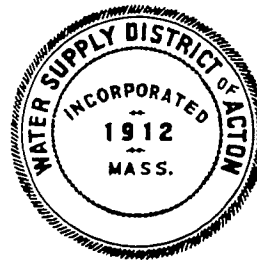


**ANNUAL REPORT**  
OF THE  
**WATER SUPPLY DISTRICT**  
OF  
ACTON, MASSACHUSETTS



*For the Year Ending December Thirty-first*

**1982**

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## ORGANIZATION - 1981

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### Water Commissioners

William P. Walsh	Term expires 1983
Alvin R. Piper	Term expires 1984
Leonard A. Phillips	Term expires 1985

### Moderator

John Putnam	Term expires 1983
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### Clerk

Anita E. Page	Term expires 1983
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### Finance Committee

Raymond Parshall	Term expires 1983
Johannes Klinkmueller	Term expires 1984
Joyce E. Foley	Term expires 1985

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

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### Appointment by the Water Commissioners

#### District Manager

John E. MacLeod	Term expires 1983
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#### Treasurer and Collector

Stephen G. Peterson	Term expires 1983
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#### Accountant

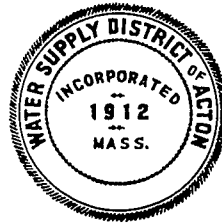
Raymond L. Page	Term expires 1983
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#### Attorney

Charles E. Orcutt, Jr.	Term expires 1983
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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:

- Precinct 1 - Clubhouse, Nagog Woods
- Precinct 2 - Center Fire Station
- Precinct 3 - Douglas School - Elm Street
- Precinct 4 - Conant School - Taylor Road
- Precinct 5 - Fire Station - West Acton
- Precinct 6 - Fire Station - South Acton

on MONDAY, APRIL 4, 1983

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.

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

Acton-Boxborough Regional High School Auditorium  
Charter Road at Hayward Road, West Acton  
on WEDNESDAY, MARCH 16, 1983

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, 1983, 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 five (5) years 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, or take any other action relative thereto.

(Submitted at the request of Bay State Explosives Company, Inc.)

ARTICLE 7. To see if the District will vote to transfer from Surplus Revenue, or to borrow under Chapter 44 of the General Laws, or to raise and appropriate a certain sum of money for the purchase of a new truck and to authorize the Commissioners to trade or sell the 1977 Chevrolet Truck, or to take any other action relative thereto.

ARTICLE 8. To see if the District will vote to authorize the Commissioners to apply for and accept a grant in the sum of \$55,945.00 from the Department of Environmental Quality Engineering, Commonwealth of Massachusetts, for water system rehabilitation; said grant is authorized under the provisions of Chapter 286 of the Acts of 1982 and Chapter 805 of the Acts of 1979, as amended, or to take any other action relative thereto.

(The actual dollar amount may be adjusted downward based on further review of eligible costs during audit procedures conducted by the D.E.Q.E., Chapter 286 of the Acts of 1982 is an act which provides financial assistance to cities, towns and districts for water pollution control purposes.)

ARTICLE 9. To see if the District will vote to authorize the Commissioners to transfer the following unexpended balances remaining after the completion of projects authorized by vote of the District:

- a. Unexpended balance in the sum of \$239.00 for project completed under Article 13 of the Annual Meeting held on February 9, 1972, which approved sandblasting and repainting Great Hill Standpipe.
- b. Unexpended balance in the sum of \$745.29 for project completed under Article 8 of the Annual Meeting held on February 9, 1972, which approved Route 2A water main extension.
- c. Unexpended balance in the sum of \$589.32 for project completed under Article 2 of the Special Meeting held November 28, 1973, which approved construction of Erickson Well.
- d. Unexpended balance in the sum of \$3,712.00 for project completed under Article 2 of the Special Meeting held October 13, 1976, which approved repairs to the Flagg Hill Reservoir.
- e. Unexpended balance in the sum of \$990.73 for project completed under Article 3 of the Special Meeting held October 13, 1976, which approved Mohawk Drive water main extension.
- f. Unexpended balance in the sum of \$2,278.18 for project completed under Article 2 of the Special Meeting held June 3, 1977, which approved Windsor Avenue water main extension for the benefit of Acton Housing Authority.
- g. Unexpended balance in the sum of \$101.74 for project completed under Article 7 of the Annual Meeting held March 15, 1978, which approved construction of garage and office building at 693 Massachusetts Avenue on land owned by the District.
- h. Unexpended balance in the sum of \$4,894.02 for project completed under Article 12 of the Annual Meeting held March 15, 1978, which approved Ticonderoga water main extension.
- i. Unexpended balance in the sum of \$1,273.31 for project completed under Article 11 of the Annual Meeting held March 21, 1979, which approved Taylor Road water main extension.
- j. Unexpended balance in the sum of \$7,236.00 for project completed under Article 3 of the Special Meeting held October 24, 1979, which approved permanent tie in with Town of Concord on Rte 2A at the Concord Pumping Station.
- k. Unexpended balance in the sum of \$1,499.00 for project completed under Article 1 of the Special Meeting held October 22, 1980, which approved the Lawsbrook well field water main extension.

- l. Unexpended balance in the sum of \$17,559.32 for project completed under Article 2 of the Special Meeting held October 22, 1980, which approved the construction of new pump station at Lawsbrook Road.
- m. Unexpended balance in the sum of \$401.00 for project completed under Article 7 of the Special Meeting held October 22, 1980, which approved expenses of the Sand and Gravel Study Committee.
- n. Unexpended balance in the sum of \$4,200.00 for project completed under Article 20 of the Annual Meeting held March 18, 1981, which approved grading and sloping of the Lawsbrook well field.

