Comprehensive Water Supply Plan

Allegheny County, Pennsylvania

Comprehensive Water Supply Plan

Prepared for:
Allegheny County Department of Development
Allegheny County Health Department

Prepared by:
Chester Engineers

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Board of County Commissioners
Larry Dunn
Bob Cranmer
Mike Dawida

Allegheny County, Pennsylvania

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Introduction

Purpose

The Allegheny County Departments of Development and Health both pursue the goal of providing reliable, efficient, and safe drinking water service to the citizens of Allegheny County. This goal is pursued through a variety of means. Recently, the Department of Development has prepared an Emergency Water Supply Study in conjunction with the U. S. Army Corps of Engineers and, in cooperation with the Allegheny County Health Department, has completed a Pennsylvania Department of Environmental Protection Wellhead Protection Project investigation.

The Allegheny County Health Department pursues the goal of reliable, efficient, and safe drinking water through a variety of regulatory, public outreach, and educational programs and activities. The Public Drinking Water Program of the Allegheny County Health Department monitors the compliance of community and noncommunity water systems in Allegheny County. The program also coordinates and provides training for technical staff and municipal officials regarding new regulatory requirements, policy changes, and technical aspects of drinking water treatment.

The Allegheny County Department of Development is in the process of developing a Comprehensive Plan under the requirements of the Pennsylvania Municipalities Planning Code. The Comprehensive Plan will serve to guide future development in the County in a logical manner consistent with the goals and objectives of the citizens. This Comprehensive Water Supply Plan will become a part of the County's Comprehensive Plan. In addition, the information provided in this water supply plan is intended to support the development of the overall Comprehensive Plan by providing the planners with information that describes the ability of the County's water suppliers to accommodate and support development. The capabilities of the individual water supply systems throughout the County will be one of the factors that will be considered during the evaluation of alternative land development policies. The information contained in this plan will also aid decision makers in directing financial resources to assist in efficiently meeting water supply needs.

Approach

In order to achieve these purposes, this study has been structured to include the following key elements:

- A detailed report of the existing water supply systems, complete with graphic and tabular data, as well as mapped descriptions of the systems compatible with and loaded on Allegheny County's Geographic Information System
- Indicators of the capabilities of the individual systems and their performance based on physical and economic factors
- Recommendations on facilities improvements, policies, procedures, and techniques to ensure adequate, safe water supplies

The information presented in this report was obtained from a number of sources including:

- Annual Water Supply Reports submitted to the Allegheny County Health Department
- Annual Reports of Municipal Authorities submitted to the Pennsylvania Department of Community Affairs
- Annual Audits and Financial Reports submitted to the Pennsylvania Department of Community Affairs
- Annual Reports submitted to the Pennsylvania Public Utility Commission
- Water distribution system maps collected by the U. S. Army Corps of Engineers during the preparation of the Allegheny County Emergency Water Supply Study
- Findings of the Wellhead Protection Project
- Pennsylvania Department of Environmental Protection Model State Information System Reports
- Allegheny County Health Department inspection reports and filtration plant evaluations
- Southwestern Pennsylvania Regional Planning Commission municipal population projections (Cycle V Forecasts)
- Discussions with water suppliers' staffs and engineers

The information contained in this report was gathered, processed, and presented in such a manner as to produce descriptions of the relative capabilities of the water suppliers operating in Allegheny County in a manner that will assist decision makers in guiding their actions so as to

best ensure adequate service, conservation and development of resources, and compliance with water quality standards.

Using This Document

The information provided in this document is presented on two levels. On one level, detailed information is provided for each individual water supplier in the form of capsule descriptions. The second level serves to present a county-wide overview of the water supply systems and their abilities to satisfy current and projected future water demands. The information is presented in this format so as to provide supplier specific information concerning system capabilities and performance as well as providing information that will facilitate a comparison of the relative strengths and weaknesses of the water suppliers and indicate the water supply capabilities that exist throughout the County.

