

555

IN CITY COUNCIL

READ:

WHEREUPON IT

CITY DOCUMENT

ANNUAL REPORT

of the

WATER SUPPLY BOARD

of the

IN CITY COUNCIL
AUG 4 1983

READ:

WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.

Rozemondson CLERK

CITY OF PROVIDENCE

RHODE ISLAND

For the Year Ended June 30, 1982

RICHARD A. CARROLL
Chairman
JOSEPH G. FORMICOLA
Vice Chairman
MARY A. NOCERA
Member
ARMANDO PARILLO
Member
EVELYN V. FARGNOLI
Councilwoman
ANDREW J. ANNALDO
Councilman
JEROME I. BARON
Ex-Officio

WATER SUPPLY BOARD



CITY OF PROVIDENCE

WILEY J. ARCHER, P.E.
Chief Engineer/General Manager
WILLIAM J. MCGAIR
Legal Advisor
JAMES A. LOMBARDI
Secretary

July 19, 1983

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

Dear Mrs. Mendonca:

I am enclosing a copy of the Annual Report of the Water Supply Board for the fiscal year ended June 30, 1982

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

Very truly yours,

A handwritten signature in dark ink, appearing to read "W. J. Archer".

Wiley J. Archer, P.E.
Chief Engineer/General Manager

ms

enclosures

ADMINISTRATIVE OFFICE

Water Supply Board
City of Providence

July 1, 1982

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

In compliance with Chapter XX of the Charter of the City of Providence enacted by the General Assembly of the State of Rhode Island at its January Session, A.D. 1940, and approved April 26, 1940, we have the honor to present the forty-second annual report of the Water Supply Board, for the year ended June 30, 1982.

At a reorganization meeting held on January 29, 1982, Richard A. Carroll was reelected Chairman and Robert F. Howard was elected Vice Chairman. James A. Lombardi was reappointed Secretary.

On February 18, 1982, Daniel A. Triangolo was appointed a member of the Board to fill the vacancy brought about by the death of Alfred T. Ciccone.

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

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

Respectfully submitted,

A handwritten signature in cursive script, reading "Richard A. Carroll".

WATER SUPPLY BOARD

Richard A. Carroll, Chairman

Robert F. Howard, Vice Chairman

Daniel A. Triangolo

Vincent J. Cirelli

Laurence K. Flynn

Jerome I. Baron, Ex-Officio

John A. Doherty, Coordinator

REPORT OF THE CHIEF ENGINEER

Providence, R.I.
July 1, 1982

WATER SUPPLY BOARD CITY OF PROVIDENCE

Gentlemen:

The following is the report of the Providence Water System for the fiscal year ended June 30, 1982.

Precipitation on the 92.8 square mile drainage area this past year amounted to 58.82 inches; this was 20.45 inches more than the total of 38.37 for the 1981 year and 8.64 less than the maximum of record . . . 67.46 inches which occurred during the year ended June 30, 1973. Runoff totaled 31.15 inches compared with 13.08 for the previous year and the 40.97 inches maximum of record for the fiscal 1956.

Consumption decreased to 62,437,000 gallons per day, down 3,850,000 gallons per day from the June 30, 1981 figure of 66,287,000 gallons. The maximum day's use was 103,679,000 gallons on July 9, 1981, the highest hourly rate that day being 165,240,000 gallons per day. These quantities compare with 66-year highs of 129,739,000 gallons and 192,624,000 gallons per day maximum hourly rate established July 21, 1980.

Water sold to the Kent County Water Authority, the City of Cranston (for distribution to its western section and southwestern Johnston), Warwick, East Providence, East Smithfield Water Company, Smithfield Water Department and the Greenville Water District totaled 7,109,902,812 gallons, an average of 19,479,186 gallons per day. These seven wholesale customers accounted for 31.20% of the total consumption. Summaries relating to quantities metered to these users are shown in Tables 36, 37 and 38 of the Appendix.

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

SOURCE OF SUPPLY

RAINFALL AND RUNOFF The rainfall on the 92.8 square mile Scituate watershed above Gainer Memorial Dam was measured by rainfall gauges at Rocky Hill, Hopkins Mills, North Scituate, Westcott District and Gainer Dam. A total of 58.82 inches was recorded which was 9.52 inches more than the 66-year (July 1916 - June 1982) average of 49.30 inches and 87.2% of the maximum, 67.46 inches, which occurred during the year ended June 30, 1973. The runoff totaled 31.15 inches; this was 6.20 inches more than the 66-year average of 24.94 inches and 76.0% of the maximum, 40.97 inches, which occurred during July 1955 - June 1956 year.

STORAGE, DRAFT AND YIELD On July 1, 1981 the combined storage on the watershed including Regulating, Westconnaug, Barden, Moswansicut, Ponaganset and Scituate Reservoirs amounted to 32,806,000,000 gallons or 79.5% of capacity. At the end of the year, the combined storage was 42,288,000,000 gallons or 102.5% of capacity.

The total draft from the Scituate watershed for the year was 40,733,450,000 gallons, an average of 111,600,000 gallons daily. The draft for water supply purposes was 23,656,340,000 gallons and discharge into the north branch of the Pawtuxet River totaled 17,077,110,000 gallons.

The yield from the watershed for the year totaled 50,215,450,000 gallons, an average of 137,580,000 gallons per day. This was 27,410,000 gallons per day more than the 110,170,000 gallons average daily yield for the 66-year period July 1916 - June 1982.

WATERSHED MANAGEMENT - FORESTRY OPERATIONS Water quality and the protection of valued water resources remains the cornerstone of management on the Scituate Reservoir watershed. Departmentally owned woodlands surrounding the Scituate Reservoir and its five tributary reservoirs help to maintain and insure runoff of high quality.

Seventy-five percent of the watershed, however, is privately owned, and land-use practices on these 68.87 square miles in five communities are a major concern. Much of this area is characterized by wetlands and soils with high water tables. A diminishing availability of open land increases the pressure to develop areas of marginal suitability. The department monitors any land use or alteration which may impact on the quality of water entering streams tributary to the reservoir system.

The department is monitoring ongoing studies of proposed corridors/designs for the upgrading of local and interstate roadways to assure that concerns regarding water quality impacts from such proposals are addressed.

Ten incidents of spills involving fuel oil, waste oil, or gasoline were known to occur on the watershed during the year. The sources of the spills included road accidents, private

businesses, and private homes. One incident of groundwater well contamination was discovered on the watershed in October 1981. State and local authorities assisted in cleanup and resolution of the incident which originated from deteriorating and leaking underground fuel tanks associated with an out-of-business service station. On February 21, 1982 a Pilgrim Airlines de Havilland twin-engine Otter made an emergency crash landing on Scituate Reservoir. Due to the thickness of the ice cover on the reservoir, the fire following the crash, and cleanup activities, no problems were encountered with contamination of the reservoir.

Departmental enforcement activities on the watershed, aqueducts, and distribution reservoirs yielded a total of 581 violation incidents. Prosecutions numbered 30. Acts of vandalism accounted for 56 percent of total violations with significant damage done to the facility at the Tunk Hill Fire Tower. Off-road vehicle impacts continue on aqueduct lands and upon certain sections of watershed property.

A wet spring resulted in a minimal number of high-hazard fire days during the spring of 1982. Tunk Hill Fire Tower was operated 26 days. Seven small fires occurred on departmental lands during the year, of which only one was reported on watershed property.

Gypsy moth (*Lymantria dispar* L.) infestations again enveloped portions of the watershed forest in 1982. Levels of infestation were generally lower and not as widespread as in 1981. In cooperation with the R.I. Department of Environmental Management, the U.S. Forest Service and local communities, 1,450 acres of watershed forests were included in aerial-spray control measures using the insecticide, carbaryl. Forest areas sprayed were selected based on egg-mass survey counts and forest stands where significant damage to high quality hardwoods or understory conifers was anticipated. Areas treated occurred in the southern and western portions of the watershed where preliminary estimates predicted extensive damage and mortality to understory white pine, hemlock, and spruce. Valuable high-quality hardwood stands in these areas were treated to lessen the impact of two consecutive years of defoliation. Gypsy-moth populations are not expected to be high on the watershed in 1983. Endemic levels of other forest insect and disease populations continue to be monitored by the department's foresters.

Forest-culture operations were limited to reforestation and contractual cordwood harvest. Low-quality hardwoods were removed from forest stands to provide for release of understory white pine. Reforestation efforts centered on low-quality hardwood sites where white pine, hemlock, and Norway spruce were underplanted to create resource diversity.

Turfed areas at the Purification Works, Gainer Dam, Rockland Cemetery, distribution reservoirs, aqueducts, pumping stations and other facilities received necessary maintenance. Downstream areas at Ponaganset Reservoir were cleared of tree-vegetative growther in reponse to Phase I Corps of Engineers studies. Various other operations included repair of vandalized structures and facilities; installation, maintenance, and repair of fencing, gates, and no-trespass signs; and routine maintenance of pipelines, firelanes, and grounds.

LABORATORIES The chemical and bacteriological laboratories that check the quality of the water supply from the raw water impoundments to the taps at the consumers'

premises conducted tests on approximately 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 bacteriological and microscopic examinations.

Chemists carried out coagulation tests on raw water with various amounts of chemicals, simulating all operations of the purification process for the purpose of determining the most desirable dosage to produce an excellent quality of water at a reasonable cost. Rigid laboratory control over the quality of the water exceeded the sampling requirements of the U.S.E.P.A. Primary Drinking Water Regulations. The actual number of bacteriological samples collected from our distribution system amounted to 3,033, an average of 253 per month. A re-evaluation of our Brook and Stream sampling program was initiated, aided by a report prepared for the Water Supply Board entitled **Stream Sampling on the Scituate Reservoir Watershed** by Kenneth Lynk (February, 1982).

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 1981 - June 1982): 2,630,117 pounds of Ferri-Floc before influent aeration, 2,443,639 pounds of quicklime after influent aeration and before mixing, 98,308 pounds of chlorine prior to filtration and 275,410 pounds of sodium silicofluoride after filtration . . . a grand total of 5,447,474 pounds.

During the year, 22,787.80 million gallons were delivered into the distribution system, an average of 62.43 million gallons daily. The maximum hourly demand in the system was at a rate of 165.24 million gallons daily; consumption during the maximum day, July 9, 1981, amounted to 103.68 million gallons. The difference between plant production and system demand was provided from storage reservoirs on our distribution system.

Improvements made at the Purification Works included the complete revamping of the existing heating system within the Filter Gallery. During the winter of 1981-1982 the old heating system was completely abandoned in favor of more modern, practical and efficient units.

DISTRIBUTION

At the end of the year the Water Supply Board distribution system in Providence, Cranston, Johnston and North Providence contained 4,548,994.93 feet (861.45 miles) of water mains ranging from 6-inches to 66-inches in diameter. The network consists of iron, steel, asbestos-cement and reinforced concrete steel cylinder pipe. There were 69,323 services, 17,134 valves and 5,191 hydrants in use on June 30, 1982.

The amount of pipe laid during the year totaled 4,408.82 feet; 1,819.83 feet were removed, resulting in a net increase to the system of 2,588.99 feet. Services installed and removed were 240 and 46 respectively, a gain of 194. There was an increase of 39 valves, 48 having been installed and 9 removed. The number of meters on active services totaled 70,055.

Total water distribution was 22,789.44 million gallons or 62.44 million gallons per day. The low service, a gravity supply, consumed 74.0%; 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 26.0%. Registration on customers' meters totaled 20,392.11 million gallons, accounting for 89.5% of the amount distributed.

Leaks in the transmission and distribution mains totaled 70 during the year, 23 occurring at joints and 47 as a result of ruptured mains. Leaks at joints averaged one for every 37 miles of pipe and total leaks averaged one for every 12 miles of main. Of the 70 leaks, 2 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.

Construction of the new 24-inch high service force main from Neutaconkanut Pumping Station in Johnston to Longview Reservoir in North Providence has been completed. It is anticipated that work on the discharge manifold will commence in the fall.

Work on the Dean Estates Booster Pumping Station in Cranston is nearing completion and the station will be put into operation in the coming year.

COMMERCIAL AND ACCOUNTING

At the end of the fiscal year the Water Supply Board had 69,323 services. To meet the various requirements of our customers, we operated as usual on a 24-hour schedule. This included switchboard operators around the clock and two-way radio communication with our crews in the field. Day to day operations of the division also were carried out during the year such as reading of meters, preparation of water bills, collection of delinquent accounts, investigating complaints, furnishing information to title companies and banks, processing new applications and preparing payrolls and job cost data.

FINANCIAL

The gross income for the year totaled \$8,780,779.82. Revenue from sale of water alone amounted to \$8,187,648.26. The remaining income of \$593,131.56 was received from other sources, including hydrant rentals, installation of services and fire supplies, and

miscellaneous items. At the end of the year unpaid water bills for all previous and the present year totaled \$1,769,579.29 or 19.9% of this year's total net billing.

Expenses for the year, including principal payments of \$370,000.00 on serial bonds outstanding and \$592,483.75 in interest charges, amounted to \$7,758,874.27 down \$204,920.93 from the previous year. Bonded debt at the close of the year was \$10,325,000.00.

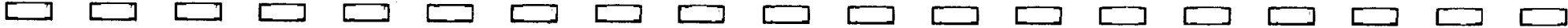
It is anticipated that for the year ending June 30, 1983 expenses will rise substantially due to higher material costs, higher wages and fringe benefits, and higher energy costs.

Financial accounts of the department, together with other statistical data for the year ended June 30, 1982, are appended to this report.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Wiley J. Archer".

Wiley J. Archer, P.E.
Chief Engineer/General Manager



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TABLE 1
MONTHLY RAINFALL IN INCHES ON SCITUATE WATERSHED
YEAR ENDED JUNE 30, 1982
STATIONS ON WATERSHED

1981-1982	Rocky Hill	Hopkins Mills	North Scituate	Westcott	Gainer Dam	Average
July	3.24	3.76	2.34	2.99	3.57	3.18
August	0.87	1.46	1.66	1.62	2.34	1.59
September	5.44	6.03	4.43	3.90	3.68	4.70
October	5.68	6.42	5.28	5.55	4.23	5.43
November	4.23	3.32	3.43	3.47	3.99	3.69
December	7.35	7.29	7.20	6.95	6.78	7.11
January	7.93	7.83	7.27	7.29	7.27	7.52
February	2.11	2.14	2.03	2.12	1.77	2.03
March	3.98	3.95	3.87	4.02	3.93	3.95
April	4.35	5.17	4.76	4.46	4.01	4.55
May	2.30	2.56	2.12	2.19	1.83	2.20
June	13.15	14.08	12.63	11.71	12.77	12.87
TOTAL	60.63	64.01	57.02	56.27	56.17	*58.82
Monthly Average	5.05	5.33	4.75	4.69	4.68	4.90

*Total of Averages

TABLE 2

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

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

TABLE 2 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

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

TABLE 2 (Continued)

MONTHLY AND YEARLY RAINFALL IN INCHES ON SCITUATE WATERSHED
YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec.	
														Year	Total
1975-1976	3.19	3.95	7.58	6.82	6.89	5.96	7.61	3.43	3.53	2.43	3.21	3.19	57.79	1976	50.04
1976-1977	6.57	6.89	3.19	5.74	0.48	3.77	4.49	3.09	6.81	3.99	3.24	3.98	52.24	1977	60.04
1977-1978	3.53	3.66	7.46	8.52	6.46	5.41	9.83	2.54	4.13	2.54	6.23	1.45	61.76	1978	49.70
1978-1979	3.04	7.58	1.50	3.57	2.47	4.82	14.42	4.10	2.78	5.67	8.13	2.17	60.25	1979	62.35
1979-1980	1.70	8.19	4.57	3.90	4.85	1.87	1.58	1.15	9.65	6.18	1.80	3.85	49.29	1980	42.77
1980-1981	5.23	2.48	1.08	4.64	4.04	1.09	0.78	7.66	0.90	4.48	3.29	2.70	38.37	1981	45.51
1981-1982	3.18	1.59	4.70	5.43	3.69	7.11	7.52	2.03	3.95	4.55	2.20	12.87	58.82	1982	-----
66 Years Average	3.75	4.28	4.15	3.79	4.70	4.44	4.32	3.91	4.48	4.17	3.66	3.65	*49.30	Avg.	*49.16
66 Years Maximum	11.49	12.75	11.75	11.48	10.48	10.93	14.42	7.66	9.65	7.56	9.36	12.87	67.46	Max.	75.24
66 Years Minimum	0.75	1.33	0.20	0.21	0.48	0.72	0.74	1.15	0.90	0.89	0.94	0.10	33.43	Min.	33.21

*Total of Monthly Averages.

NOTES: The 66-year calendar year average is for the years 1916-1981.

A new maximum of record was established for June.

TABLE 3

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

YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec. Year	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	1.97	3.21	4.78	2.83	4.22	4.05	1.71	1.78	27.44	1935	21.82
1935-1936	0.62	-0.14	0.26	-0.13	1.09	0.75	3.94	1.93	11.51	4.45	1.59	0.44	26.31	1936	31.64
1936-1937	0.03	-0.02	0.82	0.46	0.43	6.06	4.59	2.77	3.34	3.79	2.52	0.75	25.54	1937	27.16
1937-1938	0.02	0.60	0.57	0.79	4.17	3.25	4.15	2.99	2.99	2.29	1.84	2.85	26.51	1938	33.76
1938-1939	6.93	1.32	1.66	1.22	1.90	3.62	2.11	4.12	5.24	4.90	1.08	0.31	34.41	1939	21.35
1939-1940	-0.24	0.22	0.09	0.63	1.35	1.54	2.03	1.51	4.86	6.89	3.17	1.65	23.70	1940	23.98
1940-1941	0.84	-0.14	-0.04	-0.07	1.63	1.65	1.53	2.88	2.42	1.65	1.16	1.33	14.84	1941	12.43
1941-1942	0.54	0.10	-0.41	-0.15	0.52	0.86	1.87	2.54	7.14	1.75	1.06	0.59	16.41	1942	22.77
1942-1943	0.86	0.26	-0.17	0.45	1.86	4.56	2.45	3.46	4.40	2.68	3.01	0.36	24.18	1943	17.97
1943-1944	0.02	-0.16	-0.22	0.60	0.95	0.42	0.73	1.23	3.24	3.53	1.08	0.43	11.85	1944	18.61
1944-1945	-0.26	-0.31	1.73	0.50	3.16	3.55	2.91	2.58	5.61	2.15	3.10	1.26	25.98	1945	24.02

TABLE 3 (Continued)

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

YEARS ENDED JUNE 30.