All of the above sums shall be transferred to the System Rehabilitation Account for the purpose of extending water mains and upgrading in the water system, or to take any action relative thereto.

ARTICLE 10. To see if the District will vote to authorize the Commissioners to rescind the vote on Article 12 of the Annual Meeting held on March 21, 1979, which authorized a transfer of \$2,000.00 from surplus revenue for replacing water main on Hayward Road; and to authorize the Commissioners to transfer the \$2,000.00 unexpended balance in the account to the System Rehabilitation Account, or to take any other action relative thereto.

ARTICLE 11. To see if the District will vote to authorize the Commissioners to transfer from surplus revenue a certain sum of money which together with the transfers approved under Articles 9 and 10 of this Warrant will constitute the matching share required to be eligible for the state grant referred to in Article 8, above, or to take any other action relative thereto.

ARTICLE 12. To see if the District will vote to amend Section One of the By-Laws by deleting the first sentence in its entirety and substituting therefore the following:

"The annual meeting of the Water Supply District shall be held on the third **TUESDAY** of March of each year for the transaction of the necessary business connected with the District, and the elections of officers shall be held on the first **MONDAY** of April of each year"... , or to take any other action relative thereto.

ARTICLE 13. To see if the District will vote to authorize the Commissioners to raise and appropriate or to transfer from any available source, or to borrow under authority of Chapter 44 of the General Laws the sum of \$88,000.00 to purchase two steel vessels and fittings and to construct a permanent treatment plant in South Acton for treatment of water at Assabet #1 and #2 and to apply for and accept any Federal or State funds towards the cost of the project, or to take any other action relative thereto.

ARTICLE 14. To see if the District will vote to authorize the Commissioners to raise and appropriate or to transfer from any available source, or to borrow under authority of Chapter 44 of the General Laws the sum of \$40,000.00 to replace the Granular Activated Carbon in the vessels located in South Acton and used to treat water from Assabet Well #1 and to apply for and accept any Federal and State funds towards the cost of the project, or to take any other action relative thereto.

ARTICLE 15. To see if the District will vote to authorize the Commissioners to raise and appropriate or to transfer from any available source, or to borrow under authority of Chapter 44 of the General Laws a certain sum of money to build an air stripping packed column with air blower, pumps, electric controls, underground sumps and buildings to house pumps and to construct a permanent treatment plant in treatment of water from Assabet Wells #1 and #2 located in South Acton and to accept any Federal or State funds towards the cost of the project, 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 24th day of January, in the year one thousand nine hundred and eighty-three.

WILLIAM P. WALSH  
ALVIN R. PIPER, SR.  
LEONARD A. PHILLIPS  
*Water Commissioners*

A true copy.  
ATTEST:

ANITA E. PAGE  
*District Clerk*



## REPORT OF THE COMMISSIONERS

The Water District of Acton has confronted a number of issues and problems this past year. Some of these have been resolved while work continues on others. The topics of major concern are described in the following sections.

### Water Supply

As outlined in Table 1, the District has 8 wells, which provide a potential pumping capacity of over 3 million gallons per day (gpd). In recent years the base demand has been approximately 1.5 million gpd, with a peak demand during the summer months somewhat in excess of 2 million gpd. In order to provide a reasonable margin of safety the Commissioners estimate that a ready supply between 2.5 and 3 million gallons per day should be maintained at all times.

While the District's pumping capacity appears adequate, Table 1 shows that 3 of the 8 wells are currently inactive because they require some form of treatment. In addition, the Lawsbrook well, which lies on the Acton-Concord line, can only be operated with State approval since the District does not own all of the land within a 400 foot radius around the well as required by State law. And under drought conditions the actual pumping capacity of the School Street, Scribner, and Whitcomb wells can drop by as much as 50%. The present capacity of the system is approximately 1.7 million gpd—well below the desired value.

For these reasons, the Commissioners are aggressively pursuing the development of new wellfields in addition to developing treatment methods to recover the use of the inactive wells. Funds were appropriated at the last Annual meeting to purchase the Kennedy land in North Acton and to initiate treatment of both the Conant and Assabet #1 wells. However, due to unforeseen legal complications the Kennedy land has not yet been purchased; a further discussion of this issue appears in a later section.

### Water Quality

As a consequence of the discovery in 1978 that the Assabet well aquifer had been contaminated with volatile organic compounds, and the growing awareness of groundwater contamination throughout the Commonwealth, a comprehensive water quality testing program was initiated at each of the District's wells. These tests evaluated the overall quality of the District's water according to the limited Drinking Water Standards promulgated by the regulatory agencies, which include heavy metal and bacterial contamination, and all organic compounds categorized as priority pollutants. Not surprisingly, trichloroethylene (which is a widely used industrial solvent) was the compound detected most frequently in these analyses. The Clapp well was subsequently taken off-line following a series of tests that indicated levels of trichloroethylene consistently in excess of 10 parts per billion (ppb). Trace levels were also found in both the School Street and Whitcomb wells, but their quality satisfies the 1 per million lifetime cancer risk exposure level published by the National Science Foundation which stands at 4.5 ppb.

