

# 1954 ANNUAL REPORT

OF THE

**WEST AND SOUTH**

*Water Supply District*

**of Acton, Massachusetts**

FOR THE

**YEAR ENDING DECEMBER 31st**



*Incorporated by the Acts of Legislature of 1912*

*Chapter 326, and accepted by the*

*District, April 12, 1912*

*The Center District Accepted Section 13 of Said Act*

Murphy & Snyder, Inc. ☆ Maynard, Massachusetts

## ORGANIZATION — 1954

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### Clerk

MRS. BERYL B. SILVA, Term expires 1955

### Water Commissioners

FRANK E. GREENOUGH	Term expires 1955
JAMES E. KINSLEY, Chairman	Term expires 1956
EDWIN H. CHRISTOFFERSON	Term expires 1957

Commissioners meet second Wednesday of the month  
8 P. M.

Pumping Station Office

### Treasurer

ORMAL S. LAFFIN Term expires 1955

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## Appointments by the Water Commissioners

### Superintendent

RAY L. HARRIS Term expires 1955

### Collector

RAYMOND A. GALLANT Term expires 1955

### Accountant

MRS. BERYL B. SILVA Term expires 1955

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, ss.



To the Clerk of the West and South Water Supply, District of  
Acton, GREETINGS:

You are directed to notify and warn the inhabitants of the Town of Acton residing in the Water Supply District as bounded and defined by Chapter 326 of the Acts of 1912, Section 1 and 13 of said Act, and new extensions accepted by the District qualified to vote in election and town affairs to assemble in:

Town Hall, Acton Center

Monday, February 21, 1955 at Eight O'clock P. M.

Then and there to act on the following articles:

Article 1. To choose a Moderator to preside at said meeting.

Article 2. To elect by ballot a Clerk for one year, a Treasurer for one year, one member of the Board of Water Commissioners to serve for the term of three years, and one member of the Board of Water Commissioners to serve for the term of one year, to fill a vacancy, and to fix salaries of same.

Article 3. To hear and act on the report of the Water Commissioners, the Treasurer, the Collector and other officers of the District or any committee appointed at any previous meetings.

Article 4. To see if the District will authorize the Treasurer to borrow money, with the approval of the Water Commissioners, if necessary, in anticipation of revenue of the current year.

Article 5. To see if the Water District will vote to instruct the Water Commissioners to have an annual audit of the various accounts of the Water District or act anything thereon.

Article 6. To see if the District will vote to have a committee of three appointed by the moderator to make a study of procedures for acceptance and financing of future extensions.

Article 7. To see what sums of money the Water District will vote to raise and appropriate to defray the usual expenses of the District.

Article 8. To see if the Water District will vote to raise and appropriate a sum of money to extend the water main, install hydrants and necessary fittings from the end of the main in front of the house of Norman Perkins on Arlington Street to the new street, Agawam Road, West Acton, a distance of approximately twelve hundred (1200) feet, and authorize the Treasurer with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation or act anything thereon. (Inserted at the request of Albert R. Jenks.)

Article 9. To see if the District will vote to appropriate the unexpended balance from Article 13, voted at the annual meeting of February 15, 1954, to defray the cost of the extension voted under Article 8 of this warrant.

Article 10. To see if the District will raise and appropriate a sum of money for the purpose of acquiring by purchase or by eminent domain or by both methods, all or any of the following described parcels of land for public use as an additional water supply, including in such use the erection of buildings as shall be voted by the District, and shown on a plan of land in Acton surveyed for the West and South Water Supply District of Acton by Horace F. Tuttle, dated January 3, 1955. to wit:

Parcel 2 containing 4.90 acres, belonging to Augustine B. Conant and Brewster Conant is bounded Northwesterly by Main Street 675.70 feet; Northeasterly by land of Waldo P. Lapham (parcel 4) and estate of Daniel S. Davis (parcel 5) 416 feet; Southeasterly by (parcel 3) land of Robert E. and Doris J. Woodbine 691 feet; and Southwesterly by land of Augustine B. Conant and Brewster Conant 309 feet.

Parcel 3 containing 3.07 acres, belonging to Robert E. Woodbine and Doris J. Woodbine is bounded

Northwesterly by parcel 2, land of Augustine B. Conant and Brewster Conant 691 feet; Northeasterly by parcel 5 land of Estate of Daniel S. Davis and the New York, New Haven and Hartford Railroad 250 feet; Southeasterly by the land of the New York, New Haven and Hartford Railroad 420 feet; and Southwesterly by land of Robert E. and Doris J. Woodbine 530 feet.

Parcel 4 containing 2.30 acres, belonging to Waldo P. Lapham is bounded Northwesterly by Main Street 403.80 feet; Northeasterly by land of Waldo P. Lapham 248 feet; Southeasterly by parcel 5, land of Estate of Daniel S. Davis 406 feet; and Southwesterly by parcel 2, land of Augustine B. Conant and Brewster Conant 250 feet.

