost of chemicals per million gallons of water treated was \$4.86 for the year ended September 30, 1958; it was \$9.84 for the year ended June 30, 1978, slightly more than double. How many other industries can make this statement?

During the year, 22,933.39 million gallons were delivered into the distribution system, an average of 62.83 million gallons daily. The maximum hourly demand in the system was at the rate of 167.47 million gallons daily; consumption during the maximum day, July 18, 1977, amounted to 115.99 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, 429,093.44 feet (838.84 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 66,789 services, 16,681 valves and 5,103 hydrants in use on June 30, 1978. The amount of pipe laid during the year totaled 16,278.20 feet; 2,809.79 feet were removed, resulting in a net increase to the system of 13,468.41 feet. Services installed and removed were 488 and 93 respectively, a gain of 395. There was an increase of 33 valves, 51 having been installed and 18 removed, and a gain of 5 hydrants 139 installed and 134 removed. The number of meters on active services totaled 67,411.

During the blizzard of February, 142 hydrants were damaged necessitating replacement. These were located in the cities of Providence and Cranston and the towns of Johnston and North Providence. The re-installation program was conducted within the scope of daily operations while still maintaining adequate fire protection.

Total water distribution was 22,934.56 million gallons or 62.83 million gallons per day. The low service, a gravity supply, consumed 76.8%; the high service system, furnishing water to the higher elevations as well as the special high pressure fire service in the downtown business district of Providence, used 23.2%. Registration on customers' meters totaled 20,785.04 million gallons, accounting for 90.6% of the amount distributed.

Leaks in the transmission and distribution mains totaled 81 during the year, 27 occurring at joints and 54 as a result of ruptured mains. Leaks at joints averaged one for every 31 miles of pipe and total leaks averaged one for every 10 miles of main. Of the 81 leaks, 12 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, including domestic and fire services, and problems related to the operation and maintenance of water works structures and equipment. Work included real estate surveys, inventories and appraisals, consumer demands with respect to service requirements and proper size meters, inspection of water pipe installations, observing and conducting flow tests at various points in the distribution system, electrical energy conservation studies, and compiling pertinent data and records. Services included computations of quantities and preparation of monthly estimates for periodic payments on all outstanding contracts.

An engineering study and preliminary plans were prepared for a new 24-inch high service force main from Neutaconkanut Pumping Station to Longview Reservoir to increase pumping efficiency required by both increased growth of the high service area and water usage. The final contract drawings and specifications for bidding are in preparation by CE Maguire, Inc., consulting engineers.

COMMERCIAL AND ACCOUNTING

At the end of the fiscal year the Water Supply Board had 66,789 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 982 installations were made, bringing the total to 30,222 since the program was initiated in May 1968.

The computerization of delinquency notices has improved our collections. Further progress has been made in this application with the inclusion of cost controls for automotive and equipment maintenance. Additional areas of utilization are being considered.

FINANCIAL

The gross income for the year totaled \$5,221,372.68. Revenue from the sale of water alone amounted to \$4,762,111.28. The remaining income of \$459,261.40 was received from other sources, including hydrant rentals, installation of services and fire supplies, and miscellaneous items. At the end of the year unpaid water bills for all previous and the present year totaled \$1,035,620.95, or 20.3% of this year's total net billing. The outstanding bills for this year amounted to \$629,348.34, or 12.4% of the total net billing.

Expenses for the year, including principal payments of \$305,000.00 on serial bonds outstanding and \$658,755.00 in interest charges, amounted to \$5,539,801.53 down \$1,455.33 from the previous year. Bonded debt at the close of the year was \$11,700,000.00.

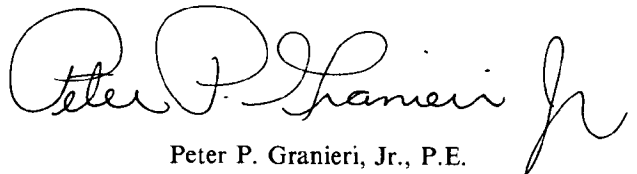
The February blizzard caused the Water Supply Board to suffer a \$250,000 damage and revenue loss. The bulk of the loss is primarily attributable to the 142 hydrants which had to be replaced.

It is anticipated that for the year ending June 30, 1979 expenses will rise substantially due to higher material costs, higher wages and fringe benefits, and higher energy costs.

Financial accounts of the department, together with other statistical data for the year ended June 30, 1978, are appended to this report.

I am deeply indebted to our supervisors and workers for their dedication in maintaining our high standards of quality and performance which enables us to efficiently serve our customers.

Respectfully submitted,



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

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TABLE 1
MONTHLY RAINFALL IN INCHES ON SCITUATE WATERSHED
YEAR ENDED JUNE 30, 1978

STATIONS ON WATERSHED						
1977-1978						
	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	2.85	3.67	3.48	3.69	3.97	3.53
August	3.77	4.21	3.80	3.73	2.78	3.65
September	8.15	7.63	7.97	7.46	6.08	7.46
October	8.20	8.70	9.48	7.80	8.44	8.52
November	6.73	5.06	6.73	6.42	7.34	6.46
December	5.84	4.10	5.64	5.70	5.79	5.41
January	11.02	9.95	10.15	9.14	8.89	9.83
February	1.57	3.15	2.50	3.08	2.42	2.54
March	4.21	4.16	3.99	4.33	3.94	4.13
April	2.55	2.55	2.41	2.37	2.83	2.54
May	6.85	6.83	6.03	5.43	6.03	6.23
June	1.52	1.78	1.17	1.43	1.34	1.45
Total	63.26	61.79	63.35	60.58	59.85	*61.75
Monthly Average	5.27	5.15	5.28	5.05	4.99	5.15

*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 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	6.02	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	1.40	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	5.75	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	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	4.31	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	44.58	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	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	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	3.64	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	Total
1975-1976	3.19	3.95	7.58	6.82	6.89	5.96	7.61	3.43	3.53	2.43	3.21	3.19	57.79	1976	50.04
1976-1977	6.57	6.89	3.19	5.74	0.48	3.77	4.49	3.09	6.81	3.99	3.24	3.98	52.24	1977	60.64
1977-1978	3.53	3.66	7.46	8.52	6.46	5.41	9.83	2.54	4.13	2.54	6.23	1.45	61.76	1978	-----
62 Years Average	3.78	4.23	4.23	3.75	4.76	4.48	4.21	3.92	4.49	4.10	3.65	3.54	49.14	Avg.	*49.11
62 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	9.83	6.88	9.33	7.56	9.36	8.62	67.46	Max.	75.24
62 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 62-Year calendar year average is for the years 1916-1977.
A new maximum of record was recorded for January.

TABLE 4

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

Year	BASIS:-YEARS ENDED SEPTEMBER 30													Jan.-Dec.	
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Year	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	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	3.95	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	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	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	Total
1975-1976	0.04	-0.04	0.84	2.35	4.44	4.55	6.77	4.39	3.16	1.87	1.62	0.25	30.24	1976	23.43
1976-1977	0.33	1.29	0.34	1.38	0.62	1.40	1.71	2.11	7.53	3.69	2.23	0.72	23.35	1977	31.55
1977-1978	-0.02	0.03	0.91	3.68	3.56	5.40	6.96	2.23	6.18	3.39	3.44	0.53	36.29	1978	-----
62 Years Average	0.59	0.48	0.65	0.88	1.93	2.69	2.95	2.82	4.76	3.74	2.39	1.12	*25.00	Avg.	*24.98
62 Years Maximum	6.93	4.04	4.39	7.22	6.75	6.60	6.96	5.49	11.51	6.89	5.25	4.15	40.97	Max.	43.96
62 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 62-year calendar year average is for the years 1916-1977.
A new maximum of record was recorded for January.

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	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	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	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	65.4	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	4.6	-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	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	35.0	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	Total
1975-1976	1.3	-1.0	11.1	34.5	64.4	76.3	89.0	128.0	89.5	77.0	50.5	7.8	52.3	1976	46.8
1976-1977	5.0	18.7	10.7	24.0	129.2	37.1	38.1	68.3	110.6	92.5	68.8	18.1	44.7	1977	52.0
1977-1978	-0.6	0.8	12.2	43.2	55.1	99.8	70.8	90.6	175.1	133.5	55.2	41.4	58.9	1978	----
62 Years Average	15.6	11.4	15.4	23.5	40.6	60.0	70.1	71.9	106.0	91.2	65.5	31.6	50.9	Avg.	50.9
62 Years Maximum	60.3	82.0	82.0	233.3	331.2	208.3	250.0	177.4	263.4	198.0	181.1	74.3	66.3	Max.	61.5
62 Years Minimum	-42.7	-24.1	-205.0	-12.5	8.5	22.6	11.8	20.3	57.8	56.4	32.1	-25.0	27.9	Min.	30.5

NOTE: The 62-Year calendar year average is for the years 1916-1977.

TABLE 8

SCITUATE WATERSHED

(92.8 Square Miles)

STATISTICS OF STORAGE - YEAR ENDED JUNE 30, 1978

1977-1978	1 Regulating Reservoir		2 Westconnaug Reservoir		3 Barden Reservoir		4 Moswansicut Reservoir		5 Ponaganset Reservoir		Total 1-5		6 Scituate Reservoir		Total 1-6	
	Elev.	Avail. Storage M.G.	Elev.	Avail. Storage M.G.	Elev.	Avail. Storage M.G.	Elev.	Avail. Storage M.G.	Elev.	Avail. Storage M.G.	Avail. Storage M.G.	% of Tot. Avail.	Elev.	Avail. Storage M.G.	Avail. Storage M.G.	% of Tot. Avail.
July	285.50	421	454.21	455	345.20	861	301.94	719	633.18	703	3,159	100.8	283.27	35,819	38,978	98.1
August	285.18	395	454.03	445	345.16	858	301.89	714	632.82	676	3,088	98.5	280.68	33,067	36,155	91.0
September	284.62	354	453.81	432	345.08	851	301.91	716	632.61	661	3,014	96.1	278.26	30,560	33,574	84.5
October	285.55	425	454.31	461	345.30	869	302.06	731	632.97	687	3,173	101.2	277.22	29,520	32,693	82.3
November	285.57	427	454.48	471	345.39	876	301.98	723	633.64	738	3,235	103.2	280.05	32,430	35,665	89.7
December	285.92	455	454.72	484	345.79	908	302.17	743	633.77	748	3,338	106.5	280.65	33,036	36,374	91.5
January	285.65	433	454.57	476	345.45	881	302.08	733	633.97	764	3,287	104.9	282.32	34,802	38,089	95.8
February	285.68	436	454.77	487	345.59	892	302.11	736	634.04	769	3,320	105.9	285.31	38,061	41,381	104.1
March	285.60	429	454.40	466	345.30	869	302.02	727	633.34	715	3,206	102.3	281.70	34,139	37,345	94.0
April	285.80	445	454.99	500	345.95	921	302.21	747	634.12	775	3,388	108.1	284.96	37,675	41,063	103.3
May	285.62	431	454.50	472	345.41	878	302.00	725	633.57	733	3,239	103.3	284.17	36,790	40,029	100.7
June	285.63	431	454.55	474	345.43	879	302.06	731	633.64	738	3,253	103.8	285.06	37,786	41,039	103.3
Maximum for Year	12/1/77		11/12/77		1/28/78		1/28/78		1/28/78		1/28/78		1/29/78		1/28/78	
	285.92	455	455.18	510	346.06	930	302.25	751	634.31	790	3,423	109.2	285.54	38,316	41,739	105.0
Minimum for Year	9/17/77		9/17/77		8/13/77		7/23/77		9/10 & 9/17/78		9/10/77		9/24/77		9/17/77	
	284.05	313	453.72	427	344.48	803	301.80	705	632.47	651	2,964	94.6	276.93	29,230	32,245	81.1
1. Regulating Reservoir-Spillway	Elev.	285.50;	Total Storage	428 M.G.;	Dead Storage	7 M.G.;	Total Available Storage	421 M.G.								
2. Westconnaug	"	"	454.17;	"	"	453 "	"	"	0 "	"	"	"	"	"	"	453 "
3. Barden	"	"	"	345.10;	"	"	853 "	"	"	0 "	"	"	"	"	"	853 "
4. Moswansicut	"	"	"	301.90;	"	"	1,781 "	"	"	1,066 "	"	"	"	"	"	715 "
5. Ponaganset	"	"	"	633.05;	"	"	742 "	"	"	49 "	"	"	"	"	"	693 "
Total 1-5				Total Storage	4,257 M.G.;	Dead Storage	1,122 M.G.;	Total Available Storage	*3,135 M.G.							
6. Scituate	"	"	"	284.01;	"	"	37,011 "	"	"	400 "	"	"	"	"	"	36,611 "
Total 1-6				Total Storage	41,268 M.G.;	Dead Storage	1,522 M.G.;	Total Available Storage	**39,746 M.G.							

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

TABLE 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	274.26	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	276.73	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	284.67	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	276.63	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	282.76	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
1977-1978	283.27	280.68	278.26	277.22	280.05	280.65	282.32	285.31	281.70	284.96	284.17	285.06
50 Years Average	282.55	280.76	278.89	277.47	276.39	276.56	277.65	278.69	279.47	282.39	283.38	283.38
50 Years Maximum	285.05	285.14	283.08	282.87	285.21	285.16	285.65	285.31*	284.32	285.48	285.62	285.56
50 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

*New Maximum

TABLE 10

SCITUATE WATERSHED

(92.8 Square Miles)

DRAFT AND YIELD - YEAR ENDED JUNE 30, 1978

1977-1978	DRAFT FROM SCITUATE RESERVOIR Million Gallons			WATERSHED YIELD Million Gallons					
	To River Over Spill- way	Below Gainer Dam Through Gate- house	Total	To Water Purification Works	For Month	Total Average per Day	For Month	Average per Day 62-Year Mean 1977-1978	1917-1978
July	0	441.15	441.15	2,346.01	2,787.16	89.91	-35.84	-1.16	30.69
August	0	475.33	475.33	2,153.53	2,628.86	84.80	47.86	1.54	24.97
September	0	460.31	460.31	1,891.57	2,351.88	78.40	1,470.88	49.03	34.94
October	0	1,142.12	1,142.12	1,827.86	2,969.98	95.81	5,941.98	191.68	45.78
November	0	3,369.95	3,369.95	1,659.74	5,029.69	167.66	5,738.69	191.29	103.75
December	0	5,232.47	5,232.47	1,754.66	6,987.13	225.39	8,702.13	280.71	139.95
January	401.78	5,803.34	6,205.12	1,735.95	7,941.07	256.16	11,233.07	362.36	153.47
February	866.86	5,283.26	6,150.12	1,589.35	7,739.47	276.41	3,703.47	132.27	160.99
March	120.53	4,274.06	4,394.59	1,852.56	6,247.15	201.52	9,965.15	321.46	247.64
April	2,033.91	2,676.05	4,709.96	1,790.35	6,500.31	216.68	5,466.31	182.21	201.06
May	514.79	2,017.56	2,532.35	2,004.31	4,536.66	146.34	5,546.66	178.92	124.34
June	116.20	665.85	782.05	2,317.18	3,099.23	103.31	852.23	28.41	60.21
For Year	4,054.07	31,841.45	35,895.52	22,923.07	58,818.59	161.15	58,632.59	160.53	110.39

*Includes Flashboard Leakage.

