

# ANNUAL REPORT



## WATER SUPPLY BOARD

CITY OF PROVIDENCE

Year Ended June 30, 1979

**— The Cover —**

*Rain and piping are required for a good water supply but people are really the backbone of the system. The long term employees and division supervisors on the cover represent all the employees at the Water Supply Board.*

*Joseph G. Formicola, Superintendent  
Transmission and Distribution  
Started City employment Oct. 15, 1940.*

*John D. Bacon, Engineering Aide III  
Engineering Division  
Started City employment Jan. 7, 1957.*

*Edward H. Mathewson  
Watershed Protection Officer  
Started City employment Aug. 18, 1959.*

*Cyril J. Martinka, General Foreman  
Utility Truck  
Started City employment Jan. 22, 1946.*

*Susan Lisa, Superintendent  
Meter Division  
Started City employment July 26, 1950.*

*Hans T. Bergey  
Watershed Manager  
Started City employment June 15, 1959.*

*James A. Lombardi  
Administrative Assistant  
Started City employment Jan. 26, 1971.*

*William H. Mahoney, Superintendent  
Filtration  
Started City employment Mar. 20, 1950.*

*Anna T. Foley, Clerk IV  
Purchasing Clerk  
Started City employment Jan. 31, 1949.*

*Alfred W. Lees, Master Mechanic  
Filtration Plant  
Started City employment Feb. 14, 1955.*

*Jesse Benevides, General Foreman  
Meter Readers  
Started City employment Feb. 12, 1941.*

*Edward Bondarevskis, Principal Engineer  
Engineering  
Started City employment July 16, 1956.*

*Sol B. Addison, Senior Mechanic  
Meter Department  
Started City employment July 18, 1949.*

*William M. Martino, General Foreman  
Emergency Crews  
Started City employment Dec. 8, 1947.*

*Raymond F. McGowan, Gen. Foreman  
Stockroom  
Started City employment July 25, 1949.*

IN CITY COUNCIL

JUN 5 1980

READ:

WHEREUPON IT IS ORDERED THAT  
THE SAME BE RECEIVED.

*Rose M. Mendonca* CLERK

**ADMINISTRATIVE OFFICE**

Water Supply Board  
City of Providence

July 1, 1979

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-ninth annual report of the Water Supply Board, for the year ended June 30, 1979.

On January 3, 1979 the City Council elected Vincent J. Cirelli and Laurence F. Flynn from its councilmanic members to serve as members of the Board.

On February 15, 1979 Alfred T. Ciccone was appointed to a vacancy on the Board for a term that expires in January, 1980 and Richard A. Carroll was appointed to succeed the late Earl H. Ashley for a term that will expire in January, 1983.

At a reorganization meeting held on March 2, 1979, Richard A. Carroll was elected Chairman of the Board.

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

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

Respectfully submitted,

WATER SUPPLY BOARD

*Richard A. Carroll*  
Richard A. Carroll, Chairman

Alfred T. Ciccone

John A. Doherty

Robert F. Howard

Vincent J. Cirelli

Laurence K. Flynn

James R. Bernardo, Acting Ex-Officio

## REPORT OF THE CHIEF ENGINEER

Providence, R. I.  
July 1, 1979

### WATER SUPPLY BOARD CITY OF PROVIDENCE

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1979.

Precipitation on the 92.8 square mile drainage area this past year amounted to 60.25 inches; this was 1.51 inches less than the total of 61.76 for the 1978 year and 7.21 less than the maximum of record.....67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 29.88 inches compared with 36.29 for the previous year and the 40.97 inches maximum of record for the fiscal 1956.

Consumption increased to 63,707,000 gallons per day, up 873,000 gallons per day from the June 30, 1978 figure of 62,834,000 gallons. The maximum day's use was 102,793,000 gallons on July 24, 1978, the highest hourly rate that day being 147,960,000 gallons per day. These quantities compare with 63-year highs of 117,980,000 gallons and 167,472,000 gallons per day maximum hourly rate established July 18, 1977.

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 6,930,492,644 gallons, an average of 18,987,651 gallons per day. These seven wholesale customers accounted for 29.80% 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, metering and billing.

## SOURCE OF SUPPLY

**RAINFALL AND RUNOFF** The rainfall on the 92.8 square mile Scituate Watershed above Gainer Memorial Dam was measured by rainfall gauges at Rocky Hill, Hopkins Mills, North Scituate, Westcott District and Gainer Dam. A total of 60.25 inches was recorded which was 10.92 inches more than the 63-year (July 1916-June 1979) average of 49.33 inches and 89.3% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 29.88 inches; this was 4.82 inches more than the 63-year average of 25.06 inches and 72.9% of the maximum 40.97 inches, which occurred during the July 1955-1956 year.

**STORAGE, DRAFT AND YIELD** On July 1, 1978 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs, amounted to 40,314,000,000 gallons or 97.7% of combined capacity. At the end of the year, the combined storage was 41,078,000,000 gallons or 99.5% of capacity.

The total draft from the Scituate watershed for the year was 47,437,000,000 gallons, an average of 129,960,000 gallons daily. The draft for water supply purposes was 23,816,110,000 gallons and discharge into the north branch of the Pawtuxet River totaled 23,620,890,000.

The yield from the watershed for the year totaled 48,201,000,000 gallons, an average of 132,060,000 gallons per day. This was 21,410,000 per day more than the 110,650,000 gallons average daily yield for the 63-year period July 1916-June 1979.

**WATERSHED MANAGEMENT - FORESTRY OPERATIONS** Watershed protection is paramount in all decisions made in watershed management operations. Departmental lands adjacent to the terminal Scituate Reservoir and tributary reservoirs and streams are managed to insure the highest quality of raw water.

Of extreme importance is land use on the 69.9 square miles of watershed not owned or controlled by the department. Development of land must be continually monitored to insure adherence to state and local regulations and laws which are promulgated to protect the public interest in water and related natural resources.

The security program associated with protection of Water Supply Board lands and facilities is an ongoing operation. During the year, 67 violators of departmental property were referred to local police authorities for prosecution in the courts. Incidents of vandalism persist. Off-road vehicle impacts continue to be damaging to distribution system and watershed lands. Expenditures for vandal proofing or repairing damaged facilities are significant.

Operation of the department's Tunk Hill Fire Tower is the focal point of the forest-fire protection program. The tower was operated on 31 high-hazard days during the 1979

spring forest-fire season. Incidence of damaging forest fires was negligible during the year.

The combined effort of state, local, and departmental personnel, dedicated to forest-fire protection, has contributed to a continuing excellent record. Forest insect and disease infestations were at endemic levels during the period of this report.

Forest management activities were primarily directed at forest stand improvement. The increased demand for fuelwood has provided an opportunity to remove hardwood trees of poor form and vigor on upland sites. Such operations have occurred in forest stands where white pine is a major component of the forest industry and release of pine on the upland sites is silviculturally advantageous. It is necessary for contractual woods operators to be adept in extraction operations to insure adequate protection of the residual stand of trees. In this regard, contractual woods operators harvested 658.5 cords of hardwood fuelwood during this year.

In April of 1979 the watershed forests of the City of Providence Water Supply Board were officially designated a Tree Farm. The Tree Farm Certification was awarded by the American Forest Institute in recognition of the forest management program followed by the department. Its intensively managed forestlands became eligible for Tree Farm Certification when municipal forests were recognized under the program in 1976. Department Foresters have served on the Rhode Island Tree Farm Committee since the early 1950's.

Grounds maintenance activity was directed at the Gainer Dam, distribution reservoirs, pipelines, rights-of-way, Rockland Cemetery, forest access roads and other facilities. Turf-management operations received priority during the growing season period. To provide for utilization of the grass cuttings and to incur an energy savings, hay was contractually removed and sold from the expansive flat areas of Neutaconkanut and Aqueduct Distribution Reservoirs.

**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 1978-June 1979) amounted to 94,466. 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. Primary Drinking Water Regulations. The actual number of bacteriological samples collected from our distribution system amounted to 3,141, an average of 262 per month.

**PURIFICATION** The water supplied to the communities from the Providence system is processed at one of the most modern filtration plants in the country. Operation is all

electric from a centralized control system. Power loss is minimized and almost nil, due to the availability of three sources. . . . public, hydro-generated and auxiliary diesel generator.

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

The treatment process consists of influent aeration, mixing, coagulation and finally, filtration. Chemicals employed include Ferri-Floc (ferric sulfate) to coagulate micro-organisms and particles that cause color and turbidity, lime to change the water from acid to alkaline to assist in the precipitation of iron and manganese and reduce corrosion in the distribution system, and chlorine to destroy harmful bacteria. Finally, fluoride is added to reduce the incidence of dental caries in children. The following quantities of chemicals were used during the year (July 1978-June 1979): 2,419,410 pounds of Ferri-Floc before influent aeration, 2,390,954 pounds of quicklime after influent aeration and before mixing, 113,334 pounds of chlorine prior to filtration, and 280,570 pounds of sodium silicofluoride after filtration. . . . a grand total of 5,204,268 pounds.

It is interesting to note that the cost of chemicals per million gallons of water treated was \$4.53 for the year ended September 30, 1959; it was \$10.05 for the year ended June 30, 1979, slightly more than double. How many other industries can make this statement?

During the year, 23,254.94 million gallons were delivered into the distribution system, an average of 63.71 million gallons daily. The maximum hourly demand in the system was at a rate of 147.96 million gallons daily; consumption during the maximum day, July 24, 1978, amounted to 102.79 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 4,443,253.13 feet (841.53 miles) of water mains ranging from 6-inches to 66-inches in diameter. The network consists of iron, steel, asbestos-cement and reinforced concrete steel cylinder pipe. There were 67,177 services, 16,741 valves and 5,116 hydrants in use on June 30, 1979. The amount of pipe laid during the year totaled 19,172.94 feet; 5,013.25 feet were removed, resulting in a net increase to the system of 14,159.69 feet. Services installed and removed were 497 and

112 respectively, a gain of 385. There was an increase of 30 valves, 46 having been installed and 16 removed, and a gain of 13 hydrants.....140 installed and 127 removed. The number of meters on active services totaled 67,816.

Total water distribution was 23,253.08 million gallons or 63.71 million gallons per day. The low service, a gravity supply, consumed 76.4%; 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 23.6%. Registration on customers' meters totaled 21,494.22 million gallons, accounting for 92.4% of the amount distributed.

Leaks in the transmission and distribution mains totaled 92 during the year, 35 occurring at joints and 57 as a result of ruptured mains. Leaks at joints averaged one for every 24 miles of pipe and total leaks averaged one for every 9 miles of main. Of the 92 leaks, 3 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.

The new 24-inch high service force main from Neutaconkanut Pumping Station to Longview Reservoir is now in the design stage by C E Maguire, Inc., consulting engineers, and nearing completion. The boring contract for this project is completed and the final drawings and specifications will be ready for bidding in the early part of 1980.

Waterman Engineering Company prepared drawings and specifications on the installation of a 16-inch feeder main from Longview Reservoir easterly along Mineral Spring Avenue to Charles Street; a 12-inch feeder main in Charles Street running north and south of Mineral Spring Avenue and 6-inch and 8-inch mains in various other streets in the Marieville section of North Providence. At the present time, Marieville, with about 1,274 services, is supplied by Pawtucket. Construction was started in May 1979 and when it is completed in approximately mid 1980 the area will be supplied with water by the City of Providence.

Providence has been setting up, in advance, records covering these services and other existing installations such as mains, hydrants and gates to insure a smooth transition, using data furnished by the City of Pawtucket Water Supply Board. The Town of North Providence has also cooperated with Providence throughout.

## **COMMERCIAL AND ACCOUNTING**

At the end of the fiscal year the Water Supply Board had 67,177 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 meters to a remote reading system has progressed satisfactorily. During the year 256 installations were made, bringing the total to 30,478 since the program was initiated in May 1968.

## **FINANCIAL**

The gross income for the year totaled \$7,105,824.86. Revenue from sale of water alone amounted to \$6,156,684.54. The remaining income of \$949,140.32 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 \$816,200.42, or 12.7% of this year's total net billing. The outstanding bills for this year amounted to \$535,517.21 or 8.3% of the total net billing.

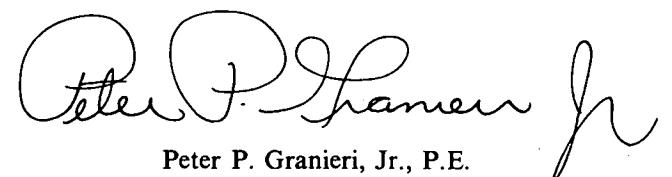
Expenses for the year, including principal payments of \$320,000.00 on serial bonds outstanding and \$643,328.75 in interest charges, amounted to \$6,414,696.67. . . . up \$874,895.14 from the previous year. Bonded debt at the close of the year was \$11,380,000.00.

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

It is anticipated that for the year ending June 30, 1980 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, 1979, are appended to this report.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter P. Granieri, Jr." The signature is fluid and cursive, with "Peter" and "P." being more stylized, and "Granieri" and "Jr." being more clearly legible.

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, 1979

STATIONS ON WATERSHED

1978-1979

	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	3.11	2.82	2.95	3.33	2.97	3.04
Aug.	6.30	6.66	6.38	7.86	10.71	7.58
Sept.	1.45	1.29	1.43	1.55	1.77	1.50
Oct.	3.90	4.11	3.33	3.38	3.12	3.57
Nov.	2.29	2.43	2.45	2.50	2.66	2.47
Dec.	5.28	4.46	5.06	4.79	4.52	4.82
Jan.	15.25	13.68	14.19	15.18	13.82	14.42
Feb.	4.11	4.11	4.15	3.93	4.18	4.10
Mar.	3.03	3.08	2.64	2.78	2.38	2.78
Apr.	5.82	6.29	5.73	5.05	5.48	5.67
May	6.60	9.26	7.99	8.26	8.54	8.13
June	1.75	2.15	1.81	2.36	2.79	2.17
TOTAL	58.89	60.34	58.11	60.97	62.94	*60.25
Monthly Average	4.91	5.03	4.84	5.08	5.25	5.02

\*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	8.02	2.54	1.91	2.67	6.40	1.98	5.22	6.34	8.36	9.09	5.35	59.14	1922	54.76
1922-1923	2.92	1.41	3.11	6.78	1.82	3.73	5.92	1.48	4.93	2.78	2.35	2.15	39.38	1923	48.39
1923-1924	5.67	5.68	5.10	4.49	2.92	2.80	6.12	3.66	1.49	1.72	5.85	5.28	50.78	1924	39.15
1924-1925	0.21	2.23	2.38	4.41	2.22	4.76	2.85	2.72	2.36	6.14	1.70	2.96	34.94	1925	44.45
1925-1926	4.32	4.83	5.18	3.26	6.10	3.73	2.46	2.27	1.74	3.80	3.94	1.89	43.52	1926	43.33
1926-1927	5.04	5.55	3.55	2.98	3.31	1.59	2.56	3.41	3.36	3.99	8.55	2.61	46.50	1927	52.45
1927-1928	5.24	9.22	5.63	2.72	4.32	2.70	5.43	1.45	3.91	5.06	5.50	4.80	55.98	1928	45.59
1928-1929	3.99	2.50	3.21	5.20	4.89	3.92	7.56	3.47	2.27	2.06	2.93	1.35	43.35	1929	43.95
1929-1930	3.09	3.06	4.15	2.86	2.88	3.23	2.03	2.74	3.05	3.33	3.00	1.35	34.77	1930	35.58
1930-1931	3.36	4.65	3.10	3.55	2.57	6.37	3.36	4.19	6.31	3.74	5.96	1.97	49.13	1931	44.43
1931-1932	2.22	1.03	3.16	6.16	2.38	6.16	1.97	2.57	2.75	2.57	6.44	11.75	49.16	1932	58.60
1932-1933	6.63	7.13	2.09	2.02	3.81	6.55	6.18	3.76	4.04	2.00	3.60	7.56	55.37	1933	48.13
1933-1934	3.41	1.48	3.72	3.87	4.53	4.03	5.24	3.98	4.79	2.20	3.89	7.37	48.51	1934	51.14
1934-1935	3.25	4.44	3.55	7.24	3.09	1.93	4.76	2.27	5.12	4.10	1.42	3.59	44.76	1935	41.30
1935-1936	1.04	5.86	0.88	8.81	4.16	9.31	3.80	1.98	2.98	2.63	3.28	7.72	52.45	1936	57.75
1936-1937	2.00	1.25	9.83	5.02	2.45	4.09	5.42	3.05	3.40	1.58	6.47	4.19	48.75	1937	50.58
1937-1938	3.92	8.10	2.89	5.29	2.91	2.70	2.60	4.17	8.62	11.49	3.10	6.76	62.55	1938	57.83
1938-1939	2.64	3.91	3.64	3.08	5.06	5.86	4.53	0.94	2.95	1.20	6.52	3.47	43.80	1939	44.17
1939-1940	5.76	1.40	3.40	2.82	5.97	4.04	6.00	5.76	2.45	4.41	2.01	2.63	46.65	1940	47.18
1940-1941	2.00	6.81	2.28	3.12	3.37	2.97	1.36	3.16	4.92	5.90	4.00	0.20	40.09	1941	37.88
1941-1942	1.75	3.35	3.78	4.95	3.30	8.35	0.89	2.80	3.88	5.38	4.32	1.94	44.69	1942	51.98
1942-1943	4.26	5.52	6.39	3.56	1.95	3.68	3.90	3.87	1.99	3.41	2.15	1.30	41.98	1943	36.84
1943-1944	6.38	3.43	1.22	1.79	2.50	5.05	4.11	1.35	3.75	1.74	2.01	11.03	44.36	1944	48.82
1944-1945	2.71	8.45	4.33	3.45	5.79	2.13	3.36	4.89	5.17	2.74	3.06	2.84	48.92	1945	52.25