Parcel 5 containing 3.4 acres, belonging to the Estate of Daniel S. Davis is bounded Northwesterly by parcel 4, land of Waldo P. Lapham 406 feet; Northeasterly by land of Estate of Daniel S. Davis 384 feet; Southeasterly by land of the New York, New Haven and Hartford Railroad 332 feet; and Southwesterly by parcels 3 and 2, land of Woodbine and land of Conant 398 feet.

and to authorize the Treasurer with the approval of the Commissioners to borrow such sums as may be necessary to meet said appropriation or act anything thereon.

Article 11. To see if the District will vote to raise and appropriate a sum of money to construct and install a gravel packed well, a pump house, and a suitable pump; also to install a hydrant, necessary fittings, and lay an 8-inch pipe to connect with present pipe line on Main Street near the residence of Alexander M. Emerson, and authorize the Treasurer with the approval of the Commissioners to borrow such sums as may be necessary to perform such work, or act anything thereon.

Article 12. To see if the District will vote to appropriate the unexpended balance from Article 7, voted at the annual meeting of February 15, 1954, to defray the cost of work under Article 11 of this warrant, or act anything thereon.

Article 13. To see if the District will vote to authorize the Commissioners to enter into an agreement with the Water Department of the Town of Concord to make a connection with the main from Nagog Lake as an emergency water supply, or act anything thereon.

And you are directed to serve this warrant by posting copies attested by you in three or more public places in the Water District thereof seven days at least before the time of said meeting as directed by vote of the Water District.

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 in Acton this fifteenth day of January in the year one thousand nine hundred and fifty-five.

JAMES E. KINSLEY,  
FRANK E. GREENOUGH,  
EDWIN H. CHRISTOFFERSON,  
Water Commissioners.

## REPORT OF THE WATER COMMISSIONERS

The Superintendent's report covers the activities of your District for the year 1954.

Your attention is called to the report of the engineers on the new proposed water supply for the District.

We have inserted an article for the appointment of a committee to study the financing of District extensions.

We submit the estimated budget for 1955:

### Estimated Revenues and Receipts

Hydrant Rentals .....	\$9,850.00	
Interest Account .....	75.00	
Water Rates .....	48,000.00	
Sprinkler Services .....	200.00	
Installing and Repairs .....	4,500.00	
		<hr/>
		\$62,625.00

### Estimated Expenses for Current Year

Salaries .....	\$15,000.00	
Bonds and Interest .....	25,000.00	
Fuel and Lubricating Oil .....	300.00	
Electric Lights, Power and Tel. ....	3,500.00	
Gasoline and Auto Expense .....	1,000.00	
Meter — Repairs and New .....	2,500.00	
Insurance and Rentals .....	1,000.00	
Miscellaneous .....	1,000.00	
Middlesex County Retirement .....	415.82	
Mass. State Audit .....	350.00	
Materials and Supplies .....	8,000.00	
		<hr/>
		\$58,065.82
Estimated Gain .....		<hr/>
		\$4,559.18

JAMES E. KINSLEY,  
FRANK E. GREENOUGH,  
EDWIN H. CHRISTOFFERSON,  
Water Commissioners.

## REPORT OF SUPERINTENDENT

To the Board of Water Commissioners:

I wish to make the following report covering the activities of the district for the year 1954:

A new pump has been installed in Gravel Packed Well No. 2 and connected to the water main, proving very satisfactory. The Pumping Station office addition has been completed, also the driveway to Station has been oiled.

Hosmer Street and Route No. 2 Extension completed, with six (6) Hydrants installed on this line.

Extensions have been made on private streets by Albert Jenks, on Seneca Road, Seminole Road and Mohegan Road.

Perry Marble, on Nash Road (off Central Street), Edward J. Franzosa on Brucewood Road (off Piper Road). All these extensions were layed under Water Department specifications and inspection.

Eighty-three new services have been installed in 1954. Repairs have been made on sixty-five old house services.

Records show we have accounted for 90% of the water pumped in 1954, due to the fact that the department is 100% metered and all working. We had a broken hydrant at Main and Taylor Streets, with an estimated loss of 300,000 gallons of water.

Total water pumped from October 1, 1953 to October 1, 1954: 99,433,974 gallons.

Respectfully submitted,

RAY L. HARRIS,  
Superintendent.



## WATER MEETING

Abstract of the proceedings of the Annual Water Meeting of the West and South Water Supply District of Acton held in Town Hall, Acton Center.

MONDAY, FEBRUARY 15, 1954, at Eight o'clock P. M.

Article 1. To choose a Moderator to preside at said meeting.

Chose David R. Kinsley, Moderator of the meeting.

Article 2. To elect by ballot a Clerk for one year, a Treasurer for one year, and one member of the Board of Water Commissioners to serve for the term of three years, and to fix salaries of same.

Elected: Mrs. Beryl B. Silva, Clerk for one year.

Elected: Ormal S. Laffin, Treasurer for one year.

Elected: Edwin H. Christofferson, Water Commissioner for three years.

Voted: To fix salaries the same as last year.