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
1978	0	0	0	1,250	0	0	0	0	0	1,750	2,000	0	5,000
Totals	1,000	4,140	2,638,427	2,855,465	19,928	101,221	136,000	121,750	821,781	225,299	82,000	48,961	7,060,312

*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
July 1977-June 1978	5,909,000	996,540	4,720,000	26,652.86

*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, 1978

1977- 1978	Influent Aerator	Plant Influent Mil. Gals.		Water Filtered Mil. Gals.		Wash Water Mil. Gals.			Plant Effluent Mil. Gals.		Plant Effluent Flow	Number of Filters in Operation		
	Hours Operated	Total	Average per Day	Total	Average per Day	Total	Average per Day	% of Water Filt.	Total	Average per Day	Hours	Max.	Min.	Avg.
July	744.0	2,346.006	75.678	2,402.516	77.501	21.068	0.680	0.8	2,381.448	76.821	744.0	18	4	11.1
August	744.0	2,153.529	69.469	2,228.778	71.896	22.034	0.711	1.0	2,206.744	71.185	744.0	16	4	10.3
September	720.0	1,891.573	63.052	1,942.172	64.739	19.827	0.661	1.0	1,922.345	64.078	720.0	16	6	9.3
October	744.5	1,827.860	58.963	1,855.551	59.857	33.079	1.067	1.8	1,822.472	58.789	745.0	14	5	9.9
November	719.7	1,659.738	55.325	1,757.478	58.583	24.853	0.828	1.4	1,732.625	57.754	720.0	15	7	11.6
December	744.0	1,754.663	56.602	1,777.433	57.337	24.027	0.775	1.4	1,753.406	56.561	744.0	15	7	11.5
January	744.0	1,735.949	55.998	1,765.500	56.952	18.070	0.583	1.0	1,747.430	56.369	744.0	13	6	11.5
February	672.0	1,589.345	56.762	1,559.702	55.704	15.662	0.559	1.0	1,544.040	55.144	672.0	13	7	11.2
March	744.0	1,852.560	59.760	1,834.542	59.179	22.532	0.727	1.2	1,812.010	58.452	744.0	14	8	11.9
April	719.0	1,790.345	59.678	1,751.722	58.391	15.736	0.525	0.9	1,735.986	57.866	719.0	14	8	11.7
May	742.3	2,004.307	64.655	1,973.634	63.666	24.603	0.794	1.2	1,949.031	62.872	744.0	17	7	12.2
June	720.0	2,317.177	77.239	2,356.043	78.535	30.193	1.006	1.3	2,325.850	77.528	720.0	17	6	11.3
Totals	8,757.5	22,923.052		23,205.071		271.684			22,933.387		8,760.0			
Average	729.8		62.803		63.576		0.744	1.2		62.831	730.0			11.1

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, 1978

1977- 1978	Number of Filters Washed				Ferri-Floc Used			Quicklime Used			Chlorine Used			Sodium Silicofluoride Used		
	Average Rate of Filtration per Filter		Average Filter Run		Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. per Day	Parts per Mil.	Lbs.	Avg. per Day	Parts per Mil.*
	M.G.D.	Total	per Day	Hours												
July	6.99	118	3.8	73.49	269,902	8,707	0.81	250,156	8,070	0.75	12,318	397	0.62	28,952	934	0.87
August	7.00	124	4.0	63.79	196,408	6,336	0.64	226,907	7,320	0.74	11,106	358	0.60	26,971	870	0.87
September	6.99	111	3.7	64.28	179,988	6,000	0.67	199,549	6,652	0.74	8,473	282	0.52	23,533	784	0.87
October	6.04	188	6.1	39.95	210,583	6,793	0.81	186,064	6,002	0.71	7,193	232	0.46	22,352	721	0.87
November	5.06	141	4.7	63.48	230,675	7,689	0.97	174,746	5,825	0.74	9,143	305	0.62	20,747	692	0.85
December	4.99	141	4.5	63.75	187,576	6,051	0.75	168,461	5,434	0.67	9,746	314	0.66	20,939	675	0.85
January	4.98	109	3.5	80.70	235,919	7,610	0.95	190,331	6,140	0.77	9,768	315	0.66	21,004	678	0.86
February	4.96	100	3.6	77.83	207,751	7,420	0.92	170,879	6,103	0.75	8,637	308	0.66	18,576	663	0.86
March	4.97	144	4.6	65.65	218,655	7,053	0.83	191,800	6,187	0.72	10,079	325	0.66	21,689	700	0.86
April	4.98	93	3.1	95.65	192,633	6,421	0.75	182,720	6,091	0.71	9,624	321	0.66	21,308	710	0.87
May	5.23	144	4.6	68.29	190,650	6,150	0.67	179,719	5,797	0.63	10,856	350	0.66	23,794	768	0.87
June	6.97	172	5.7	48.85	238,558	7,952	0.72	216,395	7,213	0.65	12,973	432	0.66	27,789	926	0.85
Totals		1,585			2,559,298			2,337,727			119,916			277,654		
Average	5.72		4.3	64.53		7,012	0.78		6,405	0.71		329	0.62		761	0.86

Total filter hours for year, 97,346.33; average per day, 266.70.

Average quantity of water filtered per filter per run, 15.38 m.g.

*Dosage expressed as p.p.m. of Fluoride ion.

TABLE 14
WATER PURIFICATION WORKS
CHEMICALS USED - YEAR ENDED JUNE 30, 1978

	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	2,559,298	7,012	22,923,052,000	\$109,806.68	111.65	\$4.79
Quicklime	2,337,727	6,405	22,923,052,000	60,671.36	101.98	2.65
Chlorine	119,916	329	23,205,071,000	16,219.92	5.17	0.70
Sodium Silicofluoride	277,654	761	22,933,387,000	38,888.20	12.11	1.70
Totals	5,294,595			\$225,586.16		\$9.84

Price of Ferri-Floc--From July 1, 1977 to June 30, 1978--\$85.81 per ton.

Price of Quicklime--From July 1 to July 18, 1977--\$43.90 per ton; from July 19, 1977 to January 18, 1978--\$51.57 per ton; from January 19 to May 1, 1978--\$54.07 per ton; from May 2 to June 30, 1978--\$56.07 per ton.

Price of Chlorine--From July 1 to July 19, 1977--\$220.00 per ton; from July 20, 1977 to June 30, 1978--\$280.00 per ton.

Price of Sodium Silicofluoride--From July 1, 1977 to April 4, 1978--\$275.00 per ton; from April 5 to June 30, 1978--\$300.00 per ton.

TABLE 15

WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1978

	Monthly Averages												Avg. for Year
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
pH													
Raw	5.9	5.9	5.9	6.2	6.3	6.3	6.2	6.0	5.8	6.0	6.1	5.9	6.0
Aerated Influent	4.1	4.3	4.4	4.1	4.1	4.2	4.1	4.1	4.2	4.1	4.2	4.2	4.2
Treated	10.2	10.3	10.3	10.2	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.2	10.3
Settled	10.1	10.1	10.2	10.1	10.2	10.1	10.2	10.2	10.1	10.2	10.1	10.0	10.1
Filtered	10.1	10.1	10.2	10.1	10.2	10.1	10.2	10.2	10.1	10.2	10.1	10.0	10.1
**Effluent	10.1	10.1	10.2	10.1	10.2	10.1	10.2	10.2	10.1	10.2	10.1	10.0	10.1
Tap	10.0	10.0	10.0	10.0	10.1	10.0	10.0	10.1	10.0	10.0	10.0	9.9	10.0
Acidity													
Raw	4.1	5.6	6.6	3.1	1.9	1.6	1.9	2.4	4.7	2.6	2.0	2.6	3.3
Aerated Influent	9.1	8.2	8.3	7.9	8.8	7.3	8.9	9.1	9.4	8.1	6.5	7.2	8.2
Phenolphthalein Alkalinity													
Treated	9.9	10.2	10.5	10.2	9.6	10.1	10.1	9.6	9.5	10.0	9.9	9.1	9.9
Settled	8.4	8.8	9.0	8.9	7.9	8.1	8.5	8.4	7.5	8.2	7.5	7.5	8.2
Filtered	8.4	8.7	9.0	8.9	7.7	8.0	8.3	8.2	7.3	8.0	7.3	7.3	8.1
**Effluent	8.4	8.6	9.0	8.9	7.8	8.0	8.4	8.2	7.3	8.1	7.3	7.3	8.1
Tap	6.6	6.9	7.4	7.3	6.2	6.3	7.0	6.7	5.9	6.5	6.0	5.9	6.6
Methyl Orange Alkalinity													
Raw	3.9	3.6	4.4	4.5	4.4	4.2	4.0	3.9	3.1	3.2	3.2	3.7	3.8
Treated	16.2	17.0	18.0	16.3	15.4	15.9	16.4	16.4	16.1	16.1	15.0	14.9	16.1
Settled	14.5	15.6	16.7	14.9	13.5	13.9	14.6	14.8	14.0	14.1	13.1	13.3	14.4
Filtered	14.4	15.4	16.5	14.9	13.3	13.8	14.3	14.7	13.8	14.4	12.9	13.2	14.3
**Effluent	14.4	15.4	16.5	14.8	13.2	13.8	14.3	14.2	13.9	14.3	12.9	13.2	14.2
Tap	13.4	14.2	15.3	13.8	12.3	12.5	13.1	13.0	12.5	13.2	12.0	12.0	13.1
Color													
Raw	9	8	12	12	11	12	13	15	15	14	13	12	12
Settled	10	10	9	12	13	12	13	14	16	12	13	13	12
**Effluent	3	3	3	3	3	3	4	5	5	5	4	4	4
Tap	3	3	3	3	4	4	4	5	5	5	4	5	4
Turbidity													
Raw	0.1	0.1	0.4	0.4	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3
Settled	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.6	0.6	0.4
**Effluent	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hardness													
Raw	10	10	10	11	11	11	11	10	10	9	9	9	10
**Effluent	30	30	30	30	32	30	30	30	29	28	25	25	29
Tap	30	29	30	30	32	31	31	30	29	28	25	26	29
Iron													
Raw	0.04	0.06	0.24	0.23	0.07	0.05	0.07	0.07	0.11	0.06	0.04	0.04	0.09
Settled	.36	.40	.27	.46	.60	.53	.58	.71	.68	.50	.47	.66	.52
**Effluent	.00	.00	.00	.01	.00	.01	.02	.03	.03	.01	.01	.02	.01
Tap	.01	.02	.01	.02	.02	.02	.03	.04	.04	.02	.02	.02	.02
Manganese													
Raw	0.02	0.03	0.13	0.11	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.03
Settled	.00	.01	.02	.02	.00	.00	.00	.00	.01	.00	.00	.00	.01
**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	0.17	0.17	0.15	0.14	0.16	0.15	0.16	0.15	0.15	0.15	0.16	0.15	0.16
**Effluent	.17	.18	.15	.16	.18	.14	.16	.16	.15	.15	.16	.15	.16
Tap	.98	.99	.97	.94	.97	.94	.97	.95	.99	1.01	.96	.95	.97
Chlorine Residual													
Filtered	0.17	0.19	0.19	0.14	0.17	0.22	0.21	0.20	0.17	0.14	0.14	0.15	0.17
**Effluent	.15	.17	.18	.12	.15	.19	.17	.18	.14	.13	.13	.15	.16
160 Sock. Crossroad, Cran.	.08	.06	.15	.07	.03	.04	.04	.03	.06	.02	.01	.01	.05
Neut. Reservoir	.03	.03	.03	.03	.00	.02	.02	.02	.03	.02	.00	.01	.02
Tap	.03	.04	.08	.05	.02	.02	.03	.03	.05	.01	.00	.01	.03
Temperatures													
Raw	55	56	56	57	51	40	35	35	36	40	48	51	47
Tap	58	61	60	59	58	48	41	38	41	47	58	60	52

*Parts per million, except pH.

**Before treatment with 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, 1978

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Color													
Ponaganset Reservoir	3	12	6	10	4	4	3	8	6	4	3	6	6
Coventry Brook	18	18	92	112	21	15	12	13	22	20	40	23	34
Wilbur Brook	60	56	42	90	45	24	19	22	23	80	45	40	46
Westconnaug Reservoir	8	8	38	32	8	11	9	12	9	6	23	8	14
Barden Reservoir	17	26	6	33	34	22	15	17	13	14	12	22	19
Cork Brook	13	17	24	56	12	12	8	10	12	10	27	12	18
Rush Brook	23	13	29	50	12	8	9	14	12	14	29	29	20
Huntinghouse Brook	12	9	24	48	13	11	8	12	8	13	23	17	17
Harrisdale Brook	9	8	6	30	22	12	8	10	9	16	8	12	13
Blanchard Brook	200	82	110	130	76	36	33	42	32	60	95	150	87
Moswansicut Pond	10	12	11	12	12	12	18	17	17	14	17	18	14
Regulating Reservoir	9	12	8	22	24	14	12	12	12	20	9	22	15
Quonopaug Brook	100	70	65	140	48	27	27	34	42	40	65	90	62
Hemlock Brook	13	9	10	75	45	23	17	26	12	20	55	46	29
Betty Pond Stream	20	18	12	19	13	11	6	23	4	6	9	6	12
Spruce Brook	13	28	32	116	30	23	14	17	22	20	48	28	33
Brandy Brook	35	17	44	100	60	54	38	23	33	38	60	40	45
Moswansicut-South	19	28	29	23	12	10	8	11	8	7	30	34	18
Windsor Brook	12	9	12	46	21	11	8	12	12	12	18	34	17
Paine Pond	**	**	**	60	28	22	12	17	17	20	40	36	28
Unnamed Brook-A	54	32	14	65	22	12	6	13	15	10	40	46	27
Unnamed Brook-B	**	**	**	65	30	17	37	***	24	25	67	**	38
Turbidity													
Ponaganset Reservoir	0.3	0.9	1.3	1.7	0.4	0.2	0.3	0.5	0.3	0.1	0.2	0.4	0.6
Coventry Brook	1.0	.7	.2	.3	.1	.3	.1	.3	.3	.4	.5	.3	.4
Wilbur Brook	1.5	1.5	.5	.6	.1	.4	.2	.3	.4	.3	.4	.4	.6
Westconnaug Reservoir	.2	.3	.3	.2	.1	.2	.2	.4	.2	.4	.4	.2	.3
Barden Reservoir	.5	3.0	.4	.2	.1	.1	.2	.3	.3	.5	.3	.3	.5
Cork Brook	.2	.2	.6	.4	.1	.2	.2	.2	.3	.2	.4	.3	.3
Rush Brook	.9	.7	.5	.3	.1	.1	.3	.5	.3	.4	.2	.6	.4
Huntinghouse Brook	.2	.4	.2	.2	.1	.1	.2	.2	.2	.2	.4	.5	.2
Harrisdale Brook	.2	1.0	.2	.2	.1	.2	.3	.3	.2	1.0	.3	.4	.4
Blanchard Brook	2.0	.5	.1	.2	.1	.4	.2	.3	.2	.5	.5	.6	.5
Moswansicut Pond	.3	.5	.4	.3	.3	.2	.3	.4	.3	.5	.5	.9	.4
Regulating Reservoir	.2	.8	.3	.3	.1	.2	.1	.3	.4	.4	.4	.4	.3
Quonopaug Brook	1.5	1.5	.4	.7	.1	.1	.3	.6	1.4	.2	.3	.7	.7
Hemlock Brook	.3	.3	.2	.2	.1	.1	.2	.2	.3	.2	.7	.5	.3
Betty Pond Stream	.6	.6	.4	.2	.1	.1	.3	.4	.6	.2	.5	.2	.4
Spruce Brook	1.5	7.5	.8	.6	.1	.1	.2	.2	.2	.3	.3	.3	1.0
Brandy Brook	.5	.8	.4	1.7	.7	1.2	.5	.6	.2	.3	3.0	1.0	.9
Moswansicut-South	3.0	3.0	2.4	2.6	.7	.4	.3	.7	.3	.2	.5	1.7	1.3
Windsor Brook	.5	.7	.3	.5	.1	.1	.2	.2	.2	.2	.2	.4	.3
Paine Pond	**	**	**	.7	.2	.2	.3	.7	.4	.5	.7	.6	.5
Unnamed Brook-A	.5	.3	.2	1.0	.3	.2	.4	.4	.3	.3	.4	.4	.4
Unnamed Brook-B	**	**	**	.4	.2	.2	.2	***	.4	.6	.7	**	.4

*Parts per million.