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	Year	Jan.-Dec. Total
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
1950-1951	2.23	7.21	4.57	4.95	4.48	5.91	3.97	5.20	2.71	3.36	3.08	2.41	50.08	1951	55.38
1951-1952	4.14	9.64	5.53	4.88	4.81	4.13	4.41	3.97	3.16	1.20	7.33	2.21	55.41	1952	45.26
1952-1953	1.94	3.02	4.20	7.38	4.64	9.33	7.54	3.24	1.67	4.27	2.94	2.74	52.91	1953	61.10
1953-1954	5.57	6.22	5.56	2.91	3.16	4.36	5.37	4.91	1.55	2.76	9.10	7.63	59.10	1954	57.44
1954-1955	3.13	5.65	6.91	1.00	4.96	4.17	4.16	1.78	4.53	2.43	12.75	4.53	56.00	1955	57.74
1955-1956	11.48	5.23	0.72	5.39	4.39	7.91	3.84	2.42	2.10	4.13	1.56	3.98	53.15	1956	49.06
1956-1957	2.96	4.92	5.46	2.90	2.46	3.33	5.01	1.55	0.72	0.96	1.58	1.58	33.43	1957	36.13
1957-1958	3.07	5.50	7.47	8.46	4.50	5.46	7.55	3.84	2.69	7.04	4.58	6.12	66.28	1958	58.88
1958-1959	3.83	3.03	1.78	2.56	4.12	7.13	4.41	1.15	5.55	6.74	2.27	0.57	43.14	1959	53.82
1959-1960	8.37	5.35	5.60	3.59	5.65	3.27	3.06	4.49	1.15	4.86	2.55	8.10	56.04	1960	47.42
1960-1961	3.58	2.86	4.26	3.24	3.48	4.27	5.92	5.65	2.25	3.01	4.02	9.43	51.97	1961	50.52
1961-1962	2.60	3.18	3.47	4.55	6.15	3.67	2.16	2.05	4.68	1.33	3.37	3.49	40.70	1962	47.58
1962-1963	8.95	4.20	2.98	3.23	3.41	3.71	2.03	3.06	3.36	3.59	1.65	4.41	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 ENDING 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	Year	Total	Jan.-Dec.
1916-1917	7.38	1.33	1.24	2.61	2.34	3.30	3.96	2.18	4.91	2.70	4.15	4.54	40.64	1917	43.16	
1917-1918	1.51	6.13	2.66	6.71	0.48	3.23	3.56	3.73	2.15	4.56	3.12	4.49	42.33	1918	47.09	
1918-1919	5.13	4.14	8.79	1.07	2.60	3.75	4.89	3.42	6.05	4.31	5.99	3.65	53.79	1919	56.42	
1919-1920	5.47	6.65	6.07	2.29	5.05	2.58	3.03	6.10	4.90	6.28	3.95	7.93	60.30	1920	55.81	
1920-1921	4.44	3.86	3.04	1.34	5.85	5.09	3.46	3.06	3.72	5.45	3.73	4.30	47.34	1921	47.84	
1921-1922	6.80	2.97	2.53	1.26	8.02	2.54	1.91	2.67	6.40	1.98	5.22	6.34	48.64	1922	54.76	
1922-1923	8.36	9.09	5.35	2.92	1.41	3.11	6.78	1.82	3.73	5.92	1.48	4.93	54.90	1923	48.39	
1923-1924	2.78	2.35	2.15	5.67	5.68	5.10	4.49	2.92	2.80	6.12	3.66	1.49	45.21	1924	39.15	
1924-1925	1.72	5.85	5.28	0.21	2.23	2.38	4.41	2.22	4.76	2.85	2.72	2.36	36.99	1925	44.45	
1925-1926	6.14	1.70	2.96	4.32	4.83	5.18	3.26	6.10	3.73	2.46	2.27	1.74	44.69	1926	43.33	
1926-1927	3.80	3.94	1.89	5.04	5.55	3.55	2.98	3.31	1.59	2.56	3.41	3.36	40.98	1927	52.45	
1927-1928	3.99	8.55	2.61	5.24	9.22	5.63	2.72	4.32	2.70	5.43	1.45	3.91	55.77	1928	45.59	
1928-1929	5.06	5.50	4.80	3.99	2.50	3.21	5.20	4.89	3.92	7.56	3.47	2.27	52.37	1929	43.95	
1929-1930	2.06	2.93	1.35	3.09	3.06	4.15	2.86	2.88	3.23	2.03	2.74	3.05	33.43	1930	35.58	
1930-1931	3.33	3.00	1.35	3.36	4.65	3.10	3.55	2.57	6.37	3.36	4.19	6.31	45.14	1931	44.43	
1931-1932	3.74	5.96	1.97	2.22	1.03	3.16	6.16	2.38	6.16	1.97	2.57	2.75	40.07	1932	58.60	
1932-1933	2.57	6.44	11.75	6.63	7.13	2.09	2.02	3.81	6.55	6.18	3.76	4.04	62.97	1933	48.13	
1933-1934	2.00	3.60	7.56	3.41	1.48	3.72	3.87	4.53	4.03	5.24	3.98	4.79	48.21	1934	51.14	
1934-1935	2.20	3.89	7.37	3.25	4.44	3.55	7.24	3.09	1.93	4.76	2.27	5.12	49.11	1935	41.30	
1935-1936	4.10	1.42	3.59	1.04	5.86	0.88	8.81	4.16	9.31	3.80	1.98	2.98	47.93	1936	57.75	
1936-1937	2.63	3.28	7.72	2.00	1.25	9.83	5.02	2.45	4.09	5.42	3.05	3.40	50.14	1937	50.58	
1937-1938	1.58	6.47	4.19	3.92	8.10	2.89	5.29	2.91	2.70	2.60	4.17	8.62	53.44	1938	57.83	
1938-1939	11.49	3.10	6.76	2.64	3.91	3.64	3.08	5.06	5.86	4.53	0.94	2.95	53.96	1939	44.17	
1939-1940	1.20	6.52	3.47	5.76	1.40	3.40	2.82	5.97	4.04	6.00	5.76	2.45	48.79	1940	47.18	
1940-1941	4.41	2.01	2.63	2.00	6.81	2.28	3.12	3.37	2.97	1.36	3.16	4.92	39.04	1941	37.88	
1941-1942	5.90	4.00	0.20	1.75	3.35	3.78	4.95	3.30	8.35	0.89	2.80	3.88	43.15	1942	51.98	
1942-1943	5.38	4.32	1.94	4.26	5.52	6.39	3.56	1.95	3.68	3.90	3.87	1.99	46.76	1943	36.84	
1943-1944	3.41	2.15	1.30	6.38	3.43	1.22	1.79	2.50	5.05	4.11	1.35	3.75	36.44	1944	48.82	
1944-1945	1.74	2.01	11.03	2.71	8.45	4.33	3.45	5.79	2.13	3.36	4.89	5.17	55.06	1945	52.25	

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

TABLE 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	60.04
1977-1978	3.53	3.66	7.46	8.52	6.46	5.41	9.83	2.54	4.13	2.54	6.23	1.45	61.76	1978	49.70
1978-1979	3.04	7.58	1.50	3.57	2.47	4.82	14.42	4.10	2.78	5.67	8.13	2.17	60.25	1979	-----
63 Years Average	3.77	4.29	4.18	3.75	4.72	4.49	4.37	3.92	4.47	4.13	3.72	3.52	*49.33	Avg.	*49.12
63 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	14.42	6.88	9.33	7.56	9.36	8.62	67.46	Max.	75.24
63 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.

NOTES: The 63-Year calendar year average is for the years 1916-1978.

A new maximum of record was established for January and for the 63 year period.

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

\*Total of Monthly Averages.

TABLE 5

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

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

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

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

TABLE 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	26.50
1978-1979	0.07	0.89	-0.05	0.31	0.52	2.03	10.75	3.09	4.40	3.36	3.63	0.88	29.88	1979	-----
63 Years Average	0.58	0.48	0.64	0.87	1.90	2.68	3.07	2.83	4.75	3.73	2.41	1.12	*25.06	Avg.	*25.00
63 Years Maximum	6.93	4.04	4.39	7.22	6.75	6.60	10.75	5.49	11.51	6.89	5.25	4.15	40.97	Max.	43.96
63 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 63-year calendar year average is for the years 1916-1978.

TABLE 6  
MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

BASIS:-YEARS ENDED SEPTEMBER 30

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	Jan.-Dec. Year	Jan.-Dec. Total
1915-1916	27.3(e)	43.0(e)	51.7(e)	133.0	62.9	162.2	128.9	76.4	59.9	37.1	82.0	33.9	68.1	1916	66.4
1916-1917	19.5	24.8	29.4	48.2	59.6	87.4	113.0	67.2	48.0	52.3	11.6	23.7	48.1	1917	51.9
1917-1918	26.7	331.2	47.2	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	90.0	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	0.0	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	53.0

(e) Estimated

TABLE 6 (Continued)  
MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

Year	BASIS:-YEARS ENDED SEPTEMBER 30												Jan.-Dec.		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total	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	-14.4	1.2	67.6	1956	52.7
1956-1957	7.8	22.4	53.1	83.1	85.4	83.5	90.6	37.4	-25.0	-42.7	-24.1	-13.9	46.2	1957	39.3
1957-1958	2.0	9.5	32.1	77.9	59.8	110.4	91.3	101.0	30.9	12.1	18.8	21.4	49.7	1958	60.6
1958-1959	53.5	61.1	102.8	64.5	62.6	82.2	102.5	126.1	22.2	31.0	3.1	-40.4	57.8	1959	50.1
1959-1960	14.0	40.7	78.6	91.6	90.1	96.3	131.0	48.8	30.4	7.8	-0.1	19.0	49.6	1960	53.8
1960-1961	27.4	73.8	56.8	68.2	105.7	116.4	80.2	64.2	57.8	8.3	5.0	24.4	55.4	1961	55.3
1961-1962	49.2	48.1	52.7	94.9	27.0	142.8	167.1	74.6	20.9	-6.8	1.2	2.0	54.1	1962	51.1
1962-1963	21.1	70.7	71.1	56.0	55.1	120.5	83.3	61.4	16.1	2.8	-15.2	-0.5	42.8	1963	37.5
1963-1964	-6.8	20.3	60.3	74.1	52.6	131.9	81.6	75.7	0.5	0.8	-6.5	-3.1	43.3	1964	42.3
1964-1965	3.9	12.3	39.5	40.7	76.1	141.8	74.4	51.2	16.2	-3.8	-5.4	-3.1	37.4	1965	35.8
1965-1966	1.1	8.5	22.6	11.8	44.4	195.6	56.4	47.1	30.4	3.0	2.9	6.8	26.7	1966	30.5
1966-1967	1.4	34.6	36.3	107.1	40.0	73.5	102.3	59.3	51.6	2.5	3.5	1.6	48.6	1967	53.1
1967-1968	35.7	43.5	54.9	68.0	130.2	93.3	121.2	44.4	36.4	21.3	1.1	3.8	56.1	1968	49.3
1968-1969	0.0	23.0	46.7	99.4	20.3	147.4	98.3	64.9	51.1	8.2	8.6	5.7	45.2	1969	47.6
54 Years Average	22.9	39.0	59.9	67.8	70.0	107.1	92.3	67.2	32.7	16.0	11.8	16.2	50.8	Avg.	50.8
54 Years Maximum	233.3	331.2	208.3	246.0	177.4	263.4	198.0	181.1	74.3	60.3	82.0	82.0	68.1	Max.	66.4
54 Years Minimum	-12.5	8.5	22.6	11.8	20.3	57.8	56.4	32.1	-25.0	-42.7	-24.1	-205.0	26.7	Min.	30.5

TABLE 7  
MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED  
BASIS:-YEARS ENDED JUNE 30. (FISCAL YEAR CHANGED 1969-1970 FROM FORMER OCT.-SEPT. TO JULY-JUNE PERIOD.)

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

TABLE 7 (Continued)

## MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

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

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

TABLE 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	53.3
1978-1979	2.3	11.7	-3.3	8.7	21.1	42.1	74.5	75.4	158.3	59.3	44.6	40.6	49.6	1979	---
63 Years Average	15.4	11.2	15.3	23.2	40.3	59.7	70.3	72.2	106.3	90.3	64.8	31.8	50.8	Avg.	50.9
63 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
63 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 63-Year calendar year average is for the years 1916-1978.

TABLE 8

## SCITUATE WATERSHED

(92.8 Square Miles)

## STATISTICS OF STORAGE - YEAR ENDED JUNE 30, 1979

1978-1979	1 Regulating Reservoir		2 Westconaug Reservoir		3 Barden Reservoir		4 Moswansicut Reservoir		5 Ponaganset Reservoir		Total 1-5		6 Scituate Reservoir		Total 1-6	
	Avail. Storage		Avail. Storage		Avail. Storage		Avail. Storage		Avail. Storage		% of *Tot.		Avail. Storage		Avail. % of **Tot.	
	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Avail.	Elev.	M.G.	Avail.	Elev.	M.G.
July	285.47	419	454.20	455	345.16	858	301.90	715	633.10	697	3,144	100.3	283.11	35,648	38,792	97.6
August	285.00	382	453.97	441	345.03	847	301.83	708	632.70	667	3,045	97.1	280.41	32,794	35,839	90.2
September	285.10	389	454.25	458	345.20	861	301.91	716	632.77	672	3,096	98.8	279.08	31,388	34,484	86.8
October	284.00	310	454.03	445	345.10	853	301.64	689	632.37	644	2,941	93.8	276.52	28,820	31,761	79.9
November	283.76	294	454.33	462	345.23	863	301.86	711	632.37	644	2,974	94.9	274.70	27,018	29,992	75.5
December	284.55	349	454.59	477	345.40	877	301.99	724	632.42	647	3,074	98.1	273.21	25,696	28,770	72.4
January	285.64	432	454.48	471	345.87	915	302.07	732	633.40	720	3,270	104.3	274.38	26,712	29,982	75.4
February	285.75	441	454.81	489	345.69	900	302.13	739	634.21	782	3,351	106.9	285.29	38,039	41,390	104.1
March	285.78	444	454.80	489	345.80	909	302.21	747	633.72	744	3,333	106.3	283.96	36,557	39,890	100.4
April	285.65	433	454.50	472	345.42	879	302.08	733	633.54	731	3,248	103.6	283.64	36,215	39,463	99.3
May	285.74	441	454.81	489	345.77	907	302.09	734	633.89	758	3,329	106.2	284.80	37,496	40,825	102.7
June	285.85	450	454.91	495	345.95	921	302.14	740	634.05	770	3,376	107.7	285.51	38,281	41,657	104.8
Maximum for Year	1/27/79		1/27/79		1/13/79		1/13/79		1/27/79		1/27/79		1/26/79		1/27/79	
	286.08	469	455.31	518	346.18	940	302.48	775	634.70	821	3,510	112.0	286.35	39,247	42,205	106.2
Minimum for Year	11/11/78		8/1/78		8/1/78		8/26/78		11/11/78		11/11/78		12/3/78		12/2/78	
	283.55	280	453.97	441	345.03	847	301.62	687	632.02	618	2,927	93.4	273.15	25,646	28,721	72.3
1.	Regulating Reservoir-Spillway	Elev.	285.50;	Total Storage	428 M.G.;	Dead Storage	7 M.G.;	Total Available Storage	421 M.G.							
2.	Westconaug	"	"	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	274.28	272.18	269.80	267.58	266.14	264.86	265.82	267.39	275.51	278.84	281.37
1931-1932	283.32	281.56	280.11	278.25	276.34	274.45	273.35	276.56	277.96	281.85	283.83	283.17
1932-1933	281.06	278.86	277.16	279.75	282.50	284.60	283.61	282.80	282.86	284.23	284.16	283.09
1933-1934	282.68	280.42	278.39	278.26	277.64	276.86	277.58	280.96	280.38	285.04	284.14	284.09
1934-1935	283.14	280.72	278.62	278.55	278.20	278.73	281.17	283.23	281.23	281.20	284.37	283.14
1935-1936	283.50	281.93	279.32	277.32	275.01	274.30	273.13	277.33	278.48	285.48	283.95	282.22
1936-1937	280.91	279.07	277.06	275.97	274.43	273.12	280.27	280.85	279.18	281.83	284.30	285.19
1937-1938	284.06	282.09	281.43	279.80	278.13	280.96	279.49	279.19	279.73	280.86	282.48	283.04
1938-1939	284.87	285.14	280.58	281.12	279.83	278.23	280.01	279.17	281.31	282.72	283.74	282.57
1939-1940	280.86	278.48	276.67	274.62	272.85	273.10	273.18	274.28	274.70	280.08	284.55	285.11
1940-1941	283.53	282.87	280.63	278.35	275.88	276.19	276.21	276.22	278.63	279.70	280.39	280.01
1941-1942	280.07	278.99	277.15	274.75	272.38	270.88	270.02	270.95	273.39	282.29	281.65	281.25
1942-1943	280.34	279.81	278.31	276.16	274.55	275.40	280.05	279.69	280.00	280.98	281.53	283.91
1943-1944	282.46	280.43	278.21	275.93	274.41	273.57	271.84	270.65	270.52	273.95	277.75	277.50
1944-1945	276.20	273.86	271.20	271.68	270.27	273.47	277.37	279.19	279.43	283.76	283.73	283.88
1945-1946	283.76	282.03	279.81	277.63	275.45	275.88	280.85	281.92	282.59	283.71	283.56	284.67
1946-1947	283.41	281.23	282.51	281.16	279.95	278.30	277.97	279.17	279.62	283.18	283.87	284.50
1947-1948	283.91	282.73	280.97	279.29	277.37	279.63	279.66	277.97	280.01	285.22	284.61	285.56
1948-1949	284.69	282.83	281.01	278.73	277.01	278.12	279.00	281.61	281.56	282.64	284.16	284.66
1949-1950	282.50	280.17	278.10	276.05	273.94	272.40	272.07	273.29	275.58	280.13	282.78	284.07
1950-1951	283.58	281.33	279.64	277.64	275.63	275.99	277.74	279.77	282.17	283.41	284.46	285.08
1951-1952	284.19	282.41	280.57	278.54	276.71	281.24	283.40	282.84	281.44	283.39	284.31	285.10
1952-1953	283.92	281.34	280.02	277.76	275.37	273.52	272.74	278.12	282.29	285.13	284.68	284.49
1953-1954	282.38	280.50	278.36	276.08	274.38	274.86	279.60	280.19	281.50	283.75	284.92	284.48
1954-1955	283.05	281.11	280.22	282.61	281.65	282.94	284.57	281.49	282.33	282.66	284.05	284.35
1955-1956	283.65	281.04	282.47	279.97	285.21	284.60	281.10	282.20	282.41	282.18	285.06	283.80
1956-1957	282.87	281.39	278.96	276.87	274.79	274.14	276.52	278.15	279.67	282.10	284.36	283.34
1957-1958	281.00	278.38	275.91	273.47	271.19	269.42	270.66	279.27	280.98	284.82	285.62	284.67
1958-1959	283.80	282.10	280.42	279.27	279.43	279.32	278.74	278.12	279.12	282.98	284.30	283.82
1959-1960	283.61	283.91	281.28	279.01	278.35	279.54	282.60	282.15	284.19	283.12	284.27	284.62

TABLE 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
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
1978-1979	283.11	280.41	279.08	276.52	274.70	273.21	274.38	285.29	283.96	283.64	284.80	285.51
51 Years Average	282.56	280.75	278.89	277.45	276.35	276.49	277.68	278.81	279.56	282.42	283.41	283.48
51 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
51 Years Minimum	275.84	273.86	271.20	269.80	267.58	266.14	264.86	265.82	267.39	272.57	272.61	273.71

TABLE 10  
 SCITUATE WATERSHED  
 (92.8 Square Miles)

DRAFT AND YIELD - YEAR ENDED JUNE 30, 1979

1978-1979	DRAFT FROM SCITUATE RESERVOIR					WATERSHED YIELD		
	Million Gallons		To Water Purification Works	Total For Month	Average per Day	For Month	1978-1979	63-Year Mean 1917-1979
July	0	548.99	548.99	2,514.38	98.82	110.37	3.56	30.17
August	0	557.80	557.80	2,233.95	90.06	1,436.75	46.35	24.97
September	0	628.95	628.95	2,021.22	88.34	-72.83	-2.43	34.41
October	0	230.35	230.35	2,040.30	73.25	501.65	16.18	45.26
November	0	238.65	238.65	1,817.95	68.55	834.60	27.82	102.14
December	0	239.65	239.65	1,825.20	66.61	3,276.85	105.70	139.42
January	2,252.54	1,824.44	4,076.98	1,850.56	191.21	17,335.54	559.21	159.71
February	810.21	3,928.21	4,738.42	1,745.83	231.58	4,984.25	178.01	161.56
March	1,303.98	4,422.76	5,726.74	1,798.91	242.76	7,098.65	228.99	247.11
April	595.31	1,716.66	2,311.97	1,742.70	135.16	5,416.67	180.56	200.52
May	1,364.57	1,682.02	3,046.59	1,978.55	162.10	5,857.14	188.94	125.38
June	297.63	978.17	1,275.80	2,246.56	117.41	1,421.36	47.38	60.21
For Year	*6,624.24	16,996.65	23,620.89	23,816.11	129.96	48,201.00	132.06	110.65

\*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
35													
1936	0	0	453,700	111,000	0	14,400	0	0	20,000	15,000	26,000	0	640,100
1937	0	0	481,100	0	0	0	0	0	213,200	0	0	0	694,300
1938	0	0	229,000	21,693	0	0	0	0	0	0	0	0	250,693
1939	0	0	8,000	761,000	0	0	0	50,000	0	0	0	0	819,000
1940	0	0	267,387	618,828	0	45,916	0	67,750	0	0	0	0	999,881
1941	0	0	51,000	295,650	0	0	0	0	34,350	0	0	0	381,000
1942	0	0	0	308,120	0	0	0	0	0	0	0	0	308,120
1943	0	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	1,500	12,000	0	0	0	0	0	0	0	13,500
1952	0	0	20,000	0	0	0	0	0	10,000	0	10,000	0	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	6,000	0	10,000
1955	0	0	0	5,000	0	0	0	0	0	0	5,000	0	10,000

TABLE 11 (Continued)  
SCITUATE WATERSHED - REFORESTSTATION  
NUMBER AND KINDS OF TREES PLANTED IN VARIOUS YEARS

Planted During Calendar Year	Fraser Fir	Balsam Fir	Red Pine	White Pine	Douglas Fir	Austrian Pine	Scotch Pine	Jack Pine	White Spruce	Norway Spruce	Hemlock	Larch	Total Number Planted Yearly
1956	0	0	0	5,000	0	4,500	0	0	0	0	0	0	9,500
1957	0	0	0	6,000	0	0	0	0	0	0	0	0	6,000
1958	0	0	2,700	2,000	0	0	0	0	0	0	0	0	4,700
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	140	540	6,874	784	405	0	0	3,401	49	0	3,461	15,654
1961	0	0	0	2,300	144	0	0	0	0	0	2,000	0	4,444
1962	0	0	0	5,000	0	0	0	0	150	0	2,000	2,000	9,150
1963	0	0	0	5,000	0	0	0	0	170	0	5,000	5,000	15,170
1964	0	0	0	5,000	0	0	0	0	510	0	5,000	5,000	15,510
1965	1,000	2,000	0	5,000	0	0	0	0	0	0	10,000	5,000	23,000
1966	0	0	0	5,000	0	0	0	0	0	0	5,000	5,000	15,000
1967	0	0	0	1,000	0	0	0	0	0	0	3,000	1,000	5,000
1968	0	0	0	2,000	1,000	0	0	0	0	0	2,000	1,000	*6,200
1969	0	0	0	2,000	0	0	0	0	0	1,000	2,000	0	**5,100
1970	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000
1971	0	0	0	2,000	500	0	0	0	0	500	2,000	0	***5,040
1972	0	0	0	2,000	500	0	0	0	0	500	2,000	0	****7,000
1973	0	0	0	1,500	500	0	0	0	0	500	2,000	500	*****7,000
1974	0	0	0	1,500	500	0	0	0	0	500	2,500	0	5,000
1975	0	0	0	4,500	500	0	0	0	0	0	0	0	5,000
1976	0	0	0	3,750	500	0	0	0	0	500	3,000	0	7,750
1977	0	0	0	2,000	500	0	0	0	0	500	1,500	0	4,500
1978	0	0	0	1,250	0	0	0	0	0	1,750	2,000	0	5,000
1979	0	0	0	1,750	0	0	0	0	0	1,250	2,000	0	5,000
Totals	1,000	4,140	2,638,427	2,857,215	19,928	101,221	136,000	121,750	821,781	226,549	84,000	48,961	7,065,312