Article 3. To hear and act on the report of the Water Commissioners, the Treasurer, the Collector and other officers of the District or any committee appointed at any previous meetings.

Voted: To accept the reports of the District officers and committees.

Article 4. To see if the District will authorize the Treasurer to borrow money, with the approval of the Water Commissioners, if necessary, in anticipation of revenue of the current year.

Voted: That the District Treasurer with the approval of the Water Commissioners, be and hereby is authorized to borrow money from time to time in anticipation of the financial year beginning January 1, 1954, and to issue a note or notes therefor payable within one year, any debt or debts incurred under this vote to be paid from the revenue of said financial year.

Article 5. To see if the Water District will vote to instruct the Water Commissioners to have an annual audit of the various accounts of the Water District or act anything thereon.

Voted: To instruct the Board of Water Commissioners to have an annual audit of the various accounts of the Water

District under the direction of the Commonwealth of Massachusetts.

Article 6. To see if the District will vote to purchase a new truck, or act anything thereon.

Voted: To appropriate two thousand dollars (\$2,000), to purchase a new truck. Unanimous vote.

Article 7. To see if the District will vote to appropriate money for a survey of a supplementary water supply, or act anything thereon.

Amendment: (proposed by Otto Pasanen, and adopted by unanimous vote) Amend by adding the following after the word "supply" — and a study of procedures relating to the acceptance and financing of future extensions.

Voted: To appropriate six thousand dollars (\$6,000) for a survey of a supplementary water supply, and a study of procedures relating to the acceptance and financing of future extensions. Unanimous vote.

Article 8. To see if the District will vote to raise a sum of money for the installation of a new pump and pump house on the new wash well, to connect with water main, and authorize the Treasurer with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation, or act anything thereon.

Voted: To appropriate eight thousand dollars (\$8,000) for a new pump and pump house on the new wash well, to connect with water main. Unanimous vote.

Article 9. To see if the District will vote to rescind the vote passed at the meeting May 22, 1950 whereby the following was added to the By-Law: "The Board of Commissioners shall annually in the report to the District, give an estimated budget for the ensuing year," or act anything thereon.

Voted: To rescind. Unanimous vote.

Article 10. To see if the District will vote to authorize the Commissioners to make a charge for sprinkler systems or act anything thereon.

Voted: To authorize the Commissioners to make a charge of seventy-five dollars (\$75) for sprinkler systems.

Article 11. To see if the District will raise and appropriate a sum of money to purchase a jack hammer and necessary tools.

Voted: To appropriate three hundred eighty-five dollars (\$385) to purchase a jack hammer and necessary tools.

Article 12. To see if the District will raise and appropriate the sum of six hundred dollars (\$600) to oil driveways at the pumping station.

Voted: To appropriate the sum of six hundred dollars (\$600) to oil driveways at the pumping station.

Article 13. To see if the District will vote to raise and appropriate a sum of money for the purpose of extending the water main from Woodlawn Cemetery on Concord Road, along Hosmer Street to the property of E. L. Cox, and from Hosmer Street to the Town Dump on Route 2, and from Hosmer Street to the property of C. E. Armstrong on Route 2, together with six hydrants; and authorize the Treasurer with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation or act anything thereon.

Voted: To raise and appropriate thirty thousand dollars (\$30,000) for the purpose of extending the water main from Woodlawn Cemetery on Concord Road, along Hosmer Street to the property of E. L. Cox, and from Hosmer Street to the Town Dump on Route 2, and from Hosmer Street to the property of C. E. Armstrong on Route 2, together with six hydrants; and authorize the Treasurer with the approval of the Commissioners, to borrow thirty thousand dollars (\$30,000) to meet said appropriation. (Total vote 44. Yes 32. No 12.)

Article 14. To see what action the District will vote to take on acceptance of all extensions on private property.

Voted: That the West and South Water Supply District accept from A. R. and P. G. Jenks a grant of an easement for water purposes in that part of Mohawk Drive, Seneca Road, and Seminole Road where water pipes, hydrants, fittings and accessories in connection therewith have been installed, the grant to include their title to said water pipes, hydrants, fittings and accessories so installed and to pay the said A. R. and P. G. Jenks the sum of one dollar (\$1.00). The said West and South Water Supply District agrees to operate and maintain said pipes, hydrants, fittings and accessories and to service abutters from and after receipt of said grant.

Voted: That the West and South Water Supply District accept from A. Perry Marble a grant of an easement for water purposes in that part of Nash Road where water pipes, hydrants, fittings and accessories in connection therewith have been installed, the grant to include his title to said water pipes, hydrants, fittings and accessories so installed and to pay the said A. Perry Marble the sum of one dollar (\$1.00). The said West and South Water Supply District agrees to operate and maintain said pipes, hydrants, fittings and accessories and to service abutters from and after receipt of said grant.