**No sample obtained--Dry.

***No sample obtained--heavy snowstorm.

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, 1979

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Iron													
Ponaganset Reservoir	0.07	0.19	0.14	0.10	0.10	0.06	0.05	0.10	0.04	0.03	0.00	0.07	0.08
Coventry Brook	.09	.24	.28	.15	.05	.07	.04	.03	.03	.06	.05	.01	.09
Wilbur Brook	.40	.20	.30	.26	.21	.10	.07	.09	.05	.07	.15	.25	.18
Westconnaug Reservoir	.08	.16	.08	.06	.07	.06	.06	.10	.03	.10	.06	.30	.10
Barden Reservoir	.23	.10	.09	.08	.13	.09	.07	.09	.06	.10	.03	.50	.13
Cork Brook	.07	.07	.10	.12	.05	.04	.04	.03	.03	.02	.05	.15	.06
Rush Brook	.25	.06	.15	.36	.07	.07	.09	.15	.07	.07	.09	.30	.14
Huntinghouse Brook	.05	.04	.07	.08	.06	.08	.04	.03	.03	.02	.08	.10	.06
Harrisdale Brook	.08	.05	.06	.06	.10	.07	.05	.07	.05	.28	.03	.25	.10
Blanchard Brook	1.44	.50	.15	.35	.25	.18	.14	.13	.04	.25	.36	.03	.32
Moswansicut Pond	.34	.07	.05	.13	.07	.07	.05	.07	.06	.05	.05	.12	.09
Regulating Reservoir	.04	.38	.04	.15	.10	.05	.03	.05	.04	.25	.05	.50	.14
Quonopaug Brook	.74	.30	.08	.48	.15	.13	.15	.14	.08	.08	.18	.15	.22
Hemlock Brook	.14	.14	.04	.12	.17	.09	.13	.10	.04	.02	.24	.20	.12
Betty Pond Stream	.12	.56	.05	.05	.17	.06	.04	.70	.05	.02	.04	.60	.21
Spruce Brook	.22	.92	.08	.34	.03	.13	.02	.05	.04	.01	.12	.50	.21
Brandy Brook	.34	.86	.58	.54	.38	.34	.14	.26	.09	.05	.54	.60	.39
Moswansicut-South	.84	2.12	.54	.56	.49	.90	.15	.27	.17	.15	.32	.25	.56
Windsor Brook	.06	.05	.14	.08	.04	.06	.01	.04	.03	.02	.10	.04	.06
Paine Pond	**	**	**	.20	.10	.10	.06	.14	.09	.06	.34	.67	.20
Unnamed Brook-A	.52	.42	.27	.24	.13	.12	.07	.10	.07	.03	.26	.08	.19
Unnamed Brook-B	**	**	**	.25	.17	.13	.14	***	.08	.09	.35	**	.17
Manganese													
Ponaganset Reservoir	0.08	0.04	0.02	0.06	0.08	0.04	0.04	0.06	0.04	0.02	0.04	0.08	0.05
Coventry Brook	.08	.04	.02	.03	.00	.00	.01	.02	.00	.00	.01	.00	.02
Wilbur Brook	.03	.04	.04	.04	.02	.03	.02	.00	.00	.00	.00	.00	.02
Westconnaug Reservoir	.02	.02	.04	.04	.04	.03	.03	.01	.00	.00	.04	.00	.02
Barden Reservoir	.04	.04	.00	.04	.04	.04	.04	.02	.00	.00	.00	.00	.02
Cork Brook	.01	.02	.04	.06	.02	.02	.02	.00	.00	.00	.04	.02	.02
Rush Brook	.14	.06	.12	.06	.02	.02	.04	.00	.00	.00	.06	.04	.05
Huntinghouse Brook	.02	.06	.04	.04	.02	.00	.04	.00	.00	.00	.02	.02	.02
Harrisdale Brook	.02	.02	.02	.00	.02	.00	.00	.02	.00	.00	.02	.00	.01
Blanchard Brook	.02	.00	.02	.01	.01	.02	.00	.00	.00	.00	.02	.02	.01
Moswansicut Pond	.00	.08	.04	.01	.01	.02	.02	.02	.00	.02	.01	.04	.02
Regulating Reservoir	.18	.00	.01	.00	.00	.00	.00	.01	.00	.00	.01	.00	.02
Quonopaug Brook	.02	.04	.04	.02	.02	.02	.00	.02	.01	.00	.00	.03	.02
Hemlock Brook	.00	.00	.01	.05	.02	.03	.04	.00	.00	.00	.04	.01	.02
Betty Pond Stream	.01	.00	.00	.00	.01	.00	.01	.02	.00	.00	.00	.00	.00
Spruce Brook	.14	.08	.04	.03	.02	.02	.00	.02	.00	.00	.01	.00	.03
Brandy Brook	.02	.00	.04	.02	.04	.04	.01	.06	.02	.00	.05	.02	.03
Moswansicut-South	.10	.04	.04	.04	.01	.04	.03	.01	.04	.00	.00	.04	.03
Windsor Brook	.02	.00	.05	.06	.02	.03	.02	.02	.01	.02	.03	.00	.02
Paine Pond	**	**	**	.04	.02	.03	.03	.04	.01	.02	.01	.04	.03
Unnamed Brook-A	.04	.04	.04	.03	.06	.04	.06	.04	.04	.02	.13	.06	.05
Unnamed Brook-B	**	**	**	.02	.02	.03	.04	***	.06	.01	.01	**	.03

*Parts per million.

**No sample obtained--Dry.

***No sample obtained-heavy snowstorm.

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, 1978

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Ponaganset Reservoir	5.2	5.2	5.1	4.7	5.1	4.4	5.0	4.6	4.7	5.0	4.9	4.9	4.9
Coventry Brook	6.7	6.4	5.4	5.5	5.5	5.7	6.2	5.7	5.8	5.9	5.8	6.1	5.9
Wilbur Brook	7.0	6.2	5.9	5.0	5.8	5.5	5.8	5.4	5.6	6.1	6.1	6.1	5.9
Westconnaug Reservoir	6.9	7.4	6.4	5.4	6.2	5.5	5.9	5.9	5.9	6.4	6.2	6.5	6.2
Barden Reservoir	6.4	6.2	6.4	5.3	5.7	5.0	5.4	5.5	5.7	5.9	6.0	6.0	5.8
Cork Brook	6.4	6.3	5.7	4.7	6.1	5.4	5.9	5.7	5.7	6.0	6.0	6.2	5.8
Rush Brook	6.2	6.4	6.4	5.2	6.3	5.7	6.3	6.3	6.4	7.0	6.5	6.5	6.3
Huntinghouse Brook	6.5	6.4	6.6	5.0	6.5	5.8	6.1	6.0	6.2	7.0	6.5	6.4	6.3
Harrisdale Brook	6.6	6.5	6.8	5.7	6.6	6.1	6.3	6.1	6.1	6.9	6.7	6.5	6.4
Blanchard Brook	5.9	5.7	5.5	4.9	5.6	5.4	5.8	5.4	6.2	7.0	6.8	6.0	5.9
Moswansicut Pond	6.5	6.8	6.9	6.3	6.8	6.5	6.4	6.3	6.2	6.3	6.8	6.8	6.6
Regulating Reservoir	6.8	6.8	6.6	5.9	6.5	6.5	6.3	5.8	6.0	7.1	6.9	6.8	6.5
Quonopaug Brook	6.3	6.2	5.5	4.7	5.9	5.1	5.6	5.4	5.4	6.3	6.0	6.1	5.7
Hemlock Brook	6.2	6.3	6.1	4.6	5.7	4.9	5.6	5.3	6.0	6.4	5.5	6.0	5.7
Betty Pond Stream	5.8	5.8	6.0	5.4	6.2	5.4	5.8	5.4	5.6	6.4	6.0	5.8	5.8
Spruce Brook	5.9	6.3	5.9	4.9	6.1	5.6	5.8	5.5	5.8	6.1	6.0	5.9	5.8
Brandy Brook	6.7	6.8	6.5	5.7	6.8	6.6	6.5	6.5	9.4	9.6	6.9	6.8	7.1
Moswansicut-South	6.8	6.7	6.6	6.0	6.9	7.0	6.7	6.3	6.6	6.4	9.5	6.6	6.8
Windsor Brook	6.6	6.8	6.3	4.9	6.1	5.4	6.0	6.0	5.9	6.6	6.4	6.3	6.1
Paine Pond	**	**	**	5.4	6.0	5.4	5.5	5.6	5.7	6.3	6.7	6.0	5.8
Unnamed Brook-A	5.5	5.1	4.9	4.9	5.5	4.7	5.2	4.9	5.5	6.0	6.5	5.3	5.3
Unnamed Brook-B	**	**	**	6.2	6.6	6.3	6.4	***	6.4	6.6	6.6	**	6.4
Acidity													
Ponaganset Reservoir	2.0	1.5	2.5	3.0	2.0	3.5	4.0	8.0	4.0	4.0	2.0	3.0	3.3
Coventry Brook	2.5	4.0	13.5	8.0	2.0	4.5	7.0	4.0	2.5	5.0	3.0	1.5	4.8
Wilbur Brook	6.5	7.0	8.0	12.5	3.5	4.5	10.0	9.0	2.5	4.0	4.0	1.0	6.0
Westconnaug Reservoir	2.5	3.0	5.5	4.5	2.0	3.5	3.5	3.5	4.0	3.0	1.5	1.0	3.1
Barden Reservoir	4.0	5.0	2.5	4.5	3.5	5.0	4.0	3.5	2.0	4.0	2.0	2.0	3.5
Cork Brook	2.0	3.0	8.0	9.0	2.0	2.5	3.5	3.5	2.5	3.5	3.0	1.0	3.6
Rush Brook	9.0	7.0	6.0	7.0	3.5	5.0	4.5	2.5	1.0	3.5	1.5	1.0	4.3
Huntinghouse Brook	8.5	3.0	5.0	8.5	2.0	3.5	3.0	4.0	2.0	3.0	2.0	1.0	3.8
Harrisdale Brook	6.0	11.0	4.5	6.5	5.0	4.5	3.5	5.0	4.5	3.0	1.0	1.5	4.7
Blanchard Brook	14.5	13.0	13.0	12.5	6.0	5.0	3.0	11.5	1.5	3.0	1.0	3.5	7.3
Moswansicut Pond	3.0	2.5	2.5	2.0	2.5	1.5	2.5	3.0	4.0	2.5	1.0	2.0	2.4
Regulating Reservoir	2.0	3.0	3.0	3.0	2.0	2.0	1.5	6.5	2.5	2.5	0.5	1.0	2.5
Quonopaug Brook	12.5	8.5	3.5	14.5	3.0	9.5	7.5	11.0	4.5	6.0	5.0	1.0	7.2
Hemlock Brook	2.5	2.5	1.5	12.5	4.0	4.0	4.5	4.0	1.0	4.0	3.0	1.5	3.8
Betty Pond Stream	9.0	6.5	3.5	6.5	2.0	8.5	3.5	21.0	6.0	4.5	2.0	2.0	6.3
Spruce Brook	4.0	4.5	3.0	12.0	3.0	3.0	4.0	4.0	2.0	4.0	1.5	1.0	3.8
Brandy Brook	3.0	3.5	3.0	10.0	3.5	2.5	3.0	3.0	0.0	0.0	4.0	1.0	3.0
Moswansicut-South	4.0	8.0	3.0	8.5	2.5	2.0	3.5	6.0	1.5	3.0	0.0	1.0	3.6
Windsor Brook	3.5	3.0	2.5	9.0	2.0	3.0	4.5	4.0	1.5	2.5	3.0	3.0	3.5
Paine Pond	**	**	**	8.0	6.0	10.5	7.5	15.5	10.0	4.0	4.5	6.0	8.0
Unnamed Brook-A	3.0	6.0	3.5	15.0	3.0	4.5	4.0	4.5	3.0	3.5	1.5	5.5	4.8
Unnamed Brook-B	**	**	**	7.0	7.0	6.0	4.0	***	5.0	4.0	4.0	**	5.3

*Parts per million, except pH.

**No sample obtained--Dry.

***No sample obtained--heavy snowstorm.

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, 1978

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. fo Year
Alkalinity													
Ponaganset Reservoir	3.0	3.0	2.5	3.0	2.5	1.5	2.0	3.0	1.5	1.5	1.0	2.0	2.2
Coventry Brook	5.5	6.0	3.5	4.0	4.0	3.5	4.0	4.5	3.5	3.0	3.0	5.0	4.1
Wilbur Brook	7.5	8.0	5.5	4.5	4.5	3.5	4.5	4.5	3.5	4.0	4.5	7.0	5.1
Westconnaug Reservoir	6.5	7.0	6.0	3.0	4.5	3.0	4.0	5.5	3.0	3.0	3.5	6.0	4.6
Barden Reservoir	7.5	5.5	4.5	2.5	4.0	3.0	3.5	5.0	3.0	2.5	3.0	4.5	4.0
Cork Brook	5.0	5.0	4.0	2.0	3.5	3.0	4.0	5.0	3.0	3.0	4.0	5.0	3.9
Rush Brook	9.5	11.0	7.5	3.0	6.0	3.0	5.5	7.5	4.0	6.0	6.0	11.0	6.7
Huntinghouse Brook	12.0	9.0	8.0	2.0	5.0	4.5	4.5	8.0	4.5	4.5	5.5	9.5	6.4
Harrisdale Brook	14.5	15.0	13.0	7.5	7.5	4.0	6.0	8.5	5.5	6.0	8.0	9.0	8.7
Blanchard Brook	6.0	5.5	4.5	4.5	4.5	6.5	5.0	6.5	4.5	4.0	5.5	8.5	5.5
Moswansicut Pond	5.5	7.5	7.0	7.0	7.5	5.5	6.5	6.0	6.0	6.0	6.0	7.0	6.5
Regulating Reservoir	9.5	10.0	9.0	6.5	6.0	6.0	5.0	6.5	5.0	4.5	5.5	9.5	6.9
Quonopaug Brook	14.0	9.0	4.5	3.5	5.0	4.0	4.5	4.5	4.0	4.0	5.5	9.0	6.0
Hemlock Brook	7.0	4.0	4.0	3.0	3.5	3.0	3.0	4.0	3.0	2.5	3.0	4.5	3.7
Betty Pond Stream	5.0	4.5	4.5	5.0	5.0	6.0	4.0	6.0	4.5	3.5	3.0	4.0	4.6
Spruce Brook	3.0	7.0	4.0	3.5	3.0	4.5	3.5	4.5	2.5	3.0	3.0	5.0	3.9
Brandy Brook	11.5	11.5	8.0	7.5	8.0	7.5	7.5	8.0	16.0	6.5	7.0	12.0	9.3
Moswansicut-South	20.5	19.0	11.0	13.5	11.5	11.5	10.0	6.5	10.0	8.0	10.5	14.5	12.2
Windsor Brook	6.5	5.0	4.0	2.5	4.0	2.5	4.0	4.0	3.0	3.0	3.0	5.0	3.9
Paine Pond	**	**	**	4.0	5.0	4.5	5.0	7.0	4.5	4.0	6.0	6.0	5.1
Unnamed Brook-A	3.0	2.5	2.0	4.0	3.5	2.0	3.0	3.5	3.0	2.0	4.0	3.0	3.0
Unnamed Brook-B	**	**	**	11.0	12.5	9.5	7.0	**	8.0	8.5	11.0	**	9.6