\*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
July 1978-June 1979	3,161,000	1,052,650	2,108,800	11,582.42

\*1875 KVA 3 Phase, 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, 1979

1978- 1979	Influent Aerator Hours Operated	Plant Influent Mil. Gals.		Water Filtered Mil. Gals.		Wash Water Mil. Gals. % of Average Water per Day Filt.			Plant Effluent Mil. Gals.		Plant Effluent Flow		Number of Filters in Operation		
		Total	Average per Day	Total	Average per Day	Total	Average per Day	Filt.	Total	Average per Day	Hours	Max.	Min.	Avg.	
July	744.0	2,514.382	81.109	2,529.877	81.609	28.347	0.914	1.1	2,501.530	80.695	744.0	18	5	11.7	
August	744.0	2,233.948	72.063	2,196.039	70.840	19.772	0.638	0.9	2,176.267	70.202	744.0	17	5	10.1	
September	720.0	2,021.217	67.374	1,960.996	65.367	16.544	0.551	0.8	1,944.452	64.815	720.0	14	6	9.7	
October	745.0	2,040.296	65.816	1,923.056	62.034	21.703	0.700	1.1	1,901.353	61.334	745.0	14	7	10.4	
November	720.0	1,817.945	60.598	1,784.705	59.490	23.769	0.792	1.3	1,760.936	58.698	720.0	15	7	11.9	
December	744.0	1,825.196	58.877	1,791.099	57.777	26.828	0.865	1.5	1,764.271	56.912	744.0	15	7	11.6	
January	744.0	1,850.557	59.695	1,821.429	58.756	26.109	0.842	1.4	1,795.320	57.914	744.0	16	8	11.8	
February	671.5	1,745.826	62.351	1,680.320	60.011	26.123	0.933	1.6	1,654.197	59.078	672.0	14	7	12.1	
March	744.0	1,798.910	58.029	1,829.874	59.028	23.855	0.770	1.3	1,806.019	58.259	744.0	15	8	11.9	
April	719.0	1,742.696	58.090	1,785.556	59.519	21.868	0.729	1.2	1,763.688	58.790	719.0	16	9	12.0	
May	743.0	1,978.553	63.824	2,004.779	64.670	26.367	0.851	1.3	1,978.412	63.820	744.0	18	7	11.5	
June	720.0	2,246.557	74.885	2,234.096	74.470	25.606	0.854	1.1	2,208.490	73.616	720.0	15	7	11.7	
Totals	8,758.5	23,816.083		23,541.826		286.891			23,254.935		8,760.0				
Average	729.9		65.250		64.498		0.786	1.2		63.712	730.0			11.4	

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, 1979

1978- 1979	Average Rate of Filtration per Filter M.G.D.	Number of Filters Washed			Ferri-Floc Used			Quicklime Used			Chlorine Used			Sodium Silicofluoride Used		
		Total	Avg. per Day	Average Filter Run Hours	Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. per Day	Gr. per Gal.	Lbs.	Avg. Parts per Day	Mil.	Lbs.	Avg. Parts per Day	Mil.*
July	6.97	161	5.2	55.95	258,950	8,353	0.72	252,662	8,150	0.70	13,874	448	0.66	30,298	977	0.86
August	6.99	112	3.6	72.39	230,105	7,423	0.72	235,710	7,604	0.74	11,652	376	0.64	26,397	852	0.86
September	6.73	93	3.1	79.34	183,081	6,103	0.63	220,579	7,353	0.76	8,879	296	0.54	23,570	786	0.86
October	5.96	120	3.9	68.41	180,097	5,810	0.62	196,779	6,348	0.68	7,499	242	0.47	22,991	742	0.86
November	5.00	131	4.4	67.67	175,248	5,842	0.67	164,017	5,467	0.63	6,954	232	0.47	21,341	711	0.86
December	4.90	151	4.9	62.03	177,860	5,737	0.68	171,597	5,535	0.66	7,087	229	0.47	21,361	689	0.86
January	4.98	149	4.8	61.81	188,543	6,082	0.71	176,372	5,689	0.67	7,442	240	0.49	21,818	704	0.87
February	4.96	159	5.7	56.14	227,817	8,136	0.91	187,902	6,711	0.75	7,889	282	0.56	20,027	715	0.86
March	4.96	148	4.8	64.02	216,939	6,998	0.84	190,136	6,133	0.74	8,992	290	0.59	21,511	694	0.84
April	4.97	127	4.2	69.27	176,449	5,882	0.71	179,059	5,969	0.72	9,663	322	0.65	21,096	703	0.85
May	5.62	147	4.7	61.91	189,737	6,121	0.67	195,289	6,300	0.69	10,739	346	0.64	23,930	772	0.86
June	6.38	139	4.6	62.96	214,584	7,153	0.67	220,852	7,362	0.70	12,664	422	0.68	26,230	874	0.85
Totals		1,637			2,419,410			2,390,954			113,334			280,570		
Average		5.67		64.28		6,629	0.71		6,551	0.70		311	0.58		769	0.86

Total filter hours for year, 99,552.85; average per day, 272.75.

Average quantity of water filtered per filter per run, 15.19 m.g.

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

TABLE 14  
WATER PURIFICATION WORKS  
CHEMICALS USED - YEAR ENDED JUNE 30, 1979

	Pounds of Chemicals Used Total Lbs. per Day (Average)	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
Ferri-Floc	2,419,410	6,629	23,816,083,000	\$111,356.83	101.59
Quicklime	2,390,954	6,551	23,816,083,000	68,203.19	100.39
Chlorine	113,334	311	23,541,826,000	15,866.76	4.81
Sodium Silicofluoride	280,570	769	23,250,849,000	42,678.19	12.07
Totals	5,204,268			\$238,104.97	\$10.05

Price of Ferri-Floc -- From July 1, 1978 to August 4, 1978 -- \$85.81 per ton;  
                                  from August 5, 1978 to October 20, 1978 -- \$92.15 per ton;  
                                  from October 21, 1978 to April 22, 1979 -- \$92.71 per ton;  
                                  from April 23, 1979 to June 30, 1979 -- \$94.72 per ton.

Price of Quicklime -- From July 1, 1978 to February 14, 1979 -- \$56.07 per ton;  
                                  from February 15, 1979 to June 2, 1979 -- \$60.07 per ton;  
                                  from June 3, 1979 to June 30, 1979 -- \$55.10 per ton.

Price of Chlorine -- From July 1, 1978 to June 30, 1979 -- \$280.00 per ton.

Price of Sodium Silicofluoride -- From July 1, 1978 to June 12, 1979 -- \$300.00 per ton;  
                                  from June 13, 1979 to June 30, 1979 -- \$368.00 per ton.

TABLE 15  
WATER PURIFICATION WORKS  
\*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION  
YEAR ENDED JUNE 30, 1979

	Monthly Averages											Avg. for Year	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
pH													
Raw	5.8	5.8	5.8	6.2	6.5	6.5	6.3	6.0	6.0	6.1	5.9	5.8	6.1
Aerated Influent	4.2	4.2	4.4	4.4	4.3	4.3	4.2	4.0	4.1	4.2	4.1	4.0	4.2
Treated	10.2	10.2	10.3	10.3	10.4	10.5	10.4	10.3	10.3	10.4	10.4	10.3	10.3
Settled	10.1	10.1	10.2	10.2	10.3	10.4	10.3	10.2	10.2	10.3	10.3	10.2	10.2
Filtered	10.1	10.1	10.1	10.2	10.3	10.3	10.3	10.2	10.2	10.3	10.3	10.1	10.2
**Effluent	10.1	10.1	10.2	10.2	10.3	10.3	10.3	10.2	10.2	10.3	10.3	10.1	10.2
Tap	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
Acidity													
Raw	4.1	5.7	6.9	3.4	1.1	1.0	1.4	1.8	2.1	1.8	2.2	3.1	2.9
Aerated Influent	8.0	8.2	7.5	5.9	5.1	5.4	6.0	7.2	7.5	6.0	6.1	6.7	6.6
Phenolphthalein Alkalinity													
Treated	9.9	10.7	10.8	10.9	10.1	10.0	9.8	9.1	9.0	10.3	10.2	10.0	10.1
Settled	8.3	9.3	9.9	9.8	8.6	9.1	8.1	7.5	7.2	8.3	8.6	8.3	8.6
Filtered	8.1	9.1	9.3	9.7	8.5	9.0	8.1	7.4	7.0	8.1	8.4	8.2	8.4
**Effluent	8.2	9.2	9.4	9.7	8.4	9.0	8.2	7.4	7.1	8.3	8.4	8.2	8.5
Tap	6.4	7.5	7.8	8.1	7.2	7.4	6.8	6.0	5.6	6.7	6.9	6.5	6.9
Methyl Orange Alkalinity													
Raw	4.0	4.2	5.0	5.2	5.8	5.6	5.2	2.9	2.9	3.0	3.1	3.1	4.2
Treated	16.5	18.2	18.2	19.4	17.0	16.5	16.7	14.7	15.0	15.8	15.7	15.9	16.6
Settled	15.0	16.7	18.2	17.3	15.5	15.7	15.1	12.9	12.9	14.0	14.3	14.1	15.1
Filtered	14.9	16.5	17.9	17.1	15.3	15.6	15.0	12.7	12.7	13.8	14.0	13.9	15.0
**Effluent	14.9	16.6	18.0	17.2	15.3	15.5	15.0	12.7	12.8	13.9	14.0	13.9	15.0
Tap	13.4	15.3	16.6	16.4	14.6	14.4	13.8	11.6	11.5	12.8	12.9	12.8	13.8
Color													
Raw	12	12	16	13	7	6	9	14	13	12	12	11	11
Settled	12	11	11	10	6	7	11	16	15	13	13	12	11
**Effluent	4	4	4	4	3	2	3	4	4	3	3	3	3
Tap	4	4	4	4	3	2	3	5	5	4	3	3	4
Turbidity													
Raw	0.3	0.5	0.9	0.7	0.4	0.4	0.5	0.6	0.4	0.4	0.4	0.4	0.5
Settled	0.5	0.5	0.4	0.4	0.3	0.4	0.5	0.8	0.7	0.7	0.7	0.6	0.5
**Effluent	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Hardness													
Raw	9	9	10	10	11	10	9	9	9	9	9	9	9
**Effluent	27	29	30	30	28	28	26	28	27	27	27	27	28
Tap	27	29	30	30	28	28	27	28	28	27	28	27	28
Iron													
Raw	0.05	0.13	0.32	0.21	0.06	0.05	0.06	0.07	0.05	0.04	0.04	0.04	0.09
Settled	.46	.42	.35	.24	.26	.31	.55	.78	.67	.58	.54	.50	.47
**Effluent	.01	.00	.00	.00	.00	.00	.01	.04	.03	.02	.01	.01	.01
Tap	.01	.01	.02	.02	.02	.01	.02	.05	.05	.03	.02	.02	.02
Manganese													
Raw	0.02	0.09	0.20	0.19	0.02	0.01	0.01	0.02	0.03	0.02	0.02	0.02	0.05
Settled	.00	.01	.04	.03	.00	.00	.00	.01	.01	.01	.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	0.14	0.15	0.15	0.14	0.15	0.14	0.13	0.11	0.15	0.15	0.15	0.15	0.14
**Effluent	.15	.15	.15	.14	.15	.14	.13	.11	.15	.15	.15	.15	.14
Tap	.99	1.01	.98	.97	.97	.96	.99	.99	1.08	1.08	1.08	1.01	1.01
Chlorine Residual													
Filtered	0.17	0.21	0.18	0.16	0.17	0.22	0.18	0.15	0.15	0.17	0.16	0.17	0.17
**Effluent	.17	.19	.16	.15	.15	.19	.16	.13	.18	.14	.12	.15	.16
160 Socks Crossroad, Crans.	.04	.11	.14	.10	.03	.03	.03	.02	.01	.01	.01	.02	.05
Neut. Reservoir	.03	.03	.06	.04	.01	.02	.02	.02	.01	.01	.01	.01	.02
Tap	.03	.10	.11	.07	.02	.02	.01	.01	.01	.01	.01	.01	.04
Temperatures													
Raw	51	53	55	56	51	40	34	33	36	41	48	51	46
Tap	60	61	60	59	59	46	40	39	43	48	54	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, 1979

Monthly Analyses Color	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Ponaganset Reservoir	4	6	5	4	3	2	4	6	6	5	2	4	4
Coventry Brook	34	28	24	35	33	28	17	8	12	22	27	26	25
Wilbur Brook	34	112	72	85	80	28	27	14	22	34	72	60	53
Westconnaug Reservoir	13	8	9	80	17	13	11	12	8	12	12	12	17
Barden Reservoir	18	35	30	13	12	30	18	14	12	17	23	32	21
Cork Brook	18	12	19	23	13	14	17	6	9	17	22	13	15
Rush Brook	27	18	8	31	82	16	16	7	12	18	21	54	26
Huntinghouse Brook	12	8	8	56	22	13	19	6	9	13	23	18	17
Harrisdale Brook	12	12	7	6	8	14	16	6	9	12	30	17	12
Blanchard Brook	110	200	150	130	110	70	39	40	45	60	137	180	106
Moswansicut Pond	13	13	9	13	9	11	9	14	16	13	13	18	13
Regulating Reservoir	9	8	8	10	6	23	17	6	10	12	18	21	12
Quonopaug Brook	65	100	95	115	80	60	34	24	27	43	120	110	73
Hemlock Brook	18	16	30	16	45	26	27	17	17	27	50	46	28
Betty Pond Stream	36	17	25	18	44	11	10	5	6	9	9	14	17
Spruce Brook	11	60	17	47	18	40	23	9	12	28	45	37	29
Brandy Brook	28	44	35	36	34	48	46	17	22	34	45	38	36
Moswansicut-South	32	34	65	41	22	6	16	5	6	12	20	85	29
Windsor Brook	21	17	8	12	17	11	17	9	12	16	28	28	16
Paine Pond	36	**	**	**	**	35	32	17	17	22	45	60	33
Unnamed Brook-A	**	**	**	**	**	35	35	**	19	28	58	85	43
Unnamed Brook-B	47	45	20	28	17	16	18	9	11	22	56	43	28
Turbidity													
Ponaganset Reservoir	1.4	0.6	0.4	0.3	0.7	0.4	0.7	0.3	0.4	0.5	0.8	0.4	0.6
Coventry Brook	0.5	0.6	0.4	0.2	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4
Wilbur Brook	0.5	0.7	3.0	0.5	0.4	0.3	0.4	0.3	0.3	0.4	1.0	1.0	0.7
Westconnaug Reservoir	0.4	1.0	0.6	0.3	0.3	0.4	0.5	0.4	0.4	0.5	0.4	0.6	0.5
Barden Reservoir	0.3	1.0	1.2	0.2	0.3	0.3	0.4	0.4	0.3	0.4	0.5	0.6	0.5
Cork Brook	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.6	0.3
Rush Brook	0.8	0.5	1.0	0.3	0.7	0.5	0.4	0.4	0.4	0.5	0.5	1.0	0.6
Huntinghouse Brook	0.3	0.4	0.7	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.5	0.4
Harrisdale Brook	0.3	0.3	1.2	0.2	0.7	0.8	0.7	0.3	0.4	0.5	0.7	0.6	0.6
Blanchard Brook	0.9	0.9	1.0	1.0	0.4	0.4	0.4	0.4	0.3	0.4	1.8	0.8	0.7
Moswansicut Pond	1.0	0.5	0.8	0.7	0.8	0.9	0.7	0.7	0.6	0.5	0.6	0.5	0.7
Regulating Reservoir	0.4	0.3	0.5	0.4	0.4	0.5	0.7	0.3	0.6	0.6	0.6	0.5	0.5
Quonopaug Brook	0.7	0.6	0.5	0.9	0.6	0.6	0.5	0.4	0.3	0.4	0.9	0.9	0.6
Hemlock Brook	0.4	0.3	0.4	0.4	0.7	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5
Betty Pond Stream	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.3	0.3	0.8	0.6	0.5	0.4
Spruce Brook	0.7	0.7	0.4	0.5	1.0	0.8	0.4	0.7	0.3	0.6	1.0	0.4	0.6
Brandy Brook	1.5	1.0	0.3	0.4	0.6	1.1	0.7	0.4	0.4	1.0	1.0	0.4	0.7
Moswansicut-South	3.5	2.5	1.4	0.9	1.0	0.8	0.4	0.4	0.6	1.2	3.0	2.0	1.5
Windsor Brook	0.7	0.3	1.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4
Paine Pond	1.2	**	**	**	**	0.5	0.7	0.7	0.4	0.3	0.6	1.0	0.7
Unnamed Brook-A	**	**	**	**	**	0.6	0.5	**	0.3	0.3	0.9	2.0	0.8
Unnamed Brook-B	0.6	0.4	0.4	0.3	0.4	0.4	0.6	0.3	0.4	0.6	0.7	0.5	0.5

\*Parts per million.

\*\*No sample obtained--Dry.

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

TABLE 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	0.09	0.14	0.08	0.05	0.06	0.04	0.05	0.02	0.03	0.02	0.03	0.04	0.05
Coventry Brook	.13	.08	.05	.11	.10	.05	.03	.02	.02	.04	.10	.15	.07
Wilbur Brook	.15	.35	.45	.16	.26	.13	.05	.06	.04	.08	.20	.54	.21
Westconnaug Reservoir	.12	.07	.10	.09	.07	.04	.06	.05	.04	.04	.23	.23	.10
Barden Reservoir	.26	.65	.48	.23	.15	.10	.03	.04	.03	.04	.20	.40	.22
Cork Brook	.10	.04	.04	.07	.04	.04	.07	.02	.02	.02	.09	.20	.06
Rush Brook	.40	.12	.15	.24	.24	.15	.05	.08	.10	.12	.44	.64	.23
Huntinghouse Brook	.08	.02	.05	.25	.07	.03	.05	.03	.01	.03	.15	.12	.07
Harrisdale Brook	.16	.06	.15	.02	.03	.04	.02	.04	.04	.07	.40	.32	.11
Blanchard Brook	.26	1.70	1.50	.25	.46	.16	.09	.18	.07	.14	.75	1.25	.57
Moswansicut Pond	.04	.04	.07	.07	.07	.05	.04	.04	.04	.03	.03	.05	.05
Regulating Reservoir	.12	.04	.39	.20	.12	.05	.05	.02	.03	.03	.23	.24	.13
Quonopaug Brook	.84	.30	.48	.28	.36	.18	.07	.07	.05	.07	.65	.35	.31
Hemlock Brook	.37	.08	.46	.20	.22	.08	.09	.06	.05	.05	.32	.32	.19
Betty Pond Stream	.58	.14	.09	.02	.09	.03	.01	.02	.06	.02	.05	.16	.11
Spruce Brook	.60	.20	.18	.36	.07	.10	.07	.06	.08	.09	.34	.14	.19
Brandy Brook	.87	.50	.17	.37	.07	.11	.16	.03	.12	.12	.50	.13	.26
Moswansicut-South	.92	2.30	2.80	1.10	.80	.14	.08	.07	.22	.23	1.25	1.40	.94
Windsor Brook	.42	.07	.17	.05	.04	.02	.01	.17	.02	.02	.14	.19	.11
Paine Pond	.70	**	**	**	**	.05	.08	.16	.04	.05	.28	.42	.22
Unnamed Brook-A	**	**	**	**	**	.05	.12	**	.06	.08	.52	1.30	.36
Unnamed Brook-B	.36	.40	.02	.08	.07	.04	.06	.03	.08	.19	.25	.40	.17
Manganese													
Ponaganset Reservoir	0.06	0.04	0.12	0.05	0.04	0.04	0.04	0.08	0.04	0.06	0.04	0.06	0.06
Coventry Brook	.00	.02	.00	.02	.01	.00	.02	.00	.00	.01	.00	.00	.01
Wilbur Brook	.00	.04	.00	.08	.00	.00	.02	.00	.02	.00	.04	.06	.02
Westconnaug Reservoir	.00	.02	.00	.03	.01	.00	.02	.00	.04	.01	.00	.04	.01
Barden Reservoir	.00	.04	.00	.01	.00	.00	.01	.04	.04	.01	.01	.04	.02
Cork Brook	.01	.00	.00	.02	.01	.00	.04	.02	.02	.02	.01	.10	.02
Rush Brook	.00	.06	.12	.04	.01	.00	.08	.00	.04	.01	.02	.14	.04
Huntinghouse Brook	.04	.04	.00	.03	.04	.04	.04	.00	.02	.00	.00	.02	.02
Harrisdale Brook	.06	.00	.00	.00	.00	.00	.00	.02	.02	.01	.15	.00	.02
Blanchard Brook	.02	.00	.00	.01	.03	.04	.04	.04	.04	.03	.05	.00	.03
Moswansicut Pond	.02	.01	.05	.06	.04	.02	.00	.02	.00	.01	.02	.03	.02
Regulating Reservoir	.00	.00	.00	.01	.00	.04	.04	.00	.00	.00	.04	.03	.01
Quonopaug Brook	.00	.00	.04	.06	.04	.00	.01	.00	.01	.00	.06	.04	.02
Hemlock Brook	.02	.00	.02	.00	.00	.02	.00	.02	.01	.02	.02	.00	.01
Betty Pond Stream	.06	.01	.00	.00	.00	.01	.02	.00	.01	.00	.00	.00	.01
Spruce Brook	.04	.00	.03	.04	.02	.04	.04	.06	.00	.02	.04	.01	.03
Brandy Brook	.04	.04	.00	.00	.00	.02	.01	.04	.04	.02	.06	.05	.03
Moswansicut-South	.10	.14	.14	.05	.00	.02	.04	.00	.02	.00	.08	.12	.06
Windsor Brook	.03	.00	.00	.00	.00	.00	.05	.02	.04	.02	.02	.02	.02
Paine Pond	.02	**	**	**	**	.04	.03	.14	.00	.01	.03	.02	.04
Unnamed Brook-A	**	**	**	**	**	.01	.04	**	.00	.00	.02	.06	.02
Unnamed Brook-B	.04	.04	.05	.06	.06	.05	.06	.06	.14	.10	.15	.16	.08

\*Parts per million.