Voted: That the West and South Water Supply District accept from Rachael Haynes a grant of an easement for water purposes in that part of Haynes Court where water pipes, hydrants, fittings and accessories in connection therewith have been installed, the grant to include her title to said water pipes, hydrants, fittings and accessories so installed and to pay the said Rachael Haynes the sum of one dollar (\$1.00). The said West and South Water Supply District agrees to operate and maintain said pipes, hydrants, fittings and accessories and to service abutters from and after receipt of said grant.

Article 15. To see if the District will vote to appropriate a sum of money to enlarge the office at the pumping station.

Voted: To appropriate six hundred dollars (\$600) to enlarge the office at the pumping station.

Article 16. To see if the District will vote to rescind the vote under Article 12 of the meeting of April 4, 1950 viz: "Voted: To raise and appropriate the sum of \$25,000 for the purpose of extending the water main on Hosmer Street from the end of the six-inch main on Concord Road, along Hosmer Street to Mass. Ave. (Route 111), thence easterly along Route 111 to property known as the Manion property and authorize the Treasurer, with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 17. To see if the District will vote to rescind the vote under Article 7 of May 22, 1950 viz: "Voted: Unanimously to raise and appropriate the sum of \$8,000 to extend the six-inch water main from Taylor Road and Woodlawn Lane down Woodlawn Lane and Forest Street, approximately 1300 feet, and authorize the Treasurer, with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 18. To see if the District will vote to rescind the vote under Article 3 of July 16, 1951 viz: "Voted: To raise and appropriate a sum of \$1,500 for the purpose of providing a six-inch water main and necessary fittings for a distance of approximately 100 feet northerly on Central Street and about 575 feet on Blanchard Road to Acton-Boxborough town line, provided A. R. Jenks and Louis A. Flerra pay for the excavation laying of pipe and back fillings of the ditch, and authorize the Treasurer, with the approval of the Commissioners, to borrow if necessary, \$1,500 to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 19. To see if the District will vote to rescind the vote under Article 5 of October 15, 1951 viz: "Voted: To raise and appropriate a sum of \$1,500 for the purpose of providing a six-inch water main, one hydrant and the necessary fittings for a distance of 750 feet northerly along Hayward Road, starting from the present water main at the corner of Hayward and Charter Roads, provided the Rex Corporation pays for the excavation, laying of pipe, and back filling of the ditch, and authorize the Treasurer, with the approval of the Commissioners, to borrow \$1,500 if necessary to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 20. To see if the District will vote to rescind the vote under Article 3 of June 23, 1952 viz: "Voted: That the Water District raise and appropriate a sum of \$600 for the purpose of providing and installing a six-inch main with necessary fittings for a distance of approximately 250 feet in a proposed new street off Arlington Street between lots owned by Donald Thompson and Robert Foley, provided Rachael Haynes pays for the excavation, laying of pipe and back filling of the ditch on private land and authorize the Treasurer, with the approval of the Commissioners, to borrow \$600 if necessary to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 21. To see if the District will vote to rescind the vote under Article 3 of August 31, 1953 viz: "Voted: To raise and appropriate a sum of \$500 for the purpose of extending the six-inch water main northwesterly from the corner of Liberty and Robbins Streets, South Acton, up Robbins Street, a distance of approximately 100 feet and authorize the Treasurer, with the approval of the Commissioners, to borrow such sums as may be necessary to meet said appropriation."

Voted: To rescind. Unanimous vote.

Article 22. To see what sums of money the Water District will vote to raise and appropriate to defray the usual expenses of the District, or act anything thereon.

Voted: To appropriate the receipts of the District for the maintenance and operation of the District.

Voted: To adjourn at 9:25 P. M.

A true copy. Attest:

BERYL-BANCROFT SILVA,  
District Clerk.

## REPORT OF THE COLLECTOR OF WATER RATES

January 1, 1955

Uncollected January 1, 1954 .....	\$4,219.75
Metered and unmetered water .....	48,661.29
Interest .....	1,506.11
Sprinkler System .....	200.00
Installing and repairs .....	12,000.23
Refunds .....	1,056.16
To be refunded .....	142.60

\$67,786.14

Paid Treasurer .....	\$61,851.63
Abated .....	190.43
Adjusted previous list .....	24.18
Outstanding December 31, 1954 .....	5,501.85
Cash on hand December 31, 1954 .....	218.05

\$67,786.14

### Meter Water from October 1, 1953 to October 1, 1954

Center .....	15,912,975 gallons
South .....	48,871,530 gallons
West .....	23,660,482 gallons

### Number of Services December 31, 1954

Center .....	166
South .....	486
West .....	575

Number of Hydrants ..... 196

### Water pumped from October 1, 1953 to October 1, 1954

99,433,974 gallons

### Assessed Valuation of the District

January 1, 1955 ..... \$5,272,075.00

RAYMOND A. GALLANT,  
Collector.