*Parts per million

**No sample obtained--Dry.

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

TABLE 17

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1978

	Monthly Averages													Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year	
pH														
Neutaconkanut Reservoir	9.9	10.0	10.0	10.0	10.0	10.4	10.0	10.1	10.0	10.0	10.0	9.9	10.0	
160 Sock.Crossroad,Cranston	10.0	10.1	10.1	10.1	10.1	10.5	10.0	10.1	10.0	10.1	10.0	10.0	10.1	
630 Atwells Ave.	9.9	10.0	10.1	10.0	10.0	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
1384 Cranston St.,Cranston	9.9	10.0	10.1	10.0	10.0	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
750 Reservoir Ave.,Cranston	9.9	10.0	10.1	10.0	10.1	10.0	10.1	10.1	10.0	10.1	10.0	9.9	10.0	
1520 Atwood Ave.,Johnston	9.9	10.0	10.1	10.1	10.1	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
774 Allens Ave.	9.9	10.0	10.1	10.1	10.1	10.0	10.1	10.1	10.0	10.1	10.0	9.9	10.0	
Dexter Manor	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
State Office Building	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
426 Admiral St.	9.9	10.0	10.0	10.0	10.0	9.5	10.0	10.1	10.0	10.0	10.0	9.9	10.0	
238 Brook St.	9.9	10.0	10.0	10.0	10.1	10.0	10.0	10.1	10.0	10.1	10.0	9.9	10.0	
Phenolphthalein Alkalinity														
Neutaconkanut Reservoir	6.6	6.4	7.2	6.9	6.0	6.1	6.6	6.4	5.8	6.1	5.8	5.7	6.3	
160 Sock.Crossroad,Cranston	7.3	8.0	8.2	8.1	6.4	6.5	7.1	6.7	6.1	6.8	6.3	6.4	7.0	
630 Atwells Ave.	6.7	7.0	7.4	7.3	6.1	6.3	7.0	6.7	6.0	6.5	5.9	5.9	6.6	
1384 Cranston St.,Cranston	6.6	6.9	7.4	7.3	6.2	6.3	7.0	6.8	6.0	6.6	6.0	5.9	6.6	
750 Reservoir Ave.,Cranston	6.6	7.0	7.5	7.3	6.2	6.3	7.1	6.8	6.0	6.7	6.0	5.7	6.6	
1520 Atwood Ave.,Johnston	6.5	6.9	7.6	7.5	6.4	6.4	7.0	6.8	6.0	6.5	6.0	5.9	6.6	
774 Allens Ave.	6.7	7.3	7.7	7.7	6.5	6.6	7.2	7.0	6.1	6.8	6.1	6.1	6.8	
Dexter Manor	6.6	6.9	7.5	7.4	6.2	6.4	7.1	6.9	6.1	6.6	6.0	5.9	6.6	
State Office Building	6.6	6.9	7.4	7.4	6.1	6.3	7.0	6.9	6.0	6.6	6.0	5.8	6.6	
426 Admiral St.	6.5	6.8	7.5	7.3	6.2	6.5	7.0	6.9	6.2	6.5	6.0	6.0	6.6	
238 Brook St.	6.6	6.9	7.6	7.4	6.3	6.5	7.2	7.0	6.2	6.8	6.0	6.0	6.7	
Methyl Orange Alkalinity														
Neutaconkanut Reservoir	13.6	13.9	15.2	14.6	11.8	12.5	13.1	12.8	12.3	12.9	12.1	12.6	13.1	
160 Sock.Crossroad,Cranston	14.1	15.4	16.2	14.8	12.0	12.6	13.3	13.0	12.7	13.5	12.6	12.8	13.6	
630 Atwells Ave.	13.4	14.3	15.3	13.8	11.6	12.4	13.2	13.1	12.6	13.1	12.0	12.0	13.1	
1384 Cranston St.,Cranston	13.4	14.3	15.4	13.7	11.7	12.4	13.2	13.1	12.5	13.2	12.1	12.1	13.1	
750 Reservoir Ave.,Cranston	13.3	14.4	15.3	13.7	11.7	12.5	13.2	13.1	12.5	13.3	11.9	12.0	13.1	
1520 Atwood Ave.,Johnston	13.3	14.2	15.5	14.2	11.9	12.7	13.2	13.2	12.6	13.2	12.1	12.1	13.2	
774 Allens Ave.	13.6	14.6	15.6	14.3	11.9	12.7	13.2	13.3	12.7	13.4	12.2	12.3	13.3	
Dexter Manor	13.5	14.2	15.4	13.9	11.7	12.6	13.3	13.2	12.6	13.3	12.1	12.1	13.2	
State Office Building	13.4	14.2	15.3	13.9	11.6	12.4	13.1	13.1	12.5	13.2	12.0	12.0	13.1	
426 Admiral St.	13.3	14.2	15.3	13.9	11.7	12.5	13.2	13.1	12.5	13.2	12.1	12.1	13.1	
238 Brook St.	13.4	14.3	15.6	14.1	11.9	12.6	13.2	13.2	12.7	13.4	12.1	12.2	13.2	
Color														
Neutaconkanut Reservoir	3	3	3	3	3	4	4	4	5	5	3	5	4	
160 Sock.Crossroad,Cranston	3	3	4	3	4	4	4	5	5	5	3	5	4	
630 Atwells Ave.	3	3	3	3	3	3	4	5	5	5	3	5	4	
1384 Cranston St.,Cranston	3	3	3	3	3	3	4	4	5	5	3	5	4	
750 Reservoir Ave.,Cranston	3	3	3	3	3	3	4	5	5	5	3	5	4	
1520 Atwood Ave.,Johnston	3	3	3	3	3	3	4	5	5	5	3	5	4	
774 Allens Ave.	3	3	3	3	4	3	4	5	5	5	3	5	4	
Dexter Manor	3	3	3	3	3	4	4	5	5	5	3	5	4	
State Office Building	3	3	3	3	3	3	4	5	5	5	3	5	4	
426 Admiral St.	3	3	3	3	3	4	4	5	5	5	3	5	4	
238 Brook St.	4	4	5	4	4	4	4	5	5	5	5	5	5	
Iron														
Neutaconkanut Reservoir	0.01	0.02	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	
160 Sock.Crossroad,Cranston	.02	.03	.02	.03	.02	.02	.04	.05	.04	.03	.03	.03	.03	
630 Atwells Ave.	.02	.02	.01	.02	.01	.02	.03	.05	.03	.02	.02	.02	.02	
1384 Cranston St.,Cranston	.01	.02	.01	.01	.01	.01	.03	.04	.03	.01	.01	.02	.02	
750 Reservoir Ave.,Cranston	.01	.01	.01	.01	.01	.01	.04	.06	.04	.02	.02	.02	.02	
1520 Atwood Ave.,Johnston	.01	.02	.01	.01	.01	.02	.03	.04	.03	.02	.02	.02	.02	
774 Allens Ave.	.02	.02	.01	.02	.02	.02	.03	.05	.04	.02	.03	.03	.03	
Dexter Manor	.02	.02	.01	.02	.02	.02	.03	.05	.04	.02	.02	.03	.03	
State Office Building	.02	.02	.02	.02	.02	.02	.03	.04	.04	.02	.02	.03	.03	
426 Admiral St.	.02	.02	.02	.03	.02	.02	.03	.03	.03	.03	.02	.03	.03	
238 Brook St.	.04	.04	.05	.04	.04	.04	.04	.07	.05	.04	.04	.04	.04	

TABLE 17 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1978

	Monthly Averages												Avg. for
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
Chlorides													
Neutaconkanut Reservoir	13.9	13.9	14.0	14.1	13.9	14.1	13.9	13.5	13.5	13.0	12.8	13.0	13.6
160 Sock.Crossroad,Cranston	13.9	13.9	14.0	14.1	14.0	14.1	13.9	13.5	13.5	12.9	12.9	13.0	13.6
630 Atwells Ave.	14.0	13.9	14.0	14.2	13.9	14.1	13.8	13.5	13.5	13.0	12.8	13.0	13.6
1384 Cranston St.,Cranston	13.9	13.9	13.9	14.2	14.0	14.2	13.8	13.5	13.5	13.0	12.9	13.0	13.7
750 Reservoir Ave.,Cranston	14.0	13.9	13.9	14.2	14.0	14.2	13.8	13.5	13.5	12.9	12.9	13.0	13.7
1520 Atwood Ave.,Johnston	14.0	13.9	14.0	14.2	14.0	14.2	13.8	13.5	13.5	13.0	12.9	13.0	13.7
774 Allens Ave.	14.0	14.0	14.0	14.2	14.0	14.1	13.7	13.5	13.5	13.0	12.9	13.0	13.7
Dexter Manor	14.0	14.0	14.0	14.2	14.0	14.1	13.8	13.5	13.5	13.1	12.8	13.0	13.7
State Office Building	13.9	14.0	14.0	14.2	14.0	14.1	13.7	13.5	13.5	13.1	12.8	13.0	13.7
426 Admiral St.	13.9	13.9	14.0	14.2	14.0	14.2	13.8	13.5	13.5	13.1	12.9	13.0	13.7
238 Brook St.	13.9	13.9	14.0	14.2	13.9	14.2	13.8	13.5	13.5	13.1	12.8	13.0	13.7
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	.001	.001	.001	.001	.001	.001	.001	.001	.001
426 Admiral St.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
238 Brook St.	.001	.001	.001	.001	.001	.000	.001	.001	.001	.001	.001	.001	.001
Taste													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,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	0.99	0.97	0.97	0.97	0.97	0.91	0.95	0.92	0.98	0.94	0.96	0.96	0.96
160 Sock.Crossroad,Cranston	.91	.98	.98	.96	1.00	.95	1.01	.98	1.02	1.04	.99	.98	.98
630 Atwells Ave.	1.01	.99	.97	.90	.98	.92	.97	.96	.99	1.03	.97	.89	.97
1384 Cranston St.,Cranston	1.01	1.00	.98	.99	1.01	.95	1.02	.99	1.04	1.06	1.00	.95	1.00
750 Reservoir Ave.,Cranston	1.01	1.00	.99	.95	.99	.96	1.01	.99	1.04	1.05	1.00	.96	1.00
1520 Atwood Ave.,Johnston	1.03	.99	.99	.93	.97	.90	.97	.97	1.00	1.00	.98	.99	.98
774 Allens Ave.	.99	.98	.99	.93	.98	.94	1.01	.99	1.03	1.04	.97	.97	.99
Dexter Manor	1.00	.98	.98	.94	.99	.95	.99	.98	1.01	1.02	.96	.98	.98
State Office Building	1.00	.98	.97	.93	1.00	.92	.98	.98	.99	.99	.96	.97	.97
426 Admiral St.	1.01	.99	.98	.95	.99	.94	.99	.97	1.00	1.00	.96	.97	.98
238 Brook St.	.99	.99	.98	.93	.97	.94	.98	.97	1.01	1.02	.98	.97	.98

TABLE 18

WATER PURIFICATION WORKS

BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION

YEAR ENDED JUNE 30, 1978

1977-1978	Bacteria per ML. (48 Hours on Agar at 20°C.)																	
	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	33	6	15	20	3	9	36	0	4	15	0	1	1	0	0	1	0	0
August	74	3	27	72	1	23	720	0	177	3	0	0	2	0	0	0	0	0
September	77	13	39	88	13	36	300	0	38	12	0	0	2	0	0	34	0	2
October	210	24	61	215	3	55	540	0	51	42	0	4	11	0	1	50	0	4
November	190	21	57	190	3	47	41	0	4	46	0	3	1	0	0	2	0	0
December	160	6	35	58	3	24	420	0	71	235	0	56	138	0	43	9	0	1
January	254	8	57	94	2	47	240	0	44	340	0	52	290	0	59	1	0	0
February	97	14	45	148	10	68	150	0	23	92	0	9	116	0	18	1	0	0
March	77	10	34	82	7	29	91	0	6	300	0	20	16	0	6	2	0	0
April	250	47	147	270	49	140	180	0	37	67	0	21	65	0	10	6	0	1
May	300	0	152	170	24	114	275	0	22	20	0	3	15	0	2	4	0	1
June	300	7	83	260	21	82	64	0	8	11	0	1	4	0	0	3	0	0
For Year	300	0	63	270	1	56	720	0	40	340	0	14	290	0	12	50	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, 1978

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

1977-1978	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	6	0	2	6	0	2	54	0	3	1	0	0	0	0	0	32	0	2
August	17	0	5	23	0	6	420	0	19	0	0	0	1	0	0	1	0	0
September	23	3	11	24	2	10	72	0	4	2	0	0	18	0	1	95	0	5
October	200	1	21	28	0	10	20	0	2	1	0	0	0	0	0	12	0	2
November	26	1	8	15	0	6	4	0	0	1	0	0	6	0	1	1	0	0
December	10	0	4	10	0	3	60	0	5	0	0	0	1	0	0	1	0	0
January	25	2	10	85	0	11	7	0	1	2	0	0	0	0	0	1	0	0
February	82	3	12	15	0	8	120	0	9	0	0	0	21	0	1	1	0	0
March	22	1	10	23	0	12	5	0	1	0	0	0	1	0	0	1	0	0
April	15	4	7	15	2	9	6	0	1	1	0	0	1	0	0	17	0	1
May	20	0	7	9	0	4	230	0	11	16	0	1	1	0	0	1	0	0
June	15	1	7	28	0	7	24	0	2	1	0	0	1	0	0	1	0	0
For Year	200	0	9	85	0	7	420	0	5	16	0	0	21	0	0	95	0	1

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, 1978

COLIFORM BACTERIA

	R	A	W	----	A.	M.	Settled	Effluent A.M.	Effluent P.M.	*Tap
	No. of Portions Positive Per No. Tested				Geometric Mean MPN Per 100 ml.	M E M B R A N E F I L T E R M E T H O D				
						Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	
1977- 1978	10 ml.	1.0 ml.	0.1 ml.							
July	0/75	0/75	0/75	Δ	3.0	0/2,500	0/2,500	0/2,000	0/24,800	
August	3/78	0/78	0/78	Δ	3.1	0/2,600	0/2,600	0/2,200	3/27,200	
September	14/75	0/75	0/75	Δ	3.8	0/2,500	1/2,500	1/2,100	1/25,700	
October	63/75	11/75	1/75	Δ	20.3	0/2,500	0/2,500	1/2,000	2/24,500	
November	69/72	25/72	9/72	Δ	54.0	0/2,400	0/2,400	0/2,000	2/24,400	
December	67/78	14/78	4/78		23.3	0/2,600	0/2,600	3/1,900	11/24,400	
January	57/75	8/75	4/75		16.7	0/2,500	1/2,500	0/2,000	1/24,300	
February	35/72	6/72	1/72	Δ	7.9	0/2,400	0/2,100	0/1,900	36/19,400	
March	24/81	5/81	0/81	Δ	6.4	0/2,700	0/2,700	0/2,200	1/27,100	
April	18/75	2/75	0/75	Δ	4.2	0/2,500	0/2,500	0/2,000	0/24,500	
May	17/75	1/75	0/75	Δ	4.4	0/2,500	0/2,500	1/2,100	0/25,600	
June	23/78	5/78	0/78	Δ	4.9	2/2,600	0/2,600	0/2,200	0/25,600	
For Year	390/909	77/909	19/909		7.9	2/30,300	2/30,000	6/24,600	57/297,500	

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 57 positives, 8 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, 1978

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Bacteria per ml. 48 Hours on Agar at 20° C.												
Ponaganset Reservoir	120	540	500	900	55	11	140	280	250	23	TNTC	460
Coventry Brook	650	480	4,200	1,800	132	149	100	73	140	120	530	530
Wilbur Brook	480	420	2,100	5,400	600	780	130	88	360	330	110	TNTC
Westconnaug Reservoir	300	660	2,400	1,800	222	163	160	140	170	230	320	340
Barden Reservoir	420	540	420	1,800	200	960	430	95	540	49	120	130
Cork Brook	420	420	3,600	900	480	301	130	150	230	200	TNTC	330
Rush Brook	540	430	4,200	3,600	600	660	260	210	430	320	120	TNTC
Huntinghouse Brook	600	540	3,600	2,400	540	900	230	210	420	240	TNTC	TNTC
Harrisdale Brook	420	360	660	1,500	500	480	320	240	540	TNTC	530	460
Blanchard Brook	600	1,200	1,800	1,500	66	360	130	130	310	250	TNTC	TNTC
Moswansicut Pond	840	240	1,200	780	66	152	48	75	300	120	580	TNTC
Regulating Reservoir	360	102	1,020	128	80	780	630	130	TNTC	49	320	330
Quonopaug Brook	420	600	660	2,100	230	240	210	140	420	190	TNTC	TNTC
Hemlock Brook	84	180	900	3,700	150	129	TNTC	230	480	270	TNTC	TNTC
Betty Pond Stream	1,040	480	840	1,860	200	3,000	190	260	540	210	TNTC	650
Spruce Brook	1,080	900	1,800	1,700	390	360	140	140	250	70	380	610
Brandy Brook	600	600	1,200	3,600	1,000	360	250	TNTC	TNTC	300	TNTC	TNTC
Moswansicut-South	840	900	2,700	2,900	800	134	840	410	TNTC	550	TNTC	TNTC
Windsor Brook	360	360	3,000	1,800	390	74	220	130	410	120	TNTC	480
Paine Pond	*	*	*	1,800	1,000	480	260	*	480	TNTC	910	260
Unnamed Brook-A	300	360	2,400	3,000	83	202	170	190	420	180	TNTC	TNTC
Unnamed Brook-B	*	*	*	3,000	120	780	210	210	360	360	TNTC	*
Bacteria per ml. 24 Hours on Agar at 35° C.												
Ponaganset Reservoir	121	480	360	149	6	8	2	8	4	5	89	150
Coventry Brook	600	660	1,800	970	27	17	13	11	15	20	70	280
Wilbur Brook	360	540	2,400	600	29	63	33	35	47	47	350	420
Westconnaug Reservoir	300	900	900	960	76	43	15	6	21	22	170	200
Barden Reservoir	420	600	184	95	19	69	74	9	27	13	4	27
Cork Brook	240	272	540	780	38	37	65	21	19	20	90	120
Rush Brook	540	660	840	1,200	78	101	12	38	22	31	140	470
Huntinghouse Brook	480	480	720	420	27	44	23	17	22	23	220	340
Harrisdale Brook	360	360	360	1,100	25	41	44	24	31	18	85	220
Blanchard Brook	600	1,260	1,500	480	72	53	28	40	37	38	330	TNTC
Moswansicut Pond	540	600	480	45	18	13	20	17	27	23	41	360
Regulating Reservoir	420	192	540	37	19	135	54	13	33	15	100	150
Quonopaug Brook	600	780	540	600	23	34	13	33	30	27	140	470
Hemlock Brook	59	96	360	720	21	39	18	22	17	34	160	450
Betty Pond Stream	300	360	600	1,900	34	86	25	8	13	17	TNTC	270
Spruce Brook	360	540	1,200	600	40	41	20	20	19	15	150	370
Brandy Brook	540	600	420	1,900	420	235	220	54	63	97	250	470
Moswansicut-South	200	1,200	720	1,200	360	99	80	51	43	65	420	TNTC
Windsor Brook	420	420	780	600	78	18	55	16	10	21	160	230
Paine Pond	*	*	*	660	120	66	20	*	24	122	380	100
Unnamed Brook-A	300	420	900	660	21	32	11	16	21	35	180	370
Unnamed Brook-B	*	*	*	720	48	89	58	40	18	46	390	*