At the last Annual Meeting the voters approved an article calling for temporary installation of two large carbon filters to treat low levels of the 1,1-dichloroethylene in the Assabet #1 well. Carbon filtration has been used successfully for at least 50 years to purify waste water but has only recently been applied to remove organic contamination in ground water. Following a two-week trial period in June, Assabet #1

TABLE 1

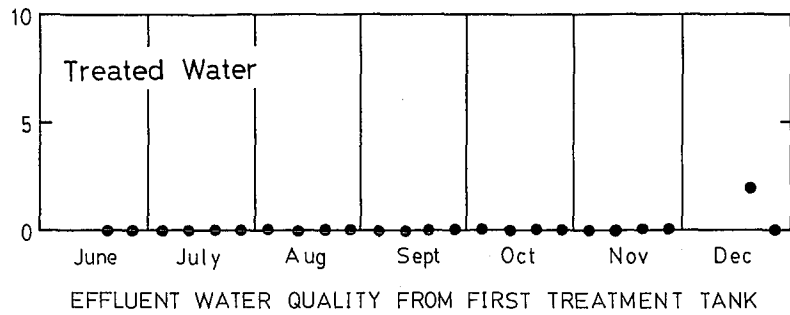
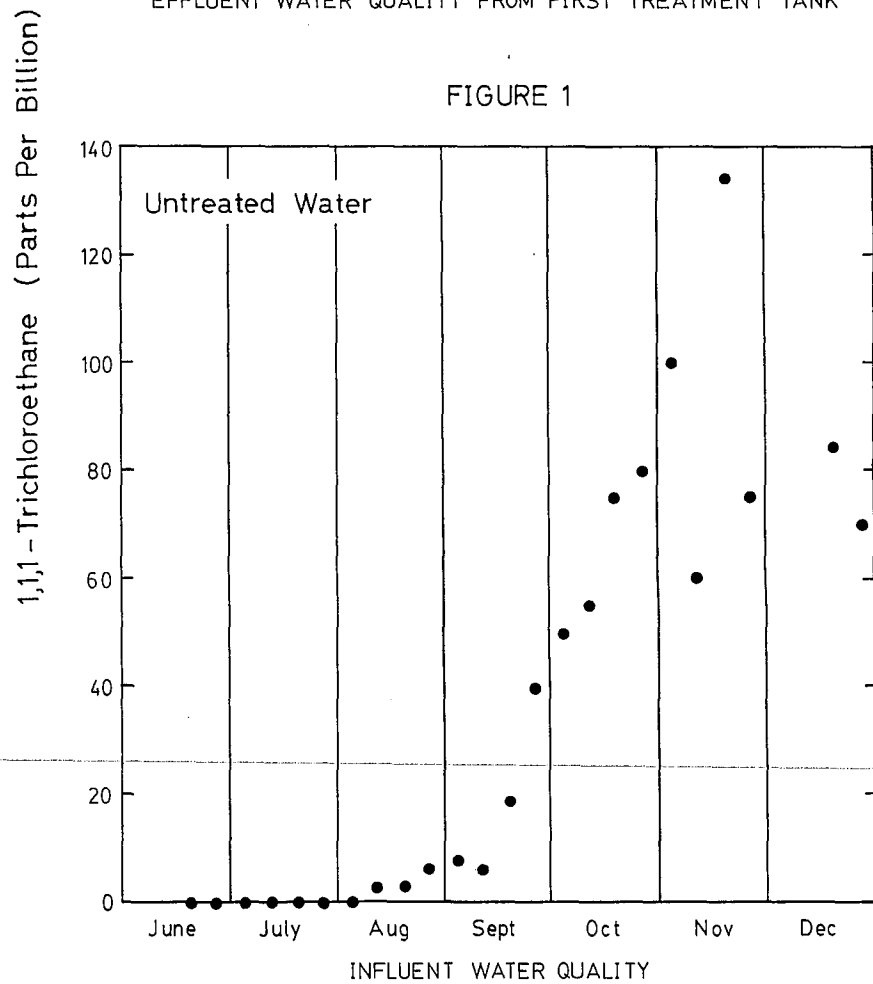


FIGURE 1



ASSABET WELL No.1 WATER QUALITY

# ACTON WATER DEMAND

BASIC DEMAND = 1,500,000 GALLONS/DAY  
 PEAK DEMAND = 2,000,000 GALLONS/DAY  
 DESIRED SUPPLY = 2,500,000 - 3,000,000 GALLONS/DAY

## ACTON WATER SUPPLY (GALLONS/DAY)

	ACTIVE	INACTIVE	
ASSABET #1	500,000		• TREATMENT REQUIRED FOR 1,1,1-TRICHLOROETHANE AND 1,1-DICHLOROETHYLENE
ASSABET #2		500,000	• TREATMENT REQUIRED FOR 1,1-DICHLOROETHYLENE
CONANT WELL		325,000	• TREATMENT DESIRABLE FOR HIGH ACIDITY AND CO <sub>2</sub> • HIGH SODIUM LEVEL
SCHOOL ST. WELL	450,000		• WATER TABLE DEPENDENT
LAWSBROOK WELL		300,000	• REQUIRES ANNUAL STATE APPROVAL • WATER TABLE DEPENDENT
SCRIBNER WELL	300,000		• WATER TABLE DEPENDENT
WHITCOMB WELL	450,000		• TREATMENT DESIRABLE FOR COLOR • WATER TABLE DEPENDENT
CLAPP WELL		400,000	• TREATMENT DESIRABLE FOR TRICHLOROETHYLENE • WATER TABLE DEPENDENT
TOTAL	1,700,000	1,525,000	

was placed on-line when initial tests of the treated water revealed no detectable contamination. This test was organically scheduled to last only three months, but due to the closing of the Clapp well the treatment study has been extended for an indefinite period. Money was appropriated at the Special District Meeting to provide a winter enclosure for the carbon tanks.