## TOWN COLLECTOR'S REPORT

### 1950 Real Estate Tax

Outstanding December 31, 1953 .....	\$60.15
Interest .....	10.02
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	\$70.17
 Paid Treasurer .....	 \$69.82
Outstanding December 31, 1954 .....	.35
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	\$70.17

### 1950 Personal Property Tax

Outstanding December 31, 1953 .....	\$4.75
Interest .....	.83
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	\$5.58
 Paid Treasurer .....	 \$5.58
Outstanding December 31, 1954 .....	.....
	<hr/>
	\$5.58

Town of Acton  
CHARLES M. MacRAE,  
Collector.

## REPORT OF THE DISTRICT ACCOUNTANT

West Acton, Mass.  
January 15, 1955

To the Board of Commissioners  
West and South Water Supply District of Acton  
Gentlemen:

I have examined the accounts of the District Collector and the Treasurer for the calendar year 1954, and certify them to be correct to the best of my knowledge and belief.

I submit herewith a summary of the appropriations and expenditures for the year 1954.

Respectfully submitted,

BERYL BANCROFT-SILVA,  
District Accountant.

### SUMMARY OF APPROPRIATIONS AND EXPENDITURES

Account	Appropriated	Expended	Balance
Bond and Interest .....	( \$19,890.00		
	(T. 1,060.75	\$20,950.75	
Salaries .....	15,000.00	12,877.40	\$2,122.60
Fuel and Lubricating Oil .....	( 200.00		
	(T. 50.00	247.03	2.97
Electric Lights, Power, and Tel....	3,500.00	3,209.72	290.28
Auto Expense .....	1,200.00	540.74	659.26
Insurance and Rentals .....	( 600.00		
	(T. 314.99	914.99	
Meters — Repairs and New .....	3,500.00	3,483.27	16.73
Miscellaneous .....	1,000.00	865.01	134.99
Materials and Supplies .....	( 5,500.00		
	(T. 3,000.00	8,297.14	202.86
Middlesex County Retirement System .....	349.93	349.93	
Massachusetts State Audit .....	( 300.00		
	(T. 21.74	321.74	
	\$55,487.41	\$52,057.72	\$3,429.69
(T. — Transferred from Surplus Revenue, per Commissioners orders)			

### Special Appropriations

Pumping Station (Art 11 — 2/16/53) Balance forward .....	\$485.71	\$473.00	\$12.71
New Truck (Art. 6—2/15/54) .....	2,000.00	1,983.81	16.19
Survey—Test Well (Art. 7 — 2/15/54) .....	6,000.00	3,584.01	2,415.99
Pump and Pump House (Art. 8— 2/15/54) .....	8,000.00	7,820.85	179.15



Jack-Hammer (Art. 11—2/15/54)	385.00	383.59	1.41
Oiling Driveway (Art. 12 — 2/15/54) .....	600.00	594.50	5.50
New Office (Art. 15 — 2/15/54)....	600.00	597.69	2.31
	<u>\$18,070.71</u>	<u>\$15,437.45</u>	<u>\$2,633.26</u>

#### Appropriations for Water Main Extension

Hosmer Street (Art. 13—2/15/54)	\$30,000.00	\$21,375.96	\$8,624.04
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### BALANCE SHEET — DECEMBER 31, 1954

#### GENERAL ACCOUNTS

##### Assets

Cash:		
General .....		\$27,900.47
Accounts Receivable:		
Taxes: Levy of 1950 .....		.35
Water Rates and Services .....		5,577.30
		<u>\$33,478.12</u>

##### Liabilities and Reserves

Employees' Payroll Deductions:		
Federal Taxes .....		\$350.60
Appropriation Balances:		
Revenue:		
Water Maintenance and operation.....	\$2,595.14	
Non-Revenue:		
Construction and Extension .....	10,663.16	13,258.30
Reserve Fund — Overlay Surplus .....		1,088.93
Overlay Reserved for Abatement:		
Levy of 1950 .....		.35
Water Revenue Reserved Until Collected.....		5,577.30
Surplus Revenue .....		13,202.64
		<u>\$13,478.12</u>

##### Debt Accounts

Net Funded or Fixed Debt \$136,000.00	Serial Loans:	
	Water Mains 1946	\$5,000.00
	Water Mains 1949	44,000.00
	Water Mains 1950	33,000.00
	Water Equip. 1951	6,000.00
	Water Mains 1953	18,000.00
	Water Mains 1954	30,000.00
		<u>\$136,000.00</u>
		\$136,000.00

# TREASURER'S REPORT

## West and South Water Supply District of Acton

Cash on Hand, January 1, 1954:

Middlesex County National Bank .....	\$23,387.98
North Middlesex Savings Bank .....	2,500.00

\$25,887.98

Received from Raymond Gallant, Collector: ..... \$61,851.63

Received from Charles MacRae, Town Collector:

Personal Property Tax,	
1950 .....	\$4.75
Real Estate Tax, 1950	59.80
Interest and Fees .....	10.85

\$75.40

Dividend from North Middlesex Savings Bank ..... 75.00

Bond Loan: Middlesex County National Bank ..... 30,000.00

Total Received ..... \$92,002.03

\$117,890.01

Less:

Paid Out Commissioners Orders .. \$90,026.09

Add: Withholding Tax  
1953 ..... \$280.90

Retirement System 1953 ..... 33.15

314.05

\$90,340.14

Less: Accrued Withholding Tax  
1954 ..... 350.00

\$89,989.54

\$27,900.47

### Reconciliation of Cash

Middlesex County National Bank, Maynard, December 31, 1954 .....	\$25,400.47
North Middlesex Savings Bank, Ayer, December 31, 1954 .....	2,500.00
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	\$27,900.47

### Bonds Outstanding

Bonds Outstanding, January 1, 1954 ....	\$124,300.00
Bond Loan, April 1954 .....	30,000.00
	<hr/>
	\$154,300.00
Less: Bonds Retired during 1954 .....	18,300.00
	<hr/>
	\$136,000.00

### Bonds Outstanding December 31, 1954:

First National Bank, Boston, Feb- ruary 1, 1963 .....	\$44,000.00
Middlesex County National Bank, Maynard, April 15, 1964 .....	30,000.00
Middlesex County National Bank, Maynard, June, 1963 .....	18,000.00
First National Bank, Boston, August 15, 1961 .....	33,000.00
Ayer Nat'l Bank, Ayer, Sept. 1, 1956	5,000.00
Middlesex County National Bank, Maynard, November, 1956 .....	6,000.00
	<hr/>
	\$136,000.00

ORMAL LAFFIN,  
Treasurer.

THE COMMONWEALTH OF MASSACHUSETTS  
Department of Corporations and Taxation  
Bureau of Accounts  
State House, Boston 33

January 20, 1955

To the Board of Water Commissioners  
West and South Water Supply District of Acton  
Acton, Massachusetts

Gentlemen:

I submit herewith my report of an audit of the books and accounts of the West and South Water Supply District of Acton for the year ending December 31, 1954, made in accordance with the provisions of Chapter 44, General Laws. This is in the form of a report made to me by Mr. William Schwartz, Assistant Director of Accounts.

Very truly yours,

HERMAN B. DINE,  
Director of Accounts.

HBD:TJP

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Mr. Herman B. Dine  
Director of Accounts  
Department of Corporations and Taxation  
State House, Boston

Sir:

In accordance with your instructions, I have made an audit of the books and accounts of the West and South Water Supply District of Acton for the year ending December 31, 1954, and submit the following report thereon:

The records of the financial transactions of the district were examined and checked in detail.

The books and accounts of the district accountant were examined and checked. The receipts as recorded were compared with the treasurer's books, and the payments were compared with the commissioners' orders and with the treasurer's record of disbursements.

The ledger accounts were analyzed for the period of the audit and the appropriations as recorded were compared with the amounts voted by the district, as shown by the district clerk's record of district meetings. The necessary adjustments resulting from the audit were made, and a balance sheet show-

ing the financial condition of the district on December 31, 1954 was prepared and is appended to this report.

It was noted that appropriations from surplus revenue were voted by the board of water commissioners at their regular monthly meetings. It is recommended that such appropriations be voted on at district meetings, and furthermore that all district meeting votes be specific both as to the amount and as to the source of the funds.

The books and accounts of the district treasurer were examined and checked. The recorded receipts were analyzed and compared with the records of the departments making payments to the treasurer, while the disbursements were compared with the commissioners' orders authorizing the disbursement of district funds. The cash balance on December 31, 1954 was verified by reconciliation of the bank balance with a statement furnished by the bank of deposit and by examination of the savings bank book.

The records of payroll deductions for Federal taxes and the county retirement system were examined. The deductions were listed and compared with the receipts as recorded by the treasurer, and the payments to the Director of Internal Revenue and to the county treasurer were verified.

The payments made on account of maturing debt and interest were verified by comparison with the amounts falling due and with the cancelled securities and coupons on file.

The books and accounts of the district tax collector were audited in conjunction with the audit of the town.

The books and accounts of the water collector were examined and checked in detail. The accounts outstanding according to the previous examination, as well as all subsequent charges, were audited and proved. The payments to the district treasurer were compared with the treasurer's recorded receipts, the abatements were checked with the commissioners' records of abatements granted, and the outstanding accounts were listed and proved with the accountant's ledger.

The detailed checking necessary to prove the water accounts added materially to the length of the audit.

Verification notices were mailed to a number of persons whose names appeared on the books as owing money to the district, and from the replies received it appears that the accounts, as listed, are correct.

The surety bonds of the district water collector and the district treasurer were examined and found to be in proper form.

Appended to this report, in addition to the balance sheet, are tables showing a reconciliation of the district treasurer's cash and summaries of the tax and water accounts.

While engaged in making the audit cooperation was received from all district officials, for which, on behalf of my assistants and for myself, I wish to express appreciation.

Respectfully submitted,

WILLIAM SCHWARTZ,  
Assistant Director of Accounts.