The detailed information for each water supplier is presented in the form of capsule descriptions of each water supplier. These capsule descriptions include maps displaying the approximate locations of service areas and major facilities, information describing the capacities of existing facilities, history of compliance with maximum contaminant levels, the size and composition of the customer base, and current and projected future water demands. The descriptions also include assessments of the adequacy of the capacity of the existing supply, treatment, storage, and emergency supply facilities under current and future conditions as well as general recommendations relative to identified deficiencies. This information is provided in order to assist decision makers in evaluating and planning for future actions related to such activities as allocating funds, developing and implementing capital addition programs, constructing facilities, implementing new bulk water sales agreements, supplying new large water consumers, etc. A summary of key financial indicators is also provided. This information provides a general indication of the costs of operation and service for each of the systems relative to those prevailing in the other suppliers operating within the County. The map information contained in the capsule description has been extracted from the geographic information system map coverage of water facilities produced as part of this plan. This map information is accessible through the Allegheny County Department of Development's geographic information system. The capsule descriptions themselves are located at the rear of this report.

The county-wide overview information is meant to serve as a resource to be used in planning for regional development. The information indicates the relative water supply system strengths and weaknesses at various locations throughout the County. The relative capabilities of water suppliers to accommodate increases in water demands is one factor that is considered in the evaluation of alternative land development policies. The information that displays the locations of the areas served by each of the water suppliers, when coupled with data describing relative water supply capabilities, indicates where the potential for regional solutions to water supply needs through the sharing of water supply resources and capabilities may exist.

When using this document, it is important to recognize that water demands, the capabilities of the water systems, operating arrangements, service agreements, and locations of water mains are constantly changing. By necessity, this report presents a "snapshot" of current conditions and a projection of future conditions based upon the existing situation. It is important, therefore, that the information presented herein and the conclusions drawn should be periodically updated to reflect evolving conditions. This plan and the data presented herein represents a framework for long-range planning and on-going monitoring of water supply conditions throughout the County.