\*\*No sample obtained--Dry.

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

TABLE 16 (Continued)

## WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1979

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
<i>pH</i>													
Ponaganset Reservoir	4.9	5.4	5.6	5.3	5.0	4.5	4.7	4.5	4.3	4.6	4.8	4.8	4.9
Coventry Brook	6.5	6.1	6.5	5.8	6.2	6.3	5.3	5.6	5.5	5.9	6.0	5.7	6.0
Wilbur Brook	6.6	6.4	6.6	5.4	5.6	6.2	5.2	5.3	5.3	5.8	5.8	5.9	5.8
Westconaug Reservoir	6.8	6.4	6.5	6.3	6.3	6.2	5.4	5.7	5.5	6.0	6.1	6.2	6.1
Barden Reservoir	6.6	6.2	6.3	6.4	6.3	6.0	5.0	5.3	5.2	5.9	5.8	5.9	5.9
Cork Brook	6.3	6.3	6.6	5.8	6.0	5.9	5.3	5.4	5.3	5.7	5.9	6.0	5.9
Rush Brook	7.0	6.4	6.3	6.4	6.4	6.2	5.5	6.0	5.8	6.3	6.4	6.2	6.2
Huntinghouse Brook	7.0	6.6	6.7	6.1	6.3	6.3	5.4	5.7	5.8	6.0	6.3	6.2	6.2
Harrisdale Brook	6.7	6.8	6.8	6.8	6.8	6.6	5.8	5.9	6.0	6.3	6.3	6.4	6.4
Blanchard Brook	6.5	5.7	5.8	5.4	5.4	5.4	5.1	5.0	5.3	5.7	5.8	5.8	5.6
Moswansicut Pond	6.6	6.4	6.8	6.8	6.6	6.7	6.5	6.4	6.3	6.8	6.6	6.7	6.6
Regulating Reservoir	6.9	6.5	6.9	7.0	6.4	6.1	5.5	6.0	6.1	6.3	6.5	6.7	6.4
Quonopaug Brook	6.5	6.2	6.5	5.7	5.9	5.6	5.3	5.2	5.3	5.8	5.9	6.0	5.8
Hemlock Brook	6.7	6.2	6.4	6.2	5.8	5.2	4.9	5.4	4.9	5.2	5.7	5.8	5.7
Betty Pond Stream	5.6	5.8	6.2	6.1	5.6	5.9	5.6	5.3	5.5	5.9	5.9	5.9	5.8
Spruce Brook	6.3	6.1	6.4	6.2	6.1	5.8	5.2	5.3	5.3	5.5	5.7	5.5	5.8
Brandy Brook	9.9	9.0	6.8	6.7	6.5	6.2	6.0	6.3	5.9	6.4	6.4	6.1	6.9
Moswansicut-South	6.7	6.5	6.2	6.4	6.7	6.8	6.1	6.4	6.0	6.0	6.4	6.4	6.4
Windsor Brook	6.8	6.5	6.6	6.0	6.3	6.5	5.5	5.6	5.3	5.7	6.1	6.2	6.1
Paine Pond	6.1	**	**	**	**	5.8	5.7	5.4	5.8	6.3	5.9	5.8	5.9
Unnamed Brook-A	**	**	**	**	**	6.6	6.3	**	6.2	6.4	6.4	6.7	6.4
Unnamed Brook-B	6.2	5.3	5.6	5.1	5.5	4.9	4.9	4.7	4.8	5.3	5.5	5.1	5.2
<i>Acidity</i>													
Ponanganset Reservoir	2.0	1.5	1.5	1.0	2.0	2.0	3.5	2.5	2.0	3.5	1.5	2.5	2.1
Coventry Brook	2.0	2.5	2.0	3.0	3.0	5.0	3.5	4.0	2.0	4.5	4.0	5.0	3.4
Wilbur Brook	1.0	4.5	4.5	9.5	8.0	5.5	4.5	9.5	1.0	2.5	6.0	6.0	5.2
Westconaug Reservoir	1.5	2.5	2.5	4.0	2.0	1.0	3.0	3.5	2.0	2.0	2.5	2.0	2.4
Barden Reservoir	2.0	3.0	2.0	1.5	1.0	2.0	4.0	3.0	3.5	2.5	3.0	2.5	2.5
Cork Brook	2.0	2.5	2.0	3.5	4.0	2.0	4.5	4.5	2.0	3.0	4.0	3.0	3.1
Rush Brook	1.5	5.0	8.5	5.5	3.5	1.5	4.0	5.0	2.0	2.5	3.0	6.5	4.0
Huntinghouse Brook	1.0	2.5	3.5	5.5	3.5	1.0	3.0	6.0	3.5	2.5	1.5	4.5	3.2
Harrisdale Brook	4.0	1.5	3.0	2.0	1.5	1.0	3.0	7.5	2.5	3.0	3.0	4.5	3.0
Blanchard Brook	2.5	16.0	15.0	10.5	7.5	8.0	4.5	22.0	3.0	5.0	6.0	10.0	9.2
Moswansicut Pond	1.5	2.0	3.0	4.5	1.5	1.5	1.0	2.0	2.0	1.0	1.5	2.5	2.0
Regulating Reservoir	1.5	1.5	2.0	1.0	1.5	2.0	1.5	2.5	1.5	1.0	1.0	1.5	1.5
Quonopaug Brook	4.5	2.5	8.0	6.0	6.5	6.5	2.0	13.0	2.5	6.0	2.0	9.0	5.7
Hemlock Brook	7.0	4.0	3.0	2.0	4.0	3.5	3.5	4.0	2.5	3.0	3.0	3.5	3.6
Betty Pond Stream	2.0	5.0	4.0	3.0	5.0	5.0	1.0	12.5	2.0	3.0	1.0	4.0	4.0
Spruce Brook	4.0	1.5	3.0	2.5	3.0	2.0	3.0	4.5	2.5	4.0	2.0	3.5	3.0
Brandy Brook	0.0	0.0	1.5	3.0	2.0	1.0	0.5	3.5	2.5	2.0	1.0	4.0	1.8
Moswansicut-South	1.5	4.0	25.0	3.0	3.0	2.0	1.5	1.5	1.5	11.0	1.5	6.0	5.1
Windsor Brook	1.5	2.0	3.0	3.0	3.0	1.5	2.0	2.5	1.5	2.5	1.5	3.0	2.3
Paine Pond	12.5	**	**	**	**	9.0	6.0	22.0	5.5	3.0	7.5	7.0	9.1
Unnamed Brook-A	**	**	**	**	**	6.0	6.5	**	3.5	5.0	6.0	6.0	5.5
Unnamed Brook-B	2.0	3.5	3.0	4.0	3.0	2.0	6.0	4.5	1.0	4.5	2.5	5.0	3.4

\*Parts per million.

\*\*No sample obtained--Dry.

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

TABLE 16 (Continued)

## WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1979

Monthly Analyses Alkalinity	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Ponaganset Reservoir	5.0	3.0	3.0	2.5	4.0	3.5	3.0	1.0	1.5	1.5	2.0	2.0	2.7
Coventry Brook	6.5	6.0	6.5	4.5	7.0	4.5	4.0	3.5	3.0	3.0	3.5	4.0	4.7
Wilbur Brook	7.0	8.0	9.0	6.5	7.5	6.5	3.5	4.0	3.5	3.5	5.5	5.5	5.8
Westcannoug Reservoir	7.0	6.5	8.5	7.0	10.0	6.0	4.5	3.5	3.0	3.0	4.0	4.5	5.6
Barden Reservoir	4.5	4.5	6.0	6.5	6.5	5.0	4.0	3.0	3.0	3.0	3.0	3.0	4.3
Cork Brook	5.5	4.5	5.5	6.0	7.0	5.0	3.5	3.0	2.0	2.5	7.5	4.0	4.7
Rush Brook	13.5	12.0	9.0	12.5	12.5	5.5	4.0	7.5	5.0	4.5	4.0	11.0	8.4
Huntinghouse Brook	11.5	11.0	13.0	9.0	9.0	4.5	3.0	5.5	3.5	4.0	6.5	8.0	7.4
Harrisdale Brook	12.5	12.0	13.5	15.0	15.5	10.0	4.0	7.5	6.0	5.5	9.0	9.0	10.0
Blanchard Brook	6.0	8.5	8.0	7.5	6.0	6.0	3.0	4.0	3.5	4.0	5.5	7.0	5.8
Moswansicut Pond	7.0	7.5	8.0	8.0	9.0	7.0	7.5	6.0	5.0	6.0	6.5	6.5	7.0
Regulating Reservoir	11.0	12.0	9.0	8.5	10.0	6.0	2.5	6.0	5.0	5.0	7.5	6.5	7.4
Quonopaug Brook	9.0	12.5	13.0	8.0	9.0	6.5	3.0	8.0	3.5	4.0	7.0	8.0	7.6
Hemlock Brook	4.5	4.5	4.0	6.5	6.5	4.5	2.5	3.0	2.5	2.0	3.0	3.0	3.9
Betty Pond Stream	5.0	6.5	4.0	6.5	6.0	6.0	4.0	5.0	6.5	3.5	4.0	3.5	5.0
Spruce Brook	6.0	8.0	8.5	8.0	8.5	5.0	2.5	3.0	3.5	2.5	3.0	3.0	5.1
Brandy Brook	15.0	13.0	12.0	14.5	14.0	12.0	6.0	8.5	6.0	8.0	10.5	6.0	10.5
Moswansicut-South	16.5	20.0	29.5	22.0	19.5	20.5	8.5	8.0	8.0	11.0	12.5	12.5	15.7
Windsor Brook	6.5	6.0	8.0	6.0	7.5	6.5	2.5	4.0	2.0	3.0	3.5	4.5	5.0
Paine Pond	8.0	**	**	**	**	6.0	4.5	6.0	4.0	3.5	6.0	5.0	5.4
Unnamed Brook-A	**	**	**	**	**	13.5	10.0	**	8.0	8.5	13.5	21.0	12.4
Unnamed Brook-B	3.5	4.0	4.0	3.0	4.5	4.0	4.0	1.5	2.0	2.5	2.5	2.0	3.1

\*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, 1979

	Monthly Averages											Avg. for Year	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
<b>pH</b>													
Neutaconkanut Reservoir	9.9	9.9	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.1	10.1	10.0	10.1
160 Sock.Crossroad,Cranston	10.0	10.1	10.1	10.1	10.1	10.3	10.2	10.1	10.1	10.2	10.2	10.0	10.1
630 Atwells Ave.	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
1384 Cranston St.,Cranston	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
750 Reservoir Ave.,Cranston	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
1520 Atwood Ave.,Johnston	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
774 Allens Ave.	9.9	10.0	10.0	10.1	10.1	10.3	10.2	10.1	10.0	10.2	10.2	10.0	10.1
Dexter Manor	9.9	10.0	10.0	10.1	10.1	10.3	10.2	10.1	10.0	10.2	10.2	10.0	10.1
*State Office Building	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.1	10.0	10.2	10.2	10.0	10.1
426 Admiral St.	9.9	10.0	10.0	10.1	10.1	10.3	10.2	10.1	10.0	10.2	10.2	10.0	10.1
238 Brook St.	9.9	10.0	10.0	10.1	10.1	10.3	10.2	10.1	10.1	10.2	10.2	10.0	10.1
<b>Phenolphthalein Alkalinity</b>													
Neutaconkanut Reservoir	6.0	7.0	7.4	7.7	7.0	7.0	6.7	5.8	5.3	6.3	6.5	6.0	6.6
160 Sock.Crossroad,Cranston	7.3	8.7	8.2	8.9	7.5	7.8	7.0	6.1	5.9	7.0	7.3	7.0	7.4
630 Atwells Ave.	6.5	7.4	7.8	8.2	7.2	7.5	6.9	6.0	5.6	6.9	6.9	6.6	7.0
1384 Cranston St.,Cranston	6.6	7.4	8.1	8.4	7.2	7.5	6.8	6.0	5.7	6.9	6.9	6.6	7.0
750 Reservoir Ave.,Cranston	6.5	7.5	7.9	8.4	7.3	7.5	6.8	6.0	5.6	6.9	6.9	6.5	7.0
1520 Atwood Ave.,Johnston	6.5	7.5	7.9	8.4	7.3	7.5	6.7	6.0	5.7	6.9	6.8	6.5	7.0
774 Allens Ave.	6.6	7.7	8.0	8.6	7.5	7.7	7.0	6.1	5.8	7.0	7.1	6.7	7.2
Dexter Manor	6.5	7.5	7.9	8.4	7.3	7.6	6.8	6.1	5.7	6.9	7.0	6.7	7.0
*State Office Building	6.5	7.5	8.0	8.4	7.7	7.6	6.8	6.1	5.7	6.9	7.0	6.6	7.1
426 Admiral St.	6.4	7.5	7.9	8.4	7.3	7.6	6.9	6.1	5.7	7.0	7.0	6.6	7.0
238 Brook St.	6.5	7.5	7.9	8.5	7.4	7.8	6.9	6.2	5.8	7.0	7.0	6.6	7.1
<b>Methyl Orange Alkalinity</b>													
Neutaconkanut Reservoir	12.9	14.7	16.1	16.4	14.8	14.1	13.9	11.6	11.3	12.2	12.7	12.6	13.6
160 Sock.Crossroad,Cranston	14.4	16.9	17.2	17.4	15.3	14.9	14.1	11.7	11.9	13.0	13.4	13.3	14.5
630 Atwells Ave.	13.4	15.3	16.7	16.3	14.7	14.5	13.8	11.6	11.4	12.8	12.8	12.7	13.8
1384 Cranston St.,Cranston	13.5	15.3	16.9	16.6	14.7	14.5	13.8	11.4	11.5	12.8	12.9	12.7	13.9
750 Reservoir Ave.,Cranston	13.5	15.3	16.7	16.5	14.8	14.6	13.8	11.5	11.5	12.8	12.8	12.6	13.9
1520 Atwood Ave.,Johnston	14.0	15.3	16.7	16.6	14.7	14.6	13.8	11.6	11.5	12.8	12.8	12.7	13.9
774 Allens Ave.	13.6	15.6	16.9	16.7	14.9	14.8	14.0	11.5	11.6	12.9	13.0	12.9	14.0
Dexter Manor	13.5	15.4	16.8	16.6	14.7	14.7	13.8	11.6	11.5	12.9	13.0	12.7	13.9
*State Office Building	13.4	15.4	16.8	16.5	14.9	14.7	14.0	11.6	11.5	12.9	13.0	12.8	14.0
426 Admiral St.	13.5	15.3	16.9	16.5	14.8	14.7	14.0	11.7	11.6	12.8	13.0	12.8	14.0
238 Brook St.	13.5	15.4	16.7	16.7	14.8	14.9	13.8	11.7	11.6	12.9	12.9	12.8	14.0
<b>Color</b>													
Neutaconkanut Reservoir	4	4	4	4	3	2	3	4	5	3	3	3	4
160 Sock.Crossroad,Cranston	4	4	4	4	3	2	3	5	5	3	3	3	4
630 Atwells Ave.	4	4	4	4	3	2	3	5	5	3	3	3	4
1384 Cranston St.,Cranston	4	4	4	3	3	2	3	5	5	3	3	3	4
750 Reservoir Ave.,Cranston	4	4	4	4	3	2	3	5	5	3	3	3	4
1520 Atwood Ave.,Johnston	4	4	4	4	3	2	3	4	4	3	3	3	3
774 Allens Ave.	5	4	4	4	3	2	3	5	5	3	3	3	4
Dexter Manor	4	4	4	4	3	2	3	5	5	3	3	3	4
*State Office Building	4	4	4	4	3	2	3	5	5	3	3	3	4
426 Admiral St.	4	4	4	4	3	2	3	4	5	3	3	3	4
238 Brook St.	5	4	5	4	3	2	3	5	5	4	4	4	4
<b>Iron</b>													
Neutaconkanut Reservoir	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.01	0.02
160 Sock.Crossroad,Cranston	.02	.02	.02	.02	.02	.01	.03	.05	.04	.03	.02	.02	.03
630 Atwells Ave.	.01	.01	.01	.01	.00	.00	.02	.06	.04	.02	.02	.01	.02
1384 Cranston St.,Cranston	.02	.01	.01	.00	.00	.00	.01	.05	.03	.02	.01	.01	.01
750 Reservoir Ave.,Cranston	.01	.01	.01	.00	.00	.00	.01	.06	.04	.02	.02	.01	.02
1520 Atwood Ave.,Johnston	.02	.01	.01	.00	.00	.00	.01	.04	.03	.02	.02	.01	.01
774 Allens Ave.	.03	.01	.01	.01	.01	.01	.02	.05	.04	.02	.02	.02	.02
Dexter Manor	.02	.01	.01	.01	.01	.01	.02	.06	.03	.02	.02	.02	.02
*State Office Building	.02	.02	.02	.02	.02	.02	.03	.06	.04	.03	.03	.03	.03
426 Admiral St.	.02	.02	.02	.02	.01	.01	.02	.04	.04	.02	.03	.03	.02
238 Brook St.	.04	.04	.04	.03	.03	.02	.03	.06	.05	.04	.04	.04	.04

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

TABLE 17 (Continued)  
WATER PURIFICATION WORKS  
CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER  
IN VARIOUS PARTS OF THE DISTRIBUTION SYSTEM  
YEAR ENDED JUNE 30, 1979

