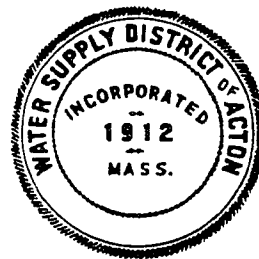




ANNUAL REPORT
OF THE
WATER SUPPLY DISTRICT
OF
ACTON, MASSACHUSETTS



For the Year Ending December Thirty-first

1986

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WATER DISTRICT ORGANIZATION - 1986

ELECTED OFFICIALS

COMMISSIONERS

Joseph H. Lauzon, *Chairman*
Alvin R. Piper, Sr.
William P. Walsh

CLERK

Anita E. Page

MODERATOR

John W. Putnam

APPOINTED OFFICIALS

FINANCE COMMITTEE

Stephen C. Stuntz, *Chairman*
Joyce E. Foley
William L. Kingman

ATTORNEY

Charles E. Orcutt, Jr.

ACCOUNTANT

Raymond L. Page

COMMISSIONER'S SECRETARY

Jane Cutler

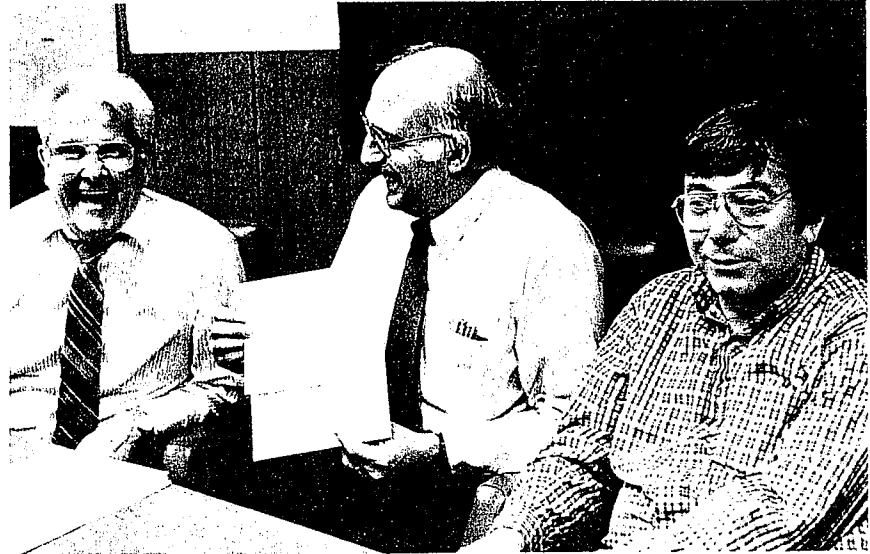
ADVISORY COMMITTEE

Roberta Burkey
Warren Diesel

GROUNDWATER PROTECTION COMMITTEE

Michael Frimpter

Present Commissioners



From left to right - Alvin R. Piper, Sr., Joseph H. Lauzon, William P. Walsh (Photo taken by Ann Ringwood, Beacon Staff Photographer)

PAST COMMISSIONERS

Edgar H. Hall	Harlan E. Tuttle
Charles H. Fairbanks	Edwin Christofferson
William Rawitser	James E. Kinsley
Waldo E. Whitcomb	Frank E. Greenough
Frederick L. Burke	Donald L. Loring
Ralph L. Hastings	Otto O. Pasanen
George E. Clapp	Robert E. Sweeney
Howard J. Billings	Kevin B. Sweeney
Walter B. Stevens	Harry B. Morse
Benjamin Ineson	Leonard A. Phillips

PAST SUPERINTENDENTS

James Fitzgerald	1915-1924
George E. Clapp	1924-1951
Raymond L. Harris	1951-1966
Stephen W. Scribner	1966-1980

ACTON WATER DISTRICT STAFF - 1986

DISTRICT MANAGER	John E. MacLeod
TREASURER / COLLECTOR	Stephen G. Peterson
ENVIRONMENTAL ENGINEER	Lawrence S. Dayian
SECRETARY	Rachelle Hillman
SECRETARY	Linda Larson
FOREMAN	Carleton Troupe
OPERATORS	James Neville Robert Koch Robert Delaney Gary Odoardi Randall Troupe
CHEMIST (part-time)	Dr. John Swallow

Manager and Office Staff



From left to right, sitting - Rachelle Hillman, John MacLeod. Standing - Stephen Peterson, Linda Larson, Larry Dayian

District Operators



From left to right, sitting - Gary Odoardi, Carleton Troupe. Standing - James Neville, Randy Troupe, Robert DeDelaney, missing from photo, Robert Koch

(Above photos courtesy of Ann Ringwood, Beacon Staff Photographer)

Seventy-Five Years of Service to the Acton Community

At the annual Town Meeting of the Town of Acton in 1895 it was voted to instruct the Committee on Water Supply for Acton to explore the option of developing a public water system for the residents of Acton. Members of the Committee included William D. Tuttle, D.H. Hall, Francis Conant, H.A. Littlefield and D.J. Wetherbee.

In 1912, on petition of the voters of Acton, the State Legislature established the Water Supply District of Acton to provide water for the villages of West and South Acton. The residents of Acton Center voted at that time to join the District, but it was not until a decade later that the Center tied into the system. The first commissioners of the Water District were Edgar H. Hall, Chairman, Charles H. Fairbanks and Waldo E. Whitcomb.

At the beginning, the best source of groundwater appeared to be in West Acton near the Boxborough town line. The gravel packed well established there, and known as the Whitcomb Station, has been serving the Town to this day with an average current pumping capacity of 450,000 gallons per day. The cost of drilling 42 exploratory wells and all testing needed to site this initial municipal well came to \$799.03. Expansion of the Whitcomb site and the addition of the Conant Station on Route 27 near Route 2A helped meet the needs of the growing community during the 1950's. Areas outside the limited distribution system continued to be on private wells. In support of further growth in the 1960's, additional wells were constructed at: School Street (Christofferson Well), Lawsbrook and the two Assabet Wells. The Erickson Well (now known as the Clapp Well) was added to the system in 1974 and the Scribner Wellfield was added in 1979.

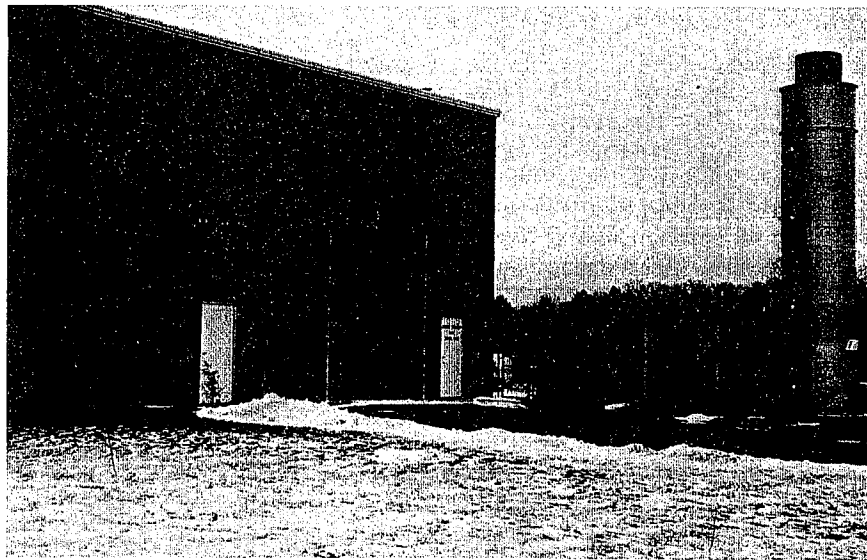
Originally, a 500,000 gallon water storage tank was constructed at Great Hill, which is located off Main Street in South Acton. Additional storage capacity has been added to the system in the past two decades: The Ray L. Harris Reservoir at Flagg Hill with a capacity of 2 million gallons in 1964, and the James Kinsley Reservoir at Nagog Hill with a capacity of 3 million gallons, in 1975. These three reservoirs are designed to hold an adequate supply of water to supplement pumping capacity during peak consumption times, to maintain system water pressure and to assure the required water flow for fire protection. In 1980 land was acquired off Wampus Avenue in North Acton for future construction of a fourth water storage reservoir.



The Great Hill Storage tank, circa 1916. (Courtesy of Acton Historical Commission, picture taken 1930)

The late 1970's and early 1980's were difficult years for the Water District. In December 1978, the two Assabet wells were closed due to chemical contamination. The Commonwealth of Massachusetts, Department of Environmental Quality Engineering and the United States Environmental Protection Agency reached a consent decree with the W.R. Grace Company to conduct an aquifer restoration program. Rather than participate in this consent decree, the Water District, in 1980, initiated a lawsuit against the W.R. Grace Company to recover damages due to the lost water supply. An agreement was reached to settle this lawsuit out of court in December, 1986. The settlement is thoroughly discussed in an accompanying section of this Annual Report.