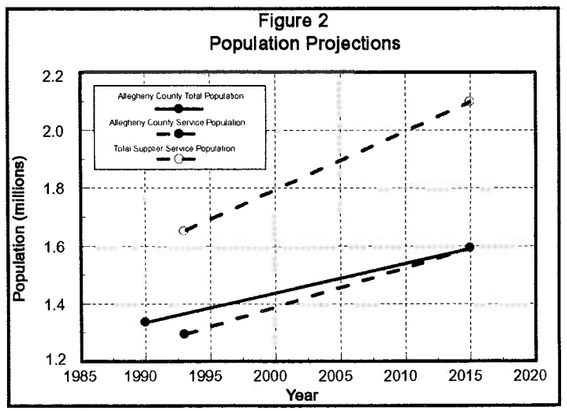
General Overview

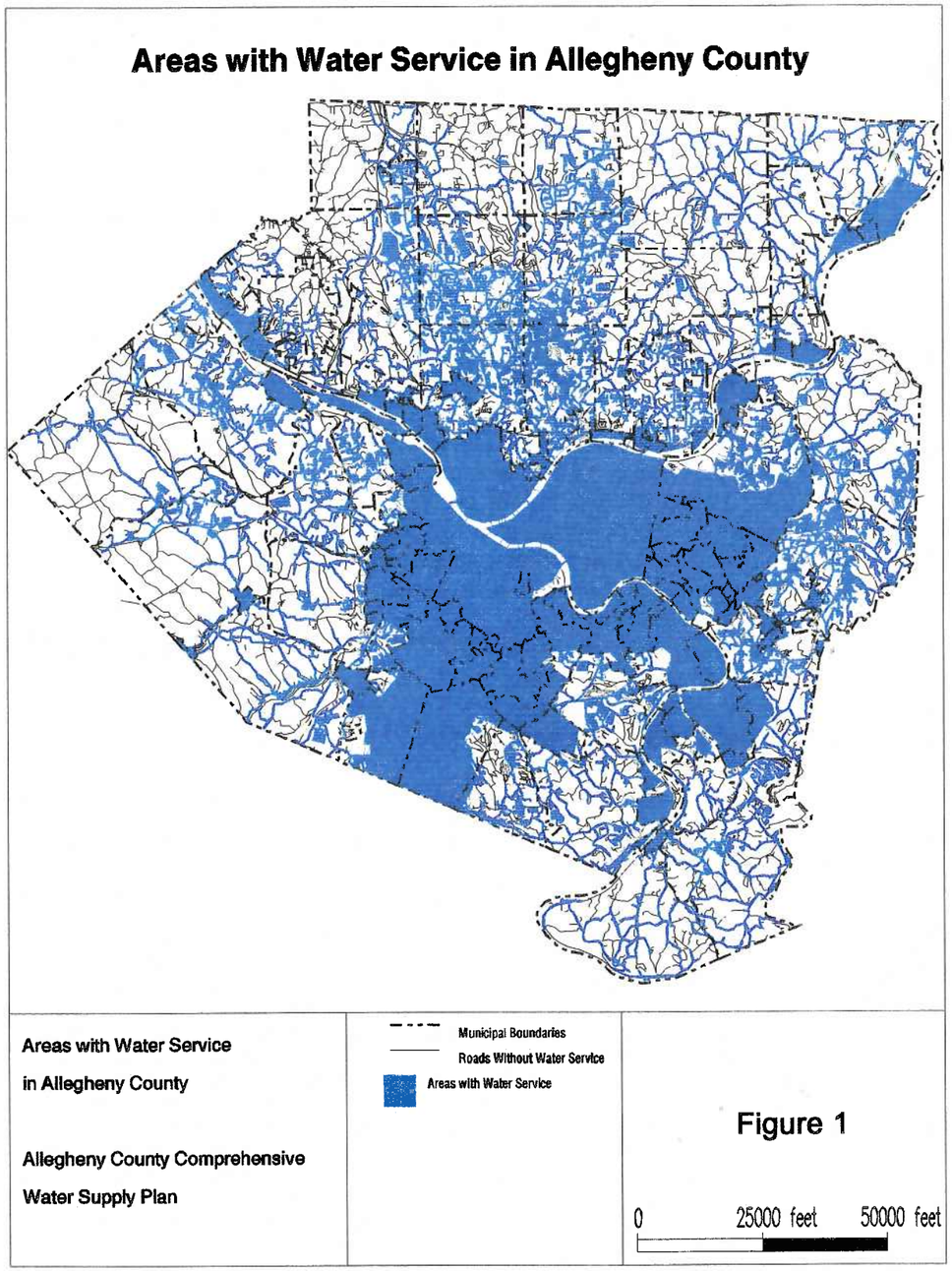
Service Area and Population

According to information provided in the Annual Water Supply Reports prepared by the public water suppliers in the County and 1990 U.S. Census data, approximately 1,294,000 residents of Allegheny County were supplied with water from public community water systems during the year 1993. This represents approximately 96 percent of the 1,336,278 County population reported in the 1990 U.S. Census. Areas within which public water service is currently offered are indicated in Figure 1. The service areas illustrated in Figure 1 are based upon system maps furnished by the suppliers. The approximately 42,300 persons (approximately 3 percent of the County residents) not served by public water systems rely primarily on individual well systems. As a point of comparison, the 1970 Comprehensive Water Needs Plan estimated that approximately 18.5 percent of the county was served by individual, private wells. Several water suppliers that operate in Allegheny County also provide water service to significant areas in neighboring counties. The total 1993 service population of the water suppliers operating in Allegheny County, including customers outside of the county, is estimated to be approximately 1,682,000.

Projections of public system water service populations were developed based upon year 2015 population projections prepared by the Southwestern Pennsylvania Regional Planning Commission (SPRPC Cycle V Forecasts). Service population projections were developed for each of the individual water suppliers based upon the SPRPC Cycle V population projections and the anticipation that, by the year 2015, essentially all of the residents of the County will be served by public systems. As is illustrated in Figure 2, it is estimated that approximately 1,592,000 Allegheny County residents will be served by public water suppliers in the year 2015. The total number of people served by public water suppliers operating in Allegheny County will approximate 2,098,000.