The Assabet #1 well was selected for the treatment study because it lies in what has been determined to be the best aquifer in town (in terms of supply), and contamination levels measured in the past had never exceeded 10 ppb. However, approximately two months after the study was initiated, low levels of an unexpected compound, 1,1,1-trichloroethane, were detected. As shown in Figure 1, the contamination level of this compound increased steadily in the raw water until reaching its present value of 100 ppb. Throughout this period the effluent water from the second treatment tank continued to show levels of 1,1-dichloroethylene and 1,1,1-trichloroethane

below the 1 ppb criterion established at the last Annual Meeting. The first indication of break-through (the point at which a carbon filter becomes saturated with adsorbed contaminants) at the first tank occurred on December 21. At the present rate of consumption, approximately 10,000 pounds of carbon (at \$1/pound) would be used by the system each month.

This treatment experiment has demonstrated that carbon filtration is effective in yielding potable water from a heavily contaminated source. However, the present rate of carbon consumption dictates a search for a more cost-effective approach. To this end the District, in cooperation with W.R. Grace, conducted an aeration test on the Assabet #2 well last fall, which determined that between 80 and 90% of the chemical contamination could be removed in this manner. Since the operational costs of an aeration system are relatively low, it is the opinion of both the Commissioners and the Advisory Committee that any permanent installation should include a combination of aeration and carbon treatment. A similar configuration may eventually be used to provide potable water from the Clapp well.

During the past year over \$30,000 was spent to monitor the progress of the Assabet well test and to trace the contamination found at the Clapp well. The analytical services of Calgon, GCA, Radiation Management Corporation, the EPA, and DEQE have been used, and the District is especially grateful for the assistance of Dr. Thomas Spittler of the Regional EPA laboratory in Lexington. At his suggestion, the District has purchased a portable gas chromatograph developed by the Photovac Company that is capable of detecting most of the organic compounds of interest at the 1 ppb level. This instrument will provide the District with the ability to analyze samples on a daily basis if necessary, and should result in a significant reduction in future water analysis expenditures. The Commissioners will also make this instrument available to the Town for air or water pollution monitoring.

#### Water Rates

For the last three years the water rate has remained at \$1.20 per 100 cubic feet, which costs the average Acton family approximately \$120.00 per year. If a permanent treatment system were to be constructed for the Assabet well field, it is estimated that the annual maintenance cost and loan repayment would add about \$75,000 to the present budget. Assuming that the Grace suit is not settled, this increase would probably necessitate a rate hike in three years of between 5 and 10%. An increase of this magnitude would result in a rate structure similar to that found in most surrounding communities.

#### The W.R. Grace Suit

The water users of Acton are justifiably curious about the present status of the suit against W.R. Grace and the likelihood that Grace will absorb the construction and maintenance costs associated with any future treatment facility at the Assabet aquifer. The District is still actively pursuing litigation against W.R. Grace (and incurring an annual special legal expense of \$75,000), but during the past year several meetings have been held with W.R. Grace officials in an attempt to discover the optimal treatment approach and whether an out-of-court financial settlement could be realized. As a result of these negotiations, the District has received a contribution of \$100,000 which was used to offset some of the costs of the present carbon treatment facility. The Commissioners plan to continue this dialogue as long as they feel that significant progress is being made.

#### The North Acton Aquifer System Development

At the last Annual Meeting the District was authorized to proceed with the taking of certain parcels of land in North Acton for the purpose of developing a new water supply. Progress has been slowed by a requirement established by the DEQE to provide corrective measures to prevent contamination of this aquifer by the Town's neighboring septage disposal site. The hearing before officials of the DEQE occurred in mid-December and the District is presently awaiting their determination as to the appropriate conditions for the future development of this land.

#### The Geohydrological Study

An investigation of all of the District's municipal aquifer systems was completed this year. The study describes the most promising areas open to the District, and outlines the factors that will be most important for the proper management of these potential well sites. This investigation will provide a basis for the District to recommend restrictions on adjacent land usage to the Town, establish monitoring systems, and determine optimum well pumping rates.

#### Automated Billing

The District has installed an Altos 8000 business computer to upgrade its billing system and to provide the clerical staff with a word processing facility. This machine will also permit the District to modernize its record keeping and data reduction functions, and should result in a significant reduction in operating costs over the long term. The total cost of this system was less than \$10,000.

#### The Advisory Committee

The Advisory Committee has been most active during the past year, and their main interests have centered on the pilot treatment program at the Assabet well. The members of this committee have kept a close watch on the results of the water quality analyses and have assisted in the design of the proposed permanent treatment facility. Their comments have been included in this report.

#### Closing Remarks

In closing, we want to express our appreciation to the Advisory and Finance Committees, and members of the Town Boards who cooperated so closely with our District Manager in assisting us with our problems this past year.

Respectfully submitted,

William P. Walsh, *Chairman*  
Alvin R. Piper, Sr.  
Leonard A. Phillips

# 1983-1984 BUDGET

Group Insurance .....	\$ 16,000.00
Bonds & Interest .....	302,271.00
Salaries & Wages .....	200,000.00
Equipment Rental .....	2,000.00
Lights, Power & Telephone .....	85,000.00
Fuel .....	4,000.00
Maintenance & Operation .....	55,000.00
Postage .....	4,500.00
Miscellaneous .....	1,000.00
Middlesex County Retirement .....	18,500.00
Massachusetts State Audit .....	000000000
Land Survey .....	3,000.00
Legal & Accountant .....	18,000.00
Land Appraisal .....	3,000.00
Engineering .....	15,000.00
Insurance .....	18,000.00
Meters .....	6,000.00
Auto & Equipment Expense .....	15,000.00
Reserve Fund .....	25,000.00
Office Expense .....	4,500.00
Laboratory Analysis .....	5,000.00
Survey New Water .....	000000000
Educational Expense .....	5,000.00
Permanent Paving .....	5,000.00
Special Legal Expense .....	75,000.00
TOTAL BUDGET	\$ 885,771.00