	Monthly Averages												Avg. for Year
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
<b>Chlorides</b>													
Neutaconkanut Reservoir	12.6	12.5	12.5	12.5	13.0	13.0	12.6	11.9	11.3	11.5	11.5	11.5	12.2
160 Sock.Crossroad,Crans.	12.6	12.5	12.4	12.5	13.0	13.0	12.6	11.9	11.3	11.5	11.5	11.5	12.2
630 Atwells Ave.	12.6	12.5	12.4	12.6	13.0	13.0	12.6	11.8	11.3	11.6	11.5	11.5	12.2
1384 Cranston St.,Crans.	12.6	12.5	12.4	12.5	13.0	13.0	12.6	11.9	11.3	11.6	11.5	11.5	12.2
750 Reservoir Ave.,Crans.	12.6	12.5	12.4	12.6	13.0	13.0	12.5	11.8	11.3	11.6	11.5	11.5	12.2
1520 Atwood Ave.,Jstn.	12.6	12.5	12.4	12.5	13.0	13.0	12.6	11.8	11.3	11.6	11.5	11.5	12.2
774 Allens Ave.	12.6	12.5	12.5	12.6	13.0	13.0	12.5	11.8	11.2	11.6	11.5	11.5	12.2
Dexter Manor	12.6	12.5	12.5	12.5	13.0	13.0	12.6	11.8	11.2	11.6	11.5	11.5	12.2
*State Office Building	12.6	12.5	12.5	12.6	13.0	13.0	12.6	11.8	11.3	11.6	11.5	11.5	12.2
426 Admiral St.	12.6	12.5	12.5	12.6	13.0	13.0	12.6	11.8	11.3	11.6	11.5	11.5	12.2
238 Brook St.	12.6	12.5	12.5	12.5	13.0	13.0	12.6	11.8	11.3	11.6	11.5	11.5	12.2
<b>Nitrites</b>													
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,Crans.	.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.,Crans.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
750 Reservoir Ave.,Crans.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
1520 Atwood Ave.,Jstn.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
774 Allens Ave.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
Dexter Manor	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
*State Office Building	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
426 Admiral St.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
238 Brook St.	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
<b>Taste</b>													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Odor</b>													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave.,Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave.,Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Fluoride</b>													
Neutaconkanut Reservoir	0.99	1.01	0.99	0.99	0.99	0.99	0.98	0.98	1.06	1.04	1.05	1.00	1.01
160 Sock.Crossroad,Crans.	.99	1.02	1.01	1.00	1.00	1.02	.99	.98	1.10	1.09	1.09	.99	1.02
630 Atwells Ave.	1.00	1.02	1.02	.99	.99	1.01	.99	.98	1.10	1.10	1.09	1.00	1.02
1384 Cranston St.,Crans.	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.00	1.10	1.10	1.11	1.10	1.03
750 Reservoir Ave.,Crans.	1.00	1.02	1.01	1.01	1.00	1.02	1.00	.98	1.10	1.11	1.09	1.01	1.03
1520 Atwood Ave.,Jstn.	1.00	1.01	.96	1.00	.99	.99	.97	.97	1.06	1.07	1.08	1.00	1.01
774 Allens Ave.	1.02	1.01	1.01	1.00	1.00	1.00	1.00	1.01	1.08	1.10	1.09	1.00	1.03
Dexter Manor	1.01	1.01	.99	.99	.99	1.00	1.01	1.00	1.09	1.10	1.09	1.00	1.02
*State Office Building	.97	.98	.97	.98	.99	.98	.99	.99	1.07	1.09	1.09	1.01	1.01
426 Admiral St.	.97	.98	1.03	.98	1.00	.99	.97	.98	1.06	1.07	1.09	1.01	1.01
238 Brook St.	.99	.99	.99	.97	.97	.97	.98	.98	1.08	1.10	1.09	1.00	1.01

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

TABLE 18  
WATER PURIFICATION WORKS  
BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION  
YEAR ENDED JUNE 30, 1979

Bacteria per MI. (48 Hours on Agar at 20°C.)														Tap				
1978-1979	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	180	7	51	210	15	56	72	0	6	1	0	0	0	0	0	4	0	0
August	160	55	103	190	6	90	160	0	18	1	0	0	1	0	0	0	0	0
September	124	22	78	120	5	62	8	0	1	1	0	0	1	0	0	1	0	0
October	160	25	98	180	23	113	51	0	3	9	0	1	11	0	1	0	0	0
November	86	3	43	85	10	40	7	0	1	96	0	7	5	0	1	1	0	0
December	110	0	43	90	24	47	4	0	0	11	0	2	3	0	1	0	0	0
January	300	27	100	400	0	100	230	0	14	190	0	14	120	0	9	5	0	1
February	260	40	107	350	0	137	450	0	75	280	0	50	210	0	12	5	0	0
March	89	15	41	83	10	45	530	0	116	190	0	51	120	0	12	36	0	7
April	34	5	20	31	4	17	2475	0	156	120	0	16	49	0	12	32	0	11
May	150	4	46	300	5	57	86	0	7	200	0	13	12	0	2	9	0	1
June	140	7	33	42	0	25	7	0	1	2	0	0	3	0	0	14	0	1
For Year	300	0	64	400	0	66	2475	0	33	280	0	13	210	0	4	36	0	2

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, 1979

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

1978-1979	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	20	0	9	16	0	6	8	0	1	1	0	0	1	0	0	2	0	0
August	114	12	49	90	4	43	52	0	7	1	0	0	0	0	0	1	0	0
September	59	14	30	35	5	22	28	0	4	0	0	0	0	0	0	0	0	0
October	64	10	34	70	13	29	16	0	1	1	0	0	0	0	0	0	0	0
November	18	2	8	21	3	9	140	0	8	1	0	0	0	0	0	2	0	0
December	54	0	4	7	0	3	23	0	1	1	0	0	4	0	0	0	0	0
January	27	0	7	28	0	7	25	0	3	1	0	0	0	0	0	2	0	1
February	37	8	26	42	0	23	7	0	2	0	0	0	1	0	0	4	0	0
March	37	8	18	32	6	16	21	0	5	2	0	0	1	0	0	12	0	1
April	16	1	8	19	3	9	200	0	13	1	0	0	0	0	0	1	0	0
May	13	0	6	8	1	4	30	0	3	3	0	0	1	0	0	5	0	0
June	19	2	6	7	0	4	3	0	0	1	0	0	2	0	0	8	0	0
For Year	114	0	17	90	0	15	200	0	4	3	0	0	4	0	0	12	0	0

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, 1979

COLIFORM BACTERIA

R A W ---- A. M.

	No. of Portions Positive Per No. Tested	10 ml.	1.0 ml.	0.1 ml.	Geometric Mean MPN Per 100 ml.	Effluent			
						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	Settled A.M.	Effluent P.M. *Tap
1978- 1979									
July	14/75	1/75	0/75	< 3.8		6/2,500	3/2,500	0/2,000	0/24,500
August	16/78	0/78	0/78	< 3.8		0/2,600	0/2,600	0/2,200	7/26,800
September	26/75	4/75	2/75	< 5.9		42/2,500	0/2,500	0/2,000	0/24,400
October	49/75	10/75	1/75	< 12.0		0/2,500	0/2,500	0/2,100	0/25,600
November	59/69	32/69	6/69	< 41.3		0/2,300	0/2,300	0/1,900	0/23,200
December	71/75	20/75	5/75	< 39.8		0/2,500	0/2,500	0/1,800	2/22,800
January	61/78	10/78	2/78	< 15.3		0/2,600	0/2,600	0/2,200	0/26,800
February	36/69	4/69	0/69	< 7.4		0/2,300	0/2,300	0/1,900	0/23,200
March	17/81	2/81	1/81	< 4.1		0/2,700	0/2,700	0/2,200	0/26,800
April	15/75	0/75	0/75	< 3.8		0/2,500	3/2,500	0/2,000	0/24,700
May	12/75	2/75	0/75	< 3.7		0/2,500	0/2,500	0/2,100	2/25,600
June	10/78	1/78	0/78	< 3.6		5/2,600	0/2,600	0/2,100	46/25,700
For Year	386/903	86/903	17/903	< 7.5		53/30,100	6/30,100	0/24,500	57/300,100

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, 47 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, 1979

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Bacteria per ml. 48 Hours on Agar at 20°C.												
Ponaganset Reservoir	130	360	180	110	34	100	120	19	100	80	160	120
Coventry Brook	TNTC	TNTC	200	780	400	60	90	96	92	115	301	240
Wilbur Brook	TNTC	TNTC	TNTC	TNTC	1,180	160	470	97	82	120	440	1,470
Westconaug Reservoir	TNTC	590	210	TNTC	400	200	180	77	220	95	320	390
Barden Reservoir	130	380	280	270	80	100	950	52	170	76	150	220
Cork Brook	TNTC	260	160	660	320	100	450	150	110	150	400	860
Rush Brook	TNTC	TNTC	TNTC	TNTC	530	310	940	140	140	130	440	1,410
Huntinghouse Brook	TNTC	TNTC	900	TNTC	1,420	220	560	180	2,100	270	1,130	1,540
Harrisdale Brook	720	440	470	370	210	320	1,430	100	250	310	180	280
Blanchard Brook	TNTC	TNTC	TNTC	TNTC	440	100	1,380	89	100	180	670	950
Moswansicut Pond	590	500	310	1,440	230	130	330	100	330	72	280	1,148
Regulating Reservoir	600	230	220	240	220	1,370	1,630	37	1,080	86	290	150
Quonopaug Brook	TNTC	TNTC	750	840	900	280	950	67	280	150	460	690
Hemlock Brook	540	190	260	380	1,020	220	1,720	120	160	210	520	800
Betty Pond Stream	840	590	290	340	330	190	2,340	150	610	100	310	580
Spruce Brook	TNTC	TNTC	310	720	360	210	260	85	220	230	920	580
Brandy Brook	840	450	390	590	650	490	3,400	210	460	180	860	1,850
Moswansicut-South	TNTC	TNTC	TNTC	TNTC	730	280	960	190	290	260	1,040	1,276
Windsor Brook	TNTC	490	570	550	350	190	540	120	180	185	350	228
Paine Pond	540	*	*	*	*	1,020	600	120	360	190	1,400	598
Unnamed Brook-A	*	*	*	*	*	360	900	*	100	210	700	1,463
Unnamed Brook-B	470	TNTC	320	570	180	110	120	100	430	190	360	700
Bacteria per ml. 24 Hours on Agar at 35°C.												
Ponaganset Reservoir	41	250	74	32	6	19	12	1	39	0	30	50
Coventry Brook	370	300	100	180	40	17	8	10	6	10	120	364
Wilbur Brook	550	TNTC	430	920	110	5	100	35	180	14	350	860
Westconaug Reservoir	TNTC	510	52	550	65	8	17	4	220	7	170	210
Barden Reservoir	88	270	150	57	12	9	77	12	140	3	44	160
Cork Brook	340	180	42	99	34	10	90	7	130	12	72	270
Rush Brook	510	520	TNTC	480	49	18	100	11	10	9	160	420
Huntinghouse Brook	270	600	130	560	94	14	70	7	1,380	3	1,200	320
Harrisdale Brook	850	360	300	84	12	21	130	14	65	12	56	180
Blanchard Brook	560	TNTC	TNTC	450	74	20	140	29	63	14	460	400
Moswansicut Pond	480	430	240	430	31	20	35	44	170	2	120	400
Regulating Reservoir	460	220	130	49	39	87	190	38	270	13	70	130
Quonopaug Brook	800	710	370	210	76	74	130	18	220	10	180	210
Hemlock Brook	260	120	100	37	80	16	86	12	58	10	140	300
Betty Pond Stream	490	490	190	145	19	21	77	11	35	12	180	290
Spruce Brook	460	430	240	180	90	50	18	5	85	7	210	160
Brandy Brook	470	430	160	120	97	TNTC	280	36	140	14	270	1,250
Moswansicut-South	530	TNTC	TNTC	460	191	120	130	21	25	15	260	320
Windsor Brook	370	280	160	40	22	28	44	14	110	9	94	170
Paine Pond	210	*	*	*	*	120	180	32	320	84	470	380
Unnamed Brook-A	*	*	*	*	*	60	140	*	21	37	190	390
Unnamed Brook-B	380	TNTC	140	110	30	30	22	16	220	19	210	410

\*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, 1979

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Coliform Bacteria Index per 100 ml.											
Ponaganset Reservoir	60	25	25	6	0	25	6	25	6	6	25	5
Coventry Brook	250	700	130	60	25	25	-5	6	0	130	60	
Wilbur Brook	1,100+	200	1,100+	1,100+	25	250	700	6	0	13	50	1,100+
Westconnaug Reservoir	1,100+	600	50	700	250	12	13	6	0	0	60	25
Barden Reservoir	50	25	25	60	0	6	50	25	6	6	6	25
Cork Brook	1,100+	250	60	1,100+	60	25	130	250	0	6	60	60
Rush Brook	1,100+	1,100+	250	250	60	60	700	50	25	20	25	1,100+
Huntinghouse Brook	1,100+	1,100+	250	250	25	50	250	25	25	60	25	700
Harrisdale Brook	60	60	700	60	6	60	130	6	6	13	12	25
Blanchard Brook	1,100+	1,300	250	1,100+	50	25	25	-5	250	25	25	130
Moswansicut Pond	210	240	150	460	-3	23	43	23	4	4	9	39
Regulating Reservoir	60	6	6	6	0	60	700	6	0	0	6	50
Quonopaug Brook	1,100+	1,100	700	130	60	60	60	13	6	25	200	200
Hemlock Brook	25	6	6	6	130	6	25	25	0	12	25	6
Betty Pond Stream	60	25	25	6	6	25	25	-5	0	0	6	6
Spruce Brook	1,100+	130	700	700	5	6	25	6	6	6	25	60
Brandy Brook	130	700	250	60	60	25	1,100	60	6	6	60	25
Moswansicut-South	1,100+	1,100+	1,100+	700	700	1,100	700	13	6	130	700	1,100+
Windsor Brook	1,100+	60	700	700	25	250	250	13	60	250	60	50
Paine Pond	2,400+	*	*	*	*	23	23	9	11	4	210	210
Unnamed Brook-A	*	*	*	*	*	240	43	*	7	23	2,400+	1,100
Unnamed Brook-B	700	60	750	60	0	25	250	6	0	25	25	130

\*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, 1979

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	1	1	3	4	1	0	1
160 Sock.Crossroad,Cran.	0	0	0	0	0	1	1	0	6	9	0	6	2
630 Atwells Ave.	0	0	0	0	1	0	1	1	7	13	1	0	2
1384 Cranston St.,Cranston	1	0	0	0	0	0	1	1	3	6	1	0	1
750 Reservoir Ave.,Cranston	0	0	0	0	0	0	1	1	6	6	1	0	1
1520 Atwood Ave.,Johnston	0	0	1	0	1	1	1	1	8	11	3	0	2
774 Allens Ave.	2	2	0	0	0	0	2	1	4	15	1	0	2
Dexter Manor	0	0	0	0	0	1	1	1	6	11	3	0	2
*State Office Building	0	0	0	0	0	0	1	1	7	12	1	0	2
426 Admiral St.	0	0	0	0	0	0	0	0	5	9	2	0	1
238 Brook St.	0	1	0	0	0	0	0	0	9	11	2	5	2
Bacteria per ml. 24 Hours on Agar at 35°C.													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad,Cran.	0	0	0	0	0	0	0	0	0	0	0	1	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	1	0	0	0	0	0
750 Reservoir Ave.,Cranston	0	0	0	0	0	0	0	0	0	1	0	0	0
1520 Atwood Ave.,Johnston	0	0	0	0	12	0	0	0	0	0	0	0	1
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	2	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	1	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	2	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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	2.19	.19
630 Atwells Ave.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1384 Cranston St.,Cranston	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
750 Reservoir Ave.,Cranston	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
1520 Atwood Ave.,Johnston	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
774 Allens Ave.	.00	.22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
Dexter Manor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
*State Office Building	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
426 Admiral St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
238 Brook St.	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

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

TABLE 23  
WATER PURIFICATION WORKS  
MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1979

Parts per Million	*R A W W A T E R					T A P W A T E R					
	1978		1979			Avg.	1978		1979		
	July- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- June			July- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- June	Avg.
Aluminum	0.01	0.02	0.05	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.04
Arsenic		0.00		0.00	0.00		0.00		0.00	0.00	0.00
Calcium	2.48	2.60	2.20	2.20	2.37	8.41	10.01	9.21	9.21	9.21	9.21
Chloride	11.7	12.2	11.5	10.6	11.5	12.7	12.8	11.9	11.5	12.2	
Copper	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.02	---	0.02	
Fluoride	0.15	0.14	0.13	0.15	0.14	0.99	0.97	1.02	1.06	1.01	
Hardness	9	10	9	9	9	29	29	28	27	28	
Iron	0.17	0.11	0.06	0.04	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	0.68	0.85	1.10	1.10	0.93	1.94	0.97	1.21	0.97	1.27	
Manganese	0.10	0.07	0.02	0.02	0.05	0.00	0.00	0.00	0.00	0.00	
Phenolic Compounds	0.000	---	---	---	0.000	0.000	---	---	---	0.000	
Selenium		0.00		---	0.00		0.00		---	0.00	
Silica	3.0	2.0	2.0	---	2.3	4.0	3.0	2.0	---	3.0	
Sulfate	2.0	6.0	5.5	---	4.5	11.0	13.0	14.3	---	12.8	
Total Solids	78	58	58	48	61	93	77	93	66	82	
Loss on Ignition	29	26	27	14	24	21	29	27	19	24	
Total Alkalinity	5.7	5.5	3.7	3.1	4.5	15.1	15.1	12.3	12.8	13.8	
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	7.2	7.6	6.1	6.7	6.9	
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, 1979

1978- 1979	*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.	%	Total Solids		Free	Alb.	Ni- trites	Ni- trates	Chlo- rides	P.P.M.	%	Total Solids					
July	0.004	0.050	0.000	0.14	12.0	7.5	68.5	45	27	0.007	0.027	0.001	0.11	13.0	10.4	100.0	69	21				
August	0.040	---	0.000	0.09	11.5	5.8	53.7	125	24	0.070	---	0.001	0.07	12.5	10.1	98.1	114	19				
September	0.045	---	0.000	0.14	11.5	4.1	38.2	63	35	0.080	---	0.001	0.10	12.5	10.0	95.7	97	24				
October	0.010	---	0.000	0.05	11.7	9.0	85.7	55	25	0.030	---	0.001	0.02	12.5	10.3	97.2	77	30				
November	0.020	---	0.000	0.02	12.4	10.1	92.2	52	18	0.020	---	0.001	0.02	13.0	10.8	98.6	75	22				
December	0.030	---	0.000	0.05	12.5	12.4	100.0	67	34	0.040	---	0.001	0.05	13.0	11.5	92.0	80	34				
January	0.040	---	0.000	0.08	12.2	13.7	97.2	66	29	0.030	---	0.001	0.06	12.6	14.3	101.0	118	30				
February	0.009	---	0.000	0.11	11.2	13.2	93.0	57	28	0.010	---	0.001	0.08	11.9	14.2	100.0	96	29				
March	0.010	---	0.000	0.08	11.1	13.6	96.6	50	24	0.020	---	0.001	0.06	11.3	13.9	100.8	66	22				
April	0.018	---	0.000	0.07	10.7	12.6	99.5	44	17	0.032	---	0.001	0.03	11.5	12.7	99.2	64	19				
May	0.032	---	0.000	0.20	10.5	11.7	98.4	53	21	0.030	---	0.001	0.15	11.5	11.7	102.0	65	24				
June	0.030	---	0.000	0.10	10.5	9.8	87.5	47	4	0.025	---	0.001	0.07	11.5	10.8	100.9	69	15				
Averages	0.024	0.050	0.000	0.09	11.5	10.3	84.2	60	24	0.033	0.027	0.001	0.07	12.2	11.7	98.8	83	24				

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

\*\*Plant effluent.

TABLE 25  
WATER PURIFICATION WORKS  
LABORATORY EXAMINATIONS MADE DURING THE FISCAL YEAR ENDED JUNE 30, 1979

Source of Water Tested	Frequency of Test or Examination	Number of Tests or Analyses Made During the Fiscal Year					Total
		Chemical	Bacteriological	Microscopical	Sanitary Chemical	Mineral	
I Brooks and Streams on Watershed Fourteen Brooks, Two Streams and One Pond	Monthly	1,358	2,311		40		3,709
II Smaller Storage Reservoirs on Watershed Regulating Reservoir	Monthly	84	123				207
Westconnaug Reservoir	Monthly	84	135				219
Barden Reservoir	Monthly	84	125				209
Moswansicut Pond	Monthly	84	188		24		296
Ponaganset Reservoir	Monthly	84	122				206
III Scituate Reservoir Surface Water	Bi-Weekly	208		12	156		376
Subsurface Water (See Purif. Wks.-Raw Water)							
IV Pawtuxet River-Below Gainer Dam Gainer Dam Meter Chamber	Bi-Weekly	182			156		338
Fiskeville, R. I.	Bi-Weekly	182			156		338
Twelve Other Locations on Pawtuxet River	Bi-Weekly	2,340			2,184		4,524
V Water Purification Works Raw Water (from Bottom of Scituate Reservoir) Daily		2,852	4,670		1,324	365	9,211
Raw Water (from Bottom of Scituate Reservoir) Bi-Weekly				12			12
Raw Water (from Bottom of Scituate Reservoir) Monthly					52		52
*Raw Water (from Bottom of Scituate Reservoir) Every 13 weeks						24	24
Aerated Influent	Daily	720					720
Mixer	Daily	2,050					2,050
Settled	Daily	2,380	820		300	365	3,865
Settled	Bi-Weekly			12			12
Settled	Monthly				36		36
Filtered	Daily	2,136	816		1,616		4,568
Filtered	Monthly				10		10
Effluent	Daily	2,998	814		1,616		5,428
Effluent	Bi-Weekly			12			12
Effluent	Monthly				17		17
Raw Water (from Bottom of Scituate Reservoir) Daily at 1:00 P.M.		980	735		980		2,695
Effluent	Daily at 1:00 P.M.	980	735		980		2,695

\*Composite of 13 Weekly Samples.

