

**GREATER JOHNSTOWN WATER AUTHORITY**  
**JOHNSTOWN, PA**

**ANNUAL REPORT**  
**FOR**  
**YEAR ENDING DECEMBER 31, 1999**

**GIBSON-THOMAS ENGINEERING CO., INC.**  
**P.O. BOX 853, LATROBE, PA 15650**

---

# Gibson-Thomas Engineering Co. Inc.

## Consulting Engineers

---

April 27, 2000

Greater Johnstown Water Authority  
111 Roosevelt Blvd.  
Johnstown, PA 15907

Attention: Members of the Board

Subject: 1999 Annual Report

Dear Board Members:

In accordance with Article IV, Section 4.01 of the Trust Indenture of the Greater Johnstown Water Authority to the United States National Bank in Johnstown, as Trustee, securing an Initial Issue of \$18,160,000, Principal Amount of Water Revenue Bonds, dated September 1, 1992 and refinanced on Jan 15, 1998, we, as Consulting Engineer for the Greater Johnstown Water Authority, submit our report setting forth our findings as required by the Indenture.

We take this opportunity to express our appreciation to the members of the Board, the Solicitor, the Accountant and Laurel Management Company for their cooperation in the pursuit of our duties as Consulting Engineer to the Authority.

Very truly yours,

GIBSON-THOMAS ENGINEERING CO., INC.

Edward F. Schmitt, Project Engineer

EFS/jmd

## **TABLE OF CONTENTS**

I.	MAINTENANCE, REPAIR AND OPERATION OF THE WATER SYSTEM .....	1
II.	SOURCE OF SUPPLY .....	2
III.	CAPITAL IMPROVEMENTS .....	4
IV.	INCOME .....	5
V.	TOTAL ANNUAL DEBT SERVICE .....	5
VI.	OPERATING BUDGET .....	5
VII.	TOTAL EXPENSES .....	6
IX.	INVESTMENTS .....	7
X.	PENNVEST LOANS .....	7
XI.	INSURANCE .....	8
XII.	RISK MANAGEMENT .....	8
XIII.	RATE STRUCTURE .....	8

## **EXHIBITS**

- A. STORAGE TANK STATUS
- B. 5-YEAR CAPITAL IMPROVEMENT PLAN
- C. BUDGET
- D. INSURANCE VALUES
- E. RATES

## **I. MAINTENANCE, REPAIR AND OPERATION OF THE WATER SYSTEM**

In order to assure adequate water service to the consumers and to provide protection to the holders of the Water Revenue Bonds of the Authority during the year, Gibson-Thomas Engineering Co., Inc., (GTE) along with Laurel Management Company (LMC) reviews the visible physical operations of the Authority. The review addresses the sources of supply owned by the Authority, transmission facilities and distribution storage facilities.

The facility review indicates that to the best of our knowledge LMC had operated and maintained the Authority property satisfactorily during 1999.

Where problems have occurred in the system due to age, normal wear and tear, or damage due to natural occurrences. The Authority has addressed these situations through the use of work orders with LMC and or capital improvement projects bid to outside contractors.

In 1999 through the use of work orders, an estimated \$1,033,362 was spent on routine upgrades in the system, this work included remote metering, backflow preventer installations, replacing old service lines and fire hydrant replacement.

Projects bid under the Capital Improvement Project for system upgrades totaled \$460,700 and included the following projects:

1. Pressure Improvements in Westmont, Lower Yoder Township, Franklin Borough and the City of Johnstown
2. Pipeline replacement occurred in the 8<sup>th</sup> Ward of Johnstown;
3. Deisel fuel tanks at the Mill Creek and Dale Pump Station were replaced;
4. The North Fork Valve Stems were replaced in the control tower of the dam.

## **II. SOURCE OF SUPPLY**

No major improvements or modifications were made to North Fork, Dalton Run or Saltlick Dams in 1999. The Authority did replace the valve stems in the North Fork outlet tower allowing operation of all major valves in the tower and had the foot bridge accessing the Dalton Run outlet control tower painted.

GTE performed the annual inspection of the dams in compliance with the requirement and guidelines of the Department of Environmental Protection, Commonwealth of Pennsylvania. Minor items of maintenance appearing in the annual reports are not included in this report, but the reports are available at the office of the Authority for review. The minor maintenance items will be addressed through LMC work orders at the dams.

It must be noted however, that a review of the dam spillway capabilities using the latest DEP storm criteria indicated that the Northfork and Dalton Run Dams are undersized according to this criteria. The Authority has authorized preliminary engineering work and is pursuing funds to address this issue. A cost effective analysis reviewing alternatives is being developed to be presented to the Board for action.

The Saltlick Dam is presently unavailable for use as a potable water supply due to the requirements of the Clean Water Drinking Act. This Act requires all surface waters to be filtered prior to use as potable water. The Authority has authorized planning for construction of a new plant at the reservoir to re-establish this dam as a viable source of supply.