# ESTIMATED RECEIPTS

Hydrants .....	\$ 52,000.00
Water Rates .....	775,000.00
Sprinklers .....	8,625.00
Repairs & New Installations .....	25,000.00
TOTAL RECEIPTS	\$ 860,625.00

William P. Walsh  
Alvin R. Piper, Sr.  
Leonard A. Phillips  
*Water Commissioners*

## REPORT OF THE FINANCE COMMITTEE

The voters of the District might find it helpful to know the relationship of receipts and expenditures in the budget.

The estimated expenditures are the amounts that the Commissioners feel are necessary to operate the District for the fiscal year July 1, 1983 through June 30, 1984. These amounts must be met by:

1. Estimated receipts
2. An appropriation from surplus revenue.
3. If estimated receipts and surplus revenue are not sufficient,

(a) by an increase in the water rates, or

(b) by an inclusion of any amount needed in the general tax levy of the town.

As noted on the Bonds & Interest schedule it is anticipated that payments on account of Notes and Interest for the year ended June 30, 1984 will total 302,271. The Bonds & Interest debt schedule in this report does not include any additional debt that may be incurred during fiscal 1983.

The Water District has earned \$50,003.00 during the year ended June 30, 1982 from invested free cash. These earnings will be included in the surplus revenue of the District. It is our intention to finance capital items from these earnings whenever possible.

We would like to thank all the members working for the Water District, especially Ray Page, Accountant, our Clerk, Anita Page, and John MacLeod, District Manager, for their co-operation and efforts this past year.

JOYCE FOLEY, *Chairwoman*  
JOHANNES KLINKMUELLER  
RAYMOND PARSHALL  
*Finance Committee*

WATER SUPPLY DISTRICT  
OF  
ACTON, MASSACHUSETTS

AMORTIZATION SCHEDULE — BONDS AND INTEREST

	<u>Original Amount</u>	<u>Balance 7/1/83</u>	<u>1983-1984 Principal Interest</u>	<u>1984-1985 Principal Interest</u>	<u>1985-1986 Principal Interest</u>
Flagg Hill Reservoir	200,000.	10,000.	\$ 10,000.00 160.00		
Water Mains	196,000.	26,000.	10,000.00 1,281.00	\$ 10,000.00 671.00	\$ 6,000.00 183.00
Nagog Hill Reservoir	540,000.	300,000.	30,000.00 16,245.00	30,000.00 14,535.00	30,000.00 12,825.00
Water Bonds	385,000.	185,000.	25,000.00 9,832.50	25,000.00 8,407.50	25,000.00 6,982.50
Water Bonds	220,000.	140,000.	20,000.00 6,305.00	20,000.00 5,335.00	20,000.00 4,365.00
Building	130,000.	90,000.	10,000.00 4,122.50	10,000.00 3,637.50	10,000.00 3,152.50
Water Bonds	910,000.	830,000.	80,000.00 79,325.00	80,000.00 71,725.00	80,000.00 64,125.00
<b>TOTALS</b>	<b>\$2,581,000.</b>	<b>\$1,581,000.</b>	<b>\$302,271.00</b>	<b>\$279,311.00</b>	<b>\$262,633.00</b>



WATER SUPPLY DISTRICT  
OF  
ACTON, MASSACHUSETTS

AMORTIZATION SCHEDULE — BONDS AND INTEREST (CONTINUED)

	Original Amount	Balance 7/1/83	1986-1987 Principal Interest	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
Flagg Hill Reservoir	200,000.	10,000.								
Water Mains	196,000.	26,000.								
Nagog Hill Reservoir	540,000.	300,000.	\$ 30,000.00 11,115.00	\$ 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	
Water Bonds	385,000.	185,000.	25,000.00 5,557.50	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.	140,000.	20,000.00 3,395.00	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.	90,000.	10,000.00 2,667.50	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.	830,000.	80,000.00 56,525.00	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
TOTALS	\$2,581,000.	\$1,581,000.	\$244,260.00	\$232,070.00	\$205,265.00	\$193,845.00	\$182,425.00	\$151,575.00	\$101,580.00	\$54,875.00

## REPORT OF THE DISTRICT MANAGER

### TO THE BOARD OF WATER COMMISSIONERS:

The following report covers the activities of the District for 1982

New House Installations .....	25
Old Service Lines repaired or renewed .....	20
Old meters repaired with new ones .....	45
Hydrants damaged and repaired .....	10
Water main breaks and service lines .....	15
Old fire hydrants changed to new ones .....	6

New water mains were installed by the District for our treatment plant at Assabet Well #1 in South Acton. The treatment plant has been very successful in supplying the water takers of Acton with a high quality of drinking water.

Developers installed new water mains for Digital and various professional buildings located in Nagog Park and Great Road.

The District is in the process of doing a sodium study around the Conant Well aquifer with the cooperation of the Acton Board of Health.

A new permanent well was put on line by the District. This new well is known as the Scribner Well and is located in South Acton off of Lawsbrook Road.

An extensive investigation was done by the District into possible chemical pollution of other wells and new well sites. Possible pollution was found at the Clapp Well located off of Mass. Avenue in West Acton. An on-going study is now being conducted to determine the source of pollution.