*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, 1978

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Coliform Bacterial Index per 100 ml.												
Ponaganset Reservoir	25	700	130	700	-5	-5	0	6	6	130	250	25
Coventry Brook	1,100+	1,100+	1,100+	2,500	25	60	13	60	60	25	250	250
Wilbur Brook	1,100+	1,100+	1,100+	600	250	60	13	250	250	25	700	700
Westconnaug Reservoir	700	700	1,100+	1,100+	25	25	6	200	60	60	1,100+	250
Barden Reservoir	130	25	1,100+	700	60	200	60	60	25	6	130	13
Cork Brook	250	700	1,100+	1,100+	25	25	25	130	130	25	1,100+	50
Rush Brook	250	700	1,100+	1,100+	250	250	25	250	250	60	700	700
Huntinghouse Brook	250	1,100+	1,100+	1,100+	700	130	250	50	60	25	700	250
Harrisdale Brook	250	700	60	1,100+	25	250	25	250	250	6	60	60
Blanchard Brook	700	1,100+	1,100+	2,500	25	60	60	25	25	60	1,100+	250
Moswansicut Pond	240	1,100	2,400+	240	43	7	-3	-3	9	4	240	150
Regulating Reservoir	250	25	200	700	6	60	13	25	250	0	25	0
Quonopaug Brook	1,100+	1,100+	1,100+	6,000	20	25	25	25	50	25	700	250
Hemlock Brook	60	25	700	1,100+	60	25	6	130	13	25	250	250
Betty Pond Stream	250	250	25	60	-5	25	6	60	25	0	60	0
Spruce Brook	700	1,100+	1,100+	2,500	60	250	25	50	250	5	60	130
Brandy Brook	1,100+	700	1,100+	250	700	200	130	250	250	13	250	60
Moswansicut-South	1,100+	1,100+	1,100+	7,000	700	250	25	700	25	5	1,100+	1,100+
Windsor Brook	1,100+	1,100+	1,100+	7,000	1,100+	700	7,000	60	25	60	250	60
Paine Pond	*	*	*	1,100	210	93	21	*	93	7	450	9
Unnamed Brook-A	250	700	1,100+	7,000	25	13	5	13	6	13	60	75
Unnamed Brook-B	*	*	*	2,400+	240	43	43	460	43	15	1,100+	*

*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, 1978

Monthly Averages	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Bacteria per ml. 48 Hours on Agar at 20°C.													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	1	5	0	1	1
160 Sock. Crossroad, Cran.	0	0	0	0	0	0	0	1	0	1	1	1	0
630 Atwells Ave.	0	0	0	0	0	1	0	0	1	3	1	0	1
1384 Cranston St., Cranston	0	0	0	0	0	0	0	0	0	1	1	0	0
750 Reservoir Ave., Cranston	0	0	0	0	0	0	0	0	1	2	1	0	0
1520 Atwood Ave., Johnston	0	0	0	0	0	1	0	0	0	1	0	0	0
774 Allens Ave.	0	0	0	0	0	0	1	0	0	2	1	0	0
Dexter Manor	0	0	0	1	0	0	0	0	1	3	1	0	1
State Office Building	0	0	0	0	0	1	0	0	1	1	1	1	0
426 Admiral St.	0	0	0	0	0	1	1	0	1	3	1	0	1
238 Brook St.	0	0	0	0	0	1	1	0	0	3	1	0	1
Bacteria per ml. 24 Hours on Agar at 35°C.													
Neutaconkanut Reservoir	0	0	0	8	0	0	0	0	0	0	0	0	1
160 Sock. Crossroad, Cran.	0	0	0	1	1	0	0	1	0	0	0	0	0
630 Atwells Ave.	0	0	0	7	0	0	0	0	0	0	0	0	1
1384 Cranston St., Cranston	0	0	0	0	0	0	0	1	1	0	0	0	0
750 Reservoir Ave., Cranston	0	0	0	0	0	0	0	4	0	0	0	6	1
1520 Atwood Ave., Johnston	0	0	0	0	1	1	0	0	0	0	0	1	0
774 Allens Ave.	0	0	0	0	0	0	0	0	1	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	1	0	0	0	0	1	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	1	0	0	0	0	1	0	0	0
Coliform colonies per 100 ml.													
Neutaconkanut Reservoir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160 Sock. Crossroad, Cran.	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
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	.05	.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
774 Allens Ave.	.00	.00	.00	.00	.05	.41	.00	.00	.00	.00	.00	.00	.04
Dexter Manor	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
State Office Building	.00	.00	.05	.00	.00	.05	.00	.00	.00	.00	.00	.00	.01
426 Admiral St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
238 Brook St.	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.01

TABLE 23
WATER PURIFICATION WORKS
MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1978

Parts per Million	*R A W W A T E R					T A P W A T E R				
	1977		1978		Avg.	1977		1978		Avg.
	July- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- June		July- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- June	
Aluminum	----	----	0.02	0.01	0.02	----	----	0.02	0.01	0.02
Arsenic	----	----		0.00	0.00	----	----		0.00	0.00
Calcium	----	----	3.04	2.60	2.82	----	----	10.73	9.00	9.87
Chloride	13.0	13.2	12.3	12.0	12.6	14.0	14.0	13.3	12.8	13.5
Copper	----	----	0.02	0.02	0.02	----	----	0.01	0.01	0.01
Fluoride	0.16	0.15	0.15	0.15	0.15	0.98	0.95	0.97	0.97	0.97
Hardness	10	11	10	9	10	30	31	30	26	29
Iron	0.11	0.12	0.08	0.05	0.09	0.01	0.02	0.04	0.02	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	0.80	0.69	----	----	0.78	0.86	0.82
Manganese	0.06	0.05	0.02	0.01	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	0.00	0.00
Silica	----	----	2.0	2.0	2.0	----	----	3.0	3.0	3.0
Sulfate	----	----	7.3	3.0	5.2	----	----	15.0	11.0	13.0
Total Solids	----	57	52	45	51	----	62	67	63	64
Loss on Ignition	----	12	13	24	16	----	13	16	20	16
Total Alkalinity	4.0	4.4	3.7	3.4	3.9	14.3	12.9	12.9	12.4	13.1
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	7.0	6.6	6.5	6.1	6.6
Zinc	----	----		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, 1978

SS	*R A W W A T E R										T A P W A T E R									
	Ammonia		Dissolved Oxygen					Loss on Igni- tion	Ammonia		Dissolved Oxygen					Loss on Igni- tion				
	Free	Alb.	Ni- trites	Ni- trates	Chlo- rides	P.P.M.	% Sat.		Total Solids	Free	Alb.	Ni- trites	Ni- trates	Chlo- rides	P.P.M.		% Sat.	Total Solids		
1977- 1978																				
July	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
August	---	---	0.000	0.00	13.0	---	---	---	---	---	---	0.001	0.05	14.0	---	---	---	---		
September	---	---	.000	---	13.0	---	---	---	---	---	---	.001	---	14.0	---	---	---	---		
October	---	---	.000	---	13.0	---	---	---	---	---	---	.001	---	13.5	---	---	---	---		
November	---	---	.000	.07	13.5	---	---	70	12	---	---	.001	.05	14.5	---	---	60	8		
December	---	---	.000	.10	13.0	13.3	96.0	44	11	---	---	.001	.10	14.0	---	---	63	18		
January	0.063	0.091	.000	.05	12.5	13.8	98.6	52	19	0.010	0.034	.001	.05	13.5	---	---	68	16		
February	.019	.063	.000	.20	12.5	13.9	100.0	49	6	.011	.037	.001	.07	13.5	---	---	65	13		
March	.040	.076	.000	.10	12.0	12.6	101.9	54	13	.025	.039	.001	.20	13.0	---	---	67	19		
April	.003	.068	.000	.07	12.0	13.0	100.0	50	13	.008	.034	.001	.07	13.0	---	---	70	20		
May	.003	.051	.000	.10	12.0	11.5	99.0	24	21	.003	.048	.001	.10	12.5	---	---	44	20		
June	.003	.010	.000	.13	12.0	10.1	91.0	61	38	.003	.005	.001	.10	13.0	---	---	75	20		
Averages	0.022	0.060	0.000	0.09	12.6	12.6	98.1	51	17	.010	.033	0.001	0.09	13.5	---	---	64	17		

*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, 1978

Source of Water Tested		Number of Tests or Analyses Made During the Fiscal Year						Total
		Frequency of Test or Examination	Chemical	Bacteri- ological	Micro- scopical	Sanitary Chemical	Mineral	Miscel- laneous
I	Brooks and Streams on Watershed Fourteen Brooks, Two Streams and One Pond	Monthly	1,372	2,476		45		3,893
II	Smaller Storage Reservoirs on Watershed							
	Regulating Reservoir	Monthly	84	133				217
	Westconnaug Reservoir	Monthly	84	145				229
	Barden Reservoir	Monthly	84	142				226
	Moswansicut Pond	Monthly	84	193		24		301
	Ponaganset Reservoir	Monthly	84	131				215
III	Scituate Reservoir							
	Surface Water	Bi-Weekly	196		12	131		339
	Subsurface Water (See Purif. Wks.-Raw Water)							
IV	Pawtuxet River-Below Gainer Dam							
	Gainer Dam Meter Chamber	Bi-Weekly	172			131		303
	Fiskeville, R. I.	Bi-Weekly	172			130		302
	Twelve Other Locations on Pawtuxet River	Bi-Weekly	2,202			1,800		4,002
V	Water Purification Works							
	Raw Water (from Bottom of Scituate Reservoir)	Daily	2,899	4,856		1,318		9,436
	Raw Water (from Bottom of Scituate Reservoir)	Bi-Weekly			12			12
	Raw Water (from Bottom of Scituate Reservoir)	Monthly				44		44
	*Raw Water (from Bottom of Scituate Reservoir)	Every 13 weeks					21	21
	Aerated Influent	Daily	732					732
	Mixer	Daily	1,980					1,980
	Settled	Daily	2,388	817		303		3,871
	Settled	Bi-Weekly			12			12
	Settled	Monthly				31		31
	Filtered	Daily	2,147	817		1,620		4,584
	Filtered	Monthly				9		9
	Effluent	Daily	3,041	817		1,617		5,475
	Effluent	Bi-Weekly			12			12
	Effluent	Monthly				15		15
	Raw Water (from Bottom of Scituate Reservoir)	Daily at 1:00 P.M.	988	741		964		2,693
	Effluent	Daily at 1:00 P.M.	988	741		964		2,693

*Composite of 13 Weekly Samples.

TABLE 25 (Continued)

WATER PURIFICATION WORKS

LABORATORY EXAMINATIONS MADE DURING THE FISCAL YEAR ENDED JUNE 30, 1978

Number of Tests or Analyses Made During the Fiscal Year

Source of Water Tested		Frequency of Test or Examination	Chemical	Bacteri- ological	Micro- scopical	Sanitary Chemical	Mineral	Miscel- laneous	Total
VI	Neutaconkanut Distribution Reservoir								
	Sample from nearby Tap	Daily	1,482	744		1,215			3,441
	Sample from nearby Tap	Bi-Weekly			12				12
VII	Longview Distribution Reservoir								
	Sample from nearby Tap	Daily	1,509	738		961			3,208
	Sample from nearby Tap	Bi-Weekly			12				12
VIII	Distribution System								
	Providence City Hall Tap Water	Daily	1,948	770		1,220		244	4,182
	Providence City Hall Tap Water	Bi-Weekly			12				12
	Providence City Hall Tap Water	Monthly				37			37
	*Providence City Hall Tap Water	Every 13 Weeks					21		21
	Consumers' Complaints (13 during the year)		100	12		26			138
	Disinfection of Newly Laid Mains			183		33			216
	**Sectional Tests	Daily	13,583	6,638		9,086		51	29,358
IX	Miscellaneous Tests								
	Coagulation Tests to Determine Chemical Dosages		72					24	96
	Analysis of Ferri-Floc used for Treatment		75					25	100
	Analysis of Quicklime used for Treatment		31					62	93
	Analysis of Sod. Silicofluoride used for Treatment		11						11
	Water, Filter Sand and Other Materials		3,334	7,135		1,350		37	11,856
Totals			41,842	28,229	84	23,074	42	1,169	94,440

*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, 1978

1977-1978	No. 1 16" Pump 7000 GPM. TDH 99'		Electrically-Driven Pumps No. 2 12" Pump 3800 GPM. TDH 104'		No. 3 16" Pump 7000 GPM. TDH 96'		*Power Used		Gasoline Engine-Driven Pump No. 4 16" Pump 7000 GPM. TDH 96'		Gas. Used Gals.	Oil Used Qts.
	Operated Days	Hours and Minutes	Operated Days	Hours and Minutes	Operated Days	Hours and Minutes	KWH	Cost	**Operated Days	Hours and Minutes		
July	30	369-30	27	315-00	21	306-30	148,000	\$ 6,162.47	2	2-00	98	0
August	24	281-30	26	286-30	21	256-30	109,200	4,700.36	0	0-00	0	0
September	17	185-00	23	276-30	17	177-00	95,200	4,214.11	1	1-00	52	50
October	14	154-30	24	214-00	14	192-00	69,600	3,394.22	0	0-00	0	0
November	16	170-05	23	223-00	15	158-30	77,000	3,390.57	0	0-00	0	0
December	17	162-35	28	328-00	13	117-45	87,000	4,297.64	0	0-00	0	0
January	18	122-25	27	318-32	14	108-20	76,300	3,421.75	1	6-35	58	0
February	13	112-20	25	306-08	10	91-40	76,300	3,421.76	1	1-55	46	50
March	20	195-30	22	230-30	10	121-00	102,200	4,164.21	1	1-00	52	0
April	21	333-30	28	350-30	18	248-00	102,200	4,164.21	4	4-00	194	0
May	18	263-00	13	78-30	16	246-30	94,500	4,062.01	4	4-00	220	0
June	22	415-00	22	245-55	22	401-05	94,500	4,062.00	2	2-00	118	0
Totals	230	2,764-55	293	3,173.05	191	2,424-50	1,132,000	\$49,455.31	16	22-30	838	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, 1978

	Electrically-Driven Pumps		Gasoline Engine-Driven Pump		Total Water Pumped Mil. Gals.	
	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'		
1977-1978	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	139.079	75.726	111.795	0.959	327.559	10.566
August	112.057	75.775	96.792	0.000	284.624	9.181
September	86.479	80.797	77.996	0.510	245.782	8.193
October	75.215	68.386	90.702	0.000	234.303	7.558
November	77.299	68.310	72.830	0.000	218.439	7.281
December	74.814	100.675	54.958	0.000	230.447	7.434
January	59.414	102.927	51.670	2.445	216.456	6.983
February	54.341	100.222	43.469	0.779	198.811	7.100
March	94.912	74.540	58.734	0.512	228.698	7.377
April	137.012	90.446	96.727	2.024	326.209	10.874
May	122.954	23.799	113.773	2.045	262.571	8.470
June	134.903	58.149	129.392	1.068	323.512	10.784
Totals	1,168.479	919.752	998.838	10.342	3,097.411	8.486

TABLE 27
WATER DISTRIBUTION SYSTEM
BATH STREET HIGH SERVICE PUMPING STATION
OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1978