The fourth major source of supply for the Authority is the Quemahoning Reservoir. This source is used to supplement the Authority-owned systems. The dam previously owned by the Manufacturers Water Company is in the process of being purchased by the Cambria-Somerset Authority (CSA) a newly formed authority established by the two counties (Cambria and Somerset Counties). The new authority was formed to operate the dam and distribute raw, untreated water to industry and municipal entities.

GJWA has an existing water purchase agreement and has entered into a memorandum of agreement with the new authority (CSA) to preserve the quality of the source. It is GJWA intention to use the Quemahoning only as a supplement to their sources.

1. Emergency Operating and Warning Plan

The Pennsylvania Department of Environmental Protection (DEP) Dam Safety legislation requires the authority to develop and implement an emergency action plan for operating the source of supply dams during periods of unusually high precipitation. The plan is filed with all emergency agencies and will be implemented and upgraded on an as needed basis.

2. Transmission and Distribution

The system is maintained regularly through LMC and the use of contracted services. Annual upgrade projects and routine capital improvements serve to keep the system functional throughout the service area. The 5-year Capital Improvement Plan was developed to address many of these items. A copy of the plan is attached in the Exhibits. This plan is modified as conditions occur. Priority is set by the Capital Improvement Committee.

3. Distribution Storage

During 1999, the Authority required renovation and painting of the Franklin Tank and 10<sup>th</sup> Ward Tank as part of their annual capital improvement plan. Under this plan, at least one tank per year will be cleaned and repainted. In the year 2000, the Moxham, 324,000 gallon tank is scheduled for painting. Exhibit A, is attached with the latest status as inspected by LMC in 1997 and updated April 2000.

4. Water Usage

The following table from LMC Annual Operations Report indicates the significant effect of the effort made by the Authority and their management company to repair leaks and control loss of water throughout the system. The table indicates treated water trends for 1997 to 1999 resulted in a reduction of approximately 1.5 mgd/day in production, while metered consumption only decreased by less than 200,000 gal/day on the average. This indicates a significant savings of lost or unaccounted for water throughout the system. This improvement is a direct savings to the Authority due to the cost of treating water.

## WATER SUPPLIED

### TREATED WATER (Daily Average in Million Gallons)

	TREATMENT PLANT	RED RUN	MINERAL POINT WELL	TOTAL
Capacity	14.700	0.250	0.060	15.010
<u>Water Delivered</u>				
1997	8.270	0.119	0.013	8.402
1998	7.697	0.120	0.014	7.831
1999	6.836	0.138	0.011	6.985

### METERED CONSUMPTION (Daily Average in Million Gallons)

	DOMESTIC	COMMERCIAL	INDUSTRIAL	OTHER	TOTAL
1997	2.571	1.024	0.936	.544	5.075
1998	2.602	1.052	0.893	.571	5.118
1999	2.483	0.897	0.987	.531	4.898

### **III. CAPITAL IMPROVEMENTS**

The Authority is making a continuing effort to upgrade their system facilities. Their present approach is to generate a 5-year plan expending approximately 1.5 - 2 million dollars/year on capital upgrades or replacement from operating revenues.

The Authority is also actively pursuing a low interest loan and possible grant opportunities for major capital items which include the construction of a treatment plant at Saltlick Dam, upgrade of the spillway capacity at North Fork and Dalton Dams and renovation to the Dalton area distribution line to improve water quality in the service area.

The Capital Improvement 5-Year Plan, adopted in 1999, with estimated costs for engineering and inspection totaling \$ 1,999,728 are included in Exhibit B. In addition, routine capital additions totaling \$947,000 are detailed in the 2000 Operating Budget (Exhibit C)

#### **IV. INCOME**

Under the present rate structure, the estimated income to be collected through metered sales is \$7,900,000. This amount, when added to unmetered sales of \$314,000 and miscellaneous revenues of \$807,400 totals \$9,021,400. The following items are included:

1. Water Use Revenue (metered/unmetered sales)	\$ 8,214,000
2. Sewer Authority Billing Revenue Penalties	8,500
3. Repair Reimbursements and Tests	128,900
4. Backflow Surcharges	235,000
5. Interest Earned	<u>435,000</u>
Total Operating Revenue	\$ 9,021,400

#### **V. TOTAL ANNUAL DEBT SERVICE**

The Authority currently has four (4) outstanding debt items, including the Series 1998 Bond Issue and three (3) Pennvest Loans. The Authority's current annual debt service under the four (4) items including principal and interest totals \$2,923,900.