The District purchased a portable gas chromatograph instrument and has installed a laboratory at the office in West Acton. With the purchase of this machine, the District can conduct a testing program and monitor the wells for suspected pollution. The source of this pollution, whether it be air or water pollution, can be determined very rapidly with this new instrument. Acton has no unique pollution source to monitor. Industrial waste sites, land fills, sewage disposal and many products used in our homes are discharged into our ground water.

The District also has gone to computer billing and it will be possible to log a lot of information into the computer on various studies the District has completed or are now working on.

Several District employees have completed courses and have attended seminars on water and will continue to do so.

I would like to take this opportunity to express my sincere thanks to the Land-Water Management Advisory Committee, Finance Committee, Town Manager, Board of Selectmen, Board of Health, Highway Department, Planning Board, Conservation Department, Acton Fire Department, Acton Police Department, School Department and all the concerned citizens of Acton. Also thanks to DEQE and EPA and neighboring towns who have helped us look forward to a cleaner and safer environment for everyone to live in.

JOHN E. MACLEOD  
*District Manager*

# REPORT OF THE COLLECTOR

June 30, 1981 to June 30, 1982

Outstanding June 30, 1981	\$ 34,238.31	
Charges	848,685.80	
Refunds	<u>4,439.98</u>	
Total		\$887,364.09
Payments	\$836,807.31	
Abatements	4,576.09	
Outstanding June 30, 1982	<u>45,980.69</u>	
Total		\$887,364.09

June 30, 1982 to December 31, 1982

Outstanding June 30, 1982	\$ 45,980.69	
Charges	475,672.19	
Refunds	<u>603.91</u>	
Total		\$522,256.79
Payments	\$456,350.51	
Abatements	3,246.52	
Outstanding December 31, 1982	<u>62,659.76</u>	
Total		\$522,256.79

Stephen G. Peterson  
Collector - Treasurer

# REPORT OF THE DISTRICT ACCOUNTANT

This portion of the report covers expenditures for the fiscal year 1982  
(July 1, 1981 - June 30, 1982)

Account	Balance 7-1-81	Balance 6-30-82
Reserve Fund	\$ 25,000.00	\$ 10,435.15
Bonds & Interest	297,821.90	105,522.22
Salaries & Wages	175,000.00	1,010.95
Insurance	12,500.00	—
**	2,989.29	—
Lights, Power & Tel.	106,000.00	38,900.52
Equipment Rental	2,000.00	—
**	220.00	—
Fuel	4,000.00	1,046.50
M & O	55,000.00	11.32
***	40,000.00	—
Miscellaneous	1,000.00	—
Meters	6,000.00	156.15
Legal Expense	17,000.00	3,840.28
Special Legal Expense	75,000.00	—
**	3,157.65	—
Land Survey	3,000.00	—
**	2,714.01	—
Land Appraisal	3,000.00	2,250.00
Engineering Expense	15,000.00	3,598.50
Mass. State Audit	5,645.00	2,000.00
Group Insurance	13,000.00	2,720.11
Mdx. County Retirement	17,300.00	1,333.00
Office Expense	6,000.00	56.12
Education Expense	5,000.00	1,410.93
Permanent Paving	5,000.00	809.86
Auto & Equip. Expense	17,000.00	7,182.48

(\*\* from Reserve Fund)

(\*\*\* from Surplus Revenue)

# SPECIAL APPROPRIATIONS

Account	Balance 6-30-82
Telemeter System	\$ 4,856.38
Survey for New Water	8,526.00
Standpipe Great Hill	239.00
Great Rd. 2A Ext.	745.29
Clapp Well	589.52
Harris Reservoir	3,712.00
Mohawk Dr. Ext.	990.73
Ticonderoga Road	4,894.02
New Building	101.74
Windsor Green Housing	2,278.18
Taylor Road	1,273.31
Hayward Road	2,000.00
Laboratory Analysis	1,526.24
Sand & Gravel Study Comm.	401.00
New Lawsbrook Well Field	28,209.52
Master Plan Update	5,000.00
Hydro Study	105,573.17
Lawsbrook Main	1,699.00
Concord Tie-In	7,236.06
Lawsbrook Grading & Sloping	4,200.00

The appropriations voted by the District March 17, 1982 cover the period July 1, 1982 to June 30, 1983. Below are listed expenditures for the first six months of this period.

Account	Appropriation for 1982-1983	Balance 12-31-82
Reserve Fund	\$ 25,000.00	\$ 24,595.10
Bonds & Interest	427,964.86	225,714.36
Salaries & Wages	196,000.00	101,613.99
Insurance	14,500.00	—
**	404.90	—
Lights, Power & Tel.	100,000.00	84,261.89
Equipment Rental	2,000.00	2,000.00
Auto & Equip. Expense	15,000.00	7,992.52
Fuel	4,000.00	3,606.58
M & O	55,000.00	26,240.36
Miscellaneous	1,000.00	893.20
Meters	6,000.00	1,776.00
Legal Expense	21,840.28	14,502.78
Special Legal Expense	75,000.00	56,805.46
Land Survey	3,000.00	3,000.00
Land Appraisal	3,000.00	3,000.00
Engineering Expense	15,000.00	8,526.00

Mass. State Audit	5,500.00	5,500.00
Group Insurance	13,000.00	7,220.35
Middlesex County Retirement	19,500.00	11,454.00
Postage	4,000.00	2,200.00
Office Supplies	2,500.00	769.16
Education Expense	5,000.00	2,681.42
Permanent Paving	5,000.00	4,560.00