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

TABLE 3 (Continued)

MONTHLY AND YEARLY RUNOFF IN INCHES ON SCITUATE WATERSHED (92.8 SQ. MI.)
YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec.	
														Year	Total
1975-1976	0.04	-0.04	0.84	2.35	4.44	4.55	6.77	4.39	3.16	1.87	1.62	0.25	30.24	1976	23.43
1976-1977	0.33	1.29	0.34	1.38	0.62	1.40	1.71	2.11	7.53	3.69	2.23	0.72	23.35	1977	31.55
1977-1978	-0.02	0.03	0.91	3.68	3.56	5.40	6.96	2.23	6.18	3.39	3.44	0.53	36.29	1978	26.50
1978-1979	0.07	0.89	-0.05	0.31	0.52	2.03	10.75	3.09	4.40	3.36	3.63	0.88	29.88	1979	32.83
1979-1980	0.01	0.83	0.47	1.25	2.70	1.46	1.25	0.50	6.49	4.80	1.88	0.57	22.21	1980	17.64
1980-1981	0.46	-0.03	-0.28	0.39	0.92	0.69	0.34	4.38	1.72	2.44	1.65	0.40	13.08	1981	18.00
1981-1982	0.14	-0.19	0.17	0.95	1.66	4.34	5.21	4.15	3.29	3.63	1.44	6.36	31.15	1982	-----
66 Years Average	0.56	0.47	0.62	0.87	1.90	2.66	3.03	2.84	4.71	3.72	2.38	1.19	*24.95	Avg.	*24.91
66 Years Maximum	6.93	4.04	4.39	7.22	6.75	6.60	10.75	5.49	11.51	6.89	5.25	6.36	40.97	Max.	43.96
66 Years Minimum	-0.41	-0.38	-0.41	-0.20	0.15	0.42	0.70	0.50	1.72	1.10	0.58	-0.18	9.97	Min.	11.82

*Total of Monthly Averages.

NOTE: The 66-year calendar year average is for the years 1916-1981.
A new maximum of record was established for June.

TABLE 4
MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED
YEARS ENDED JUNE 30.

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

TABLE 4 (Continued)

MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED

YEARS ENDED JUNE 30.

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

TABLE 4 (Continued)
MONTHLY AND YEARLY PERCENT OF RAINFALL COLLECTED ON SCITUATE WATERSHED
YEARS ENDED JUNE 30.

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	Jan.-Dec.	
														Year	Total
1975-1976	1.3	-1.0	11.1	34.5	64.4	76.3	89.0	128.0	89.5	77.0	50.5	7.8	52.3	1976	46.8
1976-1977	5.0	18.7	10.7	24.0	129.2	37.1	38.1	68.3	110.6	92.5	68.8	18.1	44.7	1977	52.0
1977-1978	-0.6	0.8	12.2	43.2	55.1	99.8	70.8	90.6	175.1	133.5	55.2	41.4	58.9	1978	53.3
1978-1979	2.3	11.7	-3.3	8.7	21.1	42.1	74.5	75.4	158.3	59.3	44.6	40.6	49.6	1979	52.7
1979-1980	0.6	10.1	10.3	32.1	55.7	78.1	79.1	43.5	67.3	77.7	104.4	14.8	45.1	1980	41.2
1980-1981	8.8	-1.2	-25.9	8.4	22.8	63.3	43.6	57.2	191.1	54.5	50.2	14.8	34.1	1981	40.0
1981-1982	4.4	-11.9	3.6	17.5	45.0	61.0	69.3	204.4	83.3	79.8	65.5	49.4	53.0	1982	----
66 Years Average	14.9	11.0	14.9	23.0	40.4	60.9	70.1	72.6	105.1	89.2	65.0	32.6	50.6	Avg.	50.7
66 Years Maximum	60.3	82.0	82.0	233.3	331.2	208.3	250.0	204.4	263.4	198.0	181.1	74.3	66.3	Max.	61.5
66 Years Minimum	-42.7	-24.1	-205.0	-12.5	8.5	22.6	11.8	20.3	57.8	54.5	32.1	-25.0	27.9	Min.	30.5

NOTE: The 66-year calendar year average is for the years 1916-1981.
A new maximum of record was established for February.

TABLE 5

SCITUATE WATERSHED

(92.8 Square Miles)

STATISTICS OF STORAGE - YEAR ENDED JUNE 30, 1982

1981-1982	1. Regulating Reservoir Avail. Storage		2. Westconnaug Reservoir Avail. Storage		3. Barden Reservoir Avail. Storage		4. Moswansicut Reservoir Avail. Storage		5. Ponaganset Reservoir Avail. Storage		Total 1-5		6. Scituate Reservoir Avail. Storage		Total 1-6	
	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Elev.	M.G.	Avail. Storage M.G.	% of *Tot. Avail.	Elev.	M.G.	Avail. Storage M.G.	% of **Tot. Avail.
July	285.51	422	454.17	453	345.23	863	301.94	719	633.41	721	3,178	101.4	275.81	28,106	31,284	78.7
August	284.85	371	453.94	440	345.11	854	301.69	694	633.07	694	3,053	97.4	273.35	25,814	28,867	72.6
September	283.75	293	453.53	416	344.91	838	301.54	679	632.57	658	2,884	92.0	270.39	23,125	26,009	65.4
October	283.71	290	453.47	413	345.14	856	301.58	683	632.50	653	2,895	92.3	268.01	21,089	23,984	60.3
November	285.62	431	454.07	447	345.32	871	302.04	729	632.89	681	3,159	100.8	266.84	20,116	23,275	58.6
December	285.60	429	454.36	464	345.29	868	302.03	728	633.62	737	3,226	102.9	267.53	20,695	23,921	60.2
January	285.69	436	453.76	430	343.31	714	302.12	737	633.78	749	3,066	97.8	273.26	25,738	28,804	72.5
February	286.00	462	450.65	269	342.50	655	302.43	770	633.65	739	2,895	92.3	279.98	32,359	35,254	88.7
March	285.63	431	452.25	350	344.10	774	302.06	731	634.50	805	3,091	98.6	284.02	36,622	39,713	99.9
April	285.68	436	452.54	364	343.74	747	302.10	735	633.68	741	3,023	96.4	284.26	36,891	39,914	100.4
May	285.65	433	453.72	427	345.40	877	302.08	733	633.62	737	3,207	102.3	284.38	37,026	40,233	101.2
June	285.60	429	452.28	352	345.38	875	302.02	727	633.41	721	3,104	99.0	282.67	35,177	38,281	96.3
Maximum for Year	6/5/82	543	6/5/82	544	6/5/82	1,093	6/5/82	839	6/5/82	850	6/5/82	123.4	6/7/82	39,477	6/5/82	107.0
Minimum for Year	9/12/81	267	1/30/82	254	1/23/82	578	9/12/81	662	9/5/81	647	1/30/82	89.0	11/14/81	19,600	11/14/81	57.3
1. Regulating Reservoir-Spillway	Elev. 285.50;	Total Storage		428 M.G.;		Dead Storage		7 M.G.;		Total Available Storage		421 M.G.				
2. Westconnaug	" " 454.17;	" " 453 "		" " 853 "		" " 0 "		" " 0 "		" " 453 "		" " 853 "				
3. Barden	" " 345.10;	" " 301.90;		" " 1,781 "		" " 1,066 "		" " 715 "		" " 715 "		" " 715 "				
4. Moswansicut	" " 301.90;	" " 742 "		" " 49 "		" " 693 "		" " 693 "		" " 693 "		" " 693 "				
5. Ponaganset	" " 633.05;	Total Storage		4,257 M.G.;		Dead Storage		1,122 M.G.;		Total Available Storage		3,135 M.G.				
Total 1-5	" " 284.01;	" " 37,011 "		" " 400 "		" " 400 "		" " 400 "		" " 400 "		" " 400 "				
6. Scituate	" " 284.01;	Total Storage		41,268 M.G.;		Dead Storage		1,522 M.G.;		Total Available Storage		39,746 M.G.				
Total 1-6	" " 284.01;	" " 41,268 M.G.;		" " 1,522 M.G.;		" " 1,522 M.G.;		" " 1,522 M.G.;		" " 1,522 M.G.;		" " 1,522 M.G.;				

NOTE: Elevations shown are in feet above mean high water in Providence Harbor.

Statistics shown are for the first day (7 A.M.) of the month indicated.

TABLE 6
SCITUATE RESERVOIR ELEVATIONS
YEARS ENDED JUNE 30

Year	1st of Month											
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1928-1929	284.43	283.63	283.08	282.87	282.65	282.11	282.34	284.00	284.32	284.28	284.53	284.10
1929-1930	282.77	280.87	278.95	276.88	274.83	273.09	272.60	273.57	275.38	277.54	278.29	277.51
1930-1931	276.23	274.28	272.18	269.80	267.58	266.14	264.86	265.82	267.39	275.51	278.84	281.37
1931-1932	283.32	281.56	280.11	278.25	276.34	274.45	273.35	276.56	277.96	281.85	283.83	283.17
1932-1933	281.06	278.86	277.16	279.75	282.50	284.60	283.61	282.80	282.86	284.23	284.16	283.09
1933-1934	282.68	280.42	278.39	278.26	277.64	276.86	277.58	280.96	280.38	285.04	284.14	284.09
1934-1935	283.14	280.72	278.62	278.55	278.20	278.73	281.17	283.23	281.23	281.20	284.37	283.14
1935-1936	283.50	281.93	279.32	277.32	275.01	274.30	273.13	277.33	278.48	285.48	283.95	282.22
1936-1937	280.91	279.07	277.06	275.97	274.43	273.12	280.27	280.85	279.18	281.83	284.30	285.19
1937-1938	284.06	282.09	281.43	279.80	278.13	280.96	279.49	279.19	279.73	280.86	282.48	283.04
1938-1939	284.87	285.14	280.58	281.12	279.83	278.23	280.01	279.17	281.31	282.72	283.74	282.57
1939-1940	280.86	278.48	276.67	274.62	272.85	273.10	273.18	274.28	274.70	280.08	284.55	285.11
1940-1941	283.53	282.87	280.63	278.35	275.88	276.19	276.21	276.22	278.63	279.70	280.39	280.01
1941-1942	280.07	278.99	277.15	274.75	272.38	270.88	270.02	270.95	273.39	282.29	281.65	281.25
1942-1943	280.34	279.81	278.31	276.16	274.55	275.40	280.05	279.69	280.00	280.98	281.53	283.91
1943-1944	282.46	280.43	278.21	275.93	274.41	273.57	271.84	270.65	270.52	273.95	277.75	277.50
1944-1945	276.20	273.86	271.20	271.68	270.27	273.47	277.37	279.19	279.43	283.76	283.73	283.88
1945-1946	283.76	282.03	279.81	277.63	275.45	275.88	280.85	281.92	282.59	283.71	283.56	284.67
1946-1947	283.41	281.23	282.51	281.16	279.95	278.30	277.97	279.17	279.62	283.18	283.87	284.50
1947-1948	283.91	282.73	280.97	279.29	277.37	279.63	279.66	277.97	280.01	285.22	284.61	285.56
1948-1949	284.69	282.83	281.01	278.73	277.01	278.12	279.00	281.61	281.56	282.64	284.16	284.66
1949-1950	282.50	280.17	278.10	276.05	273.94	272.40	272.07	273.29	275.58	280.13	282.78	284.07
1950-1951	283.58	281.33	279.64	277.64	275.63	275.99	277.74	279.77	282.17	283.41	284.46	285.08
1951-1952	284.19	282.41	280.57	278.54	276.71	281.24	283.40	282.84	281.44	283.39	284.31	285.10
1952-1953	283.92	281.34	280.02	277.76	275.37	273.52	272.74	278.12	282.29	285.13	284.68	284.49
1953-1954	282.38	280.50	278.36	276.08	274.38	274.86	279.60	280.19	281.50	283.75	284.92	284.48
1954-1955	283.05	281.11	280.22	282.61	281.65	282.94	284.57	281.49	282.33	282.66	284.05	284.35
1955-1956	283.65	281.04	282.47	279.97	285.21	284.60	281.10	282.20	282.41	282.18	285.06	283.80
1956-1957	282.87	281.39	278.96	276.87	274.79	274.14	276.52	278.15	279.67	282.10	284.36	283.34
1957-1958	281.00	278.38	275.91	273.47	271.19	269.42	270.66	279.27	280.98	284.82	285.62	284.67
1958-1959	283.80	282.10	280.42	279.27	279.43	279.32	278.74	278.12	279.12	282.98	284.30	283.82
1959-1960	283.61	283.91	281.28	279.01	278.35	279.54	282.60	282.15	284.19	283.12	284.27	284.62

TABLE 6 (Continued)
SCITUATE RESERVOIR ELEVATIONS
YEARS ENDED JUNE 30

Year	1st of Month											
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1960-1961	282.55	280.89	278.84	279.00	278.37	279.44	280.03	278.86	281.01	282.99	284.92	285.35
1961-1962	283.23	281.41	279.11	279.99	279.76	279.36	278.81	280.96	279.87	283.34	284.04	284.15
1962-1963	283.45	281.29	279.08	277.14	277.54	280.09	280.12	278.98	279.05	283.61	283.64	284.54
1963-1964	283.55	282.41	280.07	278.08	275.77	279.90	275.36	280.15	280.37	282.17	284.68	283.53
1964-1965	281.43	279.43	277.21	274.98	272.78	271.28	273.08	273.83	277.38	280.27	281.38	281.06
1965-1966	279.60	277.26	274.89	272.71	270.70	269.01	267.69	266.76	268.84	272.57	272.61	273.71
1966-1967	275.84	274.08	272.00	270.63	269.64	271.24	271.94	274.09	275.21	280.45	283.59	285.27
1967-1968	285.05	284.30	282.48	280.59	279.74	279.97	281.26	279.15	279.05	285.30	284.18	284.21
1968-1969	284.41	281.48	279.26	277.25	275.21	275.47	279.28	280.30	280.89	284.78	285.12	284.77
1969-1970	283.38	281.73	280.04	278.43	276.70	278.08	283.45	282.99	283.99	284.44	284.21	284.03
1970-1971	283.63	281.21	279.11	277.10	275.29	275.41	275.73	275.87	279.66	284.28	284.50	284.90
1971-1972	283.42	280.96	278.39	276.39	274.87	274.19	275.15	277.06	279.58	285.00	284.48	284.47
1972-1973	284.73	284.04	282.85	282.06	281.95	285.16	285.65	283.80	282.83	280.67	284.31	283.71
1973-1974	282.86	282.05	280.53	279.10	277.85	277.82	284.69	283.94	282.12	284.44	283.35	283.05
1974-1975	281.94	279.25	276.35	274.93	274.37	273.81	277.47	282.00	282.26	282.68	283.71	282.96
1975-1976	282.20	279.77	277.30	276.16	277.67	281.34	280.27	282.72	282.07	283.17	283.94	284.22
1976-1977	281.99	280.03	279.49	277.55	277.10	275.63	275.70	276.31	277.25	284.75	284.84	284.49
1977-1978	283.27	280.68	278.26	277.22	280.05	280.65	282.32	285.31	281.70	284.96	284.17	285.06
1978-1979	283.11	280.41	279.08	276.52	274.70	273.21	274.38	285.29	283.96	283.64	284.80	285.51
1979-1980	283.80	280.96	279.43	277.60	276.58	278.50	277.65	276.16	274.87	282.99	285.24	284.08
1980-1981	282.40	280.28	277.81	275.00	272.97	272.07	270.96	269.13	274.70	275.56	277.38	277.70
1981-1982	275.81	273.35	270.39	268.01	266.84	267.53	273.26	279.98	284.02	284.26	284.38	282.67
54 Years Average	282.45	280.61	278.73	277.23	276.12	274.43	277.38	278.60	279.46	282.33	283.35	283.37
54 Years Maximum	285.05	285.14	283.08	282.87	285.21	285.16	285.65	284.00	284.32	285.48	285.62	285.56
54 Years Minimum	*275.81	*273.35	*270.39	*268.01	*266.84	266.14	264.86	265.82	267.39	272.57	272.61	273.71

*New Minimum

TABLE 7
SCITUATE WATERSHED
(92.8 Square Miles)

DRAFT AND YIELD - YEAR ENDED JUNE 30, 1982

1981-1982	DRAFT FROM SCITUATE RESERVOIR Million Gallons			WATERSHED YIELD Million Gallons					
	To River Over Spillway	Below Gainer Dam Through Gate- house	Total	To Water Purification Works	For Month	Total Average per Day	For Month	Average per Day 1981-1982	66-Year Mean 1917-1982
July	0	158.92	158.92	2,483.33	2,642.25	85.23	225.25	7.27	29.13
August	0	161.07	161.07	2,381.00	2,542.07	82.00	-315.93	-10.19	24.45
September	0	198.13	198.13	2,093.87	2,292.00	76.40	267.00	8.90	33.33
October	0	249.99	249.99	1,987.92	2,237.91	72.20	1,528.91	49.32	45.26
November	0	224.72	224.72	1,813.54	2,038.26	67.94	2,684.26	89.48	102.14
December	0	250.09	250.09	1,863.25	2,113.34	68.17	6,996.34	225.69	138.38
January	0	55.38	55.38	1,890.48	1,945.86	62.77	8,395.86	270.83	157.63
February	1.98	588.41	590.39	1,642.56	2,232.95	79.75	6,691.95	239.00	163.13
March	99.85	3,174.72	3,274.57	1,825.06	5,099.63	164.50	5,300.63	170.99	245.03
April	117.10	3,635.37	3,752.47	1,777.42	5,529.89	184.33	5,848.89	194.96	199.98
May	10.35	2,277.73	2,288.08	1,991.98	4,280.06	138.07	2,328.06	75.10	123.82
June	3,174.19	2,699.11	5,873.30	1,905.93	7,779.23	259.31	10,264.23	342.14	63.97
For Year	3,403.47	13,673.64	17,077.11	23,656.34	40,733.45	111.60	50,215.45	137.58	110.17

TABLE 8
SCITUATE WATERSHED - REFORESTATION
NUMBER AND KINDS OF TREES PLANTED IN VARIOUS YEARS

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

TABLE 8 (Continued)

SCITUATE WATERSHED - REFORESTATION

NUMBER AND KINDS OF TREES PLANTED IN VARIOUS YEARS

Planted During Calendar Year	Fraser Fir	Balsam Fir	Red Pine	White Pine	Douglas Fir	Austrian Pine	Scotch Pine	Jack Pine	White Spruce	Norway Spruce	Hemlock	Larch	Total Number Planted Yearly		
1956	0	0	0	5,000	0	4,500	0	0	0	0	0	0	9,500		
1957	0	0	0	6,000	0	0	0	0	0	0	0	0	6,000		
1958	0	0	2,700	2,000	0	0	0	0	0	0	0	0	4,700		
1959	0	0	0	0	0	0	0	0	0	0	0	0	0		
1960	0	140	540	6,874	784	405	0	0	3,401	49	0	3,461	15,654		
1961	0	0	0	2,300	144	0	0	0	0	0	2,000	0	4,444		
1962	0	0	0	5,000	0	0	0	0	150	0	2,000	2,000	9,150		
1963	0	0	0	5,000	0	0	0	0	170	0	5,000	5,000	15,170		
1964	0	0	0	5,000	0	0	0	0	510	0	5,000	5,000	15,510		
1965	1,000	2,000	0	5,000	0	0	0	0	0	0	10,000	5,000	23,000		
1966	0	0	0	5,000	0	0	0	0	0	0	5,000	5,000	15,000		
1967	0	0	0	1,000	0	0	0	0	0	0	3,000	1,000	5,000		
1968	0	0	0	2,000	1,000	0	0	0	0	0	2,000	1,000	*6,200		
1969	0	0	0	2,000	0	0	0	0	0	1,000	2,000	0	**5,100		
1970	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000		
1971	0	0	0	2,000	500	0	0	0	0	500	2,000	0	****5,040		
1972	0	0	0	2,000	500	0	0	0	0	500	2,000	0	****7,000		
1973	0	0	0	1,500	500	0	0	0	0	500	2,000	500	*****7,000		
1974	0	0	0	1,500	500	0	0	0	0	500	2,500	0	5,000		
1975	0	0	0	4,500	500	0	0	0	0	0	0	0	5,000		
1976	0	0	0	3,750	500	0	0	0	0	500	3,000	0	7,750		
1977	0	0	0	2,000	500	0	0	0	0	500	1,500	0	4,500		
1978	0	0	0	1,250	0	0	0	0	0	1,750	2,000	0	5,000		
1979	0	0	0	1,750	0	0	0	0	0	1,250	2,000	0	5,000		
1980	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000		
1981	0	0	0	2,000	500	0	0	0	0	500	2,000	0	5,000		
1982	0	0	0	2,000	0	0	0	0	0	1,000	2,000	0	5,000		
Totals	1,000	4,140	2,638	427	2,863	215	20,928	101,221	136,000	121,750	821,781	228,549	90,000	48,961	7,080,312

*Includes 200 Black Walnut.