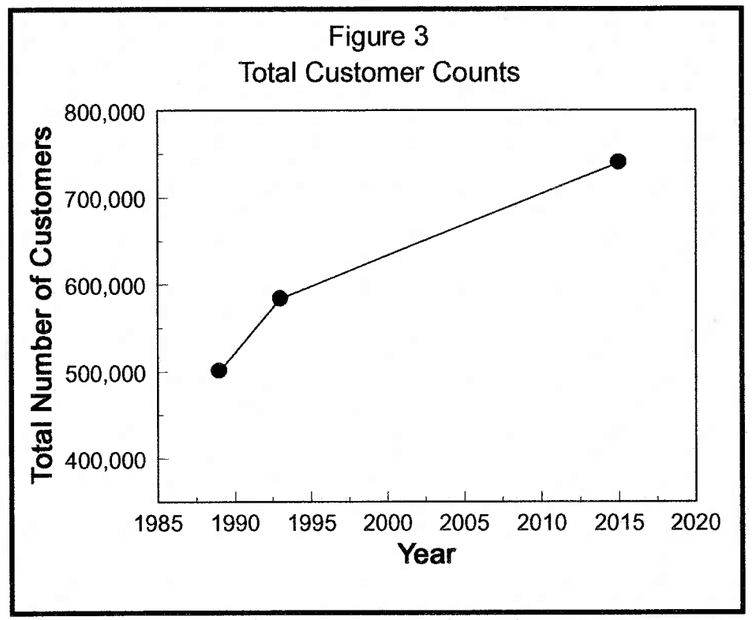
Figure 2
Population Projections





Customer Counts

There are five general categories of customers served by the water suppliers as reported in the Annual Water Supply Reports: domestic, commercial, industrial, institutional, and bulk sales to other suppliers. Information describing the number of customers served in each of these categories was obtained from the water suppliers' Annual Water Supply Reports. Projections of the number of customers to the year 2015 were developed based upon the SPRPC population projections and the projection of observed trends during the 1989 through 1993 time period. Counts of the total number of customers served by the water suppliers operating in Allegheny County are illustrated in Figure 3.



As is indicated in Figure 3, the number of customers projected to be served by Allegheny County water suppliers is projected to increase from 583,900 in 1993 to 740,500 in the year 2015. This represents an approximately 27 percent increase in the number of customers served. Several factors lead to this projected increase in customer counts. First, the SPRPC forecasts increases in the population of the County while projecting a decrease in the number of persons per household. The resulting increase in the number of households in the area will produce an attendant increase in the number of domestic and commercial water customers. In addition, the increase in population can also be expected to be accompanied by increases in the number of commercial, industrial, and institutional customers.

Water Use

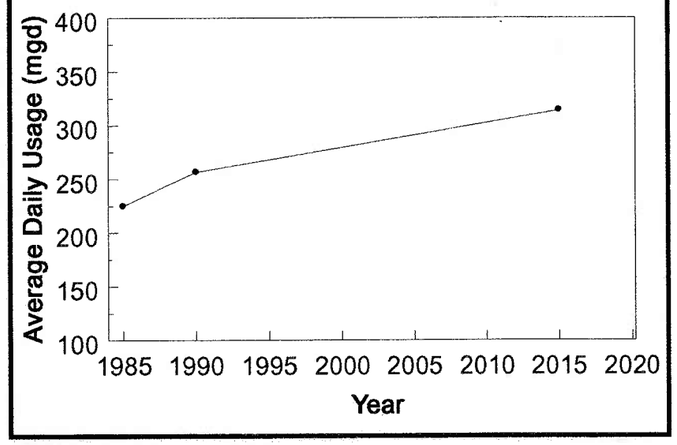
Water use can be classified into two broad categories: (1) the total amount of water that is produced by the water suppliers and (2) water that is recorded as being sold and used by the customers of the suppliers. Total pumpage includes sales to the various classes of customers discussed previously as well as water that is generally termed as "unaccounted for and other." "Unaccounted for and other" water use, as defined in the Annual Water Supply Reports, is the difference between the water produced at the source(s) and the water used by customers.

Generally, this includes water losses through water leakage and authorized water uses that do not produce revenue and are often not measured such as fire fighting, sewer and street cleaning, hydrant and water main flushing, and water used at the treatment plant. Another component of unaccounted for water includes water not registered as being used due to inaccurate customer meters and/or unauthorized, unmetered use.