TABLE 25 (Continued)

## WATER PURIFICATION WORKS

LABORATORY EXAMINATIONS MADE DURING THE FISCAL YEAR ENDED JUNE 30, 1979

Number of Tests or Analyses Made During the Fiscal Year

Source of Water Tested	Frequency of Test or Examination	Chemical	Bacteriological	Microscopical	Sanitary Chemical	Mineral	Miscellaneous	Total
VI Neutaconkanut Distribution Reservoir								
Sample from nearby Tap	Daily	1,488	744		1,240			3,472
Sample from nearby Tap	Bi-Weekly			12				12
VII Longview Distribution Reservoir								
Sample from nearby Tap	Daily	1,488	744		992			3,224
Sample from nearby Tap	Bi-Weekly			12				12
VIII Distribution System								
Providence City Hall Tap Water	Daily	1,966	776		1,238	250	4,230	
Providence City Hall Tap Water	Bi-Weekly			12				12
Providence City Hall Tap Water	Monthly				40			40
*Providence City Hall Tap Water	Every 13 Weeks					24		24
Consumers' Complaints (10 during the year)		66	12		5			83
Disinfection of Newly Laid Mains			173		38			211
**Sectional Tests	Daily	13,548	6,743		9,316	53	29,660	
IX Miscellaneous Tests								
Coagulation Tests to Determine Chemical Dosages		72				24	96	
Analysis of Ferri-Floc used for Treatment		60				20	80	
Analysis of Quicklime used for Treatment		49				98	147	
Analysis of Sod. Silicofluoride used for Treatment		7					7	
Water, Filter Sand and Other Materials		3,120	6,980		1,195	32	11,327	
Totals		41,650	27,766	84	23,711	48	1,207	94,466

\*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, 1979

1978-1979	Operated			Operated			Operated			**Operated		
	Days	Hours and Minutes	Days	Hours and Minutes	Days	Hours and Minutes	KWH	Cost	Days	Hours and Minutes	Gals.	Oil Used
July	30	565-30	15	120-45	27	520-15	172,000	\$ 7,449.83	2	2-00	98	0
August	27	399-10	16	160-30	25	285-40	125,400	5,733.10	0	0-00	0	0
September	27	330-25	20	205-15	23	246-00	125,400	5,733.11	1	0-30	18	50
October	24	236-50	30	253-30	24	229-45	106,400	5,069.43	0	0-00	0	0
November	22	218-30	25	221-45	18	195-15	106,400	5,069.42	0	0-00	0	0
December	18	223-30	31	417-05	20	222-45	122,200	5,305.86	1	0-30	18	0
January	22	399-45	21	196-00	22	353-15	125,400	5,438.61	0	0-00	0	0
February	14	248-30	27	364-40	19	304-35	128,700	5,633.98	1	1-12	52	.50
March	17	293-30	31	454-30	15	282-30	128,700	5,633.98	0	0-00	0	0
April	16	268-30	29	538-30	15	253-00	155,800	7,280.84	0	0-00	0	0
May	20	289-00	30	541-30	17	290-30	155,800	7,280.84	0	0-00	0	0
June	23	443-30	24	413-55	23	428-30	155,800	7,280.84	1	1-00	48	0
Totals	260	3,916-40	299	3,887-55	248	3,612-00	,608,000	\$72,909.84	6	5-12	234	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, 1979

	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'			
1978-1979	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg per Day	
July	178.636	32.856	156.228	1.500	369.220	11.910	
August	144.557	42.236	90.904	0.000	277.697	8.958	
September	129.671	52.375	84.726	0.169	266.941	8.898	
October	96.448	65.360	90.694	0.000	252.502	8.145	
November	93.185	57.609	80.633	0.000	231.427	7.714	
December	99.945	102.592	98.299	0.210	301.046	9.711	
January	175.452	47.163	145.793	0.000	368.408	11.884	
February	111.712	91.702	118.676	0.583	322.673	11.524	
March	132.427	111.917	119.012	0.000	363.356	11.721	
April	116.952	131.076	101.349	0.000	349.377	11.645	
May	123.113	129.391	113.382	0.000	365.886	11.803	
June	152.497	98.775	142.691	0.501	394.464	13.149	
Totals	1,554.595	963.052	1,342.387	2.963	3,862.997	10.584	

TABLE 27  
WATER DISTRIBUTION SYSTEM  
BATH STREET HIGH SERVICE PUMPING STATION  
OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1979

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			
1978-1979	Operated Hours and Minutes	Operated Hours and Minutes	KWH	Cost	**Operated Hours and Minutes	Gas. Used Gals.			
	Days Hours and Minutes	Days Hours and Minutes			Days Hours and Minutes				
July	31 744-00	31 744-00	82,320	\$3,396.58	7 92-35	1,280			
August	31 744-00	31 744-00	81,200	3,340.90	0 0-00	0			
September	30 719-00	30 719-00	81,200	3,340.91	1 1-00	28			
October	31 744-00	31 744-00	85,820	3,593.48	0 0-00	0			
November	30 720-00	30 720-00	85,820	3,593.48	0 0-00	0			
December	23 510-00	21 456-45	80,500	3,254.02	0 0-00	0			
January	14 251-45	13 234-30	25,200	1,209.44	1 1-00	30			
February	15 280-15	15 297-30	46,160	2,489.45	1 1-00	28			
March	19 333-15	14 254-15	46,160	2,489.45	0 0-00	0			
April	16 293-00	14 258-15	46,160	2,489.45	1 1-00	26			
May	23 378-00	22 350-00	46,160	2,489.46	1 1-00	32			
June	25 474-30	24 415-30	46,160	2,489.46	0 0-00	0			
Totals	288 6,191-45	276 5,937-45	752,860	\$34,176.08	12 97-35	1,424			

\*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, 1979

1978-1979	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	Avg. per Day
	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	
July	90.005	90.000	16.502	196.507	6.338
August	94.368	94.368	0.000	188.736	6.088
September	91.771	91.776	0.235	183.782	6.126
October	95.941	95.934	0.000	191.875	6.190
November	95.617	95.616	0.000	191.233	6.374
December	72.241	62.058	0.000	134.299	4.332
January	37.612	34.650	0.253	72.515	2.339
February	41.657	44.415	0.205	86.277	3.081
March	52.437	34.400	0.000	86.837	2.801
April	42.991	38.926	0.223	82.140	2.738
May	53.113	49.179	0.231	102.523	3.307
June	62.611	54.031	0.000	116.642	3.888
Totals	830.364	785.353	17.649	1,633.366	4.475

TABLE 28  
WATER DISTRIBUTION SYSTEM  
\*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1979

1978-1979	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.	Max.	Min.
July	229.94	41.64	230.41	225.33	229.71	42.42	33.73	41.25	4.75	0.88	2.25	8.14	1.50	3.85		
August	230.14	41.97	230.38	225.73	229.34	42.37	34.42	40.61	3.77	0.86	1.97	6.45	1.46	3.38		
September	229.53	40.94	230.11	225.59	229.28	41.92	34.18	40.51	3.64	1.32	2.77	6.24	2.26	4.76		
October	228.25	38.75	230.20	225.56	229.05	42.07	34.13	40.12	3.60	1.84	2.62	6.17	3.15	4.50		
November	230.08	41.87	230.11	225.11	229.05	41.92	33.36	40.12	4.95	2.23	2.81	8.48	3.81	4.81		
December	228.80	39.69	230.24	224.95	228.80	42.14	33.08	39.69	3.80	0.70	2.56	6.50	1.20	4.39		
January	227.80	37.97	230.17	225.06	228.90	42.02	33.27	39.86	3.75	1.89	2.69	6.48	3.24	4.62		
February	229.48	40.85	230.16	225.14	228.89	42.00	33.41	39.84	4.84	1.64	2.66	8.30	2.81	4.56		
March	230.16	42.00	230.23	225.02	229.18	42.12	33.20	40.34	3.53	1.30	2.54	6.05	2.23	4.36		
April	228.21	38.68	230.15	225.90	229.47	41.99	34.71	40.83	4.07	1.69	2.47	6.98	2.89	4.23		
May	229.94	41.64	230.40	225.80	229.56	42.40	34.54	40.99	4.00	1.29	2.45	6.86	2.20	4.19		
June	230.16	42.00	230.35	225.40	229.83	42.32	33.86	41.45	4.50	1.39	2.58	7.71	2.37	4.41		
For Year			230.41	224.95	229.26	42.42	33.08	40.48	4.95	0.70	2.53	8.48	1.20	4.34		

\*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, 1979

1978-1979	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	225.95	40.25	226.67	221.86	226.00	41.52	33.06	40.34	4.14	0.47	2.26	7.28	0.83	3.98	
August	226.42	41.07	226.50	223.14	226.13	41.21	35.31	40.57	3.12	0.76	2.18	5.48	1.34	3.83	
September	226.20	40.69	226.48	223.41	226.11	41.18	35.78	40.53	2.86	1.19	2.13	5.03	2.09	3.75	
October	225.90	40.16	226.58	222.93	226.10	41.36	34.94	40.51	5.56	1.35	3.54	3.16	0.77	2.01	
November	226.40	41.04	226.47	222.86	226.00	41.16	34.81	40.34	3.21	0.35	2.03	5.65	0.61	3.58	
December	225.65	39.72	226.42	222.88	225.81	41.07	34.85	40.01	2.99	0.68	1.89	5.26	1.19	3.33	
January	224.99	38.56	226.40	222.76	225.59	41.04	34.64	39.61	2.66	0.34	1.65	4.68	0.59	2.90	
February	225.63	39.69	226.57	223.38	225.71	41.34	35.73	39.83	2.65	0.77	1.72	4.65	1.35	3.03	
March	226.45	41.12	226.48	223.55	226.12	41.18	36.03	40.55	2.37	0.66	1.65	4.17	1.16	2.90	
April	226.11	40.53	226.50	223.65	226.18	41.21	36.20	40.65	2.31	0.37	1.47	4.07	0.64	2.58	
May	225.96	40.27	226.51	222.33	226.06	41.23	33.88	40.44	3.30	0.66	1.73	5.81	1.16	3.04	
June	226.34	40.93	226.43	222.67	226.00	41.09	34.48	40.34	3.30	0.54	2.14	5.80	0.94	3.77	
For Year			226.67	221.86	225.98	41.52	33.06	40.30	5.56	0.34	2.03	7.28	0.59	3.23	

\*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, 1979

1978-1979	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	301.99	10.55		305.99	297.19	304.86	12.40	8.32	11.87	7.95	1.13	4.96	3.68	0.53	2.30
August	305.15	12.01		305.36	302.02	304.83	12.10	10.56	11.86	3.25	1.05	1.90	1.50	0.49	0.89
September	304.82	11.86		305.45	302.82	304.76	12.14	10.93	11.83	2.40	0.77	1.63	1.11	0.36	0.76
October	304.97	11.93		305.35	301.89	304.73	12.10	10.50	11.81	3.36	0.52	1.64	1.55	0.24	0.76
November	304.57	11.74		305.32	302.07	304.47	12.09	10.58	11.70	2.90	0.48	1.50	1.35	0.22	0.70
December	304.00	11.47		305.17	301.00	304.43	12.02	10.08	11.67	3.87	1.04	2.45	1.80	0.49	1.14
January	304.82	11.86		305.23	300.37	304.43	12.04	9.79	11.67	4.22	2.40	3.31	1.96	1.12	1.54
February	304.66	11.78		305.14	300.00	304.44	12.00	9.62	11.68	4.82	1.65	3.17	2.24	0.77	1.47
March	304.34	11.63		305.30	300.67	304.75	12.08	9.93	11.82	4.37	2.03	3.08	2.03	0.94	1.42
April	304.51	11.71		305.34	300.47	304.63	12.09	9.84	11.77	4.50	1.25	2.58	2.09	0.58	1.19
May	303.99	11.47		305.10	297.58	304.43	11.99	8.50	11.67	6.31	1.11	2.59	2.92	0.51	1.20
June	304.30	11.61		305.45	296.83	304.60	12.14	8.15	11.75	8.38	1.48	3.97	3.89	0.69	1.84
For Year				305.99	296.83	304.61	12.40	8.15	11.76	8.38	0.48	2.73	3.89	0.22	1.27

\*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 & ADDED  
YEAR ENDED JUNE 30, 1979

City or Town	Pipe Laid in Feet					Total
	6"	8"	10"	16"	24"	
Providence	452.82	1,930.02	2.11	22.76	412.22	2,819.93
Cranston	1,558.75	2,282.05	--	--	--	3,840.80
Johnston	794.28	5,297.37	--	--	--	6,091.65
North Providence	624.45	5,796.11	--	--	--	6,420.56
Totals	3,430.30	15,305.55	2.11	22.76	412.22	19,172.94
Pipe Removed in Feet						
	6"	8"	10"	16"	24"	Total
Providence	2,478.49	2.10	1,651.68	390.00	9.73	4,532.00
Cranston	275.00	--	--	--	--	275.00
Johnston	28.10	178.15	--	--	--	206.25
North Providence	--	--	--	--	--	--
Totals	2,781.59	180.25	1,651.68	390.00	9.73	5,013.25
Net Length Added to Distribution System						
	6"	8"	10"	16"	24"	Total
Providence	-2,025.67	1,927.92	-1,649.57	-367.24	402.49	-1,712.07
Cranston	1,283.75	2,282.05	--	--	--	3,565.80
Johnston	766.18	5,119.22	--	--	--	5,885.40
North Providence	624.45	5,796.11	--	--	--	6,420.56
Totals	648.71	15,125.30	-1,649.57	-367.24	402.49	14,159.69

TABLE 32

PUBLIC WATER MAINS IN USE ON JUNE 30, 1979

	Providence		Cranston		Johnston		North Providence		*Total		Special High Pressure Fire Service Providence	
	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles	Feet	Miles
6-inch	1,441,619.03	273.03	647,726.47	122.68	136,702.52	25.89	175,337.84	33.21	2,401,385.86	454.81	82.06	0.02
8-inch	362,686.54	68.69	398,975.12	75.56	231,503.06	43.85	165,658.30	31.37	1,158,823.02	219.47	1,221.65	0.23
10-inch	10,183.96	1.93	0	0	0	0	0	0	10,183.96	1.93	0	0
12-inch	251,781.80	47.69	114,447.73	21.68	13,556.11	2.57	33,169.10	6.28	412,954.74	78.21	7,458.17	1.41
16-inch	148,623.51	28.15	9,803.11	1.86	6,393.63	1.21	0	0	164,820.25	31.22	55,994.19	10.60
20-inch	20,172.24	3.82	0	0	0	0	0	0	20,172.24	3.82	0	0
24-inch	56,635.63	10.73	6,301.43	1.19	32,749.23	6.20	9,269.26	1.76	104,955.55	19.88	4,157.47	0.79
30-inch	50,205.19	9.51	31,894.62	6.04	0	0	4,009.29	0.76	86,109.10	16.31	0	0
36-inch	4,555.68	0.86	5,511.13	1.04	0	0	0	0	10,066.81	1.91	0	0
42-inch	2,893.25	0.55	22,607.49	4.28	0	0	0	0	25,500.74	4.83	0	0
48-inch	14,918.00	2.83	1,710.97	0.32	394.00	0.07	0	0	17,022.97	3.22	0	0
60-inch	5,559.00	1.05	12,910.89	2.45	4,340.00	0.82	0	0	22,809.89	4.32	0	0
66-inch	0	0	8,448.00	1.60	0	0	0	0	8,448.00	1.60	0	0
Totals	2,369,833.83	448.83	1,260,336.96	238.70	425,638.55	80.61	387,443.79	73.38	4,443,253.13	841.53	68,913.54	13.05

\*Special High Pressure Fire Service Included.

The length of 6-inch mains tabulated for Providence includes 691.45 feet in Pawtucket.

" " " 12-inch mains " " " 44.47 " " "

" " " 12-inch mains " " Johnston " 146.00 " " Smithfield.

" " " 6-inch mains " " North Prov. " 179.30 " " Pawtucket.

TABLE 33

## GATES IN USE ON JUNE 30, 1979

	6"	8"	10"	12"	16"	20"	24"	30"	36"	42	48"	60"	Total	Gates on Public Fire Hydrants			Gates on Unwatering Hydrants			Gates on Blow-offs			Total number of Gates	
														6"	8"	Total	6"	8"	Total	6"	8"	Total		
Stop Gates																								
6"	8"	10"	12"	16"	20"	24"	30"	36"	42	48"	60"	Total	6"	8"	Total	6"	8"	Total	6"	8"	Total			
PROVIDENCE																								
4,407	1,043	14	660	285	28	75	39	6	3	10	0	6,570	1,732	1,410	3,142	8	14	22	1	2	1	4	9,738	
CRANSTON																								
9	1,799	999	0	239	15	0	11	16	13	14	4	3	3,113	1,203	11	1,214	3	14	17	0	2	28	30	4,374
JOHNSTON																								
381	509	1	31	12	6	5	0	0	0	1	0	946	353	12	365	3	0	3	0	0	2	2	1,316	
NORTH PROVIDENCE																								
490	356	0	72	0	0	5	1	1	0	0	0	925	385	0	385	0	3	3	0	0	0	0	1,313	
TOTALS																								
7,077	2,907	15	1,002	312	34	96	56	20	17	15	3	11,554	3,673	1,433	5,106	14	31	45	1	4	31	36	16,741	

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, 1979

City or Town	INSTALLED						REMOVED					
	General		Fire Supply		Total	General		Fire Supply		Total		
	Copper 3/4"-2"	Cast Iron 4"-12"	Cast Iron 4"-12"	Total		Lead or Copper 1/2"-2"	Cast Iron 4"-12"	Cast Iron 4"-12"	Total			
Providence	125	8	15	148		91	3	3	97			
Cranston	117	6	9	132		7	0	0	7			
Johnston	109	1	3	113		5	0	0	5			
North Providence	101	2	1	104		3	0	0	3			
Totals	452	17	28	497		106	3	3	112			

TABLE 35  
NUMBER AND SIZE OF ACTIVE SERVICES--YEAR ENDED JUNE 30, 1979

	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	23,182	7,556	2,222	439	536	685	6	1,026	987	107	4	10	2	0	0	36,958	
Cranston	5	6,827	8,503	2,508	39	564	409	0	138	134	38	0	4	0	1	2	19,174	
Johnston	0	742	2,572	1,513	9	360	101	0	21	39	8	0	1	0	0	0	5,366	
North Providence	0	1,056	2,742	1,339	5	338	123	0	46	23	5	0	2	0	0	0	5,679	
Totals	201	31,807	21,373	7,582	492	1,798	1,318	6	1,231	1,183	158	4	17	2	1	2	67,177	

TABLE 36  
PUBLIC FIRE HYDRANTS  
HYDRANT ACTIVITIES DURING YEAR ENDED JUNE 30, 1979

	Providence	Cranston	Johnston	North Providence	Totals
Post Hydrants Installed	93	20	12	15	140
Post Hydrants Removed	95	16	8	8	127

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1979

Post Hydrants	3,142	1,218	371	385	5,116
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TABLE 37  
NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES  
YEAR ENDED JUNE 30, 1979

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
<b>*PROVIDENCE</b>																
Make																
Trident	29,165	3,116	1,057	1,267	1,844	73	61	61	17	5	-	-	-	-	-	36,666
Thomson	430	66	48	26	84	-	2	-	-	-	-	-	-	-	-	656
Empire	29	-	6	-	-	-	-	-	-	-	-	-	-	-	-	35
Crown	14	2	2	-	-	-	-	-	-	-	-	-	-	-	-	18
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Totals	29,638	3,184	1,113	1,295	1,931	75	76	121	23	5	1	2	-	-	-	37,464

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

**\*CRANSTON**

Make																
Trident	16,302	1,496	597	333	454	2	6	15	6	-	1	-	-	-	-	19,212
Thomson	-	6	-	8	5	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	-	1	-	-	6	4	-	-	-	-	-	-	11
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,302	1,502	597	341	460	2	6	21	11	-	2	1	1	1	2	19,249

\*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	3,986	930	254	79	114	-	-	5	3	-	-	-	-	-	-	5,371
Thomson	25	1	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Hersey	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,011	931	254	79	114	-	-	6	3	-	1	-	-	-	-	5,399

\*Includes 1-8" Trident Crest Meter supplying East Smithfield Water Co.