#### **VI. OPERATING BUDGET**

It is estimated that the cost of operation; pumping, treatment, transmission, distribution and administration will be \$4,715,260 and is distributed as follows:

1. Source of Supply - Reservoir/Tanks	\$ 555,400
2. Pumping	371,600
3. Treatment/Riverside	555,080
4. Transmission/Distribution	1,141,900
5. Administration	2,029,280
6. Insurance	<u>62,000</u>
Total Operating Budget	\$ 4,715,260

The Basic Management Fee with LMC has been divided into each category based on LMC classification of tasks in their operating report.

## **VII. TOTAL EXPENSES**

In accordance with provisions of the Trust Indenture, the minimum revenue required to be collected by the Authority during any fiscal year is the sum of the debt service including 15% coverage of the bond debt plus the operating budget. For the Year 2000, the total estimated expense including debt service amount to \$7,639,160. Fifteen percent (15%) of the 1998 Series Bond Issue payment of \$1,791,700 is \$268,755. The total estimated revenue from the projected budget is \$9,021,400. On the basis of these projections, the present projected revenues will be adequate to meet the operational and debt service requirements of the Trust Indenture for 2000, and generate funds in excess of the 15% coverage required on the 1998 Series Bond.

The difference between the total expenses and total revenue is \$1,382,240. These funds will be available to be used for routine capital additions and capital improvement projects to be paid for from the Capital Improvements and Redemption Fund.

## **VIII. CAPITAL IMPROVEMENTS AND REDEMPTION FUND**

For Year 2000 Budget, the Authority is proposing approximately \$947,000 of routine capital additions along with capital improvements from the 5-year plan estimated at \$1,401,450 with an estimated end of the year transfer of approximately \$1,382,240 from the Revenue Fund. The net result will be a decrease in the Capital Improvements & Redemption Fund balance of \$966,210.

The available funds for use at the beginning of the 2000 operating year are approximately \$2,754,645 in the Capital Improvements and Redemption Fund with an additional \$2,874,096 in the watershed purchase account. These funds will permit continuation of the 5-year plan as proposed. In order to maintain the projected level of capital improvements beyond the 5-year plan without receipt of additional revenues, the authority will be required to institute a rate increase or incur additional debt.

Exhibit C is a copy of the 2000 Operating Budget as it relates to actual 1997, 1998 budgets and projected 1999 figures. Note that blanks occur in certain areas due to form changes made at the authority's request to include additional detail in the budget process.

## **IX. INVESTMENTS**

It is recommended that the funds in the Revenue Fund, Debt Service Fund, Debt Service Reserve Fund, Capital Improvements and Redemption, Customer Deposit Account and the Watershed Acquisition Fund be invested in obligations of the United States of America to the extent such funds are not needed for improvements or other purposes prescribed by the Indenture.

Actual interest on investments for the 12-month period ending December 31, 1998 amounted to approximately \$435,000. It is estimated that the total 1999 interest on these funds will approximate \$435,000.

## **X. PENNVEST LOANS**

The Authority has secured funds from the Pennsylvania Infrastructure Investment Authority for the water system improvement program. Pennvest Loan A for \$4,477,900 and a grant of \$250,000 was approved in July 1990. These funds were dedicated primarily toward the Saltlick Dam Project and other related improvements. The loan carries a 1% interest rate for 20 years. The annual payment, previously \$286,500, has been reduced to \$211,100 to reflect the fact that less funds were borrowed than anticipated.

Pennvest Loan B was approved in June 1991, for \$8,115,000. This loan was used for the Phase II expansion of the Riverside Treatment Plant. The interest rate structure was originally set at 1% for the first 5 years and 1.718% for the remainder of the 20-year term but was revised by Pennvest at the end of 1994 to carry a 1% interest rate for the entire 20-year term. Annual payments for this loan are \$507,000 which began in 1994.

Pennvest Loan C was approved November 12, 1992, for \$5,500,000 and subsequently increased to \$5,915,567.00. this loan was used for the Phase III expansion of the Riverside Treatment Plant and a 2.0 million gallon contact tank. the interest rate which was revised in November 1994, is 1.567% for the first 5 years and 2.988% for the remainder of the 20-year term. Annual payments for this loan are \$414,100 which began in 1995.

## **XI. INSURANCE**

The insurance table presents the currently revised listing of insurable items and the estimated insurable value for each item. It is recommended that the insurable values now being used as a basis of the Authority's property insurance program for 2000 is tabulated for record, is presented with estimate 1999 insurance costs for information and budget purposes and is included in Exhibit D.

## **XII. RISK MANAGEMENT**

In accordance with EPA requirements, facilities storing more than 2,500 pounds of chlorine must prepare a Risk Management Plan prior to June 21, 1999. GTE and LMC filed the necessary plan with EPA. The Authority held a required public meeting and the plan is now in compliance.

## **XIII. RATE STRUCTURE**

The present rate structure adopted September 11, 1997, is adequate to meet the operating costs of the Authority and complies with the requirements of the Trust Indenture. A copy of the rates in effect are included in Exhibit E.