Water use in each of the billing categories as well as in the "unaccounted for and other" category was determined from information contained in the Annual Water Supply Reports. This data as well as projected water demands are presented in Figure 4 in terms of average daily water use. The water use projections were developed based upon projected service populations, customer counts, unit water consumption rates, and ratios of "unaccounted for and other" to water sales exhibited by each water supplier. The data presented in Figure 4 do not include water in the "bulk sales to other suppliers" category because this represents inter-supplier transfers of water and not actual water use. Average daily total water use is projected to increase from the 256.6 million gallons per day (mgd) rate observed in 1993 to approximately 314.1 mgd in the year 2015. Maximum day total water use was approximately 329.0 mgd in 1993 and is projected to increase to 410.8 mgd in the year 2015. The maximum day water demand refers to the largest daily total usage rate experienced during the year.

Figure 4

Total Water Use (Average Daily Usage)



Analysis of water pumpage and sales records indicates that average daily total water use (including commercial, industrial, institutional and unaccounted for and other uses) in the systems serving Allegheny County averages 155 gallons per day per person. Domestic water sales average approximately 74 gallons per day per person.

Water Supply Sources

General

At the current time, the water delivered by the public water systems that operate in Allegheny County is supplied by 23 water producers. These 23 water producers operate water supply facilities and treatment works that obtain and treat water that they supply to their direct customers and to other public water systems for subsequent distribution and sale. One of the suppliers, the Borough of Etna, provides only raw water to the Township of Shaler. Water is obtained from both ground water and surface water sources as indicated below. The approximate locations of current points of intake from the sources of supply that are located in Allegheny County are indicated in Figure 5 (located on the following page). As is indicated below, three of the supply sources are located outside of the county.

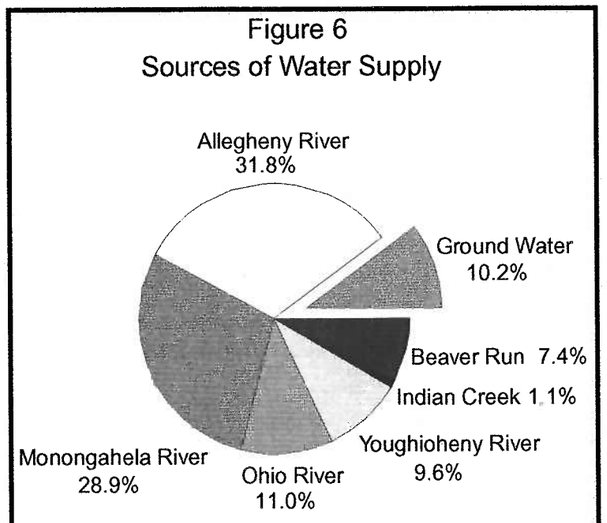
- Ground water (one source located in Beaver County)
- Surface water
  - Allegheny River
  - Monongahela River
  - Ohio River
  - Youghioheny River
  - Beaver Run (located in Westmoreland County)
  - Indian Creek (located in Westmoreland County)

Estimates of the currently established capacities of the sources of supply were developed based upon water allocations set by the Pennsylvania Department of Environmental Protection (DEP) for surface water supplies and safe yield or pumping capacities of ground water supplies as reported by the individual water suppliers or as indicated in the DEP's Model State Information System database. The total water supply capacity existing during 1993, as established by these measures of capacity, is approximately 463.3 mgd. A recent increase in the water allocation issued to the Municipal Authority of the Township of Robinson and a new surface water allocation that has been issued to the Moon Township Municipal Authority increases the total capacity to 478.1 mgd. The combined established water supply capacities of the water producers in Allegheny County exceeds current and projected maximum day water demands.

The distribution of the total supply capacity as indicated by current surface water allocations and estimated safe yields of ground water sources is illustrated in Figure 6. As the information presented in Figure 6 indicates, approximately 90 percent of the water that is distributed in the County is obtained from surface water sources.

Figure 6

Sources of Water Supply