1977-1978	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	742-00	31	742-00	85,260	\$ 3,283.08	5	62-15	1,054
August	31	722-00	31	704-30	79,520	3,068.85	0	0-00	0
September	30	719-00	30	719-00	83,580	3,305.64	1	1-00	32
October	31	744-00	31	744-00	85,680	3,405.87	0	0-00	0
November	30	718-30	30	718-30	70,140	2,787.56	0	0-00	0
December	31	716-30	30	689-35	90,160	3,533.43	1	1-00	30
January	31	740-33	31	741-58	87,080	3,155.44	1	8-05	38
February	28	671-00	28	668-45	87,080	3,155.43	0	0-00	0
March	31	743-00	31	743-00	72,940	2,100.54	1	1-00	40
April	14	287-15	19	389-00	57,540	2,164.50	2	2-00	62
May	31	740-00	31	740-00	77,420	2,856.06	4	4-00	86
June	30	705-00	30	705-00	77,420	2,856.06	7	82-15	1,230
Totals	349	8,248-48	353	8,305-18	953,820	\$35,672.46	22	161-35	2,572

*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, 1978

	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	
1977-1978	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	93.785	93.790	11.898	199.473	6.435
August	93.937	91.391	0.000	185.328	5.978
September	94.702	94.706	0.241	189.649	6.322
October	98.988	98.987	0.000	197.975	6.386
November	95.416	95.415	0.000	190.831	6.361
December	95.579	92.221	0.256	188.056	6.066
January	99.571	99.920	1.611	201.102	6.487
February	90.230	89.816	0.000	180.046	6.430
March	99.580	99.573	0.237	199.390	6.432
April	38.461	55.231	0.460	94.152	3.138
May	97.268	97.264	0.997	195.529	6.307
June	87.900	87.895	15.080	190.875	6.363
Totals	1,085.417	1,096.209	30.780	2,212.406	6.061

TABLE 28

WATER DISTRIBUTION SYSTEM

*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1978

1977-1978	7 A.M. Statistics on First Day of 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	229.69	41.21	230.45	224.04	229.08	42.49	31.52	40.17	5.96	1.30	3.16	10.22	2.23	5.43
August	228.97	39.98	230.57	224.90	229.23	42.68	33.00	40.43	4.70	0.65	2.32	8.06	1.10	3.97
September	229.05	40.12	230.28	225.31	228.98	42.20	33.70	39.98	3.99	0.80	2.15	6.84	1.37	3.69
October	228.75	39.60	230.43	224.75	228.92	42.45	32.74	39.90	4.75	1.07	2.71	8.15	1.83	4.64
November	229.38	40.68	229.84	225.26	228.69	41.47	33.61	39.50	3.81	1.27	2.51	6.54	2.18	4.31
December	229.20	40.37	230.41	224.84	228.97	42.42	32.89	39.98	4.90	1.40	2.50	8.41	2.39	4.28
January	227.94	38.21	230.43	226.03	229.08	42.45	34.94	40.16	3.78	1.73	2.43	6.48	2.97	4.16
February	229.65	41.14	230.00	225.14	228.80	41.74	33.41	39.68	4.11	1.31	2.57	7.05	2.24	4.41
March	230.00	41.74	230.08	225.44	229.25	41.87	33.92	40.46	3.51	0.96	2.45	6.03	1.64	4.20
April	229.96	41.67	230.26	225.70	229.62	42.17	34.37	41.09	3.81	1.47	2.47	6.53	2.51	4.22
May	228.75	39.60	230.34	225.46	229.32	42.30	33.96	40.58	3.86	0.80	2.64	6.60	1.37	4.53
June	229.86	41.50	230.46	226.26	229.72	42.50	35.33	41.26	3.97	1.22	2.42	6.77	2.07	4.13
For Year			230.57	224.04	229.14	42.68	31.52	40.27	5.96	0.65	2.53	10.22	1.10	4.33

*Storage capacity at overflow elevation of 231.00=43,400,000 gallons. **Average of 7 A.M. statistics.

NOTE: Water levels are elevations in feet above mean high water in Providence Harbor.

TABLE 29

WATER DISTRIBUTION SYSTEM

*NEUTACONKANUT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1978

1977-1978	7 A.M. Statistics on First Day of Month		OPERATING CHARACTERISTICS DURING MONTH											
	Water Level	Storage Mil. Gals.	Water Level			Storage-Mil. Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
			Max.	Min.	**Avg.	Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	AVG.
July	225.67	39.76	226.65	220.73	225.85	41.48	31.06	40.08	4.97	0.43	2.75	8.75	0.76	4.84
August	225.78	39.95	226.72	222.68	226.29	41.61	34.50	40.85	3.73	0.59	2.15	6.55	1.03	3.77
September	225.90	40.16	226.71	222.84	226.26	41.59	34.78	40.79	3.06	0.68	1.94	5.38	1.19	3.41
October	226.20	40.69	226.80	223.29	226.18	41.75	35.57	40.65	3.18	1.19	2.08	5.57	2.09	3.66
November	226.24	40.76	226.48	223.45	226.07	41.18	35.85	40.46	2.79	0.47	2.05	4.91	0.82	3.61
December	226.10	40.51	226.72	223.34	226.17	41.61	35.66	40.63	3.06	0.70	1.67	5.38	1.24	2.93
January	225.93	40.22	226.67	224.00	226.25	41.52	36.82	40.77	2.45	0.41	1.56	4.30	0.72	2.73
February	226.41	41.05	226.98	223.88	226.22	42.05	36.61	40.72	2.37	0.57	1.65	4.16	1.02	2.89
March	226.55	41.30	226.60	223.72	226.24	41.39	36.33	40.75	2.50	0.53	1.72	4.54	0.93	3.01
April	226.55	41.30	226.62	223.85	226.28	41.43	36.56	40.83	2.52	0.45	1.49	4.42	0.78	2.62
May	225.88	40.13	226.70	222.31	226.11	41.57	33.85	40.56	3.45	0.78	1.89	6.07	1.36	3.32
June	226.37	40.98	226.57	221.78	226.12	41.34	32.91	40.54	3.91	0.89	2.26	6.88	1.56	3.97
For Year			226.98	220.73	226.17	42.05	31.06	40.64	4.97	0.41	1.93	8.75	0.72	3.40

*Storage capacity at overflow elevation of 227.00=42,090,000 gallons. **Average of 7 A.M. statistics.

NOTE: Water levels are elevations in feet above mean high water in Providence Harbor.

TABLE 30

WATER DISTRIBUTION SYSTEM

*LONGVIEW DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1978

1977-1978	7 A.M. Statistics on First Day of Month		Operating Characteristics During Month											
	Water Level	Storage Mil. Gals.	Water Level			Storage-Mil. Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
			Max.	Min.	**Avg.	Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	305.33	12.09	306.51	293.60	304.89	12.60	6.65	11.88	11.09	0.73	4.04	5.14	0.34	1.87
August	305.50	12.17	306.32	299.76	305.22	12.53	9.51	12.04	5.78	0.95	2.24	2.68	0.45	1.04
September	305.55	12.19	305.72	302.30	305.00	12.27	10.69	11.94	2.84	0.93	2.01	1.31	0.44	0.93
October	304.95	11.92	305.95	302.08	305.18	12.38	10.59	12.02	3.47	1.25	2.21	1.60	0.42	1.01
November	305.05	11.96	306.55	301.63	305.13	12.61	10.38	12.00	4.17	1.11	2.12	1.93	0.52	0.98
December	305.40	12.12	305.90	301.83	305.04	12.35	10.47	11.96	3.78	0.67	2.09	1.75	0.31	0.98
January	305.37	12.11	305.95	300.93	305.12	12.38	10.05	11.99	5.02	1.21	2.08	2.33	0.57	0.96
February	305.35	12.10	306.45	301.79	305.26	12.58	10.45	12.06	3.84	1.58	2.43	1.78	0.73	1.13
March	305.05	11.96	305.71	301.50	304.75	12.27	10.32	11.82	3.84	1.19	2.01	1.77	0.56	0.93
April	305.15	12.01	305.81	300.76	305.03	12.31	9.97	11.95	4.30	1.40	2.93	2.00	0.65	1.36
May	304.75	11.82	305.90	300.25	305.01	12.35	9.74	11.94	4.77	0.85	2.29	2.21	0.40	1.06
June	304.75	11.82	306.03	292.43	304.46	12.41	6.11	11.69	11.41	1.22	4.09	5.29	0.57	1.90
For Year			306.55	292.43	305.01	12.61	6.11	11.94	11.41	0.67	2.55	5.29	0.31	1.18

*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, 1978

City or Town	Pipe Laid in Feet				Total
	6"	8"	12"	16"	
Providence	902.17	2,407.70	4.25	397.30	3,711.42
Cranston	1,512.83	1,023.59	--	--	2,536.42
Johnston	1,200.39	3,473.77	--	--	4,674.16
North Providence	2,405.60	2,950.60	--	--	5,356.20
Totals	6,020.99	9,855.66	4.25	397.30	16,278.20

City or Town	Pipe Removed in Feet				Total
	6"	8"	12"	16"	
Providence	2,666.02	101.81	31.51	--	2,799.34
Cranston	10.45	--	--	--	10.45
Johnston	--	--	--	--	--
North Providence	--	--	--	--	--
Totals	2,676.47	101.81	31.51	--	2,809.79

City or Town	Net Length Added to Distribution System				Total
	6"	8"	12"	16"	
Providence	-1,763.85	2,305.89	-27.26	397.30	912.08
Cranston	1,502.38	1,023.59	--	--	2,525.97
Johnston	1,200.39	3,473.77	--	--	4,674.16
North Providence	2,405.60	2,950.60	--	--	5,356.20
Totals	3,344.52	9,753.85	-27.26	397.30	13,468.41

PUBLIC WATER MAINS IN USE ON JUNE 30, 1978

66

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, 1978

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																							
4,417	1,037	16	660	286	28	73	39	6	3	10	0	6,575	1,703	1,426	3,129	8	14	22	1	2	1	4	9,730
CRANSTON																							
1,794	995	0	239	15	0	11	16	13	14	4	3	3,104	1,206	7	1,213	3	14	17	0	2	28	30	4,364
JOHNSTON																							
379	496	1	31	12	6	5	0	0	0	1	0	931	347	11	358	3	0	3	0	0	2	2	1,294
NORTH PROVIDENCE																							
490	345	0	72	0	0	5	1	1	0	0	0	914	376	0	376	0	3	3	0	0	0	0	1,293
TOTALS																							
7,080	2,873	17	1,002	313	34	94	56	20	17	15	3	11,524	3,632	1,444	5,076	14	31	45	1	4	31	36	16,681

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, 1978

City or Town	INSTALLED				REMOVED			
	General		Fire Supply	Total	General		Fire Supply	Total
	Copper 3/4"- 2"	Cast	Cast Iron 4"-12"		Lead or Copper 1/2"-2"	Cast	Cast Iron 4"-12"	
		Iron				Iron		
		4"-12"				4"-12"		
Providence	99	9	18	126	75	4	5	84
Cranston	136	3	9	144	8	0	0	8
Johnston	130	1	6	137	0	0	0	0
North Providence	79	1	1	81	1	0	0	1
Totals	440	14	34	488	84	4	5	93

TABLE 35

NUMBER AND SIZE OF ACTIVE SERVICES--YEAR ENDED JUNE 30, 1978

	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	42"	Totals
Providence	196	23,244	7,529	2,187	440	520	664	6	1,020	979	104	4	10	2	0	0	0	36,905
*Cranston	5	6,832	8,460	2,452	39	550	407	0	132	126	37	0	4	0	1	1	2	19,048
Johnston	0	744	2,562	1,440	9	338	100	0	20	37	7	0	1	0	0	0	0	5,258
North Providence	0	1,057	2,723	1,270	6	328	121	0	44	22	5	0	2	0	0	0	0	5,578
Totals	201	31,877	21,274	7,349	494	1,736	1,292	6	1,216	1,164	153	4	17	2	1	1	2	*66,789

*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, 1978

	Providence	Cranston	Johnston	North Providence	Totals
Post Hydrants Installed	109	14	7	9	139
Post Hydrants Removed	109	13	6	6	134

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1978

Post Hydrants	3,144	1,214	367	378	5,103
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TABLE 37

NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES

YEAR ENDED JUNE 30, 1978

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
*PROVIDENCE																
Make																
Trident	29,132	3,102	1,043	1,249	1,805	74	61	61	17	5	-	-	-	-	-	36,549
Thomson	470	69	54	27	86	-	2	-	-	-	-	-	-	-	-	708
Empire	29	-	6	-	1	-	-	-	-	-	-	-	-	-	-	36
Crown	14	3	2	-	-	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Totals	29,645	3,174	1,105	1,278	1,895	76	76	121	23	5	1	2	-	-	-	37,401

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

*CRANSTON

Make																
Trident	16,236	1,470	581	326	438	2	6	15	6	-	1	-	-	-	-	19,081
Thomson	-	6	-	8	7	-	-	-	-	-	-	-	-	-	-	21
Hersey	-	-	-	-	1	-	-	6	4	-	-	-	-	-	-	11
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,236	1,476	581	334	446	2	6	21	11	-	2	1	1	1	2	19,120

*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	3,954	886	222	79	109	-	-	4	3	-	-	-	-	-	-	5,257
Thomson	29	1	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Hersey	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	3,983	887	222	79	109	-	-	5	3	-	1	-	-	-	-	5,289

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

*NORTH PROVIDENCE

Make																
Trident	4,261	755	321	75	115	1	2	4	-	-	-	-	-	-	-	5,534
Thomson	54	4	-	1	1	-	-	-	-	-	-	-	-	-	-	60
Hersey	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	6
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,315	759	321	76	116	1	2	10	-	-	1	-	-	-	-	5,601

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

TABLE 38
CAPACITY AND CONSUMPTION

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

TABLE 39
CONSUMPTION OF WATER - MILLION GALLONS
YEAR ENDED JUNE 30, 1978

1977- 1978	Low Service (1)				High Service (2)				Total Service (1,2)			
	Max. Day	Min. Day	Avg. Day	Total	Max. Day	Min. Day	Avg. Day	Total	Max. Day	Min. Day	Avg. Day	Total
July	93.267	37.592	59.853	1,855.456	23.028	12.535	16.999	526.952	115.985	50.127	76.852	2,382.408
August	76.991	36.485	56.014	1,736.442	19.757	12.108	15.159	469.932	96.748	48.593	71.173	2,206.374
September	65.693	34.535	49.564	1,486.904	16.902	12.153	14.523	435.701	82.595	47.328	64.087	1,922.605
October	52.054	31.689	44.808	1,389.044	16.131	11.066	13.943	432.238	67.111	42.755	58.751	1,821.282
November	50.806	32.451	44.131	1,323.915	14.760	11.706	13.637	409.110	65.031	44.157	57.768	1,733.025
December	50.878	29.977	43.144	1,337.453	14.549	10.826	13.497	418.413	65.159	40.803	56.641	1,755.866
January	49.855	31.902	42.778	1,326.112	14.694	11.278	13.470	417.568	63.418	43.180	56.248	1,743.680
February	48.378	33.104	41.583	1,164.333	15.185	12.121	13.536	378.997	62.708	46.365	55.119	1,543.330
March	50.161	35.825	44.662	1,384.542	15.356	11.608	13.808	428.038	64.500	47.433	58.470	1,812.580
April	52.034	32.440	43.962	1,318.865	15.143	12.486	14.018	420.551	67.091	45.639	57.980	1,739.416
May	64.278	35.667	48.006	1,488.181	17.357	12.853	14.777	458.100	81.635	48.646	62.783	1,946.281
June	83.756	42.594	60.402	1,812.053	23.781	13.904	17.188	515.657	107.537	56.977	77.590	2,327.710
For Year	93.267(a)	29.977(b)	48.283	17,623.300	23.781(c)	10.826(d)	14.551	5,311.257	115.985(e)	40.803(f)	62.834	22,934.557
	(a) July 18	(b) December 25			(c) June 28	(d) December 25			(e) July 18	(f) December 25		

- (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, 1978

	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	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
1977- 1978						
July	16,957,500	125,575,250	142,532,750	4,597,831	5,033,500	162,371
August	13,788,000	90,086,600	103,874,600	3,350,794	3,405,800	109,865
September	12,810,750	71,600,700	84,411,450	2,813,715	3,051,400	101,713
October	10,527,000	69,852,200	80,379,200	2,592,877	2,884,800	93,058
November	10,264,500	64,039,200	74,303,700	2,476,790	2,920,900	97,363
December	10,946,250	61,045,550	71,991,800	2,322,316	2,420,200	78,071
January	9,514,500	76,366,600	85,881,100	2,770,358	6,446,400	207,948
February	7,446,750	54,726,400	62,173,150	2,220,470	2,953,300	105,475
March	11,318,250	60,359,450	71,677,700	2,312,184	2,806,600	90,535
April	9,606,750	67,423,200	77,029,950	2,567,665	2,793,300	93,110
May	12,011,250	85,775,400	97,786,650	3,154,408	3,522,100	113,616
June	16,758,750	125,694,150	142,452,900	4,748,430	7,125,000	237,500
For Year	141,950,250	952,544,700	1,094,494,950	2,998,616	45,363,300	124,283