1-12" Flow Meter supplying Greenville Water District.

**\*NORTH PROVIDENCE**

Make																
Trident	4,314	784	341	75	119	1	2	5	-	-	-	-	-	-	-	5,641
Thomson	51	3	-	1	1	-	-	-	-	-	-	-	-	-	-	56
Hersey	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	6
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,365	787	341	76	120	1	2	11	-	-	1	-	-	-	-	5,704

\*Includes 1-6" Trident Protectus Meter supplying East Smithfield Water Co.

1-12" Flow Meter supplying Town of Smithfield.

TABLE 38  
CAPACITY AND CONSUMPTION

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

TABLE 39

## CONSUMPTION OF WATER - MILLION GALLONS

YEAR ENDED JUNE 30, 1979

1978- 1979	Low Service (1)			High Service (2)			Total Service (1,2)			Total		
	Max. Day	Min. Day	Avg. Day	Total	Max. Day	Min. Day	Avg. Day	Total	Max. Day			
July	81.920	33.939	62.408	1,934.653	22.134	11.153	18.202	564.267	102.793	45.092	80.610	2,498.920
August	70.597	37.372	55.201	1,711.244	17.553	12.094	15.051	466.583	88.150	49.551	70.252	2,177.827
September	64.903	37.024	49.881	1,496.449	16.758	13.072	15.022	450.653	81.661	50.096	64.903	1,947.102
October	59.650	35.384	46.870	1,452.976	15.764	11.862	14.341	444.567	74.611	47.246	61.211	1,897.543
November	51.858	32.079	44.726	1,341.776	15.362	11.995	14.098	422.930	66.649	44.074	58.824	1,764.706
December	50.516	31.601	42.961	1,331.806	15.188	11.613	14.031	434.955	65.287	43.214	56.992	1,766.761
January	49.197	32.460	43.561	1,350.387	15.582	12.491	14.226	441.003	64.220	45.150	57.787	1,791.390
February	52.446	34.129	44.381	1,242.667	16.001	13.060	14.611	409.100	68.055	47.235	58.992	1,651.767
March	51.202	35.024	43.862	1,359.736	15.443	12.822	14.520	450.113	66.645	48.509	58.382	1,809.849
April	52.760	32.992	44.316	1,329.471	15.851	12.284	14.392	431.757	68.611	45.276	58.708	1,761.228
May	69.964	35.795	48.677	1,508.983	19.381	12.795	15.105	468.269	89.345	48.590	63.782	1,977.252
June	71.214	37.850	56.602	1,698.054	20.192	13.641	17.022	510.676	91.224	51.491	73.624	2,208.730
For Year	81.920(a)	31.601(b)	48.653	17,758.202	22.134(c)	11.153(d)	15.054	5,494.873	102.793(e)	43.214(f)	63.707	23,253.075
	(a) July 24	(b) December 25		(c) July 21	(d) July 4				(e) July 24	(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, 1979

1978- 1979	KENT COUNTY WATER AUTHORITY			WEST CRANSTON		
	S.S. 58985 Oaklawn Avenue Cranston 12"	S.S. 75430 Clinton Avenue Scituate 30"	Tri-Crest Meter	Total Gallons per Month	Average Gallons per Day	Gallons per Month
July	14,160,000	150,234,500		164,394,500	5,303,048	7,098,000
August	10,344,000	116,640,100		126,984,100	4,096,261	5,482,400
September	9,682,500	121,632,000		131,314,500	4,377,150	3,504,800
October	9,522,750	120,779,150		130,301,900	4,203,287	3,134,300
November	8,507,250	105,715,350		114,222,600	3,807,420	3,509,600
December	9,241,500	116,516,650		125,758,150	4,056,715	3,203,600
January	11,851,500	104,778,850		116,630,350	3,762,269	3,366,200
February	8,787,750	99,440,950		108,228,700	3,865,311	3,007,800
March	10,725,750	102,545,600		113,271,350	3,653,915	3,454,600
April	9,470,250	88,655,350		98,125,600	3,270,853	3,219,800
May	9,346,500	80,731,700		90,078,200	2,905,748	3,697,700
June	16,751,250	133,225,400		149,976,650	4,999,222	5,774,300
For Year	128,391,000	1,340,895,600		1,469,286,600	4,025,443	48,453,100
						132,748

TABLE 41

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

YEAR ENDED JUNE 30, 1979

	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	Gallons per Month	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
1978- 1979						
July	156,472,000	177,480,150	333,952,150	10,772,650	251,597,700	8,116,055
August	119,799,000	123,707,968	243,506,968	7,855,064	204,477,500	6,596,048
September	114,863,000	113,435,315	228,298,315	7,609,944	182,479,200	6,082,640
October	97,517,000	101,591,100	199,108,100	6,422,842	161,942,900	5,223,965
November	91,572,000	96,448,755	188,020,755	6,267,359	158,438,600	5,281,287
December	99,679,000	97,395,675	197,074,675	6,357,248	176,175,000	5,683,065
January	104,105,000	90,295,428	194,400,428	6,270,982	172,223,200	5,555,587
February	80,750,000	88,701,503	169,451,503	6,051,839	153,512,800	5,482,600
March	100,929,000	100,876,000	201,805,000	6,509,839	168,885,900	5,447,932
April	87,026,000	94,628,650	181,654,650	6,055,155	148,281,800	4,942,727
May	83,888,000	88,392,100	172,280,100	5,557,423	133,819,400	4,316,755
June	180,907,000	153,931,750	334,838,750	11,161,292	226,537,100	7,551,237
For Year	1,317,507,000	1,326,884,394	2,644,391,394	7,244,908	2,138,371,100	5,858,551

TABLE 42

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

YEAR ENDED JUNE 30, 1979

	EAST SMITHFIELD WATER COMPANY				SMITHFIELD WATER DEPT.		GREENVILLE WATER DISTRICT		
	S.S.51198 Waterman Avenue No. Prov. 6"	S.S.52403 Dean Avenue Smithfield 8"	Total Gallons per Month	Average Gallons per Day	S.S.71980 Smithfield Road North Providence 12" Flow Meter	Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
1978- 1979									
July	23,633,250	3,463,500	27,096,750	874,089	11,972,200	386,200	21,840,700	704,539	
August	22,194,000	2,601,750	24,795,750	799,863	8,968,400	289,303	16,971,900	547,481	
September	22,677,000	2,730,750	25,407,750	846,925	11,634,700	387,823	14,950,000	498,333	
October	20,175,000	2,407,500	22,582,500	728,468	10,577,300	341,203	15,045,200	485,329	
November	19,790,250	2,396,250	22,186,500	739,550	9,447,600	314,920	14,025,500	467,517	
December	27,042,750	2,782,500	29,825,250	962,105	9,480,700	305,829	14,292,800	461,058	
January	24,137,250	2,526,000	26,663,250	860,105	7,430,700	239,700	12,826,600	413,761	
February	23,911,500	2,479,500	26,391,000	942,536	4,866,000	173,786	12,734,800	454,814	
March	26,757,750	2,847,750	29,605,500	955,016	13,583,100	438,165	13,375,600	431,471	
April	22,560,000	2,421,750	24,981,750	832,725	9,683,100	322,770	14,234,600	474,487	
May	19,557,750	2,008,500	21,566,250	695,686	9,456,100	305,036	15,490,000	499,677	
June	37,492,500	3,915,750	41,408,250	1,380,275	14,223,900	474,130	20,368,400	678,947	
For Year	289,929,000	32,581,500	322,510,550	883,590	121,323,800	332,394	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	13.35	13.56
1905	14.57	14.88	14.60	14.20	14.65	13.88	13.85	14.77	15.06	16.34	14.30	13.99	14.59
1906	13.73	14.96	14.63	15.00	15.07	14.77	14.49	15.01	15.69	15.08	15.74	16.06	15.02
1907	15.02	14.37	14.25	15.74	16.24	16.26	15.62	16.29	17.18	18.50	18.00	15.02	16.04
1908	15.34	15.13	15.34	15.46	16.07	15.21	14.53	14.67	16.63	16.77	15.42	15.62	15.52
1909	15.83	15.80	15.44	15.16	14.87	14.88	13.94	14.04	15.54	17.71	16.15	14.80	15.35
1910	14.76	14.66	15.28	15.62	15.65	15.22	14.74	14.72	15.53	17.13	15.95	15.61	15.40
1911	15.56	14.98	16.11	16.39	16.27	16.00	15.30	16.19	17.09	19.36	17.09	16.08	16.37
1912	16.29	16.49	16.44	18.12	18.14	17.16	16.39	16.70	17.32	20.54	17.62	17.06	17.36
1913	17.36	16.72	17.17	17.49	17.98	17.59	17.06	17.12	18.95	19.55	18.40	17.12	17.71
1914	16.76	16.87	17.27	17.83	18.52	17.60	16.99	17.43	20.24	17.62	17.09	18.51	17.73
1915	17.29	16.43	17.27	17.07	17.60	17.44	16.80	16.68	18.04	16.49	16.76	17.80	17.14
1916	16.90	17.03	17.79	18.16	18.47	18.57	17.43	17.57	17.82	17.90	16.58	18.76	17.75
1917	18.51	18.08	18.50	19.73	20.62	19.31	18.09	17.67	18.28	19.61	20.03	18.76	18.93
1918	18.62	18.71	20.64	23.82	22.98	23.07	22.43	22.31	21.85	22.23	21.50	20.63	21.56
1919	20.42	20.31	21.04	21.72	20.94	19.35	19.45	19.60	21.77	20.70	20.40	20.68	20.53
1920	20.62	20.18	21.64	23.80	23.16	23.03	20.67	20.45	20.98	21.06	21.58	21.89	21.59
1921	21.41	20.46	20.97	21.64	21.43	20.77	20.21	20.92	22.84	21.18	21.63	22.86	21.36
1922	22.84	22.16	22.18	24.14	23.64	22.01	21.64	21.49	22.18	21.91	22.11	22.53	22.40
1923	22.78	23.23	23.08	23.66	24.96	23.84	22.95	24.12	24.49	23.90	24.08	24.31	23.78
1924	24.68	24.09	23.33	24.19	24.58	23.44	23.51	23.28	24.10	25.11	22.48	22.51	23.78
1925	22.84	23.70	23.76	24.22	23.61	22.70	23.13	23.03	24.82	23.54	23.20	23.81	23.53

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

TABLE 44  
AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ended June 30	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
1877							2.27	2.26	1.84	2.25	2.53	2.94	*2.35
1878	2.91	2.76	3.01	2.61	2.22	2.30	2.16	2.15	2.20	2.32	2.85	2.89	2.53
1879	3.88	3.12	3.17	2.84	2.39	2.38	2.82	2.93	2.59	2.38	3.22	3.48	2.93
1880	3.78	3.52	3.32	3.38	2.89	2.97	2.94	2.86	2.90	2.96	3.68	5.05	3.35
1881	4.18	3.92	3.82	3.67	3.35	3.22	3.54	4.07	3.13	2.98	3.54	3.81	3.60
1882	4.05	4.46	4.16	3.92	3.60	3.38	3.30	3.27	3.06	3.05	3.24	4.02	3.63
1883	4.69	5.09	3.84	3.40	3.33	3.65	3.94	3.74	3.91	3.43	3.82	4.64	3.96
1884	5.24	5.18	4.70	3.81	3.67	3.58	4.24	3.87	3.90	3.43	3.79	4.70	4.18
1885	4.38	4.06	4.82	4.24	3.67	3.99	4.48	4.73	4.80	4.10	4.10	5.44	4.40
1886	5.56	5.01	4.92	4.37	4.20	4.71	4.82	4.75	4.83	4.33	4.53	4.93	4.75
1887	6.02	4.88	4.94	4.62	4.24	4.94	5.06	4.90	4.84	4.41	4.90	5.16	4.91
1888	5.58	5.00	5.08	4.80	4.40	5.10	5.44	5.79	5.39	4.86	4.84	6.17	5.20
1889	6.51	5.87	5.32	5.34	5.18	5.51	5.72	7.34	5.80	5.27	5.75	6.14	5.80
1890	5.69	5.59	5.52	5.41	5.17	6.14	6.34	6.79	6.28	6.84	6.60	6.90	6.10
1891	8.11	7.13	6.72	6.28	6.08	6.83	6.35	6.53	6.72	6.67	7.55	7.75	6.90
1892	7.73	7.78	7.57	7.53	7.32	7.69	7.65	7.83	7.62	7.27	6.77	8.37	7.59
1893	9.30	9.11	8.63	8.00	7.65	8.48	9.30	8.85	8.74	8.07	8.58	9.92	8.72
1894	10.78	10.50	9.48	8.79	7.85	8.61	9.11	9.07	9.09	8.73	9.97	11.28	9.44
1895	12.39	10.76	10.22	10.20	8.86	9.08	9.02	9.82	8.60	7.70	8.78	9.49	9.58
1896	8.99	9.50	9.10	8.15	8.19	9.56	10.19	8.79	8.74	8.60	9.26	9.64	9.06
1897	9.93	9.70	8.83	8.49	8.05	8.98	8.83	8.52	8.44	8.06	8.27	8.90	8.76
1898	9.13	8.70	9.07	8.76	8.29	8.63	8.56	9.09	8.68	8.38	8.35	10.04	8.80
1899	10.10	9.44	9.84	8.94	8.75	9.64	9.45	9.53	8.91	8.52	9.18	11.18	9.45
1900	10.21	10.12	9.70	9.15	9.27	9.53	9.81	9.49	9.66	9.23	8.59	10.48	9.60
1901	12.11	10.95	11.71	9.99	9.54	9.95	10.09	10.52	10.20	8.92	10.05	11.50	10.46
1902	12.02	11.69	11.15	10.91	10.70	11.02	11.65	11.00	10.92	10.52	10.48	11.85	11.16
1903	12.09	11.97	11.66	11.89	11.81	12.85	12.84	12.62	11.92	12.33	13.92	13.02	12.41
1904	13.54	12.91	13.76	13.09	13.89	13.49	14.29	14.58	13.42	12.07	12.72	13.94	13.47
1905	14.21	13.08	13.85	14.57	14.88	14.60	14.20	14.65	13.88	13.85	14.77	15.06	14.30
1906	16.34	14.30	13.99	13.73	14.96	14.63	15.00	15.07	14.77	14.49	15.01	15.69	14.83
1907	15.08	15.74	16.06	15.02	14.37	14.25	15.74	16.24	16.26	15.62	16.29	17.18	15.65
1908	18.50	18.00	15.02	15.34	15.13	15.34	15.46	16.07	15.21	14.53	14.67	16.63	15.83
1909	16.77	15.42	15.62	15.83	15.80	15.44	15.16	14.87	14.88	13.94	14.04	15.54	15.28
1910	17.71	16.15	14.80	14.76	14.66	15.28	15.62	15.65	15.22	14.74	14.72	15.53	15.41
1911	17.13	15.95	15.61	15.56	14.98	16.11	16.39	16.27	16.00	15.30	16.19	17.09	16.05
1912	19.36	17.09	16.08	16.29	16.49	16.44	18.12	18.14	17.16	16.39	16.70	17.32	17.13
1913	20.54	17.62	17.06	17.36	16.72	17.17	17.49	17.98	17.59	17.06	17.12	18.95	17.72
1914	19.55	18.40	17.12	16.76	16.87	17.27	17.83	18.52	17.60	16.99	17.43	20.24	17.88
1915	17.62	17.09	18.51	17.29	16.43	17.27	17.07	17.60	17.44	16.80	16.68	18.04	17.32

\*Average for 6 months

TABLE 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
1916	16.49	16.76	17.80	16.90	17.03	17.97	18.16	18.47	18.57	17.43	17.57	17.82	17.58
1917	17.90	16.58	18.76	18.51	18.08	18.50	19.73	20.62	19.31	18.09	17.67	18.28	18.49
1918	19.61	20.03	18.76	18.62	18.71	20.64	23.82	22.98	23.07	22.43	22.31	21.85	21.06
1919	22.23	21.50	20.63	20.42	20.31	21.04	21.72	20.94	19.35	19.45	19.60	21.77	20.75
1920	20.70	20.40	20.68	20.62	20.18	21.64	23.80	23.16	23.03	20.67	20.45	20.98	21.36
1921	21.06	21.58	21.89	21.41	20.46	20.97	21.64	21.43	20.77	20.21	20.92	22.84	21.26
1922	21.18	21.63	22.86	22.84	22.16	22.18	24.14	23.64	22.01	21.64	21.49	22.18	22.32
1923	21.91	22.11	22.53	22.78	23.23	23.08	23.66	24.96	23.84	22.95	24.12	24.49	23.29
1924	23.90	24.08	24.31	24.68	24.09	23.33	24.19	24.58	23.44	23.51	23.28	24.10	23.95
1925	25.11	22.48	22.51	22.84	23.70	23.76	24.22	23.61	22.70	23.13	23.03	24.82	23.49
1926	23.54	23.20	23.81	23.41	22.47	23.29	23.95	24.12	24.25	23.36	22.80	24.16	23.53
1927	24.80	23.94	23.53	21.76	22.60	23.24	22.92	22.41	22.57	22.32	22.68	23.62	23.04
1928	23.27	22.27	23.27	23.37	22.99	22.39	23.04	22.80	23.21	22.79	23.83	23.05	23.02
1929	24.31	26.69	25.38	26.82	25.54	26.17	26.84	27.01	25.42	23.05	22.91	25.73	25.48
1930	26.53	24.94	24.24	23.83	24.24	24.29	23.85	24.88	23.34	23.38	25.15	26.85	24.62
1931	26.81	25.95	27.45	26.30	24.04	23.80	23.71	24.36	23.64	23.11	23.76	25.35	24.86
1932	26.20	26.22	26.31	25.36	23.42	23.82	23.20	23.23	22.99	22.72	23.47	25.27	24.36
1933	25.34	25.16	24.59	24.15	23.65	23.51	24.00	24.25	24.01	23.41	25.32	26.92	24.53
1934	28.77	27.65	26.00	24.89	24.43	25.04	25.55	28.05	26.38	24.78	25.78	27.95	26.26
1935	31.00	28.77	26.39	26.50	25.39	25.16	26.35	27.06	26.31	25.71	27.02	27.47	26.93
1936	29.47	31.14	28.23	29.45	28.03	27.42	27.97	28.73	26.44	25.75	27.02	30.27	28.33
1937	30.23	30.79	29.23	27.94	26.72	27.06	25.77	26.13	27.16	25.73	25.93	28.45	27.61
1938	31.43	31.85	29.18	27.84	26.42	25.57	25.11	24.67	24.38	23.56	24.56	27.13	26.83
1939	26.34	28.82	28.34	27.90	27.21	26.85	27.07	27.62	27.16	26.25	27.48	30.84	27.65
1940	32.81	33.62	30.31	30.12	28.96	28.26	28.74	28.06	27.23	25.77	26.15	28.49	29.06
1941	30.10	31.57	28.96	29.55	27.86	28.36	28.67	29.02	28.78	29.07	29.91	31.74	29.47
1942	32.87	32.66	33.77	32.74	31.44	31.84	31.34	31.21	29.84	29.18	29.76	31.34	31.50
1943	32.13	32.14	32.11	29.88	29.27	30.40	29.93	30.67	30.35	30.05	29.65	35.13	30.97
1944	36.35	35.47	33.71	31.87	31.25	32.35	32.29	32.52	32.95	31.51	34.27	36.80	33.45
1945	39.10	40.60	35.43	33.77	32.77	33.33	34.89	34.57	33.78	33.37	33.23	35.44	35.04
1946	35.73	36.34	34.67	32.74	32.27	33.21	34.01	33.69	33.80	33.64	33.59	36.70	34.20
1947	40.70	35.92	36.69	36.37	35.34	35.58	35.95	35.83	35.01	33.27	33.94	35.72	35.87
1948	37.35	39.34	39.21	38.91	36.19	35.55	34.84	37.31	36.92	36.15	33.95	36.90	36.88
1949	39.33	41.55	39.76	36.27	35.34	35.11	33.98	34.00	33.88	33.12	35.12	46.65	37.01
1950	44.56	40.18	35.77	34.61	35.94	34.51	33.92	34.34	34.71	33.39	34.90	40.27	36.44
1951	43.27	41.40	38.24	39.96	36.91	34.80	36.10	35.92	34.81	34.21	37.21	39.31	37.70
1952	43.49	39.98	38.20	36.92	34.79	33.63	34.20	34.59	33.98	33.98	34.33	41.21	36.61
1953	54.79	40.66	40.11	37.09	35.75	35.27	34.59	33.95	34.20	34.61	35.63	50.68	38.97
1954	46.76	43.63	43.95	38.20	35.43	35.03	34.85	35.63	35.31	35.10	35.05	45.09	38.68
1955	45.27	40.72	39.22	39.84	37.82	37.17	37.24	38.42	37.85	37.00	41.54	44.52	39.73
1956	49.90	47.08	42.25	40.29	38.30	38.18	38.42	39.31	38.37	38.55	40.08	49.50	41.69
1957	44.93	48.86	41.70	40.78	38.65	36.74	39.14	38.43	36.98	38.50	44.48	60.45	42.48
1958	57.12	48.16	45.16	42.22	38.27	38.42	39.09	38.20	37.40	40.03	38.60	42.57	42.14
1959	45.05	43.60	41.63	40.35	38.01	39.35	39.34	39.46	38.65	39.04	44.02	45.05	41.14
1960	45.16	51.33	47.28	41.93	40.00	39.63	39.48	40.19	39.72	40.34	42.06	51.75	43.24
1961	49.75	49.49	45.57	42.22	42.53	40.99	41.24	43.54	42.26	41.00	42.96	51.71	44.44
1962	51.06	52.80	50.01	43.66	41.94	40.90	42.42	41.91	42.38	42.74	46.45	53.07	45.80
1963	51.39	54.38	47.10	45.66	44.44	43.38	44.26	44.81	44.80	45.77	47.96	55.81	47.49
1964	55.87	54.40	47.58	46.77	42.66	43.07	45.45	45.81	46.23	46.54	56.23	63.98	49.56
1965	57.44	53.33	55.16	51.52	49.17	47.99	47.66	47.94	46.33	46.89	53.98	65.25	51.90