#### SPECIAL APPROPRIATIONS

Account	Balance 12-31-82
Telemeter System	\$ 4,856.38
Survey for New Water	11,286.68
Standpipe	239.00
Great Rd. 2A Ext.	745.29
Clapp Well	589.52
Harris Reservoir	3,712.00
Mohawk Dr. Ext.	990.73
Ticonderoga Road Ext.	4,894.02
New Building	101.74
Windsor Green Housing	2,278.18
Land-Water Management Comm.	989.00
Taylor Road	1,273.31
Hayward Road	2,000.00
Laboratory Analysis	5,582.74
Sand & Gravel Study Comm.	401.00
Kennedy Land	212,150.00
W.R. Grace Assabet Study	38,745.35
New Lawsbrook Well Field	20,696.32
Master Plan Update	5,000.00
Hydro Study	48,688.56
Lawsbrook Main	1,699.00
Concord Tie-In	7,236.06
Lawsbrook Grading & Sloping	4,200.00
Building at Assabet	46,893.80
Treatment at Conant Well	2,000.00
Gas Chromatograph	10,975.00
Laboratory Equipment	3,000.00
Computer	1,500.05

RAYMOND PAGE  
District Accountant

# REPORT OF THE TREASURER

## Checking Accounts

June 30, 1981 to June 30, 1982

BayBank Middlesex, Balance June 30, 1981	\$ 15,670.15
Transferred from Savings Account	460,384.61
Deposits	<u>850,184.34</u>
Total	\$ 1,326,239.10
Disbursements	\$ 942,699.56
Transfers	<u>382,000.00</u>
Total	\$ 1,324,699.56
Balance June 30, 1982	\$ 1,539.54

June 30, 1982 to Dec. 31, 1982

BayBank Middlesex, Balance June 30, 1982	\$ 1,539.54
Deposits	552,068.93
Transfers	<u>171,900.00</u>
Total	\$ 725,508.47
Disbursements	\$ 532,300.30
Transfers	<u>187,000.00</u>
Total	\$ 719,300.30
Balance Dec. 31, 1982	\$ 6,208.17

June 30, 1981 to June 30, 1982

Shawmut Bank, Balance June 30, 1981	\$ 4.18
Transfers	<u>294,385.14</u>
Total	\$ 294,389.32
Disbursements	\$ 170,752.15
Transfers	<u>129,814.87</u>
Total	\$ 300,567.02
Balance June 30, 1982	\$ (6,177.70)

June 30, 1982 to Dec. 31, 1982

Shawmut Bank, Balance June 30, 1982	\$ (6,177.70)
Transfers	116,900.00
Disbursements	<u>110,663.91</u>
Total	\$ 58.39

# BANK INVESTED FUNDS

## BayBank Middlesex, Balance June 30, 1981

Interest		\$	32.23
Balance June 30, 1981	\$	34.00	1.77

## Shawmut Bank, Balance June 30, 1981

Interest		\$	235.91
Deposits			47.73
Withdrawal			4,500.00
Balance June 30, 1982	\$	83.64	4,700.00

## MMDT #1, Balance June 30, 1981

Interest		\$168,719.11
Deposits		41,059.26
Withdrawal		927,006.94
Balance June 30, 1982	\$823,146.07	313,639.24

## MMDT #2, Balance June 30, 1981

Interest		\$106,659.81
Deposits		6,932.89
Withdrawal		1,014.24
Balance June 30, 1982	\$	.00

## Bond Premium, June 15, 1982

	\$	1,960.14
Total Interest 1982		50,001.79

## June 30, 1982 to December 31, 1982

## MMDT #1, Balance June 30, 1982

Interest		\$823,146.07
Deposits		44,457.60
Withdrawal		187,000.00
Balance December 31, 1982	\$765,803.67	288,800.00

## BayBank Middlesex, Balance June 30, 1982

Interest		\$	34.00
Balance December 31, 1982	\$	34.92	.92

## Shawmut Bank, Balance June 30, 1982

Interest		\$	83.64
Balance December 31, 1982	\$	85.88	2.24



## 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 17, 1982, 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 1981 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, 1982, 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 \$850,205.00 and to transfer from surplus revenue the sum of \$82,401.00 for the maintenance and operation of the District, and specific appropriations as follows:

Estimated Expenditures	
Group Insurance	\$ 13,000.00
Bonds and Interest	337,606.00
Salaries & Wages	196,000.00
Equipment Rental	2,000.00
Lights, Power & Tel.	100,000.00
Fuel	4,000.00
Maintenance & Operations	55,000.00
Postage	4,000.00
Miscellaneous	1,000.00
Mdx. County Retirement	19,500.00
Mass. State Audit	3,500.00
Land Survey	3,000.00

Legal & Accountant	18,000.00
Land Appraisal	3,000.00
Engineering Expense	15,000.00
Insurance	14,500.00
Meters	6,000.00
Auto & Equipment Expense	15,000.00
Reserve Fund	25,000.00
Office Expense	2,500.00
Laboratory Analysis	5,000.00
Survey New Water	5,000.00
Special Legal Expense	75,000.00
Educational Expense	5,000.00
Permanent Paving	5,000.00
Total Budget	<u>\$932,606.00</u>

	Estimated Receipts	
Hydrants		\$ 51,500.00
Water Rates		750,000.00
Sprinklers		8,625.00
Repairs & New Installations		15,000.00
Contract-Community Concepts		25,080.00
Total Receipts		<u>\$850,205.00</u>

(Unanimous)

ARTICLE 6. VOTED: That the District 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 in the sum of \$2,400.00.