TABLE 41
WATER SOLD TO THE CITY OF WARWICK
AND THE CITY OF EAST PROVIDENCE
YEAR ENDED JUNE 30, 1978

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	
1977- 1978	Gallons per Month	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
July	178,999,000	181,995,300	360,994,300	11,644,977	223,525,000	7,210,484
August	132,779,000	135,015,650	267,794,650	8,638,537	200,027,600	6,452,503
September	116,972,000	109,060,350	226,032,350	7,534,412	176,705,900	5,890,197
October	89,328,000	104,343,233	193,671,233	6,247,459	180,151,800	5,811,348
November	89,406,000	96,677,880	186,083,880	6,202,796	151,630,850	5,054,362
December	94,845,000	90,713,950	185,558,950	5,985,773	150,126,100	4,842,777
January	67,859,000	97,120,729	164,979,729	5,321,927	173,296,764	5,590,283
February	81,370,000	82,444,347	163,814,347	5,850,512	145,308,000	5,189,571
March	96,885,000	91,402,120	188,287,120	6,073,778	165,080,800	5,325,187
April	85,787,000	111,987,427	197,774,427	6,592,481	162,630,400	5,421,013
May	108,722,000	117,978,650	226,700,650	7,312,924	179,414,600	5,787,568
June	156,990,000	146,785,500	303,775,500	10,125,850	228,342,200	7,611,407
For Year	1,299,942,000	1,365,525,136	2,665,467,136	7,302,650	2,136,242,014	5,852,718

TABLE 42

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

YEAR ENDED JUNE 30, 1978

	EAST SMITHFIELD WATER COMPANY				SMITHFIELD WATER DEPT.		GREENVILLE WATER DISTRICT	
	S.S.51198 Waterman Avenue No. Prov. 6" Tri-Pro Meter	S.S.52403 Dean Avenue Smithfield 8" Tri-Crest Meter	Total Gallons per Month	Average Gallons per Day	S.S.71980 Smithfield Road North Providence 12" Flow Meter	Average Gallons per Day	S.S.76310 George Waterman Road Johnston 12" Flow Meter	Average Gallons per Day
1977-1978	Gallons per Month	Gallons per Month	Gallons per Month	Gallons per Day	Gallons per Month	Gallons per Day	Gallons per Month	Gallons per Day
July	21,519,000	7,017,750	28,536,750	920,540	11,838,200	381,877	21,840,700	704,539
August	22,595,250	2,752,500	25,347,750	817,669	10,885,200	351,135	16,971,900	547,481
September	20,232,000	1,151,250	21,383,250	712,775	11,326,200	377,540	14,950,000	498,333
October	18,076,500	3,927,750	22,004,250	709,815	9,732,900	313,965	15,045,200	485,329
November	17,916,750	2,421,000	20,337,750	677,925	10,188,800	339,627	14,025,500	467,517
December	18,758,250	2,513,250	21,271,500	686,177	10,287,300	331,848	14,292,800	461,058
January	13,464,750	2,325,000	15,789,750	509,347	7,223,200	233,006	12,826,600	413,761
February	11,916,000	2,133,000	14,049,000	501,750	8,379,100	299,254	12,734,800	454,814
March	27,888,750	2,591,250	30,480,000	983,226	9,737,900	314,126	13,375,600	431,471
April	17,076,000	2,371,500	19,447,500	648,250	9,450,700	315,023	14,234,600	474,487
May	20,851,500	2,841,000	23,692,500	764,274	11,090,300	357,752	15,490,000	499,677
June	27,981,750	3,609,000	31,590,750	1,053,025	11,818,200	393,940	20,368,400	678,947
For Year	238,276,500	35,654,250	273,930,750	750,495	121,958,000	334,132	186,156,100	510,017

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	15.15	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	22.64	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	23.76
1925	22.64	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	26.62	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	26.65	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	26.77	27.65	26.00	25.14
1934	24.69	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	39.64	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	2.64	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
1978	76.85	71.17	64.09	58.75	57.77	56.64	56.25	55.12	58.47	57.98	62.78	77.59	62.83

TABLE 45

FUEL OIL CONSUMPTION
YEAR ENDED JUNE 30, 1978

1977-1978	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	Gallons Used No. 4	Gallons Used No. 2	Gallons Used No. 2	Gallons Used No. 2	Gallons Used No. 2	Gallons Used No. 4
July	61	0	1,841	0	63	0	0	1,904	61
August	53	0	2,042	0	70	0	0	2,112	53
September	58	23	1,691	388	572	0	0	2,286	446
October	1,704	429	28	1,376	945	0	0	1,402	3,080
November	4,488	485	54	5,806	1,488	0	0	2,027	10,294
December	6,908	1,197	55	9,152	2,511	365	300	4,428	16,060
January	7,191	1,806	0	12,281	3,280	200	350	5,636	19,472
February	6,891	676	0	9,578	2,345	200	350	3,571	16,469
March	5,887	711	0	9,719	2,200	0	330	3,241	15,606
April	3,115	0	0	7,125	1,362	0	0	1,362	10,240
May	1,142	0	755	2,931	364	0	0	1,119	4,073
June	106	0	718	1,017	537	0	0	1,255	1,123
Totals	37,604	5,327	7,184	59,373	15,737	765	1,330	30,343	96,977

TABLE 46
FINANCIAL STATEMENT
YEAR ENDED JUNE 30, 1978

Operating Revenues		
Sale of Water		\$4,762,111.28
Hydrant Rental		108,811.38
Electric Power		25,126.75
Setting Meters		4,518.50
Repairing Meters		374.03
Repairs to Water Services		1,982.08
Repairs to Distribution Mains		2,233.69
Repairs to Hydrants		5,811.53
Installation of New Fire Supplies		31,392.49
Installation of New Water Mains		88,123.76
Installation of New Water Services		159,306.45
Water Meters-Revolving Fund		0
Sale of Pulpwood-Logs and Misc. Timber Products		3,508.25
Transferred from Reserve Fund		0
		<hr/>
Total Operating Revenue		\$5,193,300.19
Operating Expenses		
Administration	\$ 247,303.78	
Source of Supply	953,763.97	
Transmission & Distribution	1,406,010.64	
Accounting & Commercial	404,753.91	
Taxes	1,260,000.00	
Employees' Retirement System	200,514.00	
Social Security	103,700.23	
	<hr/>	
Total Operating Expense		*\$4,576,046.53
Operating Income		\$ 617,253.66
Add Non-Operating Revenue		
Rental of Real Estate	\$ 284.59	
Other	27,787.90	
	<hr/>	
Total Non-Operating Revenue		\$ 28,072.49
Sub-Total		<hr/>
		\$ 645,326.15
Less Non-Operating Expenses		
Interest on Bonded Debt	\$ 658,755.00	
Retirement-Serial Bonds	305,000.00	
	<hr/>	
Total Non-Operating Expense		\$ 963,755.00
DEFICIT		<hr/>
		\$ 318,428.85

*See Table 47 for detailed account of Operating Expense.

TABLE 47
WATER SUPPLY BOARD OPERATING EXPENSES
YEAR ENDED JUNE 30, 1978

ADMINISTRATION

Salaries:

001	Officials	\$ 35,746.09	
	Clerical-Accounting	44,224.34	
	Engineering	61,280.43	
	Labor-General	19,366.06	
008	Sick Leave Payrolls	5,640.87	
009	Vacation Payrolls	12,193.79	
034	Holiday Payrolls	408.52	
	Total		\$178,860.10

Services Other Than Personal:

109	Fees Not Otherwise Classified	\$ 1,365.34	
111	Telephone and Telegraph	5,479.53	
112	Postage, Freight and Express	1,243.50	
118	Travel Subsistence-Other	105.00	
121	Printing and Binding	3,124.00	
131	Heat, Light and Power	3,705.80	
141	Repairs-Office Machinery	562.50	
142	Repairs-Automobiles and Trucks	422.58	
149	Repairs-Other Equipment	907.00	
150	Repairs-Buildings	2,276.28	
151	Maintenance & Servicing	446.58	
169	Rentals Not Otherwise Classified	119.00	
183	Dues and Subscriptions	498.22	
199	Miscellaneous Services	2,076.02	
	Total		\$ 22,322.35

Materials and Supplies:

201	Stationery and Office Supplies	\$ 1,998.36	
211	Motor Fuel	5,408.89	
214	Repair Parts and Supplies-Trucks and Autos	68.38	
241	Fuel	3,587.31	
244	Housekeeping Supplies and Minor Equipment	884.03	
268	Plumbing and Electrical Supplies	134.66	
299	Miscellaneous Materials and Supplies	208.00	
	Total		\$ 12,289.63

Special Items:

331	Payment of Claims and Damages	\$ 75.00	
338	Union Legal Fund	1,629.50	
350	Blue Cross-Major Medical and RIGHA	17,026.14	
351	Expenses for Various Ceremonies	286.59	
382	Laborers' Union Pension Fund	9,648.60	
	Total		\$ 28,665.83

Capital Outlay:

501	Office Furniture, Machinery and Equipment	\$ 218.00	
502	Books, Maps and Charts	209.00	
	Total		\$ 427.00

Outstanding Commitments-Services Other Than Personal	\$ 4,350.82	
Outstanding Commitments-Materials and Supplies	388.05	

Total Administration		\$247,303.78
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SOURCE OF SUPPLY

Hydro-Electric Station:

Salaries:

001 Labor-Operation	\$ 26,945.96
Labor-Care of Grounds	341.20
Total	\$ 27,287.16

Services Other Than Personal:

149 Repairs - Other Equipment	\$ 95.00
Total	\$ 95.00

Materials and Supplies:

268 Plumbing and Electrical Supplies	\$ 130.00
Total	\$ 130.00

Water Purification Works:

Salaries:

001 Supervision	\$ 48,320.72
Labor-Operation	129,102.46
Labor-Care of Grounds	7,645.41
Labor-Handling Chemicals	6,408.17
Technical	15,437.12
Total	\$206,913.88

Services Other Than Personal:

131 Heat, Light and Power	\$ 158.48
146 Repairs-Plant Equipment	2,229.53
149 Repairs-Other Equipment	279.50
150 Repairs-Buildings	23,094.80
151 Maintenance and Servicing	1,775.33
181 Laundry and Cleaning	3,286.05
199 Miscellaneous Services	6,862.98
Total	\$ 37,686.67

Materials and Supplies:

201 Stationery and Office Supplies	\$ 706.21
202 Small Tools and Shop Supplies	489.44
204 Wearing Apparel and Personal Supplies	109.88
222 Repair Parts and Supplies-Plant Equipment	16,145.91
231 Ferric Sulfate	82,034.06
231 Lime	65,434.11
231 Chlorine	15,680.00
231 Sodium Silicofluoride	35,121.25
231 Chemical and Laboratory Supplies	17.34
244 Housekeeping Supplies	704.53
266 Lumber and Hardware	6.00
268 Plumbing and Electrical Supplies	3,938.66
299 Miscellaneous Materials and Supplies	1,462.30
Total	\$ 221,849.69

Capital Outlay:

502 Books, Maps and Charts	\$ 147.43
541 Laboratory Equipment	405.00
Total	\$ 552.43

Laboratory:

Salaries:

001 Technical	\$ 13,175.13
Total	\$ 13,175.13

Services Other than Personal:	
118 Transportation of Persons-Other	\$ 50.00
149 Repairs-Other Equipment	655.61
Total	<hr/> \$ 705.61
Materials and Supplies:	
231 Chemical and Laboratory Supplies	\$ 1,952.27
Total	<hr/> \$ 1,952.27
Capital Outlay:	
541 Laboratory Equipment	\$ 1,852.68
Total	<hr/> \$ 1,852.68
Scituate Reservoir:	
Salaries:	
001 Labor-Care of Grounds	\$ 3,046.06
Total	<hr/> \$ 3,046.06
Materials and Supplies:	
252 Seeds, Fertilizer, Trees and Shrubs	\$ 616.00
Total	<hr/> \$ 616.00
Other Reservoirs:	
Salaries:	
001 Labor-Care of Grounds	\$ 152.40
Total	<hr/> \$ 152.40
Services Other Than Personal:	
199 Miscellaneous Services	\$ 2,725.00
Total	<hr/> \$ 2,725.00
Materials and Supplies:	
222 Repair Parts and Supplies-Plant Equipment	\$ 1,437.00
Total	<hr/> \$ 1,437.00
Rockland Cemetery:	
Salaries:	
001 Labor-Care of Grounds	\$ 791.35
Total	<hr/> \$ 791.35
Forestry and Maintenance:	
Salaries:	
001 Supervision	\$37,283.94
Labor-Operation	34,753.34
Labor-Care of Grounds	2,294.63
Total	<hr/> \$74,331.91
Services Other Than Personal:	
116 Transportation of Persons-Other	\$ 29.30
117 Travel Subsistence-Conventions	90.00
118 Travel Subsistence-Other	167.00
146 Repairs-Plant Equipment	399.76
150 Repairs-Buildings	40.50
181 Laundry and Cleaning	858.00
Total	<hr/> \$ 1,584.56

Materials and Supplies:

202	Small Tools and Shop Supplies	\$ 320.67
204	Wearing Apparel and Personal Supplies	49.50
212	Lubricants	147.05
214	Repair Parts and Supplies-Trucks and Autos	2,140.47
244	Housekeeping Supplies	92.90
252	Seeds, Fertilizer, Trees and Shrubs	930.00
259	Other Agricultural Supplies	331.76
261	Gravel, Sand and Stone	742.00
262	Cement, Plaster and Related Products	349.00
265	Fabricated Metal Products	1,025.57
266	Lumber and Hardware	982.34
268	Plumbing and Electrical Supplies	24.05
279	Water System Materials Not Otherwise Classified	35.52

Total		\$ 7,170.83
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Capital Outlay:

571	Agricultural and Landscaping Equipment	\$ 1,376.46
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Total		\$ 1,376.46
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General:

Salaries:

001	Clerical	\$12,790.11
	Engineering	25,662.70
	Labor-Operation	16,816.07
	Labor-Care of Grounds	9,724.65
008	Sick Leave Payrolls	14,336.49
009	Vacation Payrolls	26,536.85
025	Injured Employees' Payrolls	1,079.80
034	Holiday Payrolls	7,470.40

Total		\$114,417.07
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Services Other Than Personal:

102	Medical Services	\$ 51.00
109	Fees Not Otherwise Classified	1,084.13
111	Telephone and Telegraph	4,895.29
112	Postage, Freight and Express	402.24
116	Transportation of Persons-Other	44.88
121	Printing and Binding	714.00
122	Advertising	1,088.56
131	Heat, Light and Power	12,567.67
141	Repairs-Office Machinery	60.88
142	Repairs-Trucks and Autos	2,160.76
143	Repairs-Construction and Other Automotive Equipment	554.86
148	Repairs-Communication Equipment	51.97
151	Maintenance and Servicing	401.50
183	Dues and Subscriptions	48.00
199	Miscellaneous Services	496.85

Total		\$ 24,622.59
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Materials and Supplies:

211	Motor Fuel	\$ 8,219.47
212	Lubricants	347.25
213	Tires and Tubes	3,174.00
214	Repair Parts and Supplies-Trucks and Autos	3,477.12
241	Fuel	32,620.40
272	Hydrants, Valves and Fittings	118.00

Total		\$ 47,956.24
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Special Items:

338	Union Legal Fund	\$ 3,516.50
350	Blue Cross, Major Medical and RIGHA	30,365.28
382	Laborers' Union Pension Fund	22,772.70

Total		\$ 56,654.48
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Capital Outlay:	
512 Trucks and Tractors	\$ 4,061.00
575 Communications Equipment	1,490.00
Total	\$ 5,551.00
Outstanding Commitments-Services Other Than Personal	25,309.37
Outstanding Commitments-Materials and Supplies	63,330.38
Outstanding Commitments-Capital Outlay	10,490.75
Total - Source of Supply	<u>\$953,763.97</u>

TRANSMISSION AND DISTRIBUTION

Pumping Stations:	
Services Other Than Personal:	
131 Heat, Light and Power	\$ 73,574.67
146 Repairs-Plant Equipment	2,233.00
150 Repairs-Buildings	85.00
159 Repairs-Other Structures	26.87
Total	<u>\$ 75,919.54</u>