TABLE 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
1979	80.61	70.25	64.91	61.21	58.82	56.99	57.79	58.99	58.38	58.71	63.78	73.62	63.71

TABLE 45

## FUEL OIL CONSUMPTION

YEAR ENDED JUNE 30, 1979

1978-1979	Administration and Operations Building	Raw Water Booster Pumping Station	Water Purification Plant	Forestry and Maintenance Building	Neutaconakut 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. 4	
July	0	0	1,531	348	86	0	0	1,617	348
August	0	0	2,070	0	115	0	0	2,185	0
September	0	0	1,650	446	106	0	0	1,756	446
October	1,707	443	514	4,775	946	0	0	1,903	6,482
November	2,482	433	0	6,085	1,277	0	0	1,710	8,567
December	5,205	1,671	0	9,347	2,257	372	135	4,435	14,552
January	5,010	1,108	0	9,964	2,629	240	83	4,060	14,974
February	5,694	1,267	0	11,117	2,812	774	403	5,256	16,811
March	3,431	1,646	14	7,445	1,603	266	206	3,735	10,876
April	2,520	79	233	5,562	1,209	0	0	1,521	8,082
May	1,990	12	1,479	1,360	0	0	0	1,491	3,350
June	0	0	1,448	0	0	0	0	1,448	0
Totals	28,039	6,659	8,939	56,449	13,040	1,652	827	31,117	84,488

TABLE 46  
FINANCIAL STATEMENT  
YEAR ENDED JUNE 30, 1979

Operating Revenue		
Sale of Water		\$6,156,684.54
Hydrant Rental		232,803.53
Electric Power		12,727.03
Setting Meters		5,412.50
Repairing Meters		4,326.96
Repairs to Water Services		890.38
Repairs to Distribution Mains		1,846.67
Repairs to Hydrants		13,420.79
Installation of New Fire Supplies		33,846.58
Installation of New Water Mains		180,877.75
Installation of New Water Services		190,718.34
Sale of Timber & Forestry Products		1,243.60
Transferred from Reserve Fund		239,300.00
Total Operating Revenue		\$7,074,098.67
Operating Expenses		
Administration	\$	482,892.71
Source of Supply		1,038,772.95
Transmission & Distribution		1,761,079.98
Accounting & Commercial		469,565.27
Taxes		1,295,818.36
Employees' Retirement System		291,440.00
Social Security		111,798.65
Total Operating Expenses		*\$5,451,367.92
Operating Income		\$1,622,730.75
Add Non-Operating Income		
Rental of Real Estate	\$	246.07
Other		31,480.12
Total Non-Operating Income		\$ 31,726.19
Sub-Total		\$1,654,456.94
Less Non-Operating Expenses		
Interest on Bonded Debt	\$	643,328.75
Retirement-Serial Bonds		320,000.00
Total Non-Operating Expenses		\$ 963,328.75
SURPLUS		\$ 691,128.19

\*See Table 47 for detailed account of Operating Expense.

TABLE 47

## WATER SUPPLY BOARD EXPENSES

YEAR ENDED JUNE 30, 1979

	ADMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & DISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
000 Salaries & Wages:						
Regular Pay	\$177,139.61	\$393,742.11	\$647,410.62	\$267,711.21	0	\$1,486,003.55
Overtime Pay	1,628.25	33,478.17	114,968.80	435.19	0	150,510.41
Other(Sick Leave, Vacation, etc.)	20,125.49	61,657.04	135,846.72	45,160.33	0	262,789.58
Total Salaries & Wages	\$198,893.35	\$488,877.32	\$898,226.14	\$313,306.73	0	\$1,899,303.54
100 Services Other Than Personal:						
Fees Not Classified	\$206,610.81	\$ 7,152.72	\$ 1,134.50	\$ 4.00	0	\$ 214,902.03
Telephone	4,285.64	2,967.67	5,311.03	7,194.51	0	19,758.85
Electricity	3,338.72	12,146.20	116,899.86	5,580.27	0	137,965.05
Repairs & Maintenance	5,235.88	19,547.50	48,124.00	2,294.48	0	75,201.86
Other Services	7,420.91	14,158.74	6,712.20	63,911.85	0	92,203.70
Total Services	\$226,891.96	\$ 55,972.83	\$178,181.59	\$ 78,985.11	0	\$ 540,031.49
200 Materials & Supplies:						
Motor Fuel	\$ 6,118.53	\$ 10,883.00	\$ 10,587.73	\$ 2,940.10	0	\$ 30,529.36
Repair Parts	378.77	25,758.16	37,319.22	423.35	0	63,879.50
Chemical & Lab Supplies	0	264,539.60	466.06	0	0	265,005.66
Heating Fuel	5,001.22	34,359.51	7,236.52	3,478.50	0	50,075.75
Hydrants, Valves & Fittings	0	0	149,184.06	0	0	149,184.06
Other Materials & Supplies	3,944.58	34,116.64	90,301.10	5,887.08	0	134,249.40
Total Materials & Supplies	\$ 15,443.10	\$369,656.91	\$295,094.69	\$ 12,729.03	0	\$ 692,923.73
300 Special Items:						
Union Legal Fees	\$ 2,946.50	\$ 7,650.75	\$ 14,500.00	\$ 6,123.75	0	\$ 31,221.00
Blue Cross & RIGHA	14,882.90	36,666.25	62,978.55	25,221.18	0	139,748.88
Expenses for Ceremonies	483.60	0	0	0	0	483.60
Union Pension Fund	13,338.30	33,089.40	65,886.00	26,548.50	0	138,862.20
Total Special Items	\$ 31,651.30	\$ 77,406.40	\$143,364.55	\$ 57,893.43	0	\$ 310,315.68

TABLE 47 (Continued)

## WATER SUPPLY BOARD EXPENSES

YEAR ENDED JUNE 30, 1979

	ADMINISTRATION	SOURCE OF SUPPLY	TRANSMISSION & DISTRIBUTION	ACCOUNTING & COMMERCIAL	OTHER	TOTAL
500 Capital Outlay:						
Office Furniture & Equip.	\$ 435.00	\$ 1,649.54	\$ 0	\$ 762.08	0	\$ 2,846.62
Books, Maps & Charts	0	1,770.05	0	0	0	1,770.05
Autos & Trucks	9,578.00	36,602.27	52,087.89	5,888.89	0	104,156.18
Lab Equipment	0	0	2,580.00	0	0	2,580.00
Communications Equipment	0	4,414.78	0	0	0	4,414.78
Shop & Plant Equipment	0	0	12,377.95	0	0	12,377.95
Agricultural Equipment	0	2,422.85	0	0	0	2,422.85
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Capital	\$ 10,013.00	\$ 46,859.49	\$ 67,044.97	\$ 6,650.97	0	\$ 130,568.43
700 Main Extensions	\$ 0	\$ 0	179,168.04	0	0	179,168.04
Special Items:						
Property Taxes	0	0	0	0	\$1,295,818.36	\$1,295,818.36
Contributions to Retirement	0	0	0	0	291,440.00	291,440.00
Federal Old Age	0	0	0	0	111,798.65	111,798.65
Interest on Bonded Debt	0	0	0	0	643,328.75	643,328.75
Retirement of Bonds	0	0	0	0	320,000.00	320,000.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL EXPENDITURES:	\$482,892.71	\$1,038,772.95	\$1,761,079.98	\$469,565.27	\$2,662,385.76	\$6,414,696.67

TABLE 48

## SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1979

Fiscal Years Ended September 30	Receipts from Sale of Water	Miscellaneous Receipts	Total
1930	\$1,384,369.54	\$218,844.87	\$1,603,214.41
1931	1,414,836.00	237,172.64	1,652,008.64
1932	1,375,450.77	223,058.31	1,598,509.08
1933	1,345,444.69	212,066.79	1,557,511.48
1934	1,387,876.73	184,133.47	1,572,010.20
1935	1,409,269.47	237,518.68	1,646,788.15
1936	1,427,881.10	265,357.71	1,693,238.81
1937	1,429,107.08	229,317.39	1,721,424.47
1938	1,426,986.49	106,359.70	1,533,346.19
1939	1,491,918.63	124,901.37	1,616,820.00
1940	1,551,917.24	115,540.98	1,667,458.22
1941	1,615,351.79	114,960.58	1,730,312.37
1942	1,679,058.50	103,368.22	1,782,426.72
1943	1,629,268.35	86,580.98	1,715,849.33
1944	1,761,016.12	87,946.71	1,848,962.83
1945	1,812,311.82	99,271.44	1,911,583.26
1946	1,808,993.17	123,247.90	1,932,241.07
1947	1,877,471.18	124,372.47	2,001,843.65
1948	2,005,242.58	222,419.41	2,227,661.99
1949	2,031,633.37	229,317.72	2,260,951.09
1950	2,082,814.82	199,061.80	2,281,876.62
1951	2,078,209.84	214,868.70	2,293,078.54
1952	2,053,427.76	322,761.07	2,376,188.83
1953	2,093,625.85	343,477.23	2,437,103.08
1954	2,146,947.18	302,707.38	2,449,654.56
1955	2,166,180.84	379,010.13	2,545,190.97
1956	2,236,331.86	371,715.61	2,608,047.47
1957	2,262,879.80	322,948.62	2,585,828.42
1958	2,273,583.77	318,752.87	2,592,336.64
1959	2,255,865.23	374,493.67	2,630,358.90
1960	2,528,805.97	330,120.32	2,858,926.29
1961	2,758,603.26	351,179.65	3,109,782.91
1962	2,794,556.45	440,769.75	3,235,326.20
1963	2,947,872.00	366,756.30	3,314,628.30
1964	2,986,556.95	441,238.98	3,427,795.93
1965	3,113,868.26	362,201.67	3,476,069.93
1966	3,149,078.53	373,307.57	3,522,386.10
1967	3,033,036.68	369,911.49	3,402,948.17
1968	2,942,611.22	345,144.86	3,287,756.08
1969	3,097,831.73	310,117.04	3,407,948.77

TABLE 48 (Continued)  
SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1979

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

\*October 1, 1969 - June 30, 1970

TABLE 49  
STATEMENT OF REVENUE - ESTIMATED AND ACTUAL  
YEAR ENDED JUNE 30, 1979

Account	Estimated Revenue	Actual Revenue
Water Rents	\$7,078,700.00	\$6,156,684.54
Hydrant Rentals	418,500.00	232,803.53
Electricity	0	12,727.03
Meter Revolving Fund	0	0
Repairing and Setting Meters	0	9,739.46
Miscellaneous Repairs	0	16,157.84
Installation of Fire Supplies	106,800.00	33,846.58
New Service Installations	0	190,718.34
New Main Extensions	0	180,877.75
Transfers from Reserve Fund	0	239,300.00
Other Miscellaneous Receipts	341,200.00	32,969.79
Total	\$7,945,200.00	\$7,105,824.86

TABLE 50  
RESERVE FUND  
YEAR ENDED JUNE 30, 1979

	Investment	Cash	Due from Other Funds	Total
Balance - June 30, 1978	\$ 700,000.00	\$ 58,471.89	Nil	\$758,471.89
Increase During Year Ended June 30, 1979	\$1,507,000.00	*\$2,243,367.64		
Disbursements During Year Ended June 30, 1979	\$2,207,000.00	**\$2,064,728.85		
Balance - June 30, 1979	0	\$ 237,110.68	Nil	\$237,110.68

\*Includes interest of \$36,367.64 earned on Certificates of Deposit.

\*\*Includes payment of \$318,428.85 to City General Fund to cover 1978 Operating Deficit.  
Includes transfer of \$239,300.00 to Water Supply Board Operating Budget.

TABLE 51  
STATEMENT OF SERIAL BONDS OUTSTANDING  
YEAR ENDED JUNE 30, 1979

Description	Rate of Interest %	Year of Issue	Year of Maturity	Serial Requirement	Bonds Issued	Bonds Outstanding
Additions, Alterations and Improvements to the Water Purification Works	3½	1962	1992	\$ 35,000.00	\$ 1,100,000.00	\$ 650,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3½	1962	1992	\$ 70,000.00	\$ 2,050,000.00	\$ 1,155,000.00
Total				\$105,000.00	\$ 3,150,000.00	\$ 1,805,000.00
General Obligation Bonds	5	1971	2001	\$215,000.00	\$11,000,000.00	\$ 9,575,000.00
Total Bonds and Requirements				\$320,000.00	\$14,150,000.00	\$11,380,000.00

TABLE 52  
SUMMARY OF INVENTORIES OF PERSONAL PROPERTY  
YEAR ENDED JUNE 30, 1979

REMOVABLE PROPERTY INVENTORY:				\$192,699.43
SOURCE OF SUPPLY:				
Purification Works			\$ 10,123.52	
Laboratory			5,786.43	
Raw Water Pumping Station			2,360.02	
General and Reforestation			757.82	\$ 19,027.79
TRANSMISSION AND DISTRIBUTION:				
Pipe Lines			\$330,586.04	
Pumping Stations			425.56	
Garage			17,911.09	\$348,922.69
METERING:				\$ 41,278.74
GENERAL SUPPLIES:				\$ 3,370.69
Total Personal Property Inventory:				\$605,299.34

TABLE 53  
STATEMENT OF METER REVOLVING FUND  
YEAR ENDED JUNE 30, 1979

Unencumbered Balance - June 30, 1978	\$ 2,868.13
Outstanding Commitments - June 30, 1978	907.25
Receipts - July 1, 1978 - June 30, 1979	<u>64,037.94</u>
 Total Available	 <u>\$67,813.32</u>
Expenditures - July 1, 1978 - June 30, 1979	\$51,172.20
Outstanding Commitments - June 30, 1979	<u>2,986.76</u>
 Total Disbursements	 <u>\$54,158.96</u>
Unencumbered Balance - June 30, 1979	\$13,654.36

TABLE 54  
STATEMENT OF WATER METER CONVERSION REVOLVING FUND  
YEAR ENDED JUNE 30, 1979

Unencumbered Balance - June 30, 1978	\$ 1,371.14
Outstanding Commitments - June 30, 1978	709.29
Receipts - July 1, 1978 - June 30, 1979	<u>2,260.10</u>
 Total Available	 <u>\$ 4,340.53</u>
Expenditures - July 1, 1978 - June 30, 1979	\$ 3,748.44
Outstanding Commitments - June 30, 1979	<u>0</u>
 Total Disbursements	 <u>\$ 3,748.44</u>
Unencumbered Balance - June 30, 1979	\$ 592.09

TABLE 55  
TAXES PAID TO VARIOUS CITIES AND TOWNS  
July 1, 1978 To June 30, 1979

Location of Property	Land Area (Acres)	ASSESSED VALUATIONS			TAX	
		Land	Buildings and Improvements	Total	Rate per \$100	Amount Paid
City of Warwick	0.060	\$ 450.00	\$ 0	\$ 450.00	\$ 3.39	\$ 15.20
City of Cranston	110.627	62,840.00	942,340.00	1,005,180.00	7.695	77,348.60
Town of Foster	1,617.470	865,800.00	0	865,800.00	7.05	61,038.88
Town of Gloucester	73.300	17,970.00	0	17,970.00	-----	1,563.84
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	-----	26,552.26
Town of North Providence	8.529	29,880.00	185,100.00	214,980.00	3.56	7,653.29
Town of Scituate	13,149.030	1,469,975.00	13,013,500.00	*14,500,000.00	7.72	1,119,400.00
Town of West Warwick	8.940	33,365.00	0	33,365.00	6.45	2,152.05
Total Real Estate	15,071.086			\$17,001,845.00		**\$1,295,724.18

\*Includes \$16,525.00 Tangible Personal.

\*\*In addition to this amount, \$79.98 was paid to West Gloucester Fire District and \$14.20 to Harmony Fire District.

NOTE: Johnston was paid four installments totaling \$24,940.85 at the rate of \$6.85 per \$100 and \$1,611.41 which was the balance of the fourth installment for the fiscal year 1977-1978.

Town of Gloucester was paid four installments totaling \$1,275.87 at a rate of \$7.10 per \$100 and one payment of \$287.97 at the rate of \$6.41 per \$100 which was the fourth installment for the fiscal year 1977-1978.

TABLE 56  
SUMMARY OF STATISTICS  
PROVIDENCE WATER SUPPLY BOARD  
YEAR ENDED JUNE 30, 1979

*PROVIDENCE (City or Town)	PROVIDENCE (County)	RHODE ISLAND (State)
GENERAL STATISTICS		
Population of Providence (1970 Federal Census)		179,116
Estimated population supplied in suburbs		253,895
Total population supplied		433,011
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	76.4% by gravity; 23.6% by pumping	
STATISTICS OF CONSUMPTION OF WATER		
1. Estimated population supplied		433,011
2. Total raw water influent for the year, gallons		23,816,083,000
3. Average daily raw water influent, gallons		65,250,000
4. Raw water consumption per capita, gallons daily		150.7
5. Total consumption for the year, gallons		23,253,075,000
6. Total registration on customers' meters, gallons		21,494,220,000
7. Percentage of consumption accounted for on customers' meters		92.4%
8. Average daily consumption, gallons		63,707,000
9. Per capita consumption, gallons daily		147.1
10. Gallons per day to each tap		948

\*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, 1979

## 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	23,541,826,000
6. Average quantity filtered per day, gallons	64,498,000
7. Total filtered water delivered to the distribution system during the year, gallons	23,254,935,000

## 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	19,172.94 feet
4. Removed	5,013.25 feet
5. Net Increased	14,159.69 feet
6. Total now in use	.841.53 miles
7. Number of leaks per mile	0.11
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	140
11. Number removed	127
12. Net increase	13
13. Number of hydrants now in use	5,116
14. Number of stop gates installed	46
15. Number removed	16
16. Net increase	30
17. Number of stop gates now in use	11,554

TABLE 56 (Continued)  
 SUMMARY OF STATISTICS  
 PROVIDENCE WATER SUPPLY BOARD  
 YEAR ENDED JUNE 30, 1979  
 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	497
21. Number removed	112
22. Net increase	385
23. Number of services now in use	67,177
24. Number of meters installed	560
25. Number removed or condemned	155
26. Net increase	405
27. Number of meters now in use	*67,816
28. Per cent of services metered	100

\*Many large services have batteries of meters.

TABLE 57

YEAR ENDED JUNE 30, 1979

COMPARISON OF PROVIDENCE DISTRIBUTION  
SYSTEM WATER CHARACTERISTICS WITH  
E.P.A. REGULATIONSE.P.A. Regulations  
(Maximum Permissible)

## Physical Characteristics:

*Color	15 units	4
Turbidity	1 unit	0.2
*Odor	3 threshold number	no odor
Taste	----	no taste

## Characteristics (milligrams per liter)

Arsenic	0.05	0.00
Barium	1.	less than 0.02
Cadmium	0.010	less than 0.001
Chromium	0.05	less than 0.02
*Copper	1.	0.02
Fluoride	2.0	1.01
*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.	0.07
Potassium	----	0.8
Selenium	0.01	0.00
Silver	0.05	less than 0.02
Sodium	----	7.4
*Total Dissolved Solids	500.	82.
*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.