WS:TJP

# WEST AND SOUTH WATER SUPPLY DISTRICT OF ACTON

Balance Sheet — December 31, 1954

## GENERAL ACCOUNTS

Assets		Liabilities and Reserves	
Cash:		Employees' Payroll Deductions:	
General .....	\$27,900.47	Federal Taxes .....	\$350.60
Accounts Receivable:		Appropriation Balances:	
Taxes		Revenue:	
Levy of 1950:		Maintenance and Operation:	
Real Estate .....	.35	Test Well Survey .....	\$2,415.99
Water Rates and Services .....	5,577.30	Non-Revenue:	
		Construction and Extensions:	
		Haynes Court .....	59.47
		High School and Blanchard	
		Auditorium .....	659.35
		Hosmer Street .....	8,624.04
		Main Street .....	102.41
		Parker Street .....	1,157.89
		Robbins Street .....	60.00
			<hr/>
			\$13,079.15
		Reserve Fund — Overlay Surplus ....	1,088.93
		Overlay Reserved for Abatement of Taxes:	
		Levy of 1950 .....	.35
		Water Revenue Reserved Until Col-	
		lected .....	5,577.30
		Surplus Revenue .....	13,381.79
			<hr/>
			\$33,478.12
	<hr/>		
	\$33,478.12		

# DEBT ACCOUNTS

Net Funded or Fixed Debt .....\$136,000.00

## Serial Loans:

Water Mains 1946 .....	\$5,000.00
Water Mains 1949 .....	44,000.00
Water Mains 1950 .....	33,000.00
Water Mains 1951 .....	6,000.00
Water Mains 1953 .....	18,000.00
Water Mains 1954 .....	30,000.00

\$136,000.00

\$136,000.00



THE COMMONWEALTH OF MASSACHUSETTS  
Department of Public Health  
511 State House, Boston 33

January 4, 1955

Board of Water Commissioners  
West and South Water Supply District of Acton  
Acton, Massachusetts

Re: Acton  
Studies for  
Additional Source of  
Water Supply for District

Gentlemen:

The Department of Public Health is in receipt of a report by Whitman & Howard, dated December 8, 1954, submitted in your behalf relative to studies for an additional source of water supply for your district.

Test wells were driven in several locations, the most appropriate being found in an area south of Route 27 and west of Route 2A where the depth of the wells was 31 feet. A pumping test on a group of wells at this site was conducted between August 11 and August 20, 1954. During the test, water was pumped at an average rate of 240 gallons per minute. The maximum ground water drawdown amounted to 6 feet and the elevation stabilized for several days prior to the end of the test. After pumping had ceased, recovery was relatively slow and the ground water elevation did not return to the elevation which existed prior to the start of the test. This, however, is probably due to the fact that a considerable amount of rain was received just prior to the start of the pumping test following which there was a progressive natural lowering of the ground water table.

The results of the analyses of samples of water collected during the test show that the water was low in color, turbidity, organic matter, iron and manganese. Field tests made to determine the corrosive properties of the water indicate that the water may be somewhat active in the corrosion of metals.

The Department, therefore, recommends that consideration be given to providing chemical treatment to correct the corrosive properties of the water. This treatment can be installed at relatively small expense and any plans for such treatment should be submitted to the Department for approval prior to the installation.

The Department approves the site as appropriate for the installation of a gravel-packed well, which should be capable

of yielding at least 200 gallons per minute. The Department concurs with the recommendation of your engineers that standby power be provided for the pumping equipment so that the pumps may be operated during periods of electric power interruption.

Respectfully,

CLARENCE I. STERLING, JR.,  
Deputy Commissioner  
Environmental Sanitation.

C-Whitman & Howard  
89 Broad Street  
Boston  
Board of Health  
Acton

**REPORT ON TEST WELL WORK  
IN RELATION TO LOCATING POSSIBLE  
ADDITIONAL GROUND WATER SUPPLY**

Whitman & Howard, Engineers  
89 Broad Street  
Boston, Mass.  
December, 1954

December 8, 1954

Board of Water Commissioners  
West and South Water Supply District of Acton  
Acton, Massachusetts

Gentlemen:

The following is a report of test well investigation in relation to locating an additional ground water supply for the West and South Water Supply District of Acton.

**Test Wells**

Test wells were driven in several locations, the first being south of Route 27 and west of Route 2A. A total of ten wells was driven in the first location, the deepest of which was 40 feet. However, this well, namely, Location 1 — Well No. 5, while pumping 35 gallons per minute at that depth contained .7 parts per million of iron and .05 parts per million of manganese. Well No. 2 in this vicinity, which was approximately 200 feet west of No. 5, had a depth of 36 feet but from 31 feet to 36 feet a brown sand, gravel and clay was encountered, which gave no water. At a depth of 31 feet this well pumped 60 gallons per minute with 10-inch vacuum. The preliminary