Materials and Supplies:	
222 Repair Parts and Supplies-Plant Equipment	\$ 178.06
Total	<u>\$ 178.06</u>

Pipe Lines:

Salaries:	
001 Clerical	\$ 15,383.89
Supervision	20,142.34
Labor-Operation	280,675.42
Repairs-Trucks and Autos	45,389.11
Repairs-Care of Grounds and Buildings	16,952.64
Repairs-Distribution Mains	22,258.88
Repairs-Gates and Valves	21,909.98
Repairs-Hydrants	16,146.20
Repairs-Services	37,752.09
New Work-Distribution Mains	684.80
New Work-Gates and Valves	716.52
New Work-Hydrants	18,599.89
New Work-Services	70,748.38
Retirement Work-Distribution Mains	116.40
Retirement Work-Hydrants	286.40
Retirement Work-Services	4,106.83
Total	<u>\$571,869.77</u>

Services Other Than Personal:	
102 Medical Services	\$ 1,219.64
142 Repairs-Trucks and Autos	14,626.10
143 Repairs-Construction and Other Automotive Equipment	1,791.71
146 Repairs-Plant Equipment	1,067.47
148 Repairs-Communication Equipment	777.41
153 Repairs-Utility Cuts on Highways	3,421.36
162 Rental of Automotive and Construction Equipment	758.00
163 Rentals-Other Equipment	1,533.62
165 Rental of Land	269.00
181 Laundry and Cleaning	225.79
199 Miscellaneous Services	1,200.00
Total	<u>\$ 26,890.10</u>

Materials and Supplies:		
202	Small Tools and Shop Supplies	\$ 4,315.57
204	Wearing Apparel and Personal Supplies	1,956.10
211	Motor Fuel	14,270.68
212	Lubricants	931.25
213	Tires and Tubes	5,065.22
214	Repair Parts and Supplies-Trucks and Autos	21,329.59
262	Cement, Plaster and Related Products	349.00
268	Plumbing and Electrical Supplies	6,053.98
271	Pipe	10,298.34
272	Hydrants, Valves and Fittings	93,279.94
Total		<hr/> \$157,849.67
Capital Outlay:		
512	Trucks and Tractors	\$ 4,569.00
Total		<hr/> \$ 4,569.00
Other Structures and Improvements:		
721	New Main Extensions	\$116,357.09
Total		<hr/> \$116,357.09
Metering:		
Salaries:		
001	Supervision	\$ 9,369.00
	Repairing Meters	8,510.60
	Removing and Setting Meters	28,710.53
	Installation-New Encoder Registers	23,187.09
	Setting and Repairing Encoder Registers	17,329.79
	Inspection-Services	25,497.81
	Labor-Operation	14,565.39
	Collections-Overdue Accounts	15,372.03
Total		<hr/> \$142,542.24
Materials and Supplies:		
202	Small Tools and Shop Supplies	\$ 1,012.36
274	Meters and Meter Parts	1,364.60
Total		<hr/> \$ 2,376.96
General:		
Salaries:		
008	Sick Leave Payrolls	\$ 36,796.46
009	Vacation Payrolls	48,440.90
025	Injured Employees' Payrolls	3,567.40
034	Holiday Payrolls	20,776.15
Total		<hr/> \$109,580.91
Services Other Than Personal:		
109	Fees Not Otherwise Classified	\$ 1,298.00
111	Telephone and Telegraph	5,367.96
112	Postage, Freight and Express	29.24
131	Heat, Light and Power	2,435.94
141	Repairs-Office Machinery and Equipment	58.75
150	Repairs-Buildings	4,023.16
151	Maintenance and Servicing	48.00
153	Repairs-Utility Cuts on Highways	208.00
199	Miscellaneous Services	463.10
Total		<hr/> \$ 13,932.15

Materials and Supplies:

201 Stationery and Office Supplies	\$ 797.01
222 Repair Parts and Supplies-Plant Equipment	2,451.17
231 Chemical and Laboratory Supplies	778.45
241 Fuel	7,248.73
244 Housekeeping Supplies	1,897.89
261 Gravel, Sand and Stone	1,652.32
265 Fabricated Metal Products	1,318.99
266 Lumber and Hardware	2,042.24
267 Paint and Painters' Supplies	284.85
272 Hydrants, Valves and Fittings	479.62
273 Special Castings	11,165.00
279 Water System Supplies Not Otherwise Classified	205.50
299 Miscellaneous Materials and Supplies	228.90
Total	<hr/> \$ 30,550.67

Special Items:

338 Union Legal Fund	\$ 8,103.75
350 Blue Cross, Major Medical and RIGHA	56,555.60
382 Laborers' Union Pension Fund	47,913.60
Total	<hr/> \$112,572.95

Outstanding Commitments-Services Other Than Personal	1,380.20
Outstanding Commitments-Materials and Supplies	39,441.33

Total-Transmission and Distribution

\$1,406,010.64

ACCOUNTING AND COMMERCIAL

Salaries:

001 Supervision	\$ 10,189.70
Clerical and Accounting	131,607.95
Meter Reading	96,914.80
Labor-Operation	2,646.09
008 Sick Leave Payrolls	13,154.22
009 Vacation Payrolls	20,112.00
034 Holiday Payrolls	3,759.20
Total	<hr/> \$278,383.96

Services Other Than Personal:

102 Medical Services	\$ 501.50
109 Fees Not Otherwise Classified	10.00
111 Telephone and Telegraph	4,039.98
112 Postage, Freight and Express	1,784.00
116 Transportation of Persons-Other	1,035.00
121 Printing and Binding	240.00
131 Heat, Light and Power	1,860.38
141 Repairs-Office Machinery and Equipment	1,056.25
150 Repairs-Buildings	1,293.75
151 Maintenance and Servicing	1,987.40
161 Rental-Office Machinery and Equipment	1,085.85
181 Laundry and Cleaning	1,687.44
190 Data Processing	10,650.00
199 Miscellaneous Services	41,000.00
Total	<hr/> \$ 68,231.55

Materials and Supplies:

201 Stationery and Office Supplies	\$ 3,751.13
211 Motor Fuel	2,285.39
241 Fuel	3,887.04
244 Housekeeping Supplies	504.50
268 Plumbing and Electrical Supplies	623.38
299 Miscellaneous Materials and Supplies	87.50
Total	<hr/> \$ 11,138.94

Special Items:

338 Union Legal Fund	\$ 2,986.00
350 Blue Cross, Major Medical and RIGHA	23,354.64
382 Laborers' Union Pension Fund	19,308.30

Total	<u>\$45,648.94</u>
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Outstanding Commitments-Services Other Than Personal	432.50
Outstanding Commitments-Materials and Supplies	18.78
Outstanding Commitments-Capital Outlay	899.24

Total-Accounting and Commercial	<u>\$404,753.91</u>
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Taxes	\$1,260,000.00
Employees' Retirement System	200,514.00
Social Security F.O.A.S.I.	103,700.23

TOTAL OPERATING EXPENSE	<u>\$4,576,046.53</u>
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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
1978	4,762,111.28	459,261.40	5,221,372.68

*October 1, 1969 - June 30, 1970.

TABLE 49
STATEMENT OF REVENUE - ESTIMATED AND ACTUAL
YEAR ENDED JUNE 30, 1978

Account	Estimated Revenue	Actual Revenue
Water Rents	\$5,400,000.00	\$4,762,111.28
Hydrant Rentals	252,000.00	108,811.38
Electricity	22,554.00	25,126.75
Meter Revolving Fund	10,000.00	0
Repairing and Setting Meters	4,600.00	4,892.53
Miscellaneous Repairs	0	12,836.56
Installation of Fire Supplies	20,000.00	31,392.49
New Service Installations	100,000.00	159,306.45
New Main Extensions	100,000.00	88,123.76
Transfer from Reserve Fund	0	0
Other Miscellaneous Receipts	63,280.00	28,771.48
Total	\$5,972,434.00	\$5,221,372.68

TABLE 50
RESERVE FUND
YEAR ENDED JUNE 30, 1978

	Investment	Cash	Due from Other Funds	Total
Balance - June 30, 1977	\$ 695,000.00	\$ 22,692.65	Nil	\$717,692.65
Increase During Year Ended June 30, 1978	7,700,000.00	*7,735,779.24		
Disbursements During Year Ended June 30, 1978	7,695,000.00	7,700,000.00		
Balance - June 30, 1978	\$ 700,000.00	\$ 58,471.89	Nil	\$758,471.89

*Includes interest of \$40,779.24 earned on Certificates of Deposit.

TABLE 51
STATEMENT OF SERIAL BONDS OUTSTANDING
YEAR ENDED JUNE 30, 1978

Description	Rate of Interest %	Year of Issue Maturity		Serial Requirement	Issued	Bonds Outstanding
Additions, Alterations and Improvements to the Water Purification Works	3½	1962	1992	\$ 35,000.00	\$ 1,100,000.00	\$ 685,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3½	1962	1992	65,000.00	2,050,000.00	1,225,000.00
Total				\$100,000.00	\$ 3,150,000.00	\$ 1,910,000.00
General Obligation Bonds	5	1971	2001	\$205,000.00	\$11,000,000.00	\$ 9,790,000.00
Total-Bonds and Requirements				\$305,000.00	\$14,150,000.00	\$11,700,000.00

TABLE 52
A SUMMARY OF INVENTORIES OF PERSONAL PROPERTY
YEAR ENDED JUNE 30, 1978

REMOVABLE PROPERTY INVENTORY:		\$200,907.01
SOURCE OF SUPPLY		
Purification Works	\$5,168.43	
Laboratory	3,826.14	
Raw Water Pumping Station	2,483.20	
General and Reforestation	4,836.74	16,314.51
TRANSMISSION AND DISTRIBUTION:		
Pipe Lines	\$159,618.47	
Pumping Stations	475.30	
Garage	20,750.31	180,844.08
METERING:		47,532.72
GENERAL SUPPLIES:		3,156.48
Total Personal Property Inventory		\$448,754.80

TABLE 53
STATEMENT OF METER REVOLVING FUND
YEAR ENDED JUNE 30, 1978

Unencumbered Balance - June 30, 1977		\$10,033.55
Outstanding Commitments-June 30, 1977		5,212.41
Receipts - July 1, 1977 - June 30, 1978		63,908.91
Total Available		\$79,154.87
Expenditures - July 1, 1977 - June 30, 1978	\$75,379.49	
Outstanding Commitments - June 30, 1978	907.25	
Transferred to Operating Revenue	0	
Total Disbursements	\$76,286.74	
Unencumbered Balance - June 30, 1978		\$ 2,868.13

TABLE 54
STATEMENT OF WATER METER CONVERSION REVOLVING FUND
YEAR ENDED JUNE 30, 1978

Unencumbered Balance - June 30, 1977		\$ 5,360.35
Outstanding Commitments - June 30, 1977		175.50
Receipts - July 1, 1977 - June 30, 1978		1,008.20
Total Available		\$ 6,544.05
Expenditures - July 1, 1977 - June 30, 1978	\$4,125.76	
Outstanding Commitments-June 30, 1978	1,044.29	
Total Disbursements	\$5,170.05	
Unencumbered Balance - June 30, 1978		\$ 1,374.00

TABLE 55
TAXES PAID TO VARIOUS CITIES AND TOWNS
JULY 1, 1977 TO JUNE 30, 1978

Location of Property	ASSESSED VALUATIONS				TAX	
	Land Area (Acres)	Land	Buildings and Improvements	Total	Rate per \$100	Amount Paid
City of Warwick	0.060	\$ 450.00	\$ 0	\$ 450.00	\$3.33	\$ 14.99
City of Cranston	110.627	62,840.00	942,340.00	1,005,180.00	---	69,847.45
Town of Foster	1,617.470	837,460.00	0	837,460.00	6.60	55,272.36
Town of Glocester	73.300	17,970.00	0	17,970.00	6.41	863.91
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	---	22,537.53
Town of North Providence	8.529	321,880.00	1,122,780.00	1,444,660.00	3.17	97,211.18
Town of Scituate	13,149.030	1,469,975.00	13,013,500.00	*14,500,000.00	6.98	1,012,100.00
Town of West Warwick	8.940	33,570.00	0	33,570.00	6.10	2,047.76
Total Real Estate	15,071.086			\$18,203,390.00		**\$1,260,000.00

*Includes \$16,525.00 Tangible Personal

**In addition to this amount, \$95.97 was paid to West Glocester Fire District and \$8.85 to Harmony Fire District.

NOTE: North Providence was paid \$51,415.46 in delinquent taxes.

Cranston was paid three installments totaling \$50,510.30 at a rate of \$6.70 per \$100 and one payment of \$19,337.15 at a rate of \$7.695 per \$100.

Johnston was paid three installments totaling \$17,913.72 at a rate of \$6.56 per \$100 and one payment of \$4,623.81 at the rate of \$6.85 per \$100. The balance of the 4th payment will be made in 1979 fiscal year.

Town of Glocester received three payments totaling \$863.91.

TABLE 56
SUMMARY OF STATISTICS
PROVIDENCE WATER SUPPLY BOARD
YEAR ENDED JUNE 30, 1978

*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	76.8% by gravity; 23.2% by pumping	

STATISTICS OF CONSUMPTION OF WATER

1. Estimated population supplied	430,815
2. Total raw water influent for the year, gallons	22,923,052,000
3. Average daily raw water influent, gallons	62,803,000
4. Raw water consumption per capita, gallons daily	145.8
5. Total consumption for the year, gallons	22,934,557,000
6. Total registration on customers' meters, gallons	20,785,044,000
7. Percentage of consumption accounted for on customers' meters	90.6%
8. Average daily consumption, gallons	62,834,000
9. Per capita consumption, gallons daily	145.9
10. Gallons per day to each tap	941

*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, 1978

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	23,205,071,000
6. Average quantity filtered per day, gallons	63,576,000
7. Total filtered water delivered to the distribution system during the year, gallons	22,933,387,000

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	16,278.20 feet
4. Removed	2,809.79 feet
5. Net Increase	13,468.41 feet
6. Total now in use	838.84 miles
7. Number of leaks per mile	0.10
8. Range of pressure on mains	14 to 95 pounds
9. Range of pressure on mains (special high pressure fire service)	94 to 130 pounds
10. Number of hydrants installed	139
11. Number removed	134
12. Net Increase	5
13. Number of hydrants now in use	5,103
14. Number of stop gates installed	51
15. Number removed	18
16. Net Increase	33
17. Number of stop gates now in use	11,524

TABLE 56 (Continued)
SUMMARY OF STATISTICS
PROVIDENCE WATER SUPPLY BOARD
YEAR ENDED JUNE 30, 1978
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	488
21. Number removed	93
22. Net increase	395
23. Number of services now in use	*66,789
24. Number of meters installed	742
25. Number removed or condemned	321
26. Net increase	421
27. Number of meters now in use	**67,411
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, 1978
COMPARISON OF PROVIDENCE DISTRIBUTION
SYSTEM WATER CHARACTERISTICS WITH
E.P.A. REGULATIONS

E.P.A. Regulations
(Maximum Permissible)

Physical Characteristics:

*Color	15 units	4
Turbidity	1 unit	0.0
*Odor	3 threshold number	no odor
Taste	----	no taste

Characteristics (milligrams per liter)

Arsenic	0.05	0.00
Barium	1.	less than 0.05
Cadmium	0.010	less than 0.001
Chromium	0.05	less than 0.02
*Copper	1.	0.01
Fluoride	2.0	0.97
*Iron	0.30	0.02
Lead	0.05	0.00
Mercury	0.002	less than 0.001
*Foaming Agents	0.5	0.00
Nickel		less than 0.02
Nitrate (as N)	10.	0.09
Potassium	----	1.0
Selenium	0.01	0.00
Silver	0.05	less than 0.02
Sodium	----	8.8
*Total Dissolved Solids	500.	64.
*Zinc	5.	0.00

Characteristics (micrograms per liter)

Aldrin	----	none found
Chlordane	----	none found
DDT	----	none found
Dieldrin	----	none found
**Endrin	0.2	none found
Heptachlor	----	none found
Heptachlor Epoxide	----	none found
**Lindane	4.	none found
**Methoxychlor	100.	none found
**Toxaphene	5.	none found
**2,4-D	100.	none found
**2,4,5-TP Silvex	10.	none found
2,4,5-T	----	none found

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

**Drinking water standard at time of analysis.

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DEPT. OF CITY CLERK
PROVIDENCE, R.I.