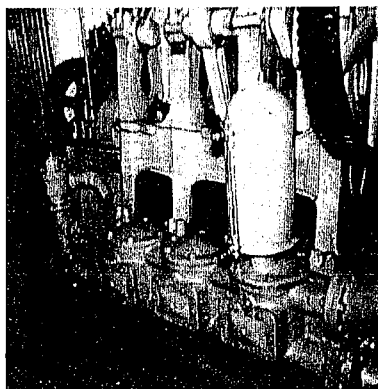
Although a portion of the District's resources were dedicated towards legal action, it still had to deal with the problem of two contaminated water supply wells. In 1981, the Water District Advisory Committee was formed with the initial charge to investigate treatment techniques which would allow resumption of the use of the Assabet wells. A strict water quality standard of 1 part per billion was developed and carbon adsorption was the recommended means of treatment that would meet this standard. The carbon treatment facility went on line in 1982 and, as predicted, easily performed to the District's standards. However, frequent carbon replacement resulted in excessive maintenance costs. In order to extend the effective life of the carbon and thereby minimize maintenance costs, the District investigated the option of pre-treatment by aeration. A pilot study indicated this to be a feasible option and in 1984 an aeration tower was constructed at the Assabet Well #1 site to treat from both the Assabet wells. The combination of aeration followed by carbon adsorption provides a very cost effective approach to meeting the District's strict water quality standard.



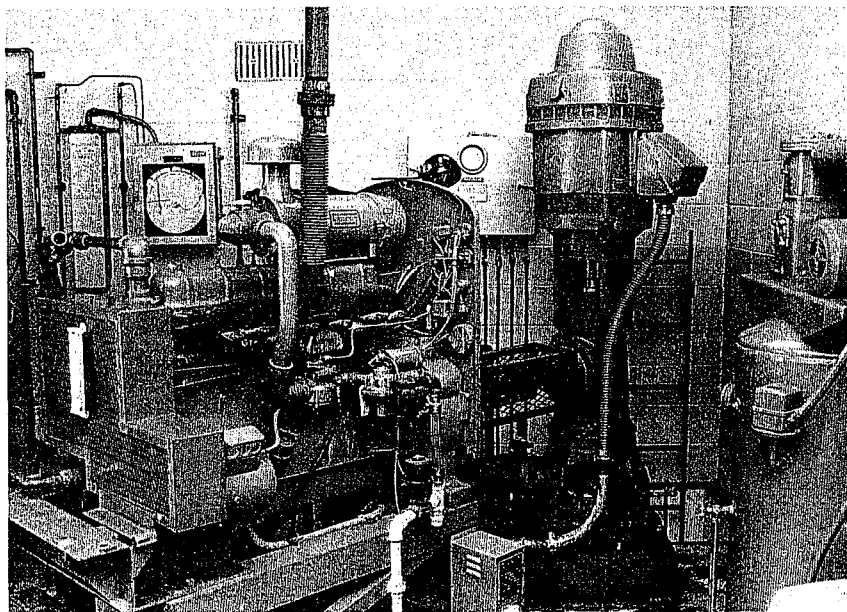
The Assabet Treatment Plant, aeration tower in foreground, carbon tanks building at rear. Spring of 1984

Similar chemical contamination problems developed in other parts of Town. During the summer of 1982, the Clapp Well in West Acton was closed. Through State funding, a carbon treatment facility was constructed which now permits pumping of this vital water supply. In 1984, the Lawsbrook Well was shut down. A hydrogeological study showed that the W.R. Grace Company was a likely contributor to the source of contamination. Consequently, damages to restore these water supply wells were added to the District's pending lawsuit. Using Grace settlement funds, an aeration treatment facility for these wells will be operating by the summer of 1987. In North Acton the problem was similar but the source was quite different. The Town of Acton's septage disposal facility was contaminating the Town's last viable water supply aquifer for which the District had planned three future well sites. Through the intervention of the DEQE, the Town's septage lagoons were closed in December of 1985. A hydrogeological study showed that the well furthest from the lagoons and outside the contaminated area could be installed and operated fulltime without fear of the contamination being spread. This well, identified as the Marshall Wellfield, is now being installed and should be operating in the spring of 1987. The other two well sites will be installed at a later date.

Through the diligence of the Water Commissioners and District Staff, assistance from the Town, State and Federal officials, and the technical expertise of our engineering consultants, the Water Supply District of Acton will continue to supply to its customers the highest quality water at a very economical price, for many years to come.



Whitcomb Pumping Station
Fairbanks Morse Diesel Engine - 1912 to 1940



Clapp Well Pumping Station - 1986

ORGANIZATION - 1986

Water Commissioners

Joseph H. Lauzon	Term expires 1987
Alvin R. Piper, Sr.	Term expires 1988
William P. Walsh	Term expires 1989

Moderator

John Putnam	Term expires 1987
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Clerk

Anita E. Page	Term expires 1986
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Finance Committee

Stephen C. Stuntz	Term expires 1987
Joyce E. Foley	Term expires 1988
William L. Kingman	Term expires 1989

*Commissioners meet on second and fourth Monday of the month
Whitcomb Station, 693 Massachusetts Avenue, Acton
7:30 P.M.*

Appointment by the Water Commissioners

District Manager

John E. MacLeod	Term expires 1991
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Treasurer and Collector

Stephen G. Peterson	Term expires 1987
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Accountant

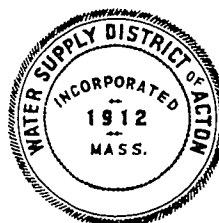
Raymond L. Page	Term expires 1987
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Attorney

Charles E. Orcutt, Jr.	Term expires 1987
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COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.



To the Clerk of the Water Supply District of Acton, GREETINGS:

You are directed to notify the inhabitants of the Town of Acton, qualified to vote in elections and town affairs, to assemble at their precinct:

Precincts 1 & 2 - Conant School - Taylor Road
Precincts 3,4 & 5 - Blanchard Auditorium, off
Massachusetts Avenue

on MONDAY, APRIL 6, 1987

between 7 o'clock A.M. and 8 o'clock P.M.

Then and there to bring their votes on one ballot for the following officers:

Moderator for one year, one Commissioner for three years, and Clerk for one year.

You are further requested to notify the legal voters of said Town of Acton, as aforesaid, to assemble at the

Acton-Boxborough Junior High School Auditorium
Charter Road at Massachusetts Avenue, Acton
on WEDNESDAY, MARCH 18, 1987

at 7:30 o'clock P.M.

Then and there to act on the following articles:

ARTICLE 1. To fix the salaries of the elected officers.

ARTICLE 2. To act on the reports of the Commissioners, the Treasurer and other officers and committees of the District.

ARTICLE 3. To see if the District will vote to authorize the Treasurer, with the approval of the Commissioners, to borrow in anticipation of the revenue for the fiscal year beginning July 1, 1987, in accordance with the provisions of General Laws, Chapter 44, Section 4, and to renew any note or notes as may be given for a period of less than one year, in accordance with the provisions of General Laws, Chapter 44, Section 17, or take any action relative thereto.

ARTICLE 4. To see if the District will vote to instruct the Commissioners to have an audit of the various accounts of the District, or to take any action relative thereto.

ARTICLE 5. To see what sums of money the District will vote to raise and appropriate to defray the usual expenses of the District.

ARTICLE 6. To see if the District will vote to authorize the Commissioners to enter into a written lease not to exceed one (1) year with Bay State Explosives Company, Inc., a Massachusetts Corporation having a usual place of business in Acton, Massachusetts, for the purpose of continued use of three magazines for the storage of explosives on land owned by the District located off Powder Mill Road and New High Street in said Acton and subject to the terms and conditions of a permit issued by the Town of Acton at an annual rental of \$6,000, or any greater or lesser sum, or to take any other action relative thereto.

(Submitted at the request of Bay State Explosives Company, Inc. and upon petition of ten or more registered voters of the Town of Acton.)

ARTICLE 7. To see if the District will vote to transfer from surplus revenue, a certain sum of money to do a computer model of water distribution system, or to take any other action relative thereto.

ARTICLE 8. To see if the District will vote to authorize the Treasurer, with the authorization of the Commissioners, to transfer from surplus revenue a certain sum of money for the construction of a package steel building with heat to protect the carbon treatment vessel at the Clapp Well, located off Massachusetts Avenue in West Acton near the Boxborough Town line and to accept any federal or state funds towards the cost of the project or to take any other action relative thereto.

ARTICLE 9. To see if the District will vote to transfer from surplus revenue a certain sum of money to pay Posternak, Blankstein & Lund, the

District's special trial counsel in the W.R. Grace lawsuit, or to take any other action relative thereto.

ARTICLE 10. To see if the District will vote to purchase or take by eminent domain or otherwise acquire, the fee in all or part of the land owned now or formerly by Massachusetts Broken Stone Company, located off the westerly side of Knox Trail in South Acton, Middlesex County, Massachusetts, and being shown on a plan prepared for the Water Supply District and entitled, "Plan of Land owned by Massachusetts Broken Stone, dated February 2, 1987," containing about 8.0 acres, more or less, and being a part of the land described in deed recorded in Middlesex South District Registry of Deeds, Book 7490, Page 20. Said land acquisition is for water supply purposes and for the development of a well and water source; and to raise and appropriate or transfer from any available source, or to borrow under authority of Chapter 44 of the General Laws, as amended, a certain sum of money for said purpose, or to take any other action relative thereto.

ARTICLE 11. To see if the District will vote to transfer from the Receipt Reserve for Appropriation Account (W.R. Grace 1987 settlement) the sum of \$50,000.00 for the maintenance and operation, carbon replacement and power costs at the various treatment plants operated by the District, or to take any other action relative thereto.

ARTICLE 12. To see if the District will vote to transfer from the Receipt Reserve for Appropriation Account (W.R. Grace 1987 settlement) the sum of \$315,000.00 to construct an air stripping packed column with air blower, pumps, electrical controls, underground sump, buildings to house pumps, and install necessary water mains, and to construct a treatment plant for treatment of water from the Lawsbrook Well, Scribner Wellfield and Christofferson Well, all located in South Acton, or to take any other action relative thereto.

And you are directed to serve this Warrant by posting copies attested by you in two or more public places in the Water Supply District, fourteen days at least before the time of said meeting, as authorized by Chapter 41, Section 119, of the General Laws.

Hereof fail not and make due returns of this Warrant with your doings thereon to the Water Commissioners on or before the time of holding said meeting.

Given under our hands this seventeenth day of February, in the year one thousand nine hundred and eighty-seven.

JOSEPH H. LAUZON
ALVIN R. PIPER, SR.
WILLIAM P. WALSH
Water Commissioners

A true copy. ATTEST:

Anita E. Page
District Clerk

REPORT OF THE COMMISSIONERS

The year 1986 was a very busy period for the Water Supply District of Acton. Early in the year we published our long range Master Plan which will guide the District's future into the 21st century. This plan projects population growth and subsequent water demand, describes current and all possible future water supplies, and defines improvements required in our supply system (mains and reservoirs). The accompanying figure summarizes the demand growth projections and shows that there is sufficient water supply within the town to meet reasonable growth.

A number of efforts were continued this year to increase our available water supply, which is currently well below that required. The results of our North Acton aquifer study showed that a well could be installed on our newly acquired Marshall property and safely operated fulltime. Following DEQE approval, the Annual District Meeting approved funds for well and water main construction. The new Marshall well should be operational during the spring of 1987.

We also commissioned a study to determine the extent of the chemical contamination in the Lawsbrook aquifer which caused the closure of the Lawsbrook and Scribner wells. The study results showed the contamination to be widespread, but that levels were low enough that the wells could be operated with aeration treatment. Contracts have been signed and all wells are expected to be at full operational capacity by the summer of 1987.

Pursuing exploration for new water supplies, we conducted a pumping test on the Flannery/O'Toole property in West Acton. These results yielded a surprisingly high capacity of 500,000 gallons per day (gpd), but the presence of low level (< 5 ppb) chemical contamination was also found. We will most likely not seek operational status for this well site at the present time.

Following the advice of our Master Plan, we have taken action on two issues concerning operation during emergency situations. We have started discussions with Littleton with the objective of constructing a connection of both Towns' supply systems to provide water during emergency conditions. We also installed an automatic generator system at the Assabet treatment plant to provide operation during power failures. This now enables us to supply 2.2 million gpd during these emergency situations, which is well above our average day demand.

Continuing our pledge to provide the highest quality water, we have completed installation of potassium hydroxide treatment at all our wells to raise the water's pH above 7.0 to prevent corrosion of pipes. We are one of the few suppliers in the Commonwealth to provide this service, and anticipate that eventually everyone will be directed to do so.

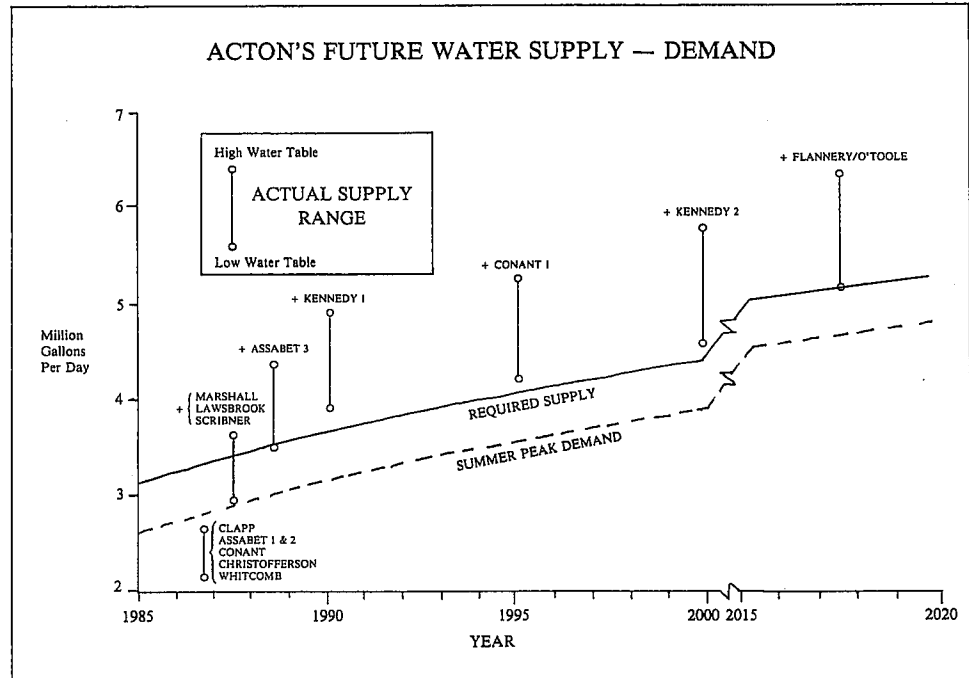
Realizing that Acton has a finite water supply, and that growth must be controlled to remain within these bounds, we have promulgated a new requirement in our Rules and Regulations that applicants for a large water demand shall submit a Water Impact Report. We have also started the development of a computer model of our supply system to be used as a tool in generating these Impact Reports

To promote the continued smooth operations of our management team, we have approved a five year contract for our District Manager. We have also improved our maternity provisions as another step in maintaining equitable benefits for our employees.

Our treatment plant at the Assabet wells continues to provide water meeting our strict 1 ppb standard at very reasonable costs. This facility has just experienced its first carbon replacement in two years.

The results of the Lawsbrook aquifer contamination study led us to add to our Grace lawsuit the damages associated with restoring that water supply. These results also prompted Grace to drill their own monitoring wells. Data they obtained confirmed that contamination existed on the northern portion of their property, even though their consultants had predicted the opposite. Our lawyers had informed us that our lawsuit would not reach the trial stage until late 1987, and that the associated legal fees for 1987 would be at least \$250,000. Fortunately we were able to reach an equitable out-of-court settlement agreement in mid-December. Details of this settlement can be found in an accompanying article in this Annual Report.

Continuing our commitment to improve coordination with Town Boards, we have met with the Selectmen on a quarterly basis discussing District status and issues of mutual concern. We have also met with the Planning Board to describe our new Water Impact Report and have accepted an invitation to attend their weekly coordination meetings. We were pleased to assist the Police Department in siting a critically needed radio repeater system on District property at our Flagg Hill Reservoir. At the request of the Acton Historical Commission, we have begun discussions with the parties involved in moving the historic Mark White house from a temporary site to a permanent location using access across District property.



Taking advantage of every opportunity to communicate with the citizens of Acton, we have again manned a booth at the annual A-B Jamboree. Our main exhibit was a float that the District placed in Acton's 250th anniversary parade last year.

The Commissioners are especially appreciative of the professional services rendered by all District personnel under the able direction of the District Manager, Mr. John MacLeod; are grateful for the support and advice offered by our Finance and Advisory Committees; and are thankful for the cooperation of the Town Boards.

Respectfully submitted,
 Joseph H. Lauzon, *Chairman*
 Alvin R. Piper, Sr.
 William P. Walsh

REPORT OF THE ENVIRONMENTAL ENGINEER

It is the responsibility of the Acton Water District to operate and maintain the public water system in a manner that will assure the health and safety of all consumers. The Drinking Water Regulations of Massachusetts require scheduled monitoring of the water system to determine compliance with standards set forth as maximum contaminant levels. The analysis results of samples collected in accordance with the Regulations indicate that the quality of drinking water is well within state standards.

In addition, the Water District conducts routine sampling of all its water sources for volatile organic chemical analysis. Results of all samples indicate that water being supplied to the water system consistently meets the District's self imposed water quality standard of 1 ppb for total volatile organic chemicals. Any water source that exceeds either of these standards would be immediately shut down.

The Assabet Water Treatment Facility continues to operate effectively and efficiently. Contaminant removal by aeration is in excess of 99 percent. Carbon was replaced in one vessel for the first time in three years.

The carbon vessel continues to effectively treat water from the Clapp Well. A groundwater study which identified the source of contamination affecting the Clapp Well has been submitted to the Department of Environmental Quality Engineering for their action.

The Marshall Wellfield, located in North Acton, is presently under development. It is expected to be on line in the late spring at which time an additional 300,000 gallons of water per day will be available.

The construction of an aeration treatment facility at the Christofferson Well site is expected to begin in the near future. Water from the Scribner Wellfield and the Lawsbrook Well, two water sources that had been closed due to organic chemical contamination, will be pumped to the site where it will be treated and supplied to the public water system. This will restore 650,000 gallons of water per day to the public water system.

REPORT OF THE FINANCE COMMITTEE

The committee wants to thank the voters who through their continued support of the special legal fund has made it possible to recover the costs of the clean up and treatment of the contaminated wells. The additional acquisition of a very productive well further enhances the ability of the Water District to continue to supply the needs of the voters.

The budget for the next fiscal year does not reflect any costs associated with special legal. The final bills will be paid from the surplus account. The budget line items that include costs that are partially covered by the settlement still reflect the total cost of that item. Any offset of cost that is available from the settlement is reflected in the special line item in the income section of the budget. At this time the actual accounting treatment of these funds has not been decided since once again the District has set the standard in successfully suing a company.

Salary increases will be comparable to town employees. The large increase in retirement is based on figures given to us by the fund. We are going to look into the actuarial soundness of this fund to see if it will be able to provide the benefit to the employees that they expect. Insurance shows the increases that all communities are finding in their liability policies. About one-third of the insurance is liability, with another third being worker's compensation insurance and the final third being for vehicles and bonding requirements.

This budget does not reflect any increase in the water rates.

The warrant articles do not include any funding for new vehicles since one was approved at the special meeting in October. It was necessary to vote the vehicle at the special meeting since one was destroyed in an accident.

The Committee would like to thank all employees of the Water District for their cooperation during the past year.

Stephen C. Stuntz, *Chairman*
Joyce Foley
William L. Kingman
Finance Committee

WATER SUPPLY DISTRICT
OF
ACTON, MASSACHUSETTS

AMORTIZATION SCHEDULE - BONDS AND INTEREST

	Original Amount	Balance 7/1/87	1987-1988 Principal Interest	1988-1989 Principal Interest	1989-1990 Principal Interest	1990-1991 Principal Interest	1991-1992 Principal Interest	1992-1993 Principal Interest	1993-1994 Principal Interest	1994-1995 Principal Interest	1995-1996 Principal Interest	1996-1997 Principal Interest	1997-1998 Principal Interest
Nagog Hill Reservoir	540,000.	180,000.	30,000.00 9,405.00	30,000.00 7,695.00	30,000.00 5,985.00	30,000.00 4,275.00	30,000.00 2,565.00	30,000.00 855.00	30,000.00 855.00				
Water Bonds	385,000.	85,000.	25,000.00 4,132.50	25,000.00 2,850.00	20,000.00 1,710.00	20,000.00 570.00							
Water Bonds	220,000.	60,000.	20,000.00 2,425.00	10,000.00 1,697.50	10,000.00 1,212.50	10,000.00 727.50	10,000.00 242.50						
Building	130,000.	50,000.	10,000.00 2,182.50	10,000.00 1,697.50	10,000.00 1,212.50	10,000.00 727.50	10,000.00 242.50						
Water Bonds	910,000.	510,000.	80,000.00 48,925.00	80,000.00 41,325.00	80,000.00 33,725.00	80,000.00 26,125.00	80,000.00 18,525.00	60,000.00 10,725.00	50,000.00 4,875.00				
Water Bonds	595,000.	495,000.	50,000.00 37,125.00	50,000.00 33,375.00	50,000.00 29,625.00	50,000.00 25,875.00	50,000.00 22,125.00	50,000.00 18,375.00	50,000.00 14,625.00	50,000.00 10,875.00	50,000.00 7,125.00	45,000.00 3,375.00	
Water Bonds	625,000.	550,000.	55,000.00 36,480.00	55,000.00 32,960.00	55,000.00 29,440.00	55,000.00 25,920.00	50,000.00 22,400.00	50,000.00 19,200.00	50,000.00 16,000.00	50,000.00 12,800.00	50,000.00 9,600.00	50,000.00 6,400.00	50,000.00 3,200.00
TOTALS	\$ 3,405,000.	\$ 1,990,000. 1,910,000	\$ 410,675.00	\$ 376,600.00	\$ 357,910.00	\$ 339,220.00	\$ 296,100.00	\$ 239,155.00	\$ 185,500.00	\$ 123,675.00	\$ 116,725.00	\$ 104,775.00	\$ 53,200.00

APPROPRIATIONS AND EXPENDITURES FOR 85 - 86 - 6 months of 87

	1985 Appro.	1985 Expend.	1986 Appro.	1986 Expend.	1987 Appro.	Expend. 6 Mos.	1988 Proposed
Salaries & Wages.....	\$238,000.	\$234,698.	\$256,800. c3,302.	\$261,934.	292,800.	143,662.	311,000.
Group Insurance.....	18,500.	17,074.	19,000.	19,910.	21,000.	12,002.	22,100.
MDX County Retirement.....	24,000.	24,000.	15,000.	15,000.	24,000.	13,072.	32,000.
Educational Expense.....	5,000.	4,422.	5,000.	4,967.	5,000.	2,672.	5,000.
Maintenance & Operation	50,000.	76,175.	40,000.	83,177.	60,000.	46,377.	65,000.
Meters.....	6,000.	4,951.	6,000.	8,488.	6,000.	4,258.	7,000.
Auto & Equipment	16,000.	16,576.	16,000.	15,785.	16,000.	6,777.	17,000.
Fuel.....	4,500.	4,326.	5,000.	4,792.	5,000.	757.	5,000.
Equipment Rental	2,000.	1,185.	2,000.	2,076.	2,000.	408.	2,000.
Permanent Paving.....	-0-	1,574.	3,000.	2,481.	3,000.	2,381.	3,000.
	c2,479.						
Chemicals			120,000.	22,098.	c97,902.	24,976.	70,000.
Lights, Power & Telephone	100,000.	118,507.	139,000.	97,302.	75,000.	40,909.	60,000.
	c30,522.		c12,015.				
Laboratory Analysis	5,000.	6,756.	5,000.	3,450.	5,000.	1,149.	5,000.
	c1,756.						
Treatment Plant-Spec. Anal.	5,000.	5,000.	5,000.	5,000.	5,000.	-0-	-0-
Insurance.....	19,500.	19,500.	20,500.	21,561.	26,000.	29,688.	35,000.
Office Supplies	10,000.	9,938.	7,500.	7,887.	7,500.	707.	6,500.
Postage	4,500.	4,490.	5,000.	5,000.	5,000.	1,375.	5,000.
Mass. State Audit.....	-0-	-0-	-0-	-0-	c	-0-	c
	c5,500.		c5,500.				

Legal & Accountant.....	12,000. c5,169.	14,882.	12,000. c2,286.	14,215.	12,000.	5,700.	12,000.
Water Words Notice	2,000.	2,652.	2,500.	1,401.	2,500.	445.	c
Advisory Committee.....	1,000.	913.	1,000. c84.	-0-	c1,804.	-0-	500.
Miscellaneous	1,000.	685.	1,000.	426.	1,000.	390.	-0- 1,000.
Land Survey	-0- c3,930.	5,355.	-0-	-0-	8,000.	-0-	5,000.
Land Appraisal	c3,250.	-0-	c3,250.	4,220.	-0-	-0-	-0-
Engineering	12,000.	8,972.	10,000. c3,038	13,027.	10,000.	4,369.	10,000.
Survey New Water.....	c4,425.	4,199.	5,000. c226.	3,063.	c2,162.	-0-	2,000.
Bonds & Interest	279,311. c67,280.	322,021.	362,633. c24,570.	363,330.	450,135. c23,873.	151,329-	
13 Reserve Fund	25,000.	24,950.	40,000.	35,845.	25,000.	3,688.2- 5,000.	
Special Legal.....	25,000. c54,378.	79,378.	100,000.	98,674.	50,000.	16,804.	-0-
TOTAL BUDGET	\$ 865,311.	\$1,013,179.	\$1,213,933.	\$1,115,540.	\$1,117,435.		\$ 1,116,775.

c - Previous yrs. monies not spent. Carried over.

ESTIMATED RECEIPTS

Hydrants	\$ 53,000.00
Water Rates.....	979,185.00
Sprinklers	10,250.00
Repairs & New Installations	75,000.00
TOTAL RECEIPTS	\$ 1,117,435.00

Joseph H. Lauzon
Alvin R. Piper, Sr.
William P. Walsh
Water Commissioners

REPORT OF THE DISTRICT MANAGER

The following report covers the activities of the District for 1986.

New house installations.....	95
Old service lines replaced or renewed.....	10
Old meters replaced with new meters.....	80
Repair of damaged hydrants.....	15
Repair of water main and service breaks.....	21
Replacement of old fire hydrants.....	6
Total gallons pumped in 1986.....	558,328,200

New water mains were installed at the following locations:

North Main Street from North Briarbrook to
the Marshall Wellfield
Wingate Lane (off Pope Road)
Discovery Way
Bellatoni Drive
Concetta Circle

In addition, the water main on Forest Road was extended in order to loop a previous dead end. This will eliminate the potential of stagnant water, improve taste and odor and increase fire flow capability. A section of leaking water main that crossed a culvert on Hayward Road was also replaced.

The Water District's water treatment facility, located at the Assabet Well site, has been in operation for three years. The facility, which consists of aeration and carbon filtration provides treatment that ensures that the quality of water being supplied to the water distribution system consistently meets the District's strict water quality standards of 1 ppb for any single volatile organic chemical and 5 ppb for total organic chemicals.

The Clapp well, located in West Acton off Massachusetts Avenue, has been back in use for the past 28 months. It had been shut down in 1982 due to organic chemical contamination. The installation of carbon treatment has allowed us to use the water source and provide a water quality that meets the District's standards. Provisions have been made to re-pipe water from the Whitcomb Well through the Clapp Well treatment facility if it becomes necessary.

The Lawsbrook Well, which was shut down in 1984, and the Scribner Wellfield, shut down in April of 1985 because of organic chemical contamination, are still off line. A groundwater study which determined the direction of contaminant flow to the water sources has resulted in state and federal involvement with respect to aquifer restoration. In addition, the

voters approved to fund a treatment plant for the Lawsbrook Well and Scribner Wellfield. It is expected that the proposed treatment facility will be on line this summer.

The Marshall Wellfield, located off Route 27 in North Acton will be in service this spring. This will provide an additional 300,000 gallons of water per day to the public water system.

During certain times of the year the Whitcomb Well, which is located off Massachusetts Avenue in West Acton, experiences a high color problem. The excessive color is due to the well location in a peat bog formation containing decaying vegetation. Problems associated with high color are strictly asthetic and do not adversely contribute to health. Water from this well, which is used during periods of high water demand, is blended with water from the Clapp Well in order to reduce the effects of the color.

The District hopes to completely flush the water distribution system in the late spring. This will help to alleviate some of the asthetic complaints relating to color, taste and odor. Due to our severe water shortage problems, the District has been unable to adequately flush the distribution system since 1978. Once the system flushing has been completed and the effectiveness of corrosion control treatment is realized, I am sure that consumers will notice a better quality of water.

The District's Great Hill water storage tank, which is located off Main Street in South Acton, was sandblasted and painted this year. In addition, a chain link fence has been installed in an attempt to provide security and safety measures.

The District has reached agreement with the Nashoba Sportsman Club to purchase a certain amount of land for the future development of a well site in North Acton.

The District has reached an out-of-court settlement with the W.R. Grace Company. Terms of the agreement are detailed in another section of this Annual Report.

The District will provide a tour of the Assabet Treatment Facility to any citizen of Acton. Arrangements can be made by contacting the District Manager or the Environmental Engineer.

Several of the District's employees have completed, and will continue to attend, courses and seminars on water supply and water pollution issues. All of the Water District employees have passed the State Operator Certification Examination.

The Water District and Town staffs have established a new program of communication with respect to growth and other issues of major concern.

Over the past few years, the District has accumulated a library of educational material that remains on file. This material is always available for review by citizens of Acton.

I am also working with several local communities concerning our water supply problems. In an attempt to determine measures that we can all take to make our departments more efficient and our environment safer, we have formed a new professional organization called the Middlesex Worcester County Water Association.

The Water District has received financial assistance from the Commonwealth of Massachusetts in the form of grants and reimbursements. The District will continue to apply for grant money as it becomes available.

I would like to take this opportunity to express my sincere thanks to the Board of Water Commissioners, Finance Committee, Land-Water Management Advisory Committee, Town Manager, Board of Selectmen, Board of Health, Department of Public Works, Engineering Department, Planning Board, Groundwater Protection Committee, Acton Fire Department, Acton Police Department, Acton School Department and all the citizens of Acton. In addition, I would like to thank the DEQE, EPA, U.S. Representative Chester Atkins, State Representative John Loring, State Senator Paul Celucci and neighboring towns who have helped us with our problems. I also look forward to better communications with all Town, State and Federal departments with whom the Water District associates.

John E. MacLeod
District Manager

ACTON WATER DISTRICT—W.R. GRACE CO. SETTLEMENT

On January 8, 1987, the Acton Water District and the W.R. Grace Company reached an out-of-court settlement that resulted in the Water District receiving \$2.25 million cash and a water supply well to be called Assabet Well #3. The new well is capable of pumping 700,000 gallons per day which is approximately one-half the District's average daily demand. In addition, W.R. Grace Co. agreed to deed over to the District all W.R. Grace property within 400 feet of the well.

The \$2.25 million payment to the District will cover all past and future costs to the District relative to construction of treatment works designed to treat water from wells contaminated by W.R. Grace Co. activities. This includes the Assabet Water Treatment Plant that was constructed in 1982, the Lawsbrook Scribner Treatment Plant that will be completed this summer and an aeration and carbon treatment facility at the new Assabet Well #3. In addition, the money will offset costs of past studies that determined the extent of aquifer contamination, construction of the Scribner Wellfield, the Water District laboratory and 12 years of operational costs for future treatment.

We are presently awaiting a decision from the Massachusetts State Bureau of Accounts to approve our request to maintain a separate account which would be available to fund any costs associated with future treatment of the contaminated supplies.

This agreement in no way affects W.R. Grace Co. responsibility relative to the aquifer restoration program underway in the Sinking Pond Aquifer. Be assured that the aquifer restoration program will continue under the requirements of the consent decree signed by the W.R. Grace Co. and state and federal governments. Monitoring of the restoration program will continue to be conducted by engineers representing the state and federal government as well as representatives of the Acton Water District and the Town of Acton.

By agreeing to this settlement the Water District is avoiding a continued, lengthy legal battle which would cost in excess of an additional \$250,000 in legal fees, with no guarantee of equitable settlement.

In conclusion, I would like to take this opportunity to congratulate the Board of Water Commissioners, the District staff, legal counsel, special legal counsel and the Finance Committee and all others involved in reaching this fair and equitable settlement.

John E. MacLeod
District Manager

REPORT OF THE DISTRICT ACCOUNTANT

Balance Sheet
June 30, 1986
(Unaudited)

Account	Credit	Debit
Cash	\$ 861,770.00	
Cash (Maillet Escrow)	397.86	
Adams Street Main (Maillet)		\$ 397.86
Petty Cash	80.00	
Reserve Petty Cash		80.00
Surplus Revenue		265,677.00
Water Rates & Services	59,142.69	
Water Revenue Reserve		59,142.69
Land/Water Mgmt. Advisory Comm.		1084.02
Telemetry System		3,186.67
Survey For New Water Supply		2,162.14
Emergency Power Source		54,970.00
Water Main Looping		42,318.15
Kennedy Land & Sportsman Club		212,150.00
Master Plan Update		421.00
Lawsbrook Main		200.00
Laboratory Equipment		22.07
Bonds & Interest		23,873.05
Chemicals		97,901.59
Potassium Hydroxide		21,653.28
Clapp Well Redevelopment		2,721.12
Mass. State Audit		5,500.00
Monitoring Well		10,000.00
Special Study		1,006.00
Rehabilitation Great Hill Standpipe		44,789.00
Septage Lagoons Disposal		4,900.00
Water Main - Rte. 27		77.21
Clapp Well Aquifer Clean up		13,154.74
Clapp Well Study		17,175.41
Pumping Test Conant Land		26,535.00
Scribner Study		5,000.00
Whitcomb Well Study		5,293.00
	<u>921,391.42</u>	<u>921,391.42</u>
July 1, 1986-June 30, 1987		
Estimated Revenue (3/19/86)	1,117,435.00	
Anticipated Control-7/1/86-6/30/87 (voted at 3/19/86 meeting)		<u>1,117,435.00</u>
	<u>2,038,826.42</u>	<u>2,038,826.42</u>

Raymond L. Page
District Accountant

REPORT OF THE TREASURER

Cash Receipts and Disbursements
July 1, 1985 through June 30, 1986

Cash Balance for July 1, 1985 \$ 667,072.00

CASH RECEIPTS

Water Rates	939,438.00	
Hydrants	53,690.00	
Sprinklers	9,875.00	
Installation & Repair	145,067.00	
Baystate Rental Fees	4,000.00	
		1,152,070.00
Miscellaneous	2,668.00	
Invested Interest	60,828.00	
Escrow	398.00	
State Grants:		
Assabet	188,724.00	
Flagg Hill	9,750.00	
Fluoride	2,380.00	
Temporary Loans	55,945.00	200,854.00
Total Cash Receipts		1,475,432.00

CASH DISBURSEMENTS

Salaries & Wages	261,934.00
Bonds & Interest	363,330.00
Utilities & Fuel	102,094.00
M & O	83,177.00
Special Legal & Legal Accounting	112,889.00
Land Survey & Appraisal - New Water	7,283.00
Auto & Equipment	15,785.00
Meters	8,488.00
County Retirement	15,000.00
Engineering	13,028.00
Laboratory Analysis	3,450.00
Treatment Plant Special Analysis	5,000.00
Water Words & Misc.	1,827.00
Equipment Rental	2,076.00
Special Education	4,967.00
Permanent Paving	2,481.00
Chemicals	22,098.00
Office Supplies & Postage	12,887.00
Insurance - Health	19,910.00
Insurance - Domestic	21,561.00
Special Appropriations	195,693.00
Sales Tax & Refunds	1,773.00
Escrow	936.00
Total Cash Disbursements	1,277,667.00

Ending Cash Balance June 30, 1986 862,169.00

REPORT OF THE COLLECTOR
JULY 1, 1985 TO JUNE 30, 1986

Outstanding June 30, 1985	\$ 32,962.60
Charges	1,184,528.84
	<u>320.24</u>
Total	\$1,217,411.37
Payments	\$ 1,152,470.00
Abatements	6,415.80
Outstanding	<u>58,922.88</u>
Total	\$1,217,408.37

Stephen G. Peterson
Collector - Treasurer

W.R. Grace Settlement Account	
January 14, 1987	\$ 2,250.123.00
February 1, 1987	6,561.00
Total February 1, 1987	<u>\$ 2,256,684.00</u>

WATER MEETING

Abstract of the proceedings of the Annual Meeting of the Water Supply District of Acton, held in the Acton-Boxborough Regional High School Auditorium, Charter Road, West Acton.

WEDNESDAY, MARCH 19, 1986, at 7:30 PM

ARTICLE 1. VOTED: To fix the salaries of the District Officers as follows:

Chairman of the Commissioners	\$900.00 per year
Two (2) Commissioners	\$700.00 per year
Moderator	\$25.00 per meeting
Clerk	\$600.00 per year

(Unanimous)

ARTICLE 2. VOTED: To accept the reports of the District Officers as presented in the 1985 annual report.

(Unanimous)

ARTICLE 3. VOTED: That the District authorize the Treasurer, with the approval of the Commissioners, to borrow in anticipation of the revenue for the fiscal year beginning July 1, 1986, in accordance with the provisions of General Laws, Chapter 44, Section 4, and to renew any note or notes as may be given for a period of less than one year, in accordance with the provisions of General Laws, Chapter 44, Section 17.

(Unanimous)

ARTICLE 4. VOTED: To instruct the Commissioners to have an audit of the various accounts of the District under the direction of the Commonwealth of Massachusetts.

(Unanimous)

ARTICLE 5. VOTED: To appropriate from estimated receipts of the District the sum of \$1,117,435.00 for the maintenance and operation of the District, and specific appropriations as follows:

Estimated Budget Expenditures for 1986 - 1987

Group Insurance	\$ 21,000.00
Bond and Interest	450,135.00
Salaries & Wages	292,800.00
Equipment Rental	2,000.00
Lights, Power & Telephone	75,000.00
Fuel	5,000.00
Land Survey	8,000.00
Maintenance & Operations	60,000.00
MDX. County Retirement	24,000.00
Postage	5,000.00
Miscellaneous	1,000.00
Mass. State Audit	Carry Over
Legal & Accounting	12,000.00
Land Appraisal	Carry Over
Engineering	10,000.00
Insurance	26,000.00
Meters	6,000.00

Auto & Equipment Expense	16,000.00
Reserve Fund	25,000.00
Office Supplies	7,500.00
Laboratory Analysis	5,000.00
Chemicals	Carry Over
Survey New Water	Carry Over
Special Legal	50,000.00
Educational Expense	5,000.00
Permanent Paving	3,000.00
Water Works Notice	2,500.00
Advisory Committee	500.00
Treatment Plant -	
Special Analysis	5,000.00
Total Budget	<u>\$1,117,435.00</u>

Estimated Receipts

Hydrants	53,000.00
Water Rates	979,185.00
Sprinklers	10,250.00
Repairs & New Installations	75,000.00
Total Receipts	<u>\$1,117,435.00</u>

(Unanimous)

ARTICLE 6. VOTED: That the district authorize the Commissioners to enter into a written lease for one (1) year with Bay State Explosives Company, Inc., a Massachusetts corporation having a usual place of business in Acton, Massachusetts, for the purpose of continued use of three magazines for the storage of explosives on land owned by the District located off Powder Mill Road and New High Street in said Acton and subject to the terms and conditions of a permit issued by the Town of Acton, and an agreement prepared by the District, at an annual rental in the sum of \$4,000.00.

(80 Yae - 1 Nae)

ARTICLE 7. VOTED: That the District authorize the Commissioners to transfer from surplus revenue the sum of \$22,000.00 for additional pumping tests to determine the feasibility of developing a well or well-field as a public supply on land owned by Brewster Conant located on the southerly side of Brook Street and the westerly side of Great Road in Acton Center.

(Unanimous)

ARTICLE 8. VOTED: That the District authorize the Commissioners to transfer from Surplus Revenue, the sum of \$23,000.00 for the cleaning and chemical treatment, and redevelopment of the Clapp Well in West Acton.

(Unanimous)

ARTICLE 9. VOTED: That the District authorize the Commissioners to transfer from surplus revenue the sum of \$21,600.00 for sandblasting and repainting the Great Hill Reservoir in South Acton and to apply for and accept any federal or state funds toward the cost of this project.

(Unanimous)

ARTICLE 10. VOTED: That the District authorize the Commissioners to enter into a long term written lease, with options to extend, with Boston Gas Company, One Beacon Street, Boston, Mass., for the purpose of construction of a gas metering station by Boston Gas Company on land owned by the District located off Lawsbrook Road in South Acton near the town line between Concord and Acton, together with right of way to the proposed building; said written lease to include an initial yearly rental amount of \$10,000.00 per year, plus adjustment for subsequent years based on the cost-of-living index, or other appropriate index, and such other terms, conditions and limitations as the Commissioners shall deem necessary and proper to protect the public water supply and to satisfy the requirements and regulations of the Department of Environmental Quality Engineering.

(66 Yea - 15 Nae)

ARTICLE 11. VOTED: That the District install a 16 inch water main at the intersection of North Briar Road a distance of about 6,000 feet, more or less, together with hydrants and necessary fittings; and to authorize the Treasurer, with the approval of the Commissioners, to borrow the sum of \$325,000.00 under General Laws, Chapter 44, as amended; and to apply for and accept any Federal or State funds toward the cost of this water main extension and upgrading of the water system.

(39 Yea - 4 Nae)

ARTICLE 12. VOTED: That the District install several wells and to construct a pumping station, install a suitable pump, equipment and necessary fittings and other appurtenances at the site of the new well field on land formerly owned by Mary Marshall now owned by the District located off Main Street (Rte. 27), and to treat the well with potassium hydroxide in order to raise the PH level to prevent stains and bitter taste, and to authorize the Treasurer with the approval of the Commissioners to borrow the sum of \$300,000.00 under Chapter 44 of the General Laws, as amended, for said purpose, and to apply for and accept any federal or state funds toward the cost of this project.

(Unanimous)

ARTICLE 13. VOTED: That the District authorize the Commissioners to transfer from surplus revenue the sum of \$10,000.00 to install monitoring wells as part of a program to monitor the quality of ground water in the aquifer and to identify contamination before it reaches the wells and public water supply sources.

(Unanimous)

ARTICLE 14. VOTED: That the District authorize the Commissioners to transfer from surplus revenue the sum of \$17,999.85 for the purchase of a new dual wheel, one ton, four by four truck, with four wheel drive, dump body and plow.

(Unanimous)

ARTICLE 15: VOTED: That the District authorize the Commissioners to transfer from surplus revenue the sum of \$54,970.00 to install an emergency back up power source for Assabet Wells 1 and 2 located in South Acton.

(Unanimous)

Adjourned: 10:43 PM

A true copy:

Attest:

Anita E. Page
Clerk

March 20, 1986

WATER MEETING

Abstract of the proceedings of the annual election of officers of the Water Supply District of Acton, held on

MONDAY, APRIL 7, 1986

at the six precincts of the Town of Acton (Polls open from 7:00 A.M. to 8:00 P.M.)

Total number of ballots cast: 1479

The following were elected:

Commissioner for 3 years: William P. Walsh	1137
Moderator for 1 year: John Putnam	1161
Clerk for 1 year: Anita E. Page	1160

A true copy:

Attest:

Anita E. Page
District Clerk

WATER MEETING

Abstract of the proceedings of the Special Meeting of the Water Supply District of Acton, held in the Acton-Boxborough Junior High School Auditorium, Charter Road at Massachusetts Avenue, Acton.

WEDNESDAY, October 22, 1986, at 7:30 PM

ARTICLE 1. VOTED: That the District authorize the Commissioners to enter into a written agreement for One Dollar with the Town of Acton for use by the Acton Police Department of an existing easement and adjacent land of the District for access to and construction of a base radio station. Said agreement to contain such terms and conditions and limitations as the Commissioners may deem appropriate, and subject to the Board of Appeals approval of said project, Case Number 86-27 and 86-28.

(Unanimous)

ARTICLE 2. VOTED: That the District transfer from surplus revenue the sum of \$13,000.00 for the cleaning, chemical treatment and redevelopment of Assabet Well #2 in South Acton.

(Unanimous)

ARTICLE 3. VOTED: That the District transfer from surplus revenue the sum of \$15,000.00 for the cleaning, chemical treatment and redevelopment of the Conant Well in Acton Center.

(Unanimous)

ARTICLE 4. VOTED: That the District construct an air stripping packed column with air blower, pumps, electrical controls, underground sump, buildings to house pumps, and install necessary water mains, and to construct a treatment plant for treatment of water from the Lawsbrook Well, Scribner Wellfield and Christoferson Well, all located in South Acton, and to authorize the Treasurer with the approval of the Commissioners to borrow the sum of \$315,000.00 under Chapter 44 of the General laws, as amended, for said purpose, and to apply for and accept any federal or state funds toward the cost of this project.

(Unanimous)

ARTICLE 5. VOTED: That the District transfer from surplus revenue the sum of \$7,977.00 for the purchase of a new car, and to authorize the Commissioners to trade or sell the 1982 Chevrolet Citation car.

(Unanimous)

ARTICLE 6. VOTED: That the District transfer from surplus revenue the sum of \$10,555.00 for the purchase of a new Dodge pick-up truck.

(Unanomous)

ARTICLE 7. VOTED: That the District transfer from surplus revenue the sum of \$15,000.00 to install monitoring wells as part of a general program to monitor the quality of ground water in various aquifers before it reaches the public water sources.

(Unanimous)

ARTICLE 8. VOTED: That the District to transfer from surplus revenue the sum of \$3,500.00 for the purpose of preparing and publishing a special annual report in 1987 to commemorate the seventy-fifth (75) anniversary of the establishment of the District.

(Unanimous)

Adjourned: 8:12 PM

A true copy:

Attest:

Anita E. Page

Clerk October 22, 1986

RULES AND REGULATIONS
Amended October 22, 1986

The following Rules and Regulations shall be considered a part of the Contract with every person using the water.

1. All applications for the use of water are available at the Whitcomb Pumping Station, Mass. Avenue. Demand charge schedule is set forth as follows:

PIPE SIZE	DEMAND CHARGE
3/4"	\$ 1,000.00
1"	1,260.00
1 1/4"	2,280.00
1 1/2"	3,720.00
2"	7,920.00
Over 2" line	10,000.00
Sprinkler	Square footage of bldg.
Multi-dwelling (per apt. or each living unit)	600.00
Hydrant Flow Test	200.00

EFFECTIVE - AUGUST 22, 1983
SPRINKLER DEMAND CHARGES

Buildings up to 20,000 square feet =	\$ 500.00
Buildings between 20,000 square feet and 40,000 square feet =	\$1,000.00
Buildings between 40,000 square feet and 60,000 square feet =	\$1,500.00
Buildings between 60,000 square feet and 80,000 square feet =	\$2,000.00
Buildings over 80,000 square feet =	\$2,500.00

Pipe sizes and type for any installation will be determined by the Water Commissioners or their agents. Cost of installation service will be charged to applicant separate of the demand charge. Costs will be paid before the water is turned on. The demand charges are payable prior to service connection.

2. Costs of new service installations from the water main into the house, including meter, shall be paid for by the owner or applicant before the water will be turned on.
3. No person will connect, or cause to be connected, any service pipe with the main or any distributing pipes, except by order of the Water Commissioners made on such application for new service. No permanent outside sprinkler system shall be allowed unless approved by the Board of Health.
4. Periodic inspection of pipes to the meter may be made by the District Manager or Foreman. When equipment is found defective all payment for the necessary repairs between the property line and the meter shall be assessed to the owner. Persons allowing their meter to be damaged by frost or otherwise will be held responsible therefore. The District will keep meters in repair from ordinary derangements.

5. All apparatus and all places supplied with water must be accessible at all reasonable times to the inspection of the Commissioners or their agents.
6. No alterations shall be made to the service installed by the Water District except by authorized agents of the Water District.
7. The Water District shall not in any way, nor under any circumstances, be held liable or responsible to any person or persons for any loss or damage from any excess or deficiency in the pressure, volume or supply of water, due to any cause whatsoever. The Water District will undertake to use all reasonable care and diligence to avoid interruptions and fluctuations in the service, but cannot and does not guarantee that such will not occur.
8. The Water District will not be responsible for damages caused by dirty water resulting from the opening or closing of any gates for repairs or any other reasons, the use of hydrants, or the breaking of any supply lines.
9. The Water District will endeavor to give due notice to as many of the consumers affected as time and character of the work permit whenever it may be necessary to shut off the supply from any section of the District to make repairs or changes or because of a broken main and will as far as practicable, use every effort to prevent damage or inconvenience; but failure to give such notice will not involve the Water District in any responsibility or liability for damage arising from the shutting off of any supply or any subsequent conditions arising therefrom.
10. The Water District reserves the right at any time without notice to shut off the water supply for the purpose of making repairs, extensions, or other reasons, and all consumers having boilers or other appliances on their premises are hereby warned against danger of collapse from these sources and are urged to provide safety devices for their own protection. In any event the District expressly stipulates that there shall be no liability for damages resulting therefrom.
11. The Water District will not assume any liability for conditions in the consumer's plumbing or appliances, which may be the cause of trouble, coincident with or following repairs made to any part of the supply system by the District.
12. Service pipes or fixtures of any description, that are connected with the mains of the Water District, shall not under any circumstances be connected with any other sources of water supply.
13. The Water Commissioners reserve the right to shut off water for the purpose of making alterations or repairs. A Water service may be shut off from any taker for non-compliance with the Rules and Regulations for non-payment of water rates and violation of Massachusetts General Laws relating to water supply. When water has been shut off because of disregard of rules or non-payment of rates it will be turned on again when the Commissioners are satisfied that there will be no further cause of complaint and on the payment of fifteen dollars. With the approval of the Department of Environmental Quality Engineering (Chapter 40, Section 41A of the MA General Laws), the Commissioners reserve the right to restrict the use of water if necessary in any manner deemed appropriate.
14. The Fire Department will have control of the hydrants in case of fires and for necessary practice. In no other case will any person be allowed to handle hydrants or other water apparatus without permission of the Water Commissioners.
15. No water taker will be allowed to supply water to others except by special permit from the Board of Water Commissioners and if found doing so without a permit, the supply will be shut off.

16. Owners should notify the Water District to shut off water if the building becomes vacant. Water will be turned on again when the owner notifies the Water District and upon the payment of five dollars for turn-on.

17. All bills for new services, repairing old services, supplies and labor, must be paid within thirty days from date of bill.

18. The water may be turned off without notice when bills for water remain unpaid for fifteen days after they become due, thirty days from the date of issue. Owners of premises will be held responsible for the water bills of their tenants.

Unpaid water bills are now a lien on real estate and collections may be made by the sale of property: Massachusetts Legislature, Acts of 1923, Chapter 391.

19. Any person who shall remove, change, alter or willfully damage or injure any meter will be liable for all damages. Any change in meter location shall be done under the direction of the District Manager or Foreman.

20. On all dwelling houses, apartments and condominiums, a minimum charge shall be made for water for each family or living unit for which the owner or owners shall be liable, if it is desired that all water flow through one meter. Larger quantities of water shall be charged on the above same basis.

On all business and/or professional buildings, for non-dwelling use, there shall be a charge for each toilet and/or lavatory facility, for which the owner shall be liable.

The District Manager or authorized agent shall be empowered by the Commissioners to confer with the owner or his agent to establish the number of facilities for which the minimum service charge shall be made. The minimum payment will be applied toward charge for water at the rates established under the rules and regulations for the Water Board, but if less quantity of water is used than the quantity for which the minimum charge would pay, no deduction from the minimum charge will be made.

21. Voted: That the District amend the By-Laws by adding a new section ten which reads as follows: "Any person violating any order restricting water use imposed by vote of the Commissioners shall be fined not more than \$200.00 for each offense, which shall inure to the District for such uses as the Commissioners may direct. Fines shall be recovered by indictment or on a complaint before the district court, or by non-criminal disposition in accordance with section twenty-one D of Chapter 10 of the General Laws. Every day that such violation continues shall constitute a separate offense".

22. Effective October 1, 1985 water users will be billed as follows: Minimum Price at which water will be furnished, including the use of the meter, will be \$12.00 per each 3 month period. This will allow the use of 1000 cubic feet each 6 months, with no refund or abatement for amounts of water less than 1000 cubic feet used.

On January 1, and July 1, a minimum charge of \$12.00 will be made to each user. Excess water for each 6 month period will be billed in October and April as follows:

Water usage in excess of 100 cubic feet shall be billed at the rate of \$1.50 per 100 cubic feet.

A minimum charge shall apply to each family or living unit. A minimum charge shall apply to all non-residential users in accordance with applicable sections of Rules, Regulations and Rates. Larger quantities of water beyond the minimum shall be charged as set forth above.

New owners having had possession of property less than 30 days and less than 1,000 cubic feet of water will be billed at the rate of \$1.50 per 100 cubic feet.

There will be a minimum closing charge of \$5.00 for final water meter reading.

Water rates, demand charges, rental fees, hydrants and sprinklers and other charges imposed by the District shall be determined by vote of the Commissioners at a regular or special meeting of the Commissioners.

23. If a meter is out of order and fails to register, the consumer will be charged at the average daily consumption as shown by the meter when in order. An average will be taken of the last 3 corresponding readings.

24. Any and all penalties for violations of these regulations or arrearages for non-payment of water rates or charges may be collected as authorized by law in a civil action.

25. The commissioners shall regulate the use of water in such manner as they deem for the best interest of the District, fix and collect prices and rates for the use thereof, prescribe the time and manner of payment of such prices and rates. The Commissioners shall have exclusive charge and control of the water department and water system, subject to all lawful by-laws, and subject to such instructions as the District may from time to time impose by its vote.

26. The Water District will have an inspector on sites where new water main and necessary fittings are installed in new developments, private roads, business and commercial sites. The Water District shall charge an hourly fee which will be paid to the Water District by the owner, contractor or developer. All materials used shall meet the specifications of the Water Supply district of Acton.

27. No person shall turn on or tamper with a water main or hydrant or other device used for water supply, or install a bypass around a water meter without first procuring a written permit to do so from the Manager of the Water District. Any person violating said section shall be fined not more than \$200.00 for each offense, which shall inure to the District for such uses as the Commissioners may direct. Fines shall be recovered by indictment or on complaint before the District Court or by non-criminal disposition in accordance with section 21D of Chapter 40 of the General Laws. Every day that such violation continues shall constitute a separate offense. This section shall not curtail the fire department or Water District in the normal course of providing fire protection or water supply.

28. Any person making application for water use having a design demand in excess of 5,000 gallons per day, shall submit a concept plan with sufficient information so that the Water District can generate a Water Impact Report. This report shall: 1.) define the plans impact on the District's current/future water demand and existing water supply system, and 2.) stipulate conditions that the applicant shall meet to mitigate the effects of this impact. The Water Impact Report shall be reviewed and approved by the Water Commissioners. Costs associated with generating the Water Impact Report shall be borne by the applicant.

BY ORDER OF THE COMMISSIONERS

JOSEPH H. LAUZON, *Chairman*
ALVIN R. PIPER, SR.
WILLIAM P. WALSH

**BYLAWS TO REGULATE THE NOMINATION AND
ELECTION OF OFFICERS OF THE DISTRICT**

- I The purpose of the Bylaws hereinafter set forth are to regulate the nomination and election of officers for the District so that the voters of the District may have knowledge of the candidates prior to an election.
- II All elections to any office in the District shall be by means of a printed ballot. This ballot shall be caused to be printed by the Commissioners acting as election officers from information furnished to them by the Clerk of the District as provided hereinafter.
- III No person's name shall be printed on the ballot unless he or someone on his behalf has submitted nomination papers signed by fifty registered voters of the District, setting forth the office for which he is a candidate and containing a statement signed by the candidate that he will accept the office, if elected. Nomination papers of a candidate for office of the District shall be filed with the Clerk of the District in accordance with Chapter 53, Section 10 of the General Laws. Submission to the Registrar of Voters shall be in accordance with Chapter 41, Section 115 of the General Laws.
- IV Nothing herein shall be construed as preventing a vote by stickers or writing in the name of a candidate, all as provided in the General Laws, except that no such sticker or write-in candidate shall be deemed to be elected unless he has received valid votes equivalent to 1% of the total of the number of registered voters in the District, as hereinafter determined.
- V The Commissioners, acting as election officers, shall prepare as of twenty (20) days prior to the annual Election, a list of eligible voters from the official voting list of the Town of Acton as of that time. This list shall remain closed until after the annual meeting of the District. The list shall then be reviewed and revised for all subsequent special meetings, up to the day of the special meeting. These lists shall then be used to determine the right of any person to vote at any election or any meeting of the District.
- VI All candidates elected to offices in the District shall be sworn to the performance of their duties by the Clerk of the District, except in the case of the Clerk, who shall be sworn by any of the Commissioners. The Clerk shall make a record of the facts in the minutes of the meeting.
- VII Elections and Nominations of district officers shall be conducted in accordance with chapters fifty to fifty-six, inclusive, of the General Laws so far as applicable, except as otherwise provided in sections one hundred and fourteen to one hundred and seventeen of Chapter 41 of the General Laws, inclusive, and except as otherwise provided by the district bylaw.

BYLAWS
(as adopted and amended to February, 1985)

- I The annual meeting of the Water Supply District shall be held on the third Wednesday of March of each year for the transaction of the necessary business connected with the District, and election of officers shall be held on the first Monday of April of each year. The time and place of holding such election and vote shall be stated in the warrant for the annual meeting and such election and vote shall be deemed part of the Annual District Meeting.
- II All meetings may be called by a majority of the Board of Water Commissioners, directed to the Clerk, or as specified in Chapter 326 of the Acts of 1912, Section 8.
- III All warrants shall be posted at least fourteen (14) days before the time of the meeting.
- IV The Clerk shall preside at each meeting until a Moderator is chosen.
- V At each annual Election Day there shall be elected by ballot, one Commissioner for a term of three years, a Clerk and a Moderator who shall serve for one year.
- VI If a vacancy should occur for any cause in the office of Clerk, Treasurer, or any other officer of the District except the Board of Water Commissioners, it may be filled for any such unexpired term by the Water Commissioners.
- VII The Board of Commissioners shall annually in the report to the District, give an estimated budget for the ensuing year.
- VIII
 - a) The Moderator shall appoint a Finance Committee to advise the Commissioners. The Committee shall consist of three voters of the District and shall be appointed in the following manner:
 - One member shall be appointed for one year;
 - One member shall be appointed for two years; and
 - One member shall be appointed for a term of three years.Thereafter, each appointment shall be for a term of three years.
 - b) No member of the Finance Committee shall serve any other standing committee of the District or the Town of Acton having to do with expenditure of funds.
 - c) The Finance Committee shall review the budget for the annual meeting and shall make recommendations to the Commissioners on any matters of a financial nature arising out of an annual or special meeting, and shall make recommendations as to the long range fiscal plans of the District.

- IX The Commissioners shall appoint annually a Treasurer-Collector which office shall have all the powers and duties conferred by law upon a collector of taxes and district treasurer.
- X Any person violating any order restricting water use imposed by vote of the Commissioners shall be fined not more than \$200.00 for each offense, which shall inure to the district for such uses as the Commissioners may direct. Fines shall be recovered by indictment or on a complaint before a district court, or by non-criminal disposition in accordance with section Twenty-one D of Chapter 40 of the General Laws. Every day that such violation continues shall constitute a separate offense.
- XI a) A five member Water - Land Management Advisory Committee is hereby established. Two members to be appointed by the Commissioners for a term of three years, two members to be appointed by the Moderator of the District for a term of two years, one member to be appointed by the Selectmen for a term of one year. Thereafter, each appointment shall be for a term of three years.
- b) The Advisory Committee shall review and make recommendations to the Commissioners on matters relating to water and land management policies of the district and shall make recommendations to the Commissioners on any matters relating to agreement authorized under the "Bylaw to Regulate the Removal of Sale of Sand and Gravel from Lands in District Use", and shall undertake such other tasks related to water and land management as the Commissioners deem appropriate.
- XII No person shall turn on or tamper with a water main or hydrant or other device used for water supply or install a by pass around a water meter without first procuring a written permit to do so from the Manager of the Water District. Any person violating said section shall be fined not more than \$200.00 for each offense, which shall inure to the District for such uses as the Commissioners may direct. Fines shall be recovered by indictment or on complaint before the District Court or by non-criminal disposition in accordance with section 21D of Chapter 40 of the General Laws. Every day that such violation continues shall constitute a separate offense. This section shall not curtail the fire department or Water District in the normal course of providing fire protection or water supply.

NEW BY-LAW

"By-Law to Regulate the Removal and Sale of Sand and Gravel from Lands in District Use".

Section One. The purpose of this bylaw is to regulate the removal of sand and gravel on lands owned or leased by the district so as to promote safe and sound economic development, improvement and management of said land; and protect and preserve the purity of the water supply, wells and aquifers.

Section Two. The Commissioners shall fix a reasonable time for a public hearing on any proposal for removal and sale of sand and gravel from land in district use. Notice of the public hearing shall be given at least two weeks prior to the hearing by publication of the time, place and purpose of the hearing in a local newspaper, and by mailing a copy of said notice to the owners of all property within five hundred (500) feet of the property line of the district land as they appear on the most recent applicable tax list. Included in the list of owners shall be abutters, owners of land directly opposite on any public or private street, and abutters to abutters within the five hundred (500) feet aforesaid.

The public hearing shall be held no later than 21 days prior to the business meeting of the district which includes an appropriate warrant article for action by voters of the district. Action by voters of the district on any article permitting the Commissioners to enter into a written contract for removal and/or sale of earth materials from lands of the district shall require a two-thirds vote. At the public hearing the Commissioners shall present evidence of the need for excavation, removal and/or sale of earth materials from district lands; the depth and limits of excavation; a site specific map of wetlands, limits of 100 year flood plain, vegetation, surface waters, topography (before and after), property lines and adjacent land uses; and estimation of high water table on the land.

Section Three. In entering into a written contract not to exceed one year, the Commissioners shall impose conditions and specifications including but not limited to the following:

- A. A detailed plan showing limits and phases of excavation.
- B. Specific and reasonable hours of operation, including truck arrival and departure.
- C. Required stockpiling of topsoil for use in restoration.
- D. Prohibition of excavation within 10 feet of the annual high water table.
- E. Prohibition of removal within 100 feet of property lines and existing public ways.
- F. Limitation of work faces to 10 vertical feet and requirement that all faces shall be broken down to their natural angle of repose at the end of each working day. Any existing non complying faces shall be reduced as fast as safety and practical engineering permit.
- G. Maintenance of natural vegetation on undisturbed land for screening and noise reduction purposes, and provision for dust suppression on the site.
- H. A requirement that restoration be carried on simultaneously with excavation, so that when any three acres operation area has been excavated, at least two acres shall be restored before work commences on the next contiguous three acres, so that at no time will more than four acres be unrestored.
- I. Provisions to grade slopes safely, loam and revegetate all disturbed areas.
- J. Removal of debris, stumps, boulders, etc. from the site and dispose of in an approved location or, in the case of inorganic matter, buried and covered with at least two feet of soil.
- K. A requirement that all retained subsoil and topsoil be spread over the disturbed area and seeded. Trees or shrubs of prescribed species will be planted to provide screening and reduce erosion during the establishment period.
- L. A requirement that final restoration work be completed within 60 days, weather permitting, after completion of excavation operations.

- M. A requirement of posting of surety bond, performance and payment bond or other adequate security to insure compliance with terms of the contract.
- N. Regular inspection by the Commissioners or their agent at reasonable hours to insure that contract provisions are being adhered to, and provision for halting operations for any violation.
- O. Other appropriate conditions, limitations and safeguards as the Commissioners deem necessary for the protection of the public health, safety, convenience and welfare, and for protection and preservation of the purity of the water.