(Unanimous)

ARTICLE 7. VOTED: That the District vote to authorize the Commissioners to transfer from surplus revenue the sum of \$9,440.00 for the purchase of a new Chevrolet Citation with a two way radio and to authorize the Commissioners to trade or sell the 1976 Dodge van.

(Unanimous)

ARTICLE 8. VOTED: That the District accept Chapter 40, Section 4G of the Massachusetts General Laws entitled, "Advertising Municipal Contracts Prior to Award".

(Unanimous)

ARTICLE 9. VOTED: That the Commissioners purchase or take by eminent domain the fee in the following land:

Two certain parcels of land owned now or formerly by Kennedy Land Corporation a Massachusetts Corporation having its usual place of business in Lincoln, Massachusetts, located on the Westerly side of Main Street and being shown as Parcel 1, containing 57.7 acres, more or less, and Parcel 2, containing 18,601 square feet,

more or less, on a plan prepared for the Water Supply District of Acton by Fleming, Bienvenu & Associates, Land Surveyors, North Billerica, dated February 2, 1982. Said land shall be subject to a reservation for the benefit of the Kennedy Land Corporation, its successors and assigns, to pass and repass by foot and vehicular traffic, at their own risk; and to use and improve the 70 foot right of way, as shown on said plan, for the purpose of having access to such other land of the Kennedy Land Corporation. The right of pass and repass shall be in common with the Water Supply District. The said District shall have no obligation to construct, maintain or improve said right of way; that \$201,950.00 is appropriated for this land acquisition, and that to raise this appropriation the Treasurer with the approval of the Commissioners is authorized to borrow \$201,950.00 under G.L. Chapter 44, Section 8, as amended.  
(Unanimous)

ARTICLE 10. VOTED: That the Commissioners purchase or take by eminent domain the following described land:

A. The fee in the parcel of land owned now or formerly by Nashoba Sportsman's Club, Inc., a Massachusetts Corporation having its usual place of business in Acton, Mass., located off the Westerly side of Main Street and being shown as Parcel 4, containing 2.1 acres, more or less on a plan prepared for the Water Supply District of Acton by Fleming, Bienvenu & Associates, Land Surveyors, North Billerica, dated February 2, 1982.

B. An easement for water supply and water system development and protection purposes in parcel of land owned now or formerly by Nashoba Sportsman's Club, Inc., a Massachusetts Corporation having its usual place of business in Acton, Mass., located off the Westerly side of Main Street and being shown as Parcel 5, containing 5.7 acres, more or less on a plan prepared for the Water Supply District of Acton by Fleming, Bienvenu & Associates, Land Surveyors, North Billerica, dated February 2, 1982; and that \$10,200.00 is appropriated for this land acquisition, and that to raise this appropriation the Treasurer with the approval of the Commissioners is authorized to borrow \$10,200.00 under General Laws, Chapter 44, Section 8, as amended.  
(Unanimous)

ARTICLE 11. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$1,000.00 to cover expenses, including, but not limited to printing, graphics and secretarial services incurred by the Land-Water Advisory Committee.  
(Unanimous)

ARTICLE 12. VOTED: That the Commissioners conduct at Assabet Well #1 in South Acton an analysis of water treatment for the purpose of adding to the water supply, including pumping tests and water quality tests; and to authorize the Commissioners to determine whether or not the resultant treated water shall be pumped into the water system; and that \$200,000.00 is appropriated for this water treatment; and that to raise this appropriation the Treasurer with the approval of the Commissioners is authorized to borrow \$200,000.00 under G.L., Chapter 44, Section 8, as amended; and to authorize the Commissioners to accept and expend the sum of \$100,000.00 or any other sum, which may be paid to the District by W.R. Grace & Co. as a contribution toward the costs incurred under this article.  
(Yea 36 - Nae 17 - Passed)

A true copy: Attest:

Anita Page  
Clerk  
25

March 18, 1982

WATER MEETING

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

MONDAY, APRIL 5, 1982

at the six precincts of the Town of Acton (Polls open from 12:00 Noon to 8:00 P.M.)

Total number of ballots cast:	2199
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The following were elected:

Commissioner for 3 years: Leonard A. Phillips	1583
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Moderator for 1 year: John Putnam	391
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Clerk for 1 year: Anita E. Page	1651
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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 Regional High School Auditorium, Charter Road, West Acton

TUESDAY, NOVEMBER 16, 1982, at 7:30 P.M.

VOTED: To take the Articles out of order as follows: 2-1-3-4-5  
(Unanimous)

ARTICLE 2. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$47,000.00 for the construction of a package steel building with heat to protect the carbon treatment vessels located at Assabet #1, located off High Street.  
(Unanimous)

ARTICLE 1. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$2,000.00 for treatment of water from the Conant Well located off Main Street, Route 27.  
(Majority)

ARTICLE 3. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$10,975.00 to purchase a portable gas chromatograph to assist in the investigation of ground water contamination and water purification techniques.  
(Unanimous)

ARTICLE 4. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$3,000.00 to purchase laboratory equipment and materials for use in connection with the use of the portable gas chromatograph described in Article 3, and to employ a consultant with a degree in organic chemistry and a minimum of one (1) years experience in gas chromatograph and analytical techniques to operate the gas chromatograph and to collect check samples.  
(Unanimous)

ARTICLE 5. VOTED: That the District authorize the Treasurer with the approval of the Commissioners to transfer from surplus revenue the sum of \$8,415.05 to purchase a computer billing system and word processor.  
(Majority)

A true copy.  
ATTEST:

ANITA E. PAGE  
*Clerk*

November 16, 1982

**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, 1973)

- 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 meeting 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.

#### 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.