test on two wells 2 feet apart at Well No. 2 showed the theoretical specific yield of a possible gravel packed well to be 48 gallons per foot of draw down. The quality of this water was excellent containing only .02 parts per million of iron and no manganese. A well 31 feet deep is considered shallow and, generally, shallow wells are limited in their capacity. Therefore, we tested two more locations in an attempt to find water bearing material of greater depth. The first of these locations, namely, Location No. 2, was on Salvucci's land just west of the new Route 2; the other location was on Christopher's land near Fort Pond. Neither of these locations proved to be satisfactory as fine material and impervious material was encountered. In accordance with our letter to you, dated August 9, 1954, we returned to Location No. 1 and drove a group of 2-1/2-inch wells in a circle approximately 4 feet in diameter at Well No. 2. These wells were driven to a depth of approximately 31 feet and were connected together by means of pipes and pumping was conducted on the group of wells continuously from August 11th through August 20th. The rate of pumping and the water levels observed in four wells in that vicinity are shown on the attached graph entitled "Water Levels During Pumping Tests, Acton, Mass.", dated October, 1954. It can be seen from the graph that the water level in observation well No. 2A, which was located within the group but not connected to the group, gradually lowered throughout the period of the testing, but the rate of drop decreased and, apparently, a point of stabilized ground water level was reached at the group on the last day of the test. However, the water level in the outlying observation wells continued to drop. This condition is typical of ground water hydrology but shows that there is a limited amount of water available in the ground at this location. The rate of pumping throughout the test was approximately 240 gallons per minute, and the water level on the last day of the test drew down a total of 6 feet giving a theoretical specific yield of about 40 gallons per foot of draw-down.

#### Water Quality

Throughout the test the quality of the water being pumped remained nearly constant with the iron showing a slight decrease, as shown in the following table:

	<i>Iron</i>	<i>Manganese</i>
August 11, 1954	.05	.02
August 12	.08	.00
August 13	.08	.00
August 14	.07	.00
August 15	.06	.02
August 16	.05	.02

August 17	.04	.02
August 18	.02	.02
August 19	.02	.00
August 20	.01	.00

From the above analyses it can be seen that the water is of excellent quality.

#### **Method of Development**

The present water main in Route 27 terminates approximately 1,100 feet south of the site of this pumping test. The size of the main is 6 inches. In order to determine whether it is feasible to pump water into this main from a proposed additional water supply in this location, it was necessary to determine what the possible pumping conditions would be. This was done by conducting a flow test on the last hydrant at the end of the line and observing the pressure drop for a given rate of flow. A flow of 710 gallons per minute was obtained at the last hydrant with a drop in pressure on the system in this vicinity of 78 pounds. The static pressure or pressure observed under no flow (normal pumping conditions) was found to be 103 pounds. From this it can be seen that to pump 200 gallons per minute into this system would raise the pressure at this point to about 110 pounds. This pressure does not exceed the safe working pressure of the pipe now in that section of the distribution system. Therefore, it will be possible to develop an additional 200 gallons per minute in this area (288,000 gallons per day rate) without extensive additional mains being laid parallel to the existing main.

While pumping at a rate of 200 gallons per minute the draw down in the proposed gravel packed well would be approximately 5 feet under similar ground water conditions. This allows for considerable lowering of the water table during drought conditions. (It should be noted that the precipitation during August was above normal for that time of year.)

#### **Recommendations**

We recommend that the District construct a gravel packed well and pumping station and install a deep well turbine pump having a capacity of 200 gallons per minute, which will be capable of pumping into the existing system, and connect the discharge of the pump to the present 6-inch main by means of an 8-inch main extending in Route 27. With this pumping rate of 200 gallons per minute it would be possible to allow this pump to operate continuously around the clock or be controlled by a time clock operating the pump any given portion of the day and thus supplementing the present water supply works. As to whether there should be installed an auxiliary source of power such as a gasoline engine standby unit capable

of driving the deep well pump through a right angle gear, we believe that this installation should be undertaken, making an entirely independent source of supply with standby power, as experience gained during the recent hurricanes has shown that extended interruption of electrical power can occur.

#### Estimates of Cost

Based on present day prices we estimate the cost of the proposed work to be as follows:

Gravel packed well .....	\$4,000.00
Pumping station, roadway, grading, etc. ....	11,000.00
Pumping equipment includ- ing auxiliary gas engine and piping .....	14,000.00
8-inch main connecting to existing system .....	5,200.00
	<hr/>
	\$34,200.00
Allowance for construction contingencies and engi- neering .....	5,300.00
	<hr/>
	\$39,500.00

Say ..... \$40,000.00\*

\* To the above figure should be added the cost of land taking, real estate surveying and legal fees.

Note: If the gas engine and right angle gear are eliminated a deduction of \$2,500.00 may be made in the above figure. However, the building should remain large enough to house an engine in the future.

Where it seems impossible to obtain large ground water supplies from one location more and more municipalities are resorting to the method of developing numerous small supplies remotely located.

The State Department of Public Health suggests that a radius of 400 to 500 feet around a well be acquired for the development of a ground water supply. This requirement can be altered somewhat by the existing property lines and use.

Respectfully submitted,

WHITMAN & HOWARD, ENGINEERS,  
By L. M. Pittendreigh.

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