**Includes 100 Chestnut.

***Includes 40 Chestnut.

****Includes 1,400 White Ash and 600 Black Cherry.

*****Includes 1,000 White Ash and 1,000 Tulip Poplar.

TABLE 9

GAINER DAM HYDRO-ELECTRIC PLANT*

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

Contract Year	KWH Generated at Gainer Dam	KWH Used at Gainer Dam and Water Purification Works	KWH Delivered to Narragansett Electric Co.	Payment Received
(Period June 20-30, 1930)	87,000	6,470	75,100	\$ 300.40
July 1930-June 1931	3,023,000	152,940	2,758,340	20,000.00
July 1931-June 1932	4,201,500	158,070	3,980,570	19,600.00
July 1932-June 1933	7,024,900	155,210	6,697,656	26,790.62
July 1933-June 1934	5,080,900	152,420	4,837,371	19,349.48
July 1934-June 1935	7,102,900	174,710	6,756,101	27,024.40
July 1935-June 1936	5,761,200	173,530	5,394,176	21,576.70
July 1936-June 1937	5,626,000	174,110	5,262,807	21,051.23
July 1937-June 1938	6,438,300	156,710	6,069,927	24,279.71
July 1938-June 1939	8,915,000	159,860	8,457,980	33,831.92
July 1939-June 1940	4,681,100	231,850	4,329,115	17,316.46
July 1940-June 1941	3,291,200	185,540	2,982,991	16,000.00
July 1941-June 1942	2,585,300	194,250	2,322,916	15,600.00
July 1942-June 1943	4,655,800	170,520	4,372,359	17,489.44
July 1943-June 1944	2,290,100	183,250	2,096,811	14,597.25
July 1944-June 1945	4,146,200	187,080	3,879,622	15,518.49
July 1945-June 1946	4,754,100	200,200	4,460,596	17,343.70
July 1946-June 1947	3,494,400	251,270	3,224,049	13,600.00
July 1947-June 1948	5,576,900	249,940	5,313,209	21,252.84
July 1948-June 1949	3,790,500	264,160	3,521,404	14,085.62
July 1949-June 1950	1,972,200	303,460	1,548,000	9,288.00
July 1950-June 1951	4,965,900	322,220	4,476,900	26,861.40
July 1951-June 1952	6,381,400	329,080	5,836,700	35,020.20
July 1952-June 1953	4,993,400	351,080	4,429,900	26,579.40
July 1953-June 1954	3,945,700	389,050	3,389,000	20,334.00
July 1954-June 1955	6,776,900	422,250	6,111,000	36,666.00
July 1955-June 1956	9,521,700	480,300	8,747,900	52,487.40
July 1956-June 1957	2,195,400	466,480	1,608,100	9,648.60
July 1957-June 1958	4,141,000	541,760	3,432,900	**20,597.40
July 1958-June 1959	4,987,600	504,310	4,297,300	25,783.80
July 1959-June 1960	5,754,000	515,280	5,078,000	30,468.00
July 1960-June 1961	4,912,500	583,050	4,159,400	24,956.40
July 1961-June 1962	3,998,900	614,800	3,267,600	19,605.60
July 1962-June 1963	2,116,200	679,400	1,334,800	8,008.80
July 1963-June 1964	2,550,450	735,790	1,716,800	10,418.40
July 1964-June 1965	184,800	759,140	0	0.00
July 1965-June 1966	303,700	746,340	0	0.00
July 1966-June 1967	1,195,100	748,410	809,600	4,857.60
July 1967-June 1968	5,370,900	795,380	4,232,000	23,916.08
July 1968-June 1969	3,120,600	642,610	2,462,400	13,498.88
July 1969-June 1970	3,383,700	941,350	2,556,800	14,350.10
July 1970-June 1971	1,385,800	1,089,130	737,600	3,008.43
July 1971-June 1972	3,404,000	856,694	2,795,200	15,638.00
July 1972-June 1973	6,807,400	847,110	5,764,800	32,786.38
July 1973-June 1974	4,736,400	1,030,660	3,884,800	21,539.46
July 1974-June 1975	2,094,100	1,015,400	1,372,800	6,504.60
July 1975-June 1976	4,288,100	1,065,070	3,528,000	19,998.90
July 1976-June 1977	2,201,100	1,064,980	1,224,000	5,860.44
July 1977-June 1978	5,909,000	996,540	4,720,000	26,652.86
July 1978-June 1979	3,161,000	1,052,650	2,108,800	11,582.42
July 1979-June 1980	2,187,300	1,055,460	979,200	4,719.01
July 1980-June 1981	428,400	1,047,780	0	0.00
July 1981-June 1982	2,450,600	884,525	1,808,000	10,118.25

*1875 KVA 3 Phase, 60 Cycle, 2300 Volts, 80 Ft. Head Turbo-Generator.

**Involves net exchange for portion of previous year.

TABLE 10
WATER PURIFICATION WORKS

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981- 1982	Influent Aerator	Plant Influent Mil. Gals.		Water Filtered Mil. Gals.		Wash Water Mil. Gals.		% of Water Filt.	Plant Effluent Mil. Gals.		Plant Effluent Flow	Number of Filters in Operation		
	Hours Operated	Total	Average per Day	Total	Average per Day	Total	Average per Day		Total	Average per Day	Hours	Max.	Min.	Avg.
July	744.0	2,483.325	80.107	2,477.486	79.919	22.607	0.729	0.9	2,454.879	79.190	744.0	17	6	11.4
August	744.0	2,381.001	76.806	2,368.001	76.387	30.210	0.975	1.3	2,337.791	75.413	744.0	14	5	10.9
September	719.0	2,093.874	69.796	2,054.302	68.477	48.637	1.621	2.4	2,005.665	66.856	720.0	14	6	9.8
October	745.0	1,987.922	64.127	1,898.165	61.231	32.154	1.037	1.8	1,866.011	60.194	745.0	14	7	9.9
November	719.0	1,813.536	60.451	1,727.827	57.594	24.268	0.809	1.4	1,703.559	56.785	720.0	14	5	10.4
December	744.0	1,863.246	60.105	1,786.772	57.638	29.540	0.953	1.7	1,757.232	56.685	744.0	14	8	11.6
January	744.0	1,890.476	60.983	1,796.235	57.943	25.125	0.810	1.4	1,771.110	57.133	744.0	14	8	11.6
February	672.0	1,642.559	58.663	1,607.074	57.396	18.005	0.643	1.1	1,589.069	56.752	672.0	14	8	11.5
March	743.5	1,825.061	58.873	1,790.707	57.765	16.333	0.527	0.9	1,774.374	57.238	744.0	14	8	11.2
April	715.5	1,777.421	59.247	1,759.117	58.637	20.373	0.679	1.2	1,738.744	57.958	719.0	13	7	9.9
May	744.0	1,991.982	64.257	1,944.351	62.721	28.909	0.933	1.5	1,915.442	61.788	744.0	12	5	9.1
June	720.0	1,905.924	63.531	1,893.936	63.131	20.010	0.667	1.1	1,873.926	62.464	720.0	14	6	9.1
Totals	8,754.0	23,656.327		23,103.973		316.171			22,787.802		8,760.0			
Average	729.5		64.812		63.299		0.866	1.4		62.432	730.0			10.5

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

TABLE 10 (Continued)
WATER PURIFICATION WORKS
OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981- 1982	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. per Day	Parts per Mil.	Lbs.	Avg. per Day	Parts per Mil.*
July	7.37	146	4.7	58.06	274,829	8,865	0.77	278,901	8,997	0.79	11,250	363	0.54	30,046	969	0.87
August	6.58	189	6.1	50.80	255,782	8,251	0.75	270,118	8,713	0.79	9,841	317	0.50	28,322	914	0.86
September	7.02	274	9.1	27.87	230,871	7,696	0.77	233,503	7,783	0.78	8,140	271	0.48	24,531	818	0.87
October	6.15	181	5.8	41.85	242,256	7,815	0.85	204,809	6,607	0.72	7,657	247	0.48	22,534	727	0.86
November	5.72	138	4.6	53.70	217,652	7,255	0.84	176,914	5,897	0.68	7,497	250	0.52	20,460	682	0.86
December	4.97	179	5.8	50.71	194,355	6,270	0.73	165,674	5,344	0.62	7,669	247	0.52	21,187	683	0.86
January	4.98	163	5.3	54.47	212,016	6,839	0.79	187,994	6,064	0.70	7,752	250	0.52	21,283	687	0.86
February	5.03	121	4.3	66.65	223,275	7,974	0.95	184,982	6,607	0.79	6,874	246	0.51	19,358	691	0.87
March	5.06	108	3.5	83.29	204,886	6,609	0.79	199,542	6,437	0.77	7,749	250	0.52	21,455	692	0.86
April	5.98	135	4.5	54.29	179,983	5,999	0.71	178,526	5,951	0.70	7,539	251	0.51	20,669	689	0.85
May	6.83	160	5.2	47.46	201,557	6,502	0.71	181,274	5,848	0.64	8,246	266	0.51	23,020	743	0.86
June	7.24	113	3.8	57.11	192,655	6,422	0.71	181,402	6,047	0.67	8,094	270	0.51	22,545	752	0.86
Totals	6,907				2,630,117			2,443,639			98,308			275,410		
Average	6.03		5.2	51.03		7,206	0.78		6,695	0.72		269	0.51		755	0.86

Total filter hours for year, 92,183.09; average per day, 252.56.

Average quantity of water filtered per filter per run, 12.82 m.g.

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

TABLE 11
WATER PURIFICATION WORKS
CHEMICALS USED -- YEAR ENDED JUNE 30, 1982

	Pounds of Chemicals Used Lbs. per Day Total (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	2,630,117	7,206	23,656,327,000	\$180,511.67	111.18	\$ 7.63
Quicklime	2,443,639	6,695	23,656,327,000	97,894.50	103.30	4.14
Chlorine	98,308	269	23,103,973,000	12,940.04	4.26	0.56
Sodium Silicofluoride	275,410	755	22,787,802,000	57,331.97	12.09	2.52
Totals	5,447,474			\$348,678.18		\$14.85

TABLE 12
WATER PURIFICATION WORKS

*CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN PROCESS OF FILTRATION
YEAR ENDED JUNE 30, 1982

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Monthly Averages													
pH													
Raw	5.9	5.8	6.2	6.5	6.4	6.4	6.0	5.8	5.8	6.0	5.8	5.8	6.0
Aerated Influent	4.0	4.1	4.3	4.2	4.2	4.3	4.1	3.9	4.0	4.1	4.1	4.1	4.1
Treated	10.1	10.0	10.1	10.3	10.3	10.4	10.2	10.0	10.3	10.4	10.2	10.1	10.2
Settled	10.0	9.9	10.1	10.3	10.3	10.3	10.3	10.1	10.3	10.3	10.1	10.0	10.2
Filtered	10.0	9.9	10.1	10.3	10.3	10.3	10.2	10.1	10.2	10.3	10.1	10.1	10.2
**Effluent	10.0	9.9	10.1	10.3	10.3	10.3	10.2	10.1	10.2	10.2	10.1	10.1	10.2
Tap	9.9	9.8	9.9	10.1	10.2	10.2	10.1	10.0	10.1	10.1	10.1	9.8	10.0
Acidity													
Raw	5.5	7.1	4.7	1.6	1.4	1.4	1.6	2.1	2.0	1.5	1.9	2.9	2.8
Aerated Influent	8.8	9.5	8.0	6.7	6.3	5.2	7.1	8.9	8.3	6.5	7.6	8.8	7.6
Phenolphthalein Alkalinity													
Treated	10.2	10.3	10.6	10.5	10.3	9.1	8.7	8.2	9.7	10.3	8.8	8.6	9.6
Settled	8.7	9.1	9.7	9.1	8.7	7.9	7.9	7.6	8.7	8.8	8.1	7.7	8.5
Filtered	8.7	8.8	9.4	9.0	8.6	8.0	8.0	7.6	8.8	8.9	8.1	7.7	8.5
**Effluent	8.7	8.9	9.4	9.0	8.7	7.9	7.9	7.6	8.8	8.9	8.1	7.6	8.5
Tap	6.8	7.6	8.1	7.8	7.6	6.7	6.7	6.5	7.0	7.0	6.7	6.4	7.1
Methyl Orange Alkalinity													
Raw	4.1	4.4	5.0	5.5	4.8	4.7	4.5	4.0	3.5	3.1	3.2	3.3	4.2
Treated	17.9	19.2	18.3	17.1	16.9	15.7	15.7	16.0	16.0	15.9	14.6	14.6	16.5
Settled	16.5	17.9	18.1	15.9	15.9	14.7	14.9	14.4	15.2	14.8	13.5	13.7	15.5
Filtered	16.5	17.2	18.1	15.8	15.4	14.6	14.9	14.4	15.1	14.8	13.9	13.7	15.4
**Effluent	16.6	17.8	18.1	15.9	15.4	14.5	14.7	14.4	15.2	14.8	14.0	13.6	15.4
Tap	14.2	16.2	16.6	15.0	14.7	13.6	13.7	13.1	13.6	13.1	12.6	12.4	14.1
Color													
Raw	12	15	12	7	5	8	14	14	12	11	10	8	11
Settled	11	11	11	6	5	7	15	13	11	12	12	9	10
**Effluent	3	3	3	3	2	2	4	3	3	4	3	2	3
Tap	4	3	4	3	2	2	5	5	5	6	5	4	4
Turbidity													
Raw	0.5	0.9	0.9	0.5	0.4	0.5	0.7	0.7	0.5	0.5	0.4	0.4	0.6
Settled	0.4	0.5	0.5	0.3	0.3	0.4	0.7	0.7	0.6	0.7	0.6	0.6	0.5
**Effluent	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hardness													
Raw	10	11	11	12	12	11	11	11	10	10	10	10	11
**Effluent	31	32	32	33	31	29	29	30	30	29	29	28	30
Tap	31	32	33	32	32	29	29	30	30	29	29	28	30
Iron													
Raw	0.10	0.21	0.20	0.06	0.03	0.05	0.08	0.10	0.08	0.07	0.06	0.06	0.09
Settled	.25	.20	.19	.15	.11	.27	.67	.52	.47	.54	.49	.33	0.35
**Effluent	.00	.00	.01	.01	.01	.01	.07	.02	.01	.05	.04	.01	0.02
Tap	.00	.00	.03	.03	.03	.02	.08	.09	.09	.11	.11	.08	0.06
Manganese													
Raw	0.05	0.25	0.24	0.03	0.01	0.01	0.01	0.02	0.04	0.03	0.02	0.02	0.06
Settled	.01	.03	.10	.01	.01	.00	.01	.01	.01	.01	.01	.00	0.02
**Effluent	.00	.00	.00	.01	.00	.00	.01	.00	.00	.00	.00	.00	0.00
Tap	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00
Fluoride													
Raw	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
**Effluent	.16	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	0.15
Tap	1.02	.99	1.05	1.00	.97	.97	.85	.98	1.03	.98	1.00	1.04	0.99
Chlorine Residual													
Filtered	0.30	0.36	0.29	0.11	0.13	0.14	0.14	0.17	0.15	0.11	0.11	0.14	0.18
**Effluent	.29	.35	.29	.12	.13	.14	.13	.14	.15	.11	.11	.14	0.18
160 Sock. Crossroad, Crans.	.19	.26	.21	.04	.03	.04	.05	.07	.08	.07	.05	.04	0.09
Neut. Reservoir	.09	.12	.10	.02	.01	.03	.03	.05	.14	.03	.02	.03	0.06
Tap	0.12	0.23	0.13	0.02	0.01	0.02	0.03	0.07	0.07	0.06	0.06	0.06	0.07
Temperatures													
Raw	57	59	63	57	47	38	35	36	37	42	48	51	48
Tap	65	66	66	63	58	48	42	42	45	49	56	60	55

*Parts per million, except pH.

**Before treatment with sodium silicofluoride.

TABLE 13
WATER PURIFICATION WORKS
CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN VARIOUS BROOKS AND RESERVOIRS
ON SCITUATE WATERSHED

YEAR ENDED JUNE 30, 1982													Avg. for Year
Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
Color													
Ponaganset Reservoir	*	--	--	--	--	1	**	7	2	2	1	4	3
Coventry Brook	*	--	--	40	--	17	**	16	14	16	14	21	20
Wilbur Brook	*	--	--	40	--	45	**	21	18	29	42	40	34
Westconnaug Reservoir	*	--	--	40	--	9	**	12	3	5	4	14	12
Barden Reservoir	*	--	--	15	--	38	**	16	11	6	10	25	17
Cork Brook	*	--	--	40	--	14	**	12	9	10	10	20	16
Rush Brook	*	--	--	35	--	16	**	10	12	13	16	35	20
Huntinghouse Brook	*	--	--	40	--	13	**	11	9	11	11	22	17
Harrisdale Brook	*	--	--	--	--	23	**	14	10	9	15	25	16
Blanchard Brook	*	--	--	--	--	60	**	45	40	40	40	40	44
Moswansicut Pond	13	11	10	13	11	9	13	15	12	13	12	13	12
Regulating Reservoir	*	--	--	--	--	22	15	13	6	5	6	20	12
Quonopaug Brook	*	--	--	--	--	40	30	33	35	40	40	40	37
Hemlock Brook	*	--	--	--	--	39	**	22	17	18	21	20	23
Betty Pond Stream	*	--	--	--	--	14	9	8	3	4	4	13	8
Spruce Brook	*	--	--	--	--	29	**	17	10	14	17	30	20
Brandy Brook	*	--	--	--	--	40	40	29	2	35	32	40	31
Moswansicut-South	*	--	--	--	--	8	**	15	7	16	9	15	12
Windsor Brook	*	--	--	--	--	16	**	11	2	40	24	20	19
Paine Pond	42	**	**	**	37	40	25	19	19	23	39	32	31
Unnamed Brook-A	68	**	**	40	40	40	29	25	27	34	40	35	38
Unnamed Brook-B	*	--	--	--	--	27	**	40	40	11	15	40	29
Turbidity													
Ponaganset Reservoir	*	--	--	--	--	0.3	**	0.7	0.3	0.2	0.2	0.4	0.4
Coventry Brook	*	--	--	--	--	0.7	**	0.4	0.2	0.3	0.2	0.5	0.4
Wilbur Brook	*	--	--	--	--	0.5	**	0.4	0.3	0.3	0.3	0.5	0.4
Westconnaug Reservoir	*	--	--	--	--	0.6	**	0.6	0.2	0.3	0.4	0.5	0.4
Barden Reservoir	*	--	--	--	--	0.6	**	0.6	0.4	0.2	0.3	0.4	0.4
Cork Brook	*	--	--	--	--	0.4	**	0.4	0.7	0.3	0.3	0.3	0.4
Rush Brook	*	--	--	--	--	0.6	**	0.5	0.3	0.2	0.4	0.8	0.5
Huntinghouse Brook	*	--	--	--	--	0.6	**	0.5	0.3	0.2	0.4	0.6	0.4
Harrisdale Brook	*	--	--	--	--	0.5	**	0.8	0.4	0.4	0.4	0.4	0.5
Blanchard Brook	*	--	--	--	--	0.3	**	0.7	0.2	0.3	0.3	0.8	0.4
Moswansicut Pond	0.6	0.7	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.9	0.3	0.6
Regulating Reservoir	*	--	--	--	--	0.3	0.5	0.6	0.1	0.2	0.4	0.3	0.3
Quonopaug Brook	*	--	--	--	--	0.2	--	0.7	0.3	0.3	0.4	0.5	0.4
Hemlock Brook	*	--	--	--	--	0.2	**	0.7	0.3	0.4	0.3	0.4	0.4
Betty Pond Stream	*	--	--	--	--	0.3	--	0.5	0.2	0.3	0.3	0.5	0.4
Spruce Brook	*	--	--	--	--	0.3	**	0.5	0.2	0.3	0.4	0.6	0.4
Brandy Brook	*	--	--	--	--	0.3	--	0.9	0.2	0.5	0.7	1.0	0.6
Moswansicut-South	*	--	--	--	--	0.4	**	0.5	0.4	0.5	0.6	0.9	0.6
Windsor Brook	*	--	--	--	--	0.2	**	0.5	0.2	1.0	--	0.4	0.5
Paine Pond	--	**	**	**	0.6	0.6	0.4	0.4	0.7	0.6	0.6	0.6	0.6
Unnamed Brook-A	--	**	**	0.5	0.7	0.8	--	0.6	0.7	0.6	0.7	0.7	0.7
Unnamed Brook-B	*	--	--	--	--	0.3	**	1.0	1.0	0.3	--	1.0	0.7

*Limited testing due to City-Wide Strike
**No sample obtained -- Dry or Frozen

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

TABLE 13 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1982

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Iron													
Ponaganset Reservoir	*	--	--	--	--	0.02	**	0.05	0.01	0.11	0.01	0.06	0.04
Coventry Brook	*	--	0.12	--	0.07	.08	**	.01	.03	.08	.08	.08	.07
Wilbur Brook	*	--	.18	--	.15	.18	**	.03	.08	.09	.18	.31	.15
Westconnaug Reservoir	*	--	.12	--	.09	.01	**	.07	.04	.04	.06	.09	.07
Barden Reservoir	*	--	.16	--	.09	.06	**	.12	.02	.03	.07	.14	.09
Cork Brook	*	--	.02	--	.07	.14	**	.01	.02	.03	.03	.05	.05
Rush Brook	*	--	.08	--	.07	.10	**	.01	.02	.08	.16	.25	.10
Huntinghouse Brook	*	--	.42	--	.30	.04	**	.06	.01	.03	.07	.15	.14
Harrisdale Brook	*	--	.17	--	.19	.15	**	.05	.01	.03	.06	.14	.10
Blanchard Brook	*	--	.28	--	.16	.20	**	.11	.00	--	.25	.55	.22
Moswansicut Pond	0.10	0.05	.06	.03	.02	.04	0.07	.04	.03	.03	.05	.11	.05
Regulating Reservoir	*	--	.28	--	--	.07	.09	.06	.01	.01	.05	.13	.09
Quonopaug Brook	*	--	.08	--	--	.18	.08	.07	.00	--	.22	.09	.10
Hemlock Brook	*	--	.25	--	--	.03	**	.06	.00	.10	.08	.09	.09
Betty Pond Stream	*	--	.08	--	--	.01	.05	.10	.03	.04	.05	.14	.06
Spruce Brook	*	--	--	--	--	.01	**	.05	.05	.08	.15	.30	.11
Brandy Brook	*	--	--	--	--	.07	.09	.17	.07	.10	.18	.31	.14
Moswansicut-South	*	--	--	--	--	.03	**	.22	.06	.30	.22	.35	.20
Windsor Brook	*	--	--	--	--	.01	**	.00	.01	1.50	1.00	.14	.44
Paine Pond	--	**	**	**	--	.09	.10	.05	.04	.07	.28	.33	.14
Unnamed Brook-A	--	**	**	--	.23	.07	.10	.09	.02	.09	.24	.48	.17
Unnamed Brook-B	*	--	--	--	--	.40	**	3.00	1.00	.03	.08	1.00	.92
Manganese													
Ponaganset Reservoir	*	--	--	--	--	--	**	0.04	--	0.01	0.00	0.00	0.01
Coventry Brook	*	--	--	--	--	--	**	.01	--	.01	.00	.00	.01
Wilbur Brook	*	--	--	--	--	--	**	.02	0.00	.00	.01	.00	.01
Westconnaug Reservoir	*	--	--	--	--	--	**	.03	--	.01	.00	.02	.02
Barden Reservoir	*	--	--	--	--	--	**	.06	--	.00	.01	.00	.02
Cork Brook	*	--	--	--	--	--	**	.01	.00	.00	.00	.01	.00
Rush Brook	*	--	--	--	--	--	**	.02	--	.00	.00	.00	.00
Huntinghouse Brook	*	--	--	--	--	--	**	.01	--	.00	.00	.02	.01
Harrisdale Brook	*	--	--	--	--	--	**	.01	--	.02	.00	.00	.01
Blanchard Brook	*	--	--	--	--	--	**	.01	--	.01	.00	.01	.01
Moswansicut Pond	--	--	0.01	0.10	--	--	--	.01	.00	.00	.02	.00	.02
Regulating Reservoir	*	--	--	--	--	--	--	.03	--	.01	.00	.00	.01
Quonopaug Brook	*	--	--	--	--	--	--	.02	--	.00	.00	.04	.02
Hemlock Brook	*	--	--	--	--	--	**	.03	--	.01	.00	.00	.01
Betty Pond Stream	*	--	--	--	--	--	--	.02	--	.01	.00	.01	.01
Spruce Brook	*	--	--	--	--	--	**	.02	--	.01	.00	.00	.01
Brandy Brook	*	--	--	--	--	--	--	.02	--	.00	.00	.01	.01
Moswansicut-South	*	--	--	--	--	--	**	.09	--	.01	.00	.02	.03
Windsor Brook	*	--	--	--	--	--	**	.02	--	.01	--	.00	.01
Paine Pond	--	**	**	**	--	--	--	.03	.00	.03	.01	.02	.02
Unnamed Brook-A	--	**	**	--	--	--	--	.02	.00	.01	.00	.03	.01
Unnamed Brook-B	*	--	--	--	--	--	**	.40	--	.04	--	.10	.18

*Limited testing due to City-Wide Strike.

**No sample obtained -- Dry or Frozen.

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

TABLE 13 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1982

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
pH													
Ponaganset Reservoir	*	--	--	--	--	4.8	**	4.7	4.8	4.8	4.8	4.8	4.8
Coventry Brook	*	5.9	6.4	5.8	6.0	5.6	**	5.6	5.8	5.7	5.7	5.5	5.8
Wilbur Brook	*	5.8	6.1	5.8	6.5	5.5	**	5.4	5.6	5.6	6.0	5.6	5.8
Westconnaug Reservoir	*	6.4	6.9	6.1	8.6	5.9	**	5.8	5.6	5.9	6.0	5.9	6.3
Barden Reservoir	*	6.2	6.8	6.5	6.9	5.3	**	5.2	5.3	5.6	5.6	5.4	5.9
Cork Brook	*	6.1	6.5	5.8	6.8	5.6	**	5.6	5.7	5.7	6.0	5.9	6.0
Rush Brook	*	6.0	6.2	6.2	7.2	6.0	**	5.8	5.9	6.2	6.4	6.4	6.2
Huntinghouse Brook	*	6.4	7.2	6.2	7.1	5.9	**	5.9	5.8	6.0	6.2	6.4	6.3
Harrisdale Brook	*	--	6.6	--	8.4	6.2	**	6.0	6.2	6.4	6.7	6.3	6.6
Blanchard Brook	*	--	5.6	--	5.8	5.2	**	5.5	5.5	5.7	5.9	5.7	5.6
Moswansicut Pond	6.4	6.6	6.7	6.8	7.1	6.6	6.5	6.4	6.5	6.6	6.7	6.2	6.6
Regulating Reservoir	*	--	--	--	7.1	5.9	6.2	6.1	6.2	6.5	6.8	6.3	6.4
Quonopaug Brook	*	--	--	--	--	6.3	5.7	5.2	5.7	5.7	6.9	5.8	5.9
Hemlock Brook	*	--	--	--	--	5.3	**	5.2	5.5	5.2	6.2	5.8	5.5
Betty Pond Stream	*	--	--	--	--	5.5	6.5	5.3	5.8	6.0	5.8	5.6	5.8
Spruce Brook	*	--	--	--	--	5.2	**	5.2	5.5	5.5	5.9	5.5	5.5
Brandy Brook	*	--	--	--	--	6.4	5.4	6.4	6.4	6.6	9.3	8.6	7.0
Moswansicut-South	*	--	--	--	--	6.1	**	6.2	6.1	6.6	6.5	9.1	6.8
Windsor Brook	*	--	--	--	--	5.7	**	5.6	5.6	5.0	5.5	6.0	5.6
Paine Pond	5.8	**	**	**	6.8	5.5	5.3	5.6	6.0	6.1	5.9	5.9	5.9
Unnamed Brook-A	6.5	**	**	6.6	7.0	6.2	6.1	6.0	6.3	6.4	6.5	6.1	6.4
Unnamed Brook-B	*	--	--	--	--	5.2	**	5.0	5.3	5.4	6.1	5.4	5.4
Acidity													
Ponaganset Reservoir	*	--	--	--	7.0	4.0	**	7.5	4.0	7.0	3.0	4.0	3.5
Coventry Brook	*	5.5	5.5	9.0	2.5	5.0	**	5.0	5.0	3.5	5.5	7.0	5.4
Wilbur Brook	*	7.5	6.5	12.5	3.0	7.0	**	7.0	6.5	7.0	6.0	11.5	7.5
Westconnaug Reservoir	*	3.0	2.0	10.0	2.0	2.0	**	4.0	2.5	2.0	2.5	3.5	3.4
Barden Reservoir	*	5.5	2.0	2.0	2.0	4.0	**	5.5	3.5	1.5	3.0	4.5	3.4
Cork Brook	*	3.5	2.0	6.5	2.0	4.0	**	4.0	3.5	2.0	3.0	3.0	3.4
Rush Brook	*	14.0	7.0	7.5	3.0	5.5	**	5.0	5.0	3.0	4.5	4.5	5.9
Huntinghouse Brook	*	7.0	5.0	7.0	2.0	4.5	**	3.5	2.0	2.5	4.0	4.0	4.2
Harrisdale Brook	*	--	5.0	2.0	1.0	4.0	**	4.5	4.0	2.0	1.5	3.0	3.0
Blanchard Brook	*	--	6.0	5.0	6.5	10.5	**	8.5	6.0	5.0	10.5	13.0	7.9
Moswansicut Pond	3.0	3.0	3.0	3.0	1.5	2.0	2.5	2.0	2.5	1.5	1.5	3.0	2.4
Regulating Reservoir	*	--	--	--	1.5	5.5	3.0	4.0	4.0	3.0	1.5	4.0	3.3
Quonopaug Brook	*	--	--	--	3.0	12.0	5.0	12.0	6.0	4.0	5.5	10.5	7.3
Hemlock Brook	*	--	--	--	3.5	6.0	**	4.0	4.0	3.5	3.0	4.0	4.0
Betty Pond Stream	*	--	--	--	3.0	14.0	10.0	13.0	4.0	2.5	3.5	5.0	6.9
Spruce Brook	*	--	--	--	3.5	9.0	**	5.0	4.5	5.0	4.0	6.0	5.3
Brandy Brook	*	--	--	--	1.0	4.5	3.5	3.0	2.0	1.5	0.0	1.0	2.1
Moswansicut-South	*	--	--	--	0.0	14.0	**	4.0	2.5	1.0	5.0	0.0	3.8
Windsor Brook	*	--	--	--	2.0	8.0	**	3.0	4.0	9.0	4.0	4.0	4.9
Paine Pond	10.0	**	**	**	7.0	11.0	14.5	5.0	5.0	3.0	9.0	8.5	8.1
Unnamed Brook-A	5.0	**	**	7.0	7.0	8.0	6.5	4.0	4.5	3.5	4.0	6.5	5.6
Unnamed Brook-B	*	--	--	--	3.5	9.0	**	13.0	8.0	2.5	3.0	13.0	7.4

*Limited testing due to City-Wide Strike.

**No sample obtained -- Dry or Frozen.

NOTE: Unnamed Brook-A is just north of Scituate Town Dump.

Unnamed Brook-B is southwest of the former Foster Nike Site.

Results parts per million except pH.

TABLE 13 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1982

Monthly Analyses	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
Alkalinity													
Ponaganset Reservoir	*	--	--	--	2.0	5.0	**	1.0	2.0	3.0	1.5	2.0	2.4
Coventry Brook	*	4.0	6.0	6.5	5.0	3.0	**	3.0	3.0	2.0	3.5	3.5	4.0
Wilbur Brook	*	5.0	6.5	9.0	6.0	3.0	**	3.0	3.0	3.5	5.5	4.0	4.9
Westconnaug Reservoir	*	6.0	7.0	7.5	8.0	3.0	**	3.0	3.0	3.0	3.5	3.0	4.7
Barden Reservoir	*	5.0	4.5	4.5	4.5	2.0	**	2.0	2.0	2.0	4.0	2.0	3.3
Cork Brook	*	3.0	4.5	4.0	4.0	3.0	**	3.0	2.5	2.5	3.5	3.0	3.3
Rush Brook	*	10.0	9.0	8.5	5.5	4.5	**	4.5	3.5	4.0	9.0	7.5	5.7
Huntinghouse Brook	*	12.0	9.0	8.5	5.0	4.0	**	4.0	3.0	4.0	6.5	5.0	5.0
Harrisdale Brook	*	--	14.0	12.0	8.5	6.0	**	7.0	6.0	6.0	9.0	5.5	8.2
Blanchard Brook	*	--	4.5	4.5	6.0	5.0	**	3.0	3.0	3.0	5.0	5.5	4.4
Moswansicut Pond	6.5	6.5	6.5	7.5	6.5	6.5	6.0	6.0	5.0	5.0	5.5	5.0	6.0
Regulating Reservoir	*	--	--	--	7.0	4.5	6.5	4.0	4.5	5.0	6.5	5.0	5.4
Quonopaug Brook	*	--	--	--	5.0	4.0	6.0	4.0	3.0	3.5	7.5	4.0	4.6
Hemlock Brook	*	--	--	--	4.5	5.0	**	3.0	1.5	2.0	2.0	5.0	3.3
Betty Pond Stream	*	--	--	--	5.0	13.0	5.0	3.0	3.0	3.0	2.0	3.5	4.7
Spruce Brook	*	--	--	--	4.0	6.0	**	2.0	2.5	2.0	3.0	3.0	3.2
Brandy Brook	*	--	--	--	10.5	9.0	8.5	7.0	5.5	5.5	10.0	7.5	7.9
Moswansicut-South	*	--	--	--	16.0	16.0	**	7.0	6.0	7.0	3.0	12.0	9.6
Windsor Brook	*	--	--	--	3.5	5.0	**	3.0	2.0	4.0	2.5	10.0	4.3
Paine Pond	6.0	**	**	**	5.5	4.5	4.5	4.5	4.5	4.0	5.5	5.0	4.9
Unnamed Brook-A	17.0	**	**	10.0	11.5	11.0	8.5	6.5	7.0	7.5	12.0	9.0	10.0
Unnamed Brook-B	*	--	--	--	4.0	4.5	**	3.0	3.5	2.0	4.0	2.5	3.4

*Limited Testing due to City-Wide Strike.

**No sample obtained -- Dry or Frozen.

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

TABLE 14

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

YEAR ENDED JUNE 30, 1982

	Monthly Averages												Avg. for Year
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
pH													
Neutaconkanut Reservoir	9.9	9.8	9.9	10.0	10.1	10.1	10.0	10.0	10.1	10.1	10.0	9.9	10.0
160 Sock.Crossroad,Cranston	9.9	9.8	9.9	10.1	10.1	10.1	10.1	10.0	10.1	10.1	10.0	9.9	10.0
630 Atwells Ave.	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.0	10.1	10.1	10.0	9.9	10.0
1384 Cranston St.,Cranston	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.0	10.1	10.1	10.0	9.9	10.0
750 Reservoir Ave.,Cranston	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.0	10.1	10.1	10.0	9.9	10.0
1520 Atwood Ave.,Johnston	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.0	10.1	10.1	10.0	9.9	10.0
774 Allens Ave.	9.9	9.8	9.9	10.1	10.2	10.2	10.2	10.0	10.1	10.1	10.0	9.9	10.0
Dexter Manor	9.9	9.8	9.9	10.1	10.2	10.2	10.1	10.1	10.1	10.1	10.0	9.9	10.0
*State Office Building	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.1	10.1	10.1	10.0	9.9	10.0
426 Admiral St.	9.9	9.8	9.9	10.1	10.1	10.2	10.1	10.1	10.1	10.1	10.0	9.9	10.0
238 Brook St.	9.9	9.8	9.9	10.1	10.2	10.2	10.1	10.1	10.2	10.1	10.0	9.9	10.0
Phenolphthalein Alkalinity													
Neutaconkanut Reservoir	7.0	7.7	8.0	7.5	7.7	6.7	6.5	6.5	6.9	6.8	6.7	6.2	7.0
160 Sock.Crossroad,Cranston	7.8	8.0	8.5	8.0	8.0	6.7	6.8	6.5	7.2	7.4	7.1	6.9	7.4
630 Atwells Ave.	7.2	7.8	8.3	7.9	7.7	6.7	6.7	6.4	7.0	7.0	6.8	6.4	7.2
1384 Cranston St.,Cranston	7.0	7.6	8.2	7.9	7.6	6.6	6.6	6.3	6.9	7.0	6.6	6.3	7.1
750 Reservoir Ave.,Cranston	7.1	7.7	8.3	7.9	7.6	6.7	6.7	6.3	7.0	7.1	6.7	6.3	7.1
1520 Atwood Ave.,Johnston	6.9	7.7	8.0	7.9	7.5	6.8	6.7	6.4	6.9	7.1	6.6	6.4	7.1
774 Allens Ave.	6.9	7.8	8.2	7.9	7.7	6.7	6.7	6.3	6.8	7.0	6.7	6.4	7.1
Dexter Manor	7.0	7.6	8.2	7.9	7.6	6.7	6.7	6.4	7.1	6.9	6.7	6.4	7.1
*State Office Building	7.0	7.6	8.2	7.8	7.7	6.8	6.6	6.5	7.1	6.9	6.8	6.4	7.1
426 Admiral St.	6.9	7.7	8.0	7.9	7.7	6.7	6.7	6.4	7.0	6.9	6.7	6.3	7.1
238 Brook St.	6.8	7.6	8.1	8.2	7.6	6.6	6.7	6.3	7.2	6.9	6.7	6.3	7.1
Methyl Orange Alkalinity													
Neutaconkanut Reservoir	14.7	16.1	16.7	15.5	14.8	13.6	13.6	13.2	13.3	13.0	12.8	12.1	14.1
160 Sock.Crossroad,Cranston	15.8	16.9	17.2	15.5	15.2	13.6	13.8	13.3	13.9	13.5	13.2	13.0	14.6
630 Atwells Ave.	14.9	16.3	16.7	15.2	14.8	13.7	13.7	13.2	13.6	13.1	12.8	12.3	14.2
1384 Cranston St.,Cranston	14.5	16.3	16.7	15.2	14.7	13.6	13.6	13.2	13.6	13.1	12.6	12.3	14.1
750 Reservoir Ave.,Cranston	14.4	16.3	16.8	15.0	14.8	13.6	13.7	13.2	13.5	13.2	12.6	12.3	14.1
1520 Atwood Ave.,Johnston	14.3	16.3	16.7	15.3	14.8	13.7	13.6	13.2	13.5	13.2	12.7	12.4	14.1
774 Allens Ave.	14.2	16.5	16.8	15.1	14.8	13.5	13.7	13.2	13.6	13.1	12.7	12.4	14.1
Dexter Manor	14.3	16.2	16.7	15.2	14.7	13.6	13.6	13.2	13.7	13.0	12.6	12.3	14.1
*State Office Building	14.3	16.2	16.6	15.1	14.8	13.6	13.6	13.3	13.7	13.0	12.8	12.3	14.1
426 Admiral St.	14.2	16.2	16.6	15.2	14.9	13.5	13.7	13.1	13.6	13.1	12.7	12.3	14.1
238 Brook St.	14.1	16.1	16.7	15.2	14.9	13.6	13.7	13.2	13.8	13.0	12.7	12.4	14.1
Color													
Neutaconkanut Reservoir	3	3	3	3	2	2	4	3	3	3	3	2	3
160 Sock.Crossroad,Cranston	3	3	3	3	2	2	4	3	3	4	3	2	3
630 Atwells Ave.	3	3	3	3	2	2	4	3	2	4	3	2	3
1384 Cranston St.,Cranston	3	3	3	3	2	2	4	3	3	4	3	2	3
750 Reservoir Ave.,Cranston	3	3	3	3	2	2	4	3	3	4	3	2	3
1520 Atwood Ave.,Johnston	3	3	3	3	2	2	4	4	3	4	3	2	3
774 Allens Ave.	3	3	3	3	2	2	4	3	2	4	3	2	3
Dexter Manor	3	3	3	3	2	2	4	3	3	3	3	2	3
*State Office Building	3	3	3	3	2	2	4	3	3	4	3	2	3
426 Admiral St.	3	3	3	3	2	2	4	3	3	4	3	2	3
238 Brook St.	3	4	3	3	2	2	4	3	3	4	3	3	3
Iron													
Neutaconkanut Reservoir	0.00	0.00	0.01	0.01	0.01	0.01	0.06	0.03	0.02	0.02	0.03	0.02	0.02
160 Sock.Crossroad,Cranston	.01	.01	.02	.02	.02	.02	.08	.05	.03	.05	.05	.02	0.03
630 Atwells Ave.	.00	.01	.01	.01	.01	.01	.07	.03	.03	.04	.03	.01	0.02
1384 Cranston St.,Cranston	.00	.00	.01	.01	.01	.01	.07	.03	.02	.06	.03	.01	0.02
750 Reservoir Ave.,Cranston	.00	.00	.01	.01	.01	.01	.08	.04	.02	.05	.03	.01	0.02
1520 Atwood Ave.,Johnston	.00	.00	.01	.01	.01	.01	.06	.03	.02	.04	.04	.01	0.02
774 Allens Ave.	.00	.00	.02	.01	.02	.01	.07	.03	.02	.03	.04	.01	0.02
Dexter Manor	.00	.00	.01	.01	.01	.01	.08	.03	.01	.04	.03	.01	0.02
*State Office Building	.01	.00	.01	.01	.01	.01	.08	.04	.02	.04	.04	.01	0.02
426 Admiral St.	.01	.00	.01	.01	.01	.01	.06	.04	.02	.04	.04	.02	0.02
238 Brook St.	.01	.03	.03	.02	.01	.01	.07	.06	.05	.05	.06	.04	0.04

*State Health Laboratory

TABLE 14 (Continued)

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

YEAR ENDED JUNE 30, 1982

	Monthly Averages											Avg. for	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Year
Chlorides													
Neutaconkanut Reservoir	12.6	12.6	12.8	13.3	14.5	14.5	13.3	12.3	12.5	12.5	12.5	12.4	13.0
160 Sock.Crossroad, Crans.	12.7	12.5	12.8	13.4	14.6	14.4	13.2	12.1	12.5	12.5	12.5	12.4	13.0
630 Atwells Ave.	12.6	12.5	13.0	13.3	14.5	14.4	13.1	12.2	12.5	12.5	12.4	12.4	13.0
1384 Cranston St., Crans.	12.6	12.5	12.9	13.3	14.6	14.4	13.2	12.2	12.5	12.5	12.4	12.4	13.0
750 Reservoir Ave., Crans.	12.6	12.5	12.9	13.5	14.6	14.4	13.2	12.3	12.5	12.5	12.5	12.3	13.0
1520 Atwood Ave., Jstn.	12.5	12.5	12.9	13.4	14.6	14.4	13.2	12.2	12.5	12.5	12.4	12.4	13.0
774 Allens Ave.	12.5	12.5	12.9	13.4	14.6	14.4	13.2	12.2	12.5	12.5	12.5	12.5	13.0
Dexter Manor*	12.5	12.5	12.9	13.4	14.6	14.4	13.3	12.2	12.5	12.5	12.4	12.5	13.0
*State Office Building	12.5	12.5	13.0	13.3	14.7	14.4	13.2	12.2	12.5	12.5	12.5	12.5	13.0
426 Admiral St.	12.6	12.5	12.9	13.4	14.6	14.4	13.3	12.3	12.5	12.5	12.5	12.4	13.0
238 Brook St.	12.6	12.5	12.9	13.5	14.6	14.3	13.3	12.3	12.5	12.5	12.5	12.5	13.0
Nitrites													
Neutaconkanut Reservoir	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
160 Sock.Crossroad, Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
630 Atwells Ave.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1384 Cranston St., Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
750 Reservoir Ave., Crans.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1520 Atwood Ave., Jstn.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
774 Allens Ave.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Dexter Manor	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
*State Office Building	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
426 Admiral St.	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
238 Brook St.	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
Taste													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad, Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St., Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave., Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave., Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
Odor													
Neutaconkanut Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
160 Sock.Crossroad, Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
630 Atwells Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
1384 Cranston St., Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
750 Reservoir Ave., Crans.	0	0	0	0	0	0	0	0	0	0	0	0	0
1520 Atwood Ave., Jstn.	0	0	0	0	0	0	0	0	0	0	0	0	0
774 Allens Ave.	0	0	0	0	0	0	0	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	0	0	0	0	0	0	0	0
*State Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0
426 Admiral St.	0	0	0	0	0	0	0	0	0	0	0	0	0
238 Brook St.	0	0	0	0	0	0	0	0	0	0	0	0	0
Fluoride													
Neutaconkanut Reservoir	0.99	0.98	1.04	0.98	0.95	0.97	0.90	0.92	0.99	0.97	0.99	0.99	0.97
160 Sock.Crossroad, Crans.	1.03	1.01	1.14	1.02	1.02	1.03	.95	1.00	1.03	1.01	1.02	1.00	1.02
630 Atwells Ave.	.93	1.00	1.09	.98	.99	.98	.92	.96	.99	1.01	1.09	1.03	1.00
1384 Cranston St., Crans.	.95	1.02	1.20	.98	1.04	1.01	.98	1.02	1.03	1.05	1.04	1.05	1.03
750 Reservoir Ave., Crans.	1.03	1.05	1.08	1.01	1.03	1.04	.98	1.03	1.06	1.04	1.04	1.04	1.04
1520 Atwood Ave., Jstn.	1.05	1.02	1.13	.99	.98	.98	.92	.98	1.00	.98	1.02	1.00	1.00
774 Allens Ave.	1.05	1.09	1.14	1.01	1.01	1.01	.93	.94	1.07	1.03	1.07	1.00	1.03
Dexter Manor	1.06	1.04	1.11	1.04	1.01	1.02	.93	.98	1.08	1.03	1.06	1.07	1.04
*State Office Building	1.05	1.03	1.11	1.02	.99	1.00	.93	.95	1.02	.98	1.01	1.04	1.01
426 Admiral St.	1.03	1.04	1.12	1.01	1.01	1.01	.93	.98	1.07	.98	1.00	1.03	1.02
238 Brook St.	1.05	1.04	1.11	1.04	1.01	1.02	.94	1.00	1.05	1.00	1.02	1.05	1.03

TABLE 15
WATER PURIFICATION WORKS
BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION
YEAR ENDED JUNE 30, 1982

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

1981-1982	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	100	15	44	100	4	51	500	0	48	3	0	0	0	0	0	50	0	4
August	190	5	73	130	20	72	135	0	16	4	0	1	1	0	0	2	0	0
September	510	3	156	400	5	133	35	0	5	5	0	0	2	0	0	2	0	0
October	140	6	51	240	1	75	400	0	39	0	0	0	2	0	0	1	0	0
November	370	50	144	420	50	136	65	0	11	6	0	1	40	0	4	5	0	0
December	165	1	93	200	40	95	105	0	13	240	0	24	40	0	10	30	0	2
January	540	30	226	550	50	210	20	0	5	40	0	2	20	0	2	3	0	0
February	480	35	140	420	45	143	170	0	131	16	0	2	100	0	9	2	0	0
March	90	0	46	80	10	46	200	0	10	20	0	1	10	0	0	0	0	0
April	480	12	138	420	13	131	20	0	3	25	0	4	60	0	8	15	0	1
May	1400	85	245	240	8	153	5	0	1	12	0	2	70	0	5	5	0	0
June	510	30	113	120	25	71	10	0	1	15	0	1	1	0	0	2	0	0
For Year	1400	0	122	550	1	110	500	0	24	240	0	3	100	0	4	50	0	1

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

TABLE 16
WATER PURIFICATION WORKS
BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION
YEAR ENDED JUNE 30, 1982

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

1981-1982	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	65	5	33	65	2	30	480	0	85	7	0	1	2	0	0	2	0	1
August	90	11	49	80	5	39	600	0	91	88	0	7	5	0	1	16	0	2
September	480	17	135	580	20	154	400	0	40	3	0	0	30	0	2	25	0	2
October	115	10	38	100	11	47	600	0	78	3	0	0	1	0	0	25	0	2
November	120	9	41	100	1	36	540	0	145	20	0	1	1700	0	97	3	0	0
December	210	1	34	150	6	32	1090	0	233	115	0	6	17	0	2	10	0	1
January	200	25	79	220	15	71	250	0	65	4	0	1	62	0	5	50	0	3
February	1010	25	98	140	15	54	1240	0	151	11	0	1	40	0	3	13	0	2
March	780	10	55	60	5	25	900	0	149	540	0	24	40	0	3	6	0	1
April	88	2	17	80	3	16	1080	0	141	11	0	1	40	0	2	3	0	1
May	135	5	18	135	2	19	570	0	100	15	0	1	60	0	7	8	0	1
June	70	7	20	100	5	24	410	0	80	18	0	1	5	0	1	12	0	1
For Year	1010	1	51	580	1	46	1240	0	113	540	0	4	1700	0	10	50	0	1

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

TABLE 17
WATER PURIFICATION WORKS
BACTERIOLOGICAL EXAMINATION OF WATER IN PROCESS OF FILTRATION
YEAR ENDED JUNE 30, 1982

		COLIFORM BACTERIA			MEMBRANE FILTER METHOD			
		R A W ---- A.M.			Settled	Effluent A.M.	Effluent P.M.	*Tap
		No. of Portions Positive Per No. Tested			Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested	Number of Positives per Milliliters Tested
		10 ml.	1.0 ml.	0.1 ml.	Geometric Mean MPN Per 100 ml.			
1981- 1982								
July	14/48	2/48	3/48	< 5.0	0/2,800	1/2,800	0/1,300	1/19,800
August	32/69	12/69	7/69	<10.3	0/2,600	3/2,600	0/1,800	13/22,300
September	74/75	21/75	5/75	43.6	0/2,600	1/2,600	0/2,100	5/25,600
October	78/78	38/78	5/78	68.6	0/2,600	0/2,600	0/2,100	0/25,700
November	66/66	42/66	9/66	113.6	0/2,200	0/2,200	0/1,800	1/22,000
December	78/78	51/78	8/78	114.9	0/2,600	0/2,600	1/2,000	4/24,000
January	75/75	35/75	8/75	74.9	1/2,500	0/2,500	0/2,000	2/24,100
February	51/69	19/69	2/69	<21.5	3/2,300	0/2,300	3/1,900	6/22,300
March	19/81	0/81	0/81	< 4.1	0/2,700	0/2,700	0/2,300	230/28,000
April	15/78	1/78	0/78	< 3.8	0/2,600	0/2,600	0/2,000	6/24,700
May	7/72	0/72	0/72	< 3.3	2/2,400	0/2,400	0/1,900	7/23,300
June	21/78	3/78	0/78	< 4.6	0/2,600	5/2,600	7/2,200	22/26,600
For Year	530/867	224/867	47/867	<17.7	6/30,500	10/30,500	11/23,400	297/288,400

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 297 positives, 253 gave negative results in E.C. medium.

NOTE: Positive means through the confirmed test.

TABLE 18

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1982

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Bacteria per ml. 48 Hours on Agar at 20°C.											
Ponaganset Reservoir	**	315	270	4	50	15	***	15	15	40	170	90
Coventry Brook	**	950	1100	500	220	50	***	40	105	360	215	205
Wilbur Brook	**	1375	1500	600	940	130	***	50	145	420	700	1220
Westconnaug Reservoir	**	1390	250	1200	750	10	***	170	225	480	260	230
Barden Reservoir	**	540	275	600	100	45	***	390	330	300	150	400
Cork Brook	**	750	360	3	200	30	***	150	220	200	210	450
Rush Brook	**	875	660	1200	1100	15	***	130	150	240	260	510
Huntinghouse Brook	**	820	1000	TNTC	925	45	***	120	145	300	720	370
Harrisdale Brook	**	330	320	300	520	40	***	190	250	360	170	420
Blanchard Brook	**	2500	1425	TNTC	660	20	***	165	125	360	1020	440
Moswansicut Pond	**	840	795	850	270	50	120	345	70	125	370	400
Regulating Reservoir	**	210	160	120	385	250	125	100	115	70	190	180
Quonopaug Brook	**	2750	1050	720	1500	90	90	55	120	180	220	380
Hemlock Brook	**	465	420	480	100	75	***	85	160	420	190	120
Betty Pond Stream	**	940	640	500	375	110	150	300	270	75	290	160
Spruce Brook	**	1300	600	1100	1650	65	***	90	190	300	530	880
Brandy Brook	**	700	700	420	625	175	200	120	390	540	280	420
Moswansicut-South	**	2550	2650	1100	1140	95	***	1120	200	540	940	1180
Windsor Brook	**	960	150	480	150	35	***	130	185	180	440	410
Paine Pond	**	*	*	*	615	265	255	605	290	485	590	995
Unnamed Brook-A	**	*	*	TNTC	950	195	625	480	255	200	385	1200
Unnamed Brook-8	**	740	230	600	230	50	***	45	100	250	285	280

	Bacteria per ml. 24 Hours on Agar at 35°C.											
Ponaganset Reservoir	**	525	200	210	65	10	***	25	10	60	100	230
Coventry Brook	**	465	390	660	75	120	***	30	30	60	180	170
Wilbur Brook	**	2000	720	600	210	185	***	25	55	120	450	960
Westconnaug Reservoir	**	2120	360	1100	65	128	***	20	45	110	240	1200
Barden Reservoir	**	620	420	300	25	470	***	70	25	50	85	190
Cork Brook	**	820	390	480	85	145	***	35	70	80	215	300
Rush Brook	**	960	435	480	90	160	***	40	70	40	285	480
Huntinghouse Brook	**	525	295	540	100	180	***	40	50	65	255	200
Harrisdale Brook	**	700	250	2	140	140	***	30	110	120	140	300
Blanchard Brook	**	2650	1500	1	75	190	***	20	70	63	550	390
Moswansicut Pond	**	735	775	430	65	18	75	65	20	25	170	245
Regulating Reservoir	**	420	375	120	50	700	100	55	35	1	260	200
Quonopaug Brook	**	2200	1260	1	400	200	40	50	50	85	160	360
Hemlock Brook	**	410	740	360	45	325	***	50	70	144	165	140
Betty Pond Stream	**	615	800	780	25	330	115	55	80	240	245	270
Spruce Brook	**	1250	75	720	130	115	***	20	35	180	60	250
Brandy Brook	**	440	240	TNTC	40	340	25	90	85	240	200	340
Moswansicut-South	**	980	2000	1200	140	450	***	400	40	60	270	620
Windsor Brook	**	510	345	300	65	140	***	40	55	120	280	500
Paine Pond	**	*	*	*	480	130	100	165	60	90	385	560
Unnamed Brook-A	**	*	*	340	120	80	185	110	70	25	220	465
Unnamed Brook-B	**	850	240	480	120	60	***	30	15	40	155	400

*No Sample Obtained -- Dry.

**No Sample Obtained -- Strike.

***No Sample Obtained -- Frozen.

TNTC means too numerous to count.

NOTE: Unnamed Brook-A is just north of Scituate Town Dump.

Unnamed Brook-B is southwest of the former Foster Nike Site.

TABLE 18 (Continued)

WATER PURIFICATION WORKS

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

YEAR ENDED JUNE 30, 1982

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Coliform Bacteria Index per 100 ml.											
Ponaganset Reservoir	**	50	60	60	25	6	***	0	0	6	25	6
Coventry Brook	**	1100+	1100+	1100+	700	25	***	6	6	6	50	25
Wilbur Brook	**	1100+	1100+	1100+	1100+	60	***	6	25	6	700	700
Westconnaug Reservoir	**	1100+	250	1100+	130	60	***	60	6	0	700	700
Barden Reservoir	**	60	700	20	60	250	***	6	25	0	60	60
Cork Brook	**	1100+	700	1100+	130	60	***	60	20	0	700	700
Rush Brook	**	700	1100+	1100+	700	60	***	60	25	6	130	1100+
Huntinghouse Brook	**	700	700	1100+	1100+	25	***	60	250	25	700	1100+
Harrisdale Brook	**	700	700	60	700	130	***	13	60	0	250	250
Blanchard Brook	**	1100+	1100+	1100+	1100+	250	***	700	60	6	250	130
Moswansicut Pond	**	2400+	1100	1100+	250	93	15	21	4	4	150	460
Regulating Reservoir	**	60	250	60	700	50	21	60	25	0	700	130
Quonopaug Brook	**	1100+	1100+	1100+	1100+	130	15	50	25	6	1100+	130
Hemlock Brook	**	700	250	1100+	200	250	***	25	25	25	250	25
Betty Pond Stream	**	130	60	25	25	130	21	6	0	6	1100+	60
Spruce Brook	**	1100+	700	1100+	1100+	60	***	25	13	0	1100+	1300
Brandy Brook	**	1100+	700	1100+	700	250	15	60	250	50	60	1100+
Moswansicut-South	**	1100+	1100+	1100+	1100+	1100+	***	1100+	60	25	1100+	250
Windsor Brook	**	1100+	250	1100+	250	50	***	60	25	0	1100+	130
Paine Pond	**	*	*	*	1100+	2400+	460	23	43	-3	1100+	4600
Unnamed Brook-A	**	*	*	*	700	150	***	34	15	23	75	1100
Unnamed Brook-B	**	700	700	250	1100+	6	***	0	6	5	250	130

*No sample obtained--Dry.
 **No sample obtained--Strike.
 ***No sample obtained--Frozen.
 -3 indicates less than 3.
 1100+ indicates greater than 1100.

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

TABLE 19
WATER PURIFICATION WORKS
BACTERIOLOGICAL EXAMINATION OF WATER IN VARIOUS PARTS
OF THE DISTRIBUTION SYSTEM

YEAR ENDED JUNE 30, 1982

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	1	0	0	0	1	0	0	2	2	0	0	1
160 Sock.Crossroad,Crans.	0	1	0	0	0	2	0	0	0	1	0	0	0
630 Atwells Ave.	0	0	0	0	0	2	0	0	0	1	2	0	0
1384 Cranston St.,Crans.	0	0	0	0	0	1	0	0	0	3	0	0	0
750 Reservoir Ave.,Crans.	0	0	0	0	0	5	0	0	0	1	1	0	1
1520 Atwood Ave.,Jstn.	0	3	0	0	0	2	0	0	1	1	0	0	1
774 Allens Ave.	0	0	0	0	0	2	1	0	0	0	0	0	0
Dexter Manor	0	0	0	0	0	2	0	0	0	0	0	0	0
State Health Laboratory	0	0	1	0	0	4	0	0	0	1	0	0	1
426 Admiral St.	1	0	0	0	0	3	1	0	0	1	0	0	1
238 Brook St.	0	2	1	0	1	2	0	0	0	0	1	0	1
Bacteria per ml. 48 Hours on Agar at 35°C.													
Neutaconkanut Reservoir	1	5	0	0	1	3	0	1	13	1	1	0	2
160 Sock.Crossroad,Crans.	0	0	0	0	0	2	2	1	9	5	1	2	2
630 Atwells Ave.	0	0	1	0	0	4	0	3	9	2	2	1	2
1384 Cranston St.,Crans.	0	1	0	0	0	6	2	4	12	0	2	0	2
750 Reservoir Ave.,Crans.	0	1	0	0	0	3	1	1	11	1	3	0	2
1520 Atwood Ave.,Jstn.	0	1	3	0	2	4	1	1	12	2	2	1	2
774 Allens Ave.	0	6	3	1	2	33	2	6	1	0	2	1	5
Dexter Manor	2	1	1	1	1	4	1	1	1	1	0	2	1
State Health Laboratory	4	1	1	0	0	2	2	1	0	4	0	1	1
426 Admiral St.	1	1	2	0	1	2	1	4	0	0	0	1	1
238 Brook St.	1	1	2	1	1	1	2	1	0	0	0	0	1
Coliform colonies per 100 ml.													
Neutaconkanut Reservoir	0.00	0.04	0.05	0.00	0.06	0.05	0.00	0.00	0.39	0.00	0.00	0.23	0.07
160 Sock.Crossroad,Crans.	.00	.09	.00	.00	.00	.05	.05	.00	.00	.04	.00	.05	.02
630 Atwells Ave.	.00	.00	.16	.00	.00	.08	.04	.05	.04	.00	.04	.40	.07
1384 Cranston St.,Crans.	.00	.00	.00	.00	.00	.00	.00	.11	.00	.20	.16	.05	.04
750 Reservoir Ave.,Crans.	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.11	.05	.03
1520 Atwood Ave.,Jstn.	.07	.43	.00	.00	.00	.00	.00	.00	9.60	.00	.05	.05	.85
774 Allens Ave.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
Dexter Manor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
State Health Laboratory	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
426 Admiral St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.09	.01
238 Brook St.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE 20
WATER PURIFICATION WORKS
MINERAL ANALYSIS OF WATER - YEAR ENDED JUNE 30, 1982

Parts per Million	*R A W W A T E R					T A P W A T E R				
	1981		1982		Avg.	1981		1982		Avg.
	July - Sept.	Oct. - Dec.	Jan. - Mar.	Apr. - June		July - Sept.	Oct. - Dec.	Jan. - Mar.	Apr. - June	
Aluminum	--	--	0.07	--	0.07	--	--	0.04	--	0.04
Arsenic	--	--	--	--	--	< 0.005	< 0.005	< 0.005	--	< 0.005
Calcium	--	4.0	3.2	3.2	3.5	--	--	9.8	8.8	9.3
Chloride	12.1	13.7	12.4	11.3	12.4	12.7	14.1	12.7	12.5	13.0
Copper	--	--	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Fluoride	0.15	0.15	0.15	0.15	0.15	1.02	0.98	0.95	1.01	0.99
Hardness	11	12	11	10	11	32	31	30	29	31
Iron	0.17	0.05	0.09	0.06	0.09	0.01	0.03	0.09	0.10	0.06
Lead	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Magnesium	--	0.5	0.7	0.5	0.6	--	--	1.3	1.7	1.5
Manganese	0.13	0.02	0.02	0.02	0.06	0.00	0.00	0.00	0.00	0.00
Phenolic Compounds	--	--	--	0.000	0.000	--	--	--	0.000	0.000
Selenium	--	--	--	--	--	< 0.005	< 0.005	< 0.005	--	< 0.005
Silica	--	2.0	1.9	1.0	1.6	--	2.0	1.8	1.8	1.9
Sulfate	--	7	8	7	7	14	15	17	13	14.8
Total Solids	--	44	50	52	49	78	64	75	68	71
Loss on Ignition	--	27	16	28	24	22	28	22	22	24
Total Alkalinity	4.5	5.0	4.0	3.2	4.2	15.7	14.4	13.5	12.7	14.1
Phenolphthalein Alkalinity	0.0	0.0	0.0	0.0	0.0	7.5	7.4	6.7	6.7	7.1
Zinc	--	--	--	--	--	< 0.02	< 0.02	< 0.02	--	< 0.02

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

TABLE 21

WATER PURIFICATION WORKS

SANITARY CHEMICAL ANALYSIS (P.P.M.) - YEAR ENDED JUNE 30, 1982

RAW WATER

TAP WATER

1981- 1982	RAW WATER								TAP WATER							
	Ammonia N	Ni- trite N	Ni- trate N	Chlo- rides	Dissolved Oxygen P.P.M.	% Sat.	Total Solids	Loss on Igni- tion	Ammonia N	Ni- trite N	Ni- trate N	Chlo- rides	**Dissolved Oxygen P.P.M.	% Sat.	Total Solids	Loss on Igni- tion
July	--	0.000	--	11.9	--	--	--	--	--	0.001	--	12.6	--	--	--	--
August	--	0.000	--	12.0	--	--	--	--	--	0.001	--	12.5	--	--	--	--
September	--	0.000	--	12.3	--	--	--	--	0.06	0.001	--	13.0	--	--	78	22
October	--	0.001	--	13.0	--	--	--	--	--	0.001	--	13.3	--	--	--	--
November	--	0.001	--	14.2	--	--	--	--	--	0.001	--	14.6	--	--	--	--
December	0.05	0.000	--	14.0	--	--	44	27	0.05	0.001	--	14.4	--	--	64	28
January	--	0.000	--	13.2	--	--	--	--	0.05	0.001	--	13.3	--	--	72	40
February	0.02	0.000	0.03	12.1	--	--	--	--	0.03	0.001	0.00	12.3	--	--	--	--
March	0.02	0.000	0.08	11.9	12.7	96.9	50	16	0.02	0.001	0.09	12.5	13.0	99.2	77	4
April	0.02	0.000	--	11.6	12.4	93.2	48	20	0.02	0.001	--	12.5	13.2	96.7	73	17
May	0.02	0.000	0.06	11.2	11.3	97.4	51	26	0.03	0.001	0.06	12.5	11.1	99.1	63	10
June	0.03	0.000	0.02	11.2	10.0	90.1	58	38	0.02	0.001	0.02	12.5	10.7	96.4	69	39
Averages	0.03	0.000	0.05	12.4	11.6	94.4	50	25	0.04	0.001	0.04	13.0	12.0	97.9	71	23

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

**Plant effluent.

TABLE 22
WATER DISTRIBUTION SYSTEM
NEUTACONKANUT HIGH SERVICE PUMPING STATION
OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981-1982	Electrically-Driven Pumps						*Power Used		Gasoline Engine-Driven Pump No. 4 16" Pump 7000 GPM. TDH 96'		
	No. 1 16" Pump 7000 GPM. TDH 99'		No. 2 12" Pump 3800 GPM. TDH 104'		No. 3 16" Pump 7000 GPM. TDH 96'		KWH	Cost	**Operated Hours and Minutes		Gas. Used Gals.
	Days	Minutes	Days	Minutes	Days	Minutes			Days	Minutes	
July	28	564-11	14	126-59	29	566-00	178,000	\$12,520.30	0	0-00	0
August	28	526-30	14	252-30	26	460-30	152,600	10,999.67	0	0-00	0
September	22	336-00	20	322-30	23	373-00	125,600	8,452.22	0	0-00	0
October	19	320-45	16	264-30	19	302-00	132,400	8,684.37	0	0-00	0
November	19	289-00	11	191-55	15	248-00	86,200	6,012.53	0	0-00	0
December	20	321-45	0	0-00	15	249-35	97,200	6,389.88	1	1-00	15
January	16	270-45	0	0-00	18	318-25	98,600	6,312.75	1	1-00	15
February	15	266-00	0	0-00	15	252-00	91,200	6,232.78	0	0-00	0
March	17	310-30	0	0-00	17	270-30	119,600	8,368.72	1	1-00	15
April	16	268-35	27	578-20	15	246-00	153,600	10,901.41	1	1-00	15
May	24	336-48	31	533-32	22	308-15	155,800	10,984.55	3	3-00	45
June	21	274-45	30	592-25	25	261-55	191,000	14,854.28	0	0-00	0
TOTALS	245	4,085-34	163	2,862-41	239	3,856-10	1,581,800	\$110,713.46	7	7-00	105

*Narragansett Electric Co. Power Rate G.

**Engine Test Run

TABLE 22 (Continued)
WATER DISTRIBUTION SYSTEM
NEUTACONKANUT HIGH SERVICE PUMPING STATION
OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1982

	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'		
1981-1982	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	174.483	31.397	172.873	0.000	378.753	12.218
August	170.686	54.870	145.656	0.000	371.212	11.975
September	123.678	71.649	136.493	0.000	331.820	11.061
October	144.074	56.124	137.399	0.000	337.597	10.891
November	127.760	42.777	108.608	0.000	279.145	9.305
December	150.666	0.000	111.271	0.509	262.446	8.466
January	128.423	0.000	144.280	0.488	273.191	8.813
February	124.146	0.000	122.079	0.000	246.225	8.794
March	152.446	0.000	129.438	0.497	282.381	9.109
April	108.709	134.014	96.414	0.449	339.586	11.320
May	126.441	130.040	107.404	1.525	365.410	11.787
June	105.979	140.463	96.704	0.000	343.146	11.438
Totals	1,637.491	661.334	1,508.619	3.468	3,810.912	10.441

TABLE 23
WATER DISTRIBUTION SYSTEM
BATH STREET HIGH SERVICE PUMPING STATION
OPERATING STATISTICS -- YEAR ENDED JUNE 30, 1982

1981- 1982	Electrically-Driven Pumps						Gas Engine-Driven Pump		
	Pump No. 1 2500 GPM. TDH 100'	Operated		Pump No. 2 2500 GPM. TDH 100'	Operated		***Pump No. 3 5000 GPM. TDH 100' 150 HP Climax Engine		
		Days	Hours and Minutes		Days	Hours and Minutes	**Operated	Gas Used	
							Days	Hours and Minutes	HCF
July		31	683-46	31	684-00	79,030	4	60-15	799
August		31	713-00	31	665-30	70,980	2	3-25	46
September		26	521-15	25	518-00	54,040	0	0-00	0
October		23	401-15	23	448-15	61,600	1	1-00	13
November		26	557-30	25	554-30	76,580	2	3-00	40
December		31	699-30	31	733-30	83,020	1	1-00	13
January		31	699-00	31	730-00	80,920	2	2-00	26
February		28	665-00	28	672-00	84,420	0	0-00	0
March		31	700-25	31	716-45	57,260	1	1-00	13
April		25	414-00	22	372-00	54,600	2	2-00	27
May		29	473-45	28	521-10	59,920	1	1-00	13
June		28	495-00	26	464-15	77,560	1	1-00	13
TOTALS		340	7,023-26	332	7,079-55	839,930	17	75-40	1,003

*Narragansett Electric Power Rate G.

**Engine Test Run.

***Pump No. 3 was converted to natural gas in July, 1981.

TABLE 23 (Continued)
WATER DISTRIBUTION SYSTEM
BATH STREET HIGH SERVICE PUMPING STATION
OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

	Electrically-Driven Pumps		Gas 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	
1981-1982	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	Water Pumped Mil. Gals.	For Month	Avg. per Day
July	94.786	95.184	12.772	202.742	6.540
August	107.038	93.674	0.672	201.384	6.496
September	83.528	73.866	0.000	157.394	5.246
October	65.742	71.975	0.158	137.875	4.448
November	84.241	84.346	0.759	169.346	5.645
December	103.342	109.164	0.248	212.754	6.863
January	105.475	109.717	0.535	215.727	6.958
February	98.466	99.644	0.000	198.110	7.076
March	103.998	106.720	0.221	210.939	6.805
April	65.469	57.143	0.482	123.094	4.103
May	71.835	76.862	0.210	148.907	4.803
June	76.993	65.865	0.249	143.107	4.770
Totals	1,060.913	1,044.160	16.306	2,121.379	5.812

TABLE 24

WATER DISTRIBUTION SYSTEM

*AQUEDUCT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981- 1982	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	230.13	41.95	230.35	225.75	229.65	42.32	34.45	41.14	4.17	1.54	2.82	7.13	2.64	4.83
August	229.60	41.06	230.32	225.37	229.55	42.27	33.80	40.97	4.54	1.03	2.78	7.79	1.77	4.76
September	229.57	41.01	230.29	225.64	229.39	42.22	34.26	40.70	4.48	1.23	2.67	7.67	2.11	4.58
October	229.56	40.99	230.15	224.42	229.07	41.98	32.17	40.14	4.36	1.58	2.69	7.48	2.71	4.61
November	229.40	40.72	230.64	225.26	229.46	42.80	33.61	40.82	3.69	1.73	2.69	6.33	2.97	4.61
December	228.45	39.09	230.24	225.19	229.04	42.13	33.49	40.10	3.65	1.86	2.47	6.26	3.16	4.24
January	228.38	38.97	230.20	225.74	228.98	42.07	34.44	40.00	3.92	1.54	2.54	6.73	2.63	4.36
February	228.10	38.48	230.30	225.49	229.26	42.23	34.01	40.47	4.10	1.81	2.56	6.88	3.10	4.39
March	229.02	40.06	230.35	226.12	229.45	42.32	35.09	40.80	3.51	1.81	2.55	6.02	3.10	4.37
April	230.20	42.07	230.20	226.21	229.14	42.07	35.24	40.26	3.19	1.00	2.56	5.46	1.72	4.40
May	229.55	40.97	230.36	225.43	229.55	42.33	33.90	40.97	4.64	1.10	2.85	7.95	1.89	4.88
June	229.10	40.20	230.40	225.90	229.47	42.40	34.71	40.83	3.95	1.66	2.68	6.75	2.84	4.60
For Year			230.64	224.42	229.33	42.80	32.17	40.60	4.64	1.00	2.66	7.95	1.72	4.55

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

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

TABLE 25

WATER DISTRIBUTION SYSTEM

*NEUTACONKANUT DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981- 1982	7 A.M. Statistics on First Day of Month		Water Level			OPERATING CHARACTERISTICS DURING MONTH								
	Water Level	Storage Mil. Gals.	Max.	Min.	**Avg.	Storage-Mil. Gals.			Daily Water Level Fluctuation-Ft.			Daily Storage Fluctuation-M.G.		
						Max.	Min.	**Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.
July	226.20	40.69	226.90	222.23	226.02	41.92	33.70	40.37	4.35	0.66	2.40	7.66	1.16	4.22
August	225.55	39.54	226.80	222.45	226.00	41.74	34.09	40.34	4.24	1.00	2.42	7.46	1.76	4.26
September	226.12	40.55	226.68	223.40	226.23	41.53	35.76	40.74	3.18	1.12	2.06	5.60	1.98	3.63
October	226.21	40.70	226.76	222.32	226.19	41.67	33.86	40.67	3.43	0.53	1.68	6.04	0.94	2.95
November	226.45	41.13	226.96	223.42	226.40	42.02	35.79	41.03	2.92	0.70	1.66	5.14	1.24	2.92
December	225.83	40.04	227.10	222.89	226.25	42.27	34.86	40.77	3.08	0.36	1.59	5.42	0.64	2.80
January	226.31	40.88	226.82	223.62	226.18	41.78	36.15	40.64	2.60	0.40	1.61	4.58	0.71	2.84
February	225.53	39.51	226.25	223.06	225.86	40.78	35.16	40.08	2.58	0.55	1.55	4.54	1.39	2.74
March	225.59	39.61	226.30	223.22	225.69	40.86	35.44	39.78	2.40	0.29	1.46	4.23	0.51	2.56
April	226.30	40.86	226.82	223.92	226.19	41.78	36.67	40.67	2.36	0.33	1.71	4.15	0.58	3.01
May	226.41	41.06	226.71	222.88	226.18	41.58	34.84	40.64	3.66	0.44	1.84	6.45	0.77	3.25
June	225.78	39.95	227.00	222.92	225.82	42.10	34.91	40.01	2.76	1.16	1.88	4.86	2.05	3.31
For Year			227.10	222.23	226.08	42.27	33.70	40.48	4.35	0.29	1.82	7.66	0.51	3.21

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

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

TABLE 26

WATER DISTRIBUTION SYSTEM

*LONGVIEW DISTRIBUTION RESERVOIR

OPERATING STATISTICS - YEAR ENDED JUNE 30, 1982

1981- 1982	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	304.20	11.56	305.73	295.62	304.36	12.27	7.58	11.64	8.15	0.65	3.99	3.78	0.30	1.85
August	304.90	11.89	305.20	297.30	304.10	12.03	8.36	11.52	6.60	1.12	4.24	3.06	0.52	1.98
September	304.25	11.59	306.62	300.64	304.76	12.63	9.91	11.82	5.81	1.63	3.26	2.70	0.75	1.51
October	306.42	12.57	306.56	300.26	304.64	12.61	9.74	11.77	4.56	1.40	2.93	2.12	0.65	1.36
November	304.33	11.62	304.95	301.55	304.29	11.91	10.33	11.62	3.33	1.31	2.25	1.55	0.61	1.04
December	303.65	11.31	305.96	301.03	304.58	12.38	10.09	11.74	4.78	1.07	2.18	2.22	0.49	1.01
January	304.08	11.51	306.34	300.78	305.02	12.54	9.98	11.94	4.86	1.00	2.70	2.25	0.46	1.26
February	303.50	11.24	305.92	302.18	304.91	12.36	10.63	11.89	3.46	0.60	2.48	1.61	0.28	1.15
March	305.07	11.97	306.56	300.84	304.96	12.61	10.00	11.92	4.98	1.77	2.60	2.32	0.82	1.21
April	305.28	12.06	306.20	301.11	304.79	12.49	10.13	11.84	4.58	1.31	2.43	2.13	0.61	1.13
May	304.35	11.63	305.28	300.39	304.49	12.06	9.80	11.70	4.81	1.10	2.59	2.23	0.51	1.20
June	304.09	11.51	305.50	301.75	304.66	12.17	10.43	11.78	2.99	1.05	2.01	1.39	0.49	0.93
For Year			306.62	295.62	304.63	12.63	7.58	11.77	8.15	0.60	2.81	3.78	0.28	1.30

*Storage capacity at overflow elevation of 306.00=12,400,000 gallons. **Average of 7 A.M. statistics.

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

TABLE 27

WATER PIPE LAID, REMOVED & ADDED

YEAR ENDED JUNE 30, 1982

Pipe Laid in Feet

City or Town	6"	8"	12"	16"	24"	Total
Providence	383.82	--	258.63	96.55	523.81	1,262.81
Cranston	796.11	725.74	13.21	--	--	1,535.06
Johnston	90.30	1,331.40	--	--	--	1,421.70
North Providence	141.25	48.00	--	--	--	189.25
Totals	1,411.48	2,105.14	271.84	96.55	523.81	4,408.82

Pipe Removed in Feet

	6"	8"	12"	16"	24"	Total
Providence	108.28	--	179.80	344.39	12.70	645.17
Cranston	56.20	251.25	13.21	--	--	320.66
Johnston	--	854.00	--	--	--	854.00
North Providence	--	--	--	--	--	--
Totals	164.48	1,105.25	193.01	344.39	12.70	1,819.83

Net Length Added to Distribution System

	6"	8"	12"	16"	24"	Total
Providence	275.54	--	78.83	-247.84	511.11	617.64
Cranston	739.91	474.49	--	--	--	1,214.40
Johnston	90.30	477.40	--	--	--	567.70
North Providence	141.25	48.00	--	--	--	189.25
Totals	1,247.00	999.89	78.83	-247.84	511.11	2,588.99

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

TABLE 29
GATES IN USE ON JUNE 30, 1982

	Stop Gates												Gates on Public Fire Hydrants			Gates on Unwatering Hydrants			Gates on Blow-offs				Total number of Gates	
	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"	60"	Total	6"	8"	Total	6"	8"	Total	6"	8"	12"		Total
	PROVIDENCE																							
	4,412	1,052	13	661	284	28	77	39	6	3	10	0	6,585	1,736	1,406	3,142	8	14	22	1	2	1	4	9,753
	CRANSTON																							
25	1,810	1,042	0	240	15	0	11	16	13	14	4	3	3,168	1,207	11	1,218	3	14	17	0	2	28	30	4,433
	JOHNSTON																							
	383	516	1	31	12	6	5	0	0	0	1	0	955	348	11	359	3	0	3	0	0	2	2	1,319
	NORTH PROVIDENCE																							
	646	412	1	88	10	0	5	1	1	0	0	0	1,164	462	0	462	0	3	3	0	0	0	0	1,629
	TOTALS																							
	7,251	3,022	15	1,020	321	34	98	56	20	17	15	3	11,872	3,753	1,428	5,181	14	31	45	1	4	31	36	17,134

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

TABLE 30
SERVICE PIPES INSTALLED AND REMOVED -- YEAR ENDED JUNE 30, 1982

City or Town	INSTALLED				REMOVED			
	General		Fire Supply	Total	General		Fire Supply	Total
	Copper 3/4"-2"	Iron 4"-12"	Iron 4"-12"		Lead or Copper 1/2"-2"	Cast Iron 4"-12"	Cast Iron 4"-12"	
Providence	61	5	17	83	24	3	1	28
Cranston	73	1	8	82	11	0	0	11
Johnston	24	0	1	25	3	0	0	3
North Providence	49	0	1	50	4	0	0	4
Totals	207	6	27	240	42	3	1	46

TABLE 31
NUMBER AND SIZE OF ACTIVE SERVICES -- YEAR ENDED JUNE 30, 1982

	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	42"	Total
Providence	194	23,102	7,611	2,420	432	588	727	6	1,034	1,031	112	2	10	2	0	0	0	37,271
Cranston	5	6,812	8,532	2,651	39	607	427	0	146	154	48	0	5	0	1	2	2	19,431
Johnston	0	739	2,570	1,640	9	380	103	0	22	42	9	0	1	0	0	0	0	5,515
North Providence	0	1,051	2,774	2,664	5	358	162	0	48	34	8	0	2	0	0	0	0	7,106
Totals	199	31,704	21,487	9,375	485	1,933	1,419	6	1,250	1,261	177	2	18	2	1	2	2	69,323

TABLE 32
PUBLIC FIRE HYDRANTS
HYDRANT ACTIVITIES DURING THE YEAR ENDED JUNE 30, 1982

	Providence	Cranston	Johnston	North Providence	Total
Post Hydrants Installed	37	18	7	8	70
Post Hydrants Removed	40	16	6	8	70

HYDRANTS IN DISTRIBUTION SYSTEM ON JUNE 30, 1982

Post Hydrants	3,142	1,221	365	463	5,191
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TABLE 33

NUMBER, MAKE AND SIZE OF METERS ON ACTIVE SERVICES

YEAR ENDED JUNE 30, 1982

Size	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	12"	16"	24"	30"	36"	Total
------	------	------	----	-----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-------

*PROVIDENCE

Make																
Trident	29,312	3,277	1,115	1,313	1,937	70	60	60	17	5	-	-	-	-	-	37,166
Thomson	327	56	44	23	79	-	2	-	-	-	-	-	-	-	-	531
Empire	29	-	6	-	-	-	-	-	-	-	-	-	-	-	-	35
Crown	14	2	2	-	-	-	-	-	-	-	-	-	-	-	-	18
Hersey	-	-	-	2	3	2	13	60	6	-	-	-	-	-	-	86
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
Rockwell Turbo	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Totals	29,682	3,335	1,167	1,338	2,019	72	75	120	24	5	1	2	-	-	-	37,840

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

*CRANSTON

Make																
Trident	16,357	1,561	677	357	495	2	6	16	7	-	1	-	-	-	-	19,479
Thomson	-	6	-	8	5	-	-	-	-	-	-	-	-	-	-	19
Hersey	-	-	-	-	1	-	-	8	7	1	-	-	-	-	-	17
Flow Meter	-	-	-	-	-	-	-	-	1	-	1	1	1	1	2	7
Totals	16,357	1,567	677	365	501	2	6	24	15	1	2	1	1	1	2	19,522

*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	4,002	995	315	86	118	-	-	5	3	-	-	-	-	-	-	5,524
Thomson	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Hersey	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	4,025	995	315	86	118	-	-	7	3	-	1	-	-	-	-	5,550

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

1-12" Flow Meter supplying Greenville Water District.

*NORTH PROVIDENCE

Make																
Trident	5,436	877	402	91	143	1	3	5	-	-	-	-	-	-	-	6,958
Thomson	53	2	-	1	1	-	-	-	-	-	-	-	-	-	-	57
Gamon	65	1	1	1	4	-	-	-	-	-	-	-	-	-	-	72
Arctic	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Keystone	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Badger	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Hersey	-	-	-	-	-	2	-	8	-	-	-	-	-	-	-	10
Flow Meter	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Totals	5,598	880	404	93	148	3	3	13	-	-	1	-	-	-	-	7,143

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

1-12" Flow Meter supplying Town of Smithfield.

TABLE 34

CAPACITY AND CONSUMPTION

C O N S U M P T I O N									
Year Ended Sept. 30	Purification Works	Total During Year	Average M.G.D.	Total M.G.	Maximum Day		Rate in M.G.D.	Maximum Hour	
	Capacity M.G.D.	M.G.			Percent of Plant Capacity	Percent of Average Day		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
1980	144.0	23,150.3	63.3	115.6	80.3	182.6	163.7	113.7	258.6
1981	144.0	24,194.6	66.3	129.7	90.1	195.6	192.6	133.8	290.5
1982	144.0	22,789.4	62.4	103.7	72.0	166.2	165.2	114.7	264.7

TABLE 35
CONSUMPTION OF WATER - MILLION GALLONS
YEAR ENDED JUNE 30, 1982

1981- 1982	Low Service (1)				High Service (2)				Total Service (1,2)			
	Max. Day	Min. Day	Avg. Day	Total	Max. Day	Min. Day	Avg. Day	Total	Max. Day	Min. Day	Avg. Day	Total
July	81.139	38.835	60.498	1,875.424	23.241	13.234	18.747	581.165	103.679	52.069	79.245	2,456.589
August	72.066	40.135	56.911	1,764.235	21.248	15.286	18.480	572.896	93.306	55.519	75.391	2,337.131
September	61.995	38.039	50.544	1,516.321	17.980	14.419	16.274	488.214	78.608	53.002	66.818	2,004.535
October	50.960	35.496	44.851	1,390.379	16.630	13.573	15.369	476.442	67.422	49.837	60.220	1,866.821
November	48.664	31.858	41.927	1,257.788	16.403	13.370	14.960	448.801	64.373	45.504	56.887	1,706.589
December	47.877	28.482	41.438	1,284.592	16.336	13.085	15.323	475.000	63.999	41.567	56.761	1,759.592
January	48.415	31.847	41.421	1,284.052	17.440	12.126	15.780	489.188	64.738	43.973	57.201	1,773.240
February	46.861	26.747	40.824	1,143.054	21.380	13.679	15.843	443.605	63.129	48.127	56.667	1,586.659
March	46.603	32.114	41.219	1,277.794	16.921	14.461	15.911	493.230	62.985	47.048	57.130	1,771.024
April	48.850	35.404	42.565	1,276.964	16.682	12.633	15.437	463.110	63.497	48.539	58.002	1,740.074
May	57.267	34.722	45.258	1,403.005	19.289	14.041	16.595	514.437	76.556	49.011	61.853	1,917.442
June	56.867	33.025	46.118	1,383.543	18.195	13.765	16.207	486.203	75.062	47.868	62.325	1,869.746
For Year	81.139(a)	26.747(b)	46.184	16,857.151	23.241(c)	12.126(d)	16.253	5,932.291	103.679(e)	41.567(f)	62.437	22,789.442
	(a) 7/9/81 (b) 2/20/82				(c) 7/11/81 (d) 1/1/82				(e) 7/9/81 (f) 12/25/81			

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

TABLE 36
WATER SOLD TO KENT COUNTY WATER AUTHORITY
AND THE WESTERN SECTION OF THE CITY OF CRANSTON
YEAR ENDED JUNE 30, 1982

	KENT COUNTY WATER AUTHORITY				WESTERN CRANSTON	
	S.S. 58985 Oaklawn Avenue Cranston 12" Tri-Crest Meter	S.S. 75430 Clinton Avenue Scituate 30" Flow Meter	Total Gallons per Month	Average Gallons per Day	S.S. 76957 Adjacent to Aqueduct Reservoir Cranston 16" Flow Meter	Average Gallons per Day
1981- 1982	Gallons per Month	Gallons per Month			Gallons per Month	
July	16,313,250	162,927,900	179,241,150	5,781,973	14,879,300	479,977
August	11,292,000	122,223,150	133,515,150	4,306,940	11,222,400	362,013
September	10,329,000	127,732,700	138,061,700	4,602,057	13,354,000	445,133
October	9,481,500	124,400,650	133,882,150	4,318,779	8,627,000	278,290
November	8,138,250	107,486,750	115,625,000	3,854,167	7,833,600	261,120
December	9,515,250	111,869,400	121,384,650	3,915,634	8,781,900	283,287
January	8,097,000	118,117,600	126,214,600	4,071,439	8,102,000	261,355
February	7,329,000	98,991,450	106,320,450	3,797,159	7,386,200	263,793
March	15,147,750	105,246,150	120,393,900	3,883,674	8,423,100	271,713
April	11,514,000	101,467,350	112,981,350	3,766,045	7,958,700	265,290
May	---	127,989,400	127,989,400	4,128,690	10,589,000	341,581
June	---	114,183,050	114,183,050	3,806,102	10,423,500	347,450
For Year	107,157,000	1,422,635,550	1,529,792,550	4,191,212	117,580,700	322,139

TABLE 37
WATER SOLD TO THE CITY OF WARWICK
AND THE CITY OF EAST PROVIDENCE
YEAR ENDED JUNE 30, 1982

	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	Total Gallons per Month	Average Gallons per Day	Gallons per Month	Average Gallons per Day
1981- 1982						
July	193,754,000	181,682,500	375,436,500	12,110,855	243,919,800	7,868,381
August	130,294,000	126,284,262	256,578,262	8,276,718	193,541,400	6,243,271
September	122,519,000	120,154,600	242,673,600	8,089,120	187,945,800	6,264,860
October	110,692,000	104,570,500	215,262,500	6,943,952	194,957,700	6,288,958
November	90,049,000	96,136,390	186,185,390	6,206,180	152,462,800	5,082,093
December	101,275,000	91,594,900	192,869,900	6,221,610	146,230,100	4,717,100
January	91,345,000	99,322,500	190,667,500	6,150,565	159,349,900	5,140,319
February	83,059,000	86,253,750	169,312,750	6,046,884	137,226,500	4,900,946
March	100,805,000	98,881,750	199,686,750	6,441,508	152,688,500	4,925,435
April	108,974,000	99,927,750	208,901,750	6,963,392	146,695,900	4,889,863
May	120,149,000	124,195,110	244,344,110	7,882,068	173,068,800	5,582,865
June	114,589,000	115,174,700	229,763,700	7,658,790	165,775,800	5,525,860
For Year	1,367,504,000	1,344,178,712	2,711,682,712	7,429,268	2,053,863,000	5,627,022

TABLE 38

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

YEAR ENDED JUNE 30, 1982

	EAST SMITHFIELD WATER COMPANY				SMITHFIELD WATER DEPT.		GREENVILLE WATER DISTRICT	
	S.S. 51198 Waterman Avenue No. Prov. 6" Tri-Pro Meter	S.S. 52403 Dean Avenue Smithfield 8" Tri-Crest Meter	Total Gallons per Month	Average Gallons per Day	S.S. 7198D Smithfield Road North Providence 12" Flow Meter	Average Gallons per Day	S.S. 7631D George Waterman Road Johnston 12" Flow Meter	Average Gallons per Day
1981- 1982	Gallons per Month	Gallons per Month	Gallons per Month	Gallons per Day	Gallons per Month	Gallons per Day	Gallons per Month	Gallons per Day
July	26,546,250	8,003,250	34,549,500	1,114,500	17,325,500	558,887	28,884,600	931,761
August	22,218,750	6,276,750	28,495,500	919,210	13,064,700	421,442	22,424,900	723,384
September	20,854,500	6,165,750	27,020,250	900,675	14,256,800	475,227	18,425,200	614,173
October	18,456,750	6,447,750	24,904,500	803,371	13,130,300	423,558	17,496,000	564,387
November	16,391,250	5,904,750	22,296,000	743,200	11,512,600	383,753	14,648,900	488,297
December	18,510,450	5,976,000	24,486,450	789,885	11,905,700	384,055	14,145,000	456,290
January	17,903,250	6,394,500	24,297,750	783,798	8,684,900	280,158	15,642,500	504,597
February	15,703,500	6,242,250	21,945,750	733,777	10,265,500	366,625	15,279,000	545,679
March	18,067,500	6,099,000	24,166,500	779,565	11,578,500	373,500	18,002,400	580,723
April	21,455,250	6,100,500	27,555,750	918,525	13,656,300	455,210	17,810,500	593,683
May	21,623,250	7,122,750	28,746,000	927,290	12,861,600	414,890	23,675,000	763,710
June	26,404,500	6,430,500	32,835,000	1,094,500	9,156,900	305,230	21,851,600	728,387
For Year	244,135,200	77,163,750	321,298,950	880,271	147,399,300	403,834	228,285,600	625,440

TABLE 39

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

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

*Average for 6 months

TABLE 39 (Continued)

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

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

TABLE 39 (Continued)

AVERAGE DAILY CONSUMPTION OF WATER PER MONTH IN MILLION GALLONS

Year Ended June 30	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Avg. for Year
1966	63.33	63.37	56.32	50.11	47.17	44.67	44.73	44.94	45.77	46.82	48.47	59.32	51.29
1967	61.74	59.88	51.70	48.22	46.08	44.52	45.59	45.91	45.98	43.99	44.96	55.39	49.53
1968	50.26	53.10	53.36	49.14	45.67	43.99	47.40	47.06	47.07	49.07	50.71	52.94	49.15
1969	61.60	59.19	56.06	52.07	47.54	46.88	47.90	46.73	46.39	48.84	52.69	63.91	52.51
1970	63.74	62.15	59.09	53.27	49.56	48.23	49.55	49.90	49.49	50.35	55.05	61.98	54.39
1971	66.91	64.96	58.53	56.07	55.17	55.04	54.96	57.12	56.79	56.85	59.33	79.39	60.09
1972	78.28	73.89	69.41	61.93	60.56	57.13	57.70	59.17	60.59	60.06	65.67	68.08	64.40
1973	68.15	72.36	67.64	63.07	62.36	58.35	59.15	58.32	58.54	58.85	60.83	75.02	63.57
1974	72.66	79.70	69.20	63.78	59.35	55.48	57.42	58.91	58.14	60.81	63.81	71.90	64.30
1975	79.08	84.06	64.81	60.12	58.70	55.81	56.84	56.76	56.67	57.86	63.15	69.01	63.64
1976	77.10	74.53	64.89	60.26	58.55	57.40	57.61	57.38	58.63	62.16	63.69	84.53	64.74
1977	74.83	70.09	65.07	58.26	59.28	57.04	56.62	56.96	57.04	57.76	66.97	68.89	62.44
1978	76.85	71.17	64.09	58.75	57.77	56.64	56.25	55.12	58.47	57.98	62.78	77.59	62.83
1979	80.61	70.25	64.91	61.21	58.82	56.99	57.79	58.99	58.38	58.71	63.78	73.62	63.71
1980	81.56	68.70	65.07	60.86	58.14	55.96	57.85	58.38	58.18	58.21	62.65	73.21	63.25
1981	84.09	76.39	75.13	62.62	58.22	58.63	61.33	59.70	57.97	59.41	65.55	75.93	66.29
1982	79.25	75.39	66.82	60.22	56.89	56.76	57.20	56.67	57.13	58.00	61.85	62.33	62.44

TABLE 40
FINANCIAL STATEMENT**
YEAR ENDED JUNE 30, 1982

Operating Revenue		
Sale of Water	\$8,187,648.26	
Hydrant Rental	335,108.58	
Setting Meters	3,597.50	
Installation of Services	118,376.09	
Installation of Mains	27,100.10	
Meter Repairs	<u>3,990.00</u>	
Total Operating Revenue		\$8,675,820.53
Operating Expenses		
Administration	\$1,052,842.42	
Commercial	791,255.58	
Operations	2,503,989.67	
Planning & Engineering	347,148.92	
Property Taxes	1,621,489.57	
Contributions to Retirement	317,616.00	
Federal Old Age	<u>162,048.36</u>	
Total Operating Expenses		*\$6,796,390.52
Operating Income		\$1,879,430.01
Add Non-Operating Income		
Rental of Property	\$ 4,959.87	
Miscellaneous	<u>99,999.42</u>	
Total Non-Operating Income		<u>\$ 104,959.29</u>
Sub-Total		\$1,984,389.30
Less Non-Operating Expenses		
Interest on Bonded Debt	\$ 592,483.75	
Retirement of Bonds	<u>370,000.00</u>	
Total Non-Operating Expenses		<u>\$ 962,483.75</u>
SURPLUS		\$1,021,905.55

*See Table 41 for detailed account of Operating Expenses.

**Unaudited

TABLE 41

WATER SUPPLY BOARD - GENERAL FUND EXPENSES

YEAR ENDED JUNE 30, 1982

	ADMINISTRATION	COMMERCIAL	OPERATIONS	PLANNING & ENGINEERING	OTHER	TOTAL
000 Salaries & Wages:						
Regular Pay	\$262,382.50	\$392,073.01	\$ 786,661.15	\$253,307.17	\$ 0	\$1,694,423.83
Overtime Pay	16,282.87	49,883.05	164,462.16	9,996.45	0	240,624.53
Other(Sick Leave,Vacation,etc.)	36,885.21	76,089.73	166,218.59	54,955.78	0	334,149.31
Total Salaries & Wages	\$315,550.58	518,045.79	\$1,117,341.90	\$318,259.40	\$ 0	\$2,269,197.67
100 Services Other Than Personal:						
Fees Not Classified	\$151,385.54	\$ 29,863.65	\$ 7,577.00	\$ 0	\$ 0	\$ 188,826.19
Telephone	34,886.82	0	0	0	0	34,886.82
Electricity & Natural Gas	0	26,623.52	219,149.91	2,442.62	0	248,216.05
Repairs & Maintenance	4,886.25	2,354.70	115,935.24	1,765.74	0	124,941.93
Data Processing	0	87,230.43	0	0	0	87,230.43
Other Services	19,001.03	14,413.73	31,999.91	1,669.99	0	67,084.66
Total Services	\$210,159.64	\$160,486.03	\$ 374,662.06	\$ 5,878.35	\$ 0	\$ 751,186.08
200 Materials & Supplies:						
Motor Fuel	\$ 0	\$ 0	\$ 25,381.78	\$ 265.99	\$ 0	\$ 25,647.77
Repair Parts & Supplies	378.30	357.54	94,669.84	15.38	0	95,421.06
Treatment Chemicals & Lab Supplies	0	0	362,559.69	0	0	362,559.69
Heating Fuel	0	0	75,235.92	0	0	75,235.92
Hydrants, Valves & Fittings	0	0	50,809.04	0	0	50,809.04
Pipe	0	0	1,290.57	0	0	1,290.57
Other Materials & Supplies	1,226.03	39,537.27	27,137.45	1,046.32	0	68,947.07
Total Materials & Supplies	\$ 1,604.33	\$ 39,894.81	\$ 637,084.29	\$ 1,327.69	\$ 0	\$ 679,911.12
300 Special Items:						
Claims & Damages	\$ 0	\$ 0	\$ 14,864.92	\$ 0	\$ 0	\$ 14,864.92
Union Legal Fees	1,084.40	5,309.70	24,999.00	2,318.40	0	33,711.50
Blue Cross & RIGHA	9,461.71	36,691.61	116,739.96	11,706.43	0	174,599.71
Drugs & Prescription Plan	354.60	1,639.20	5,303.30	754.35	0	8,051.45
Expenses for Ceremonies	2,592.63	0	772.35	0	0	3,364.98
Union Pension Fund	4,703.94	29,188.44	92,185.32	6,904.30	0	132,982.00
Total Special Items	\$ 18,197.28	\$ 72,828.95	\$ 254,864.85	\$ 21,683.48	\$ 0	\$ 367,574.56

TABLE 41 (Continued)

WATER SUPPLY BOARD - GENERAL FUND EXPENSES

YEAR ENDED JUNE 30, 1982

	ADMINISTRATION	COMMERCIAL	OPERATIONS	PLANNING & ENGINEERING	OTHER	TOTAL
500 Capital Outlay:						
Office Furniture & Equipment	\$ 15,674.35	\$ 0	\$ 32,947.92	\$ 0	\$ 0	\$ 48,622.27
Autos & Trucks	48,834.00	0	0	0	0	48,834.00
Agricultural Equipment	0	0	3,684.90	0	0	3,684.90
Other (Construction of 24" Main)	152,500.00	0	0	0	0	152,500.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Capital Outlay	\$ 217,008.35	\$ 0	\$ 36,632.82	\$ 0	\$ 0	\$ 253,641.17
600 Land & Buildings:						
Construction of 24" Main	\$ 282,672.24	\$ 0	\$ 0	\$ 0	\$ 0	\$ 282,672.24
Other	7,650.00	0	0	0	0	7,650.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Land & Buildings	\$ 290,322.24	\$ 0	\$ 0	\$ 0	\$ 0	\$ 290,322.24
700 Other Structures & Improvements:						
Main Extensions	\$ 0	\$ 0	\$ 83,403.75	\$ 0	\$ 0	\$ 83,403.75
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Other Structures	\$ 0	\$ 0	\$ 83,403.75	\$ 0	\$ 0	\$ 83,403.75
Other Items:						
Property Taxes	\$ 0	\$ 0	\$ 0	\$ 0	\$1,621,489.57	\$1,621,489.57
Contributions to Retirement	0	0	0	0	317,616.00	317,616.00
Federal Old Age	0	0	0	0	162,048.36	162,048.36
Interest on Bonded Debt	0	0	0	0	592,483.75	592,483.75
Retirement of Bonds	0	0	0	0	370,000.00	370,000.00
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Other Items	\$ 0	\$ 0	\$ 0	\$ 0	\$3,063,637.68	\$3,063,637.68
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	\$1,052,842.42	\$791,255.58	\$2,503,989.67	\$347,148.92	\$3,063,637.68	\$7,758,874.27

TABLE 42

SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1982

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	3,033,936.68	369,911.49	3,402,948.17
1968	2,942,611.22	345,144.86	3,287,756.08
1969	3,097,831.73	310,117.04	3,407,948.77

TABLE 42 (Continued)

SUMMARY OF ANNUAL WATER WORKS REVENUES 1930-1982

Fiscal Year Ended June 30	Receipts from Sale of Water	Miscellaneous Receipts	Total
*1970	\$2,332,916.90	\$217,029.87	\$2,549,946.77
1971	3,411,376.76	297,621.90	3,708,998.66
1972	3,747,073.12	360,753.98	4,107,827.10
1973	3,626,330.13	595,667.53	4,221,997.66
1974	3,803,468.01	855,859.09	4,659,327.10
1975	4,292,452.95	565,243.23	4,857,696.18
1976	4,855,378.47	472,976.86	5,328,355.33
1977	4,957,595.20	506,140.20	5,463,735.40
1978	4,762,111.28	459,261.40	5,221,372.68
1979	6,156,684.54	949,140.32	7,105,824.86
1980	6,676,163.23	595,414.92	7,271,578.15
1981	7,446,989.28	509,373.85	7,956,363.13
1982	8,187,648.26	593,131.56	8,780,779.82

*October 1, 1969 - June 30, 1970.

TABLE 43
RESERVE FUND
YEAR ENDED JUNE 30, 1982

	Investment	Cash	Due from Other Funds	Total
Balance - July 1, 1981	\$21,949.30	0	0	\$ 21,949.30
Interest on Investment During Year Ended June 30, 1982	2,487.86	0		
Expenditures During Year Ended June 30, 1982	481.29	0		
Balance - June 30, 1982	\$23,955.87	0	0	\$ 23,955.87

TABLE 44
STATEMENT OF SERIAL BONDS OUTSTANDING
YEAR ENDED JUNE 30, 1982

Description	Rate of Interest %	Year of Issue/Maturity	Serial Requirement	Bonds Issued	Outstanding
Additions, Alterations and Improvements to the Water Purification Works	3½	1962 1992	\$ 40,000.00	\$ 1,100,000.00	\$ 530,000.00
Aqueduct 40 Million Gallon Distribution Reservoir	3½	1962 1992	\$ 75,000.00	\$ 2,050,000.00	\$ 940,000.00
General Obligation Bond	5	1991 2001	\$255,000.00	\$11,000,000.00	\$ 8,855,000.00
Total Bonds & Requirements			\$370,000.00	\$14,150,000.00	\$10,325,000.00

TABLE 45
WATER METER INVENTORY FUND
YEAR ENDED JUNE 30, 1982

Unencumbered Balance - June 30, 1981	\$ 21,236.52	
Receipts - July 1, 1981 to June 30, 1982	46,974.47	
Total Available	<hr/>	\$ 68,210.99
Expenditures July 1, 1981 to June 30, 1982	<hr/> 41,875.52	
Total Disbursements		41,875.52
Unencumbered Balance - June 30, 1982		<hr/> \$ 26,335.47

TABLE 46
TAXES PAID TO VARIOUS CITIES & TOWNS
July 1, 1981 to June 30, 1982

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	\$---	\$ ---
City of Cranston	110.627	62,840.00	1,241,240.00	1,304,080.00	8.26	107,756.15
Town of Foster	1,617.470	1,993,300.00	0	1,993,300.00	3.84	76,542.72
Town of Glocester	73.300	20,665.00	0	20,665.00	8.75	1,862.43
Town of Johnston	103.130	42,163.00	321,937.00	364,100.00	7.63	14,064.26
Town of North Providence	8.529	29,880.00	185,100.00	214,980.00	3.90	8,384.22
Town of Scituate	13,149.030	24,392,250.00	15,219,680.00	*42,770,060.00	3.30	1,411,411.98
Town of West Warwick	8.940	32,955.00	0	32,955.00	7.57	2,569.54
Total Real Estate	15,071.086			\$ 46,700,590.00		**\$1,622,591.30

*Includes \$3,158,130.00 Tangible Personal.

**In addition to this amount \$91.97 was paid to West Glocester Fire District and \$21.50 to the Harmony Fire District.

NOTE: Taxes paid to the Town of Johnston were for 1980 and 1981. A yearly credit of \$20,000.00 was applied to the tax bills as a result of the sale of water lines to the Town.

TABLE 47
SUMMARY OF STATISTICS
PROVIDENCE WATER SUPPLY BOARD
YEAR ENDED JUNE 30, 1982

*PROVIDENCE (City or Town)	PROVIDENCE (County)	RHODE ISLAND (State)
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GENERAL STATISTICS

Population of Providence (1980 Federal Census)	156,421
Estimated population supplied in suburbs	293,579
Total population supplied	450,000
Date of Construction	1870-76; 1915-28; 1935; 1938-40; 1954; 1960-1962; 1966-1970
By whom owned	City of Providence
Source of Supply	Surface water collected in Scituate Reservoir and five smaller reservoirs on north branch of Pawtuxet River.
Available storage capacity of six impounding reservoirs	39,746 m.g.
Mode of Supply	74.0% by gravity; 26.0% by pumping

STATISTICS OF CONSUMPTION OF WATER

1. Estimated population supplied	450,000
2. Total raw water influent for the year, gallons	23,656,327,000
3. Average daily raw water influent, gallons	64,812,000
4. Raw water consumption per capita, gallons daily	144.0
5. Total consumption for the year, gallons	22,789,442,000
6. Total registration on customers' meters, gallons	20,392,113,195
7. Percentage of consumption accounted for on customers' meters	89.5%
8. Average daily consumption, gallons	62,437,000
9. Per capita consumption, gallons daily	138.7
10. Gallons per day to each tap	956

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

TABLE 47 (Continued)
SUMMARY OF STATISTICS
PROVIDENCE WATER SUPPLY BOARD
YEAR ENDED JUNE 30, 1982
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	23,103,973,000
6. Average quantity filtered per day, gallons	63,299,000
7. Total filtered water delivered to the distribution system during the year, gallons	22,787,802,000

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	4,408.82 feet
4. Removed	1,819.83 feet
5. Net increase	2,588.99 feet
6. Total now in use	861.45 miles
7. Number of leaks per mile	0.08
8. Range of pressure on mains	14 to 95 pounds
9. Range of pressure on mains (special high pressure fire service)	94 to 130 pounds
10. Number of hydrants installed	70
11. Number removed	70
12. Net increase	0
13. Number of hydrants now in use	5,191
14. Number of stop gates installed	48
15. Number removed	9
16. Net increase	39
17. Number of stop gates now in use	11,872

TABLE 47 (Continued)
SUMMARY OF STATISTICS
PROVIDENCE WATER SUPPLY BOARD
YEAR ENDED JUNE 30, 1982
STATISTICS RELATING TO THE DISTRIBUTION SYSTEM
(Continued)

18. Kind of services	Brass, Lead, Copper, Cast Iron and Ductile Iron
19. Sizes	$\frac{1}{2}$ -inch to 42 inches
20. Number of service taps installed	240
21. Number removed	46
22. Net increase	194
23. Number of services now in use	69,323
24. Number of meters installed	283
25. Number removed or condemned	55
26. Net increase	228
27. Number of meters now in use	*70,055
28. Per cent of services metered	100

*Many large services have batteries of meters.

TABLE 48
YEAR ENDED JUNE 30, 1982
COMPARISON OF PROVIDENCE DISTRIBUTION
SYSTEM WATER CHARACTERISTICS WITH
E.P.A. REGULATIONS

E.P.A. Regulations
(Maximum Permissible)

Physical Characteristics:

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

Characteristics (milligrams per liter)

Arsenic	0.05	less than 0.005
Barium	1.	less than 0.02
Cadmium	0.010	less than 0.002
Chromium	0.05	less than 0.02
*Copper	1.	less than 0.02
Fluoride	2.0	0.99
*Iron	0.30	0.06
Lead	0.05	less than 0.005
Mercury	0.002	less than 0.001
*Foaming Agents	0.05	less than 0.1
Nickel	----	less than 0.02
Nitrate (as N)	10.	0.04
Potassium	----	0.8
Selenium	0.01	less than 0.005
Silver	0.05	less than 0.02
Sodium	----	8.
*Total Dissolved Solids	500.	71.
*Zinc	5.	less than 0.02

Characteristics

Total Trihalomethanes (micrograms per liter)	100.	7.7 p.p.b.
Aldrin	----	less than 0.2 p.p.b.
Chlordane	----	less than 2. p.p.b.
DDT	----	less than 1. p.p.b.
Dieldrin	----	less than 0.06 p.p.b.
**Endrin (micrograms per liter)	0.2	less than 0.2 p.p.b.
Heptachlor	----	less than 0.1 p.p.b.
Heptachlor Epoxide	----	less than 0.1 p.p.b.
**Lindane (micrograms per liter)	4.	less than 1. p.p.b.
**Methoxychlor (micrograms per liter)	100.	less than 3. p.p.b.
**Toxaphene (micrograms per liter)	5.	less than 5. p.p.b.
**2,4-D (micrograms per liter)	100.	less than 0.05 p.p.m.
**2,4,5-TP Silvex (micrograms per liter)	10.	less than 0.005 p.p.m.

*E.P.A. Secondary Regulations (Federal Register, Vol. 42, No. 62, p. 171433/31/77)
based on aesthetic consideration and not MCL's (Maximum Contaminant Levels) as set
forth in E.P.A. Interim Primary Drinking Water Regulations.

**Drinking water standard at time of analysis.

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

FILED
JUL 28 2 12 PM '83
DEPT. OF CITY CLERK
PROVIDENCE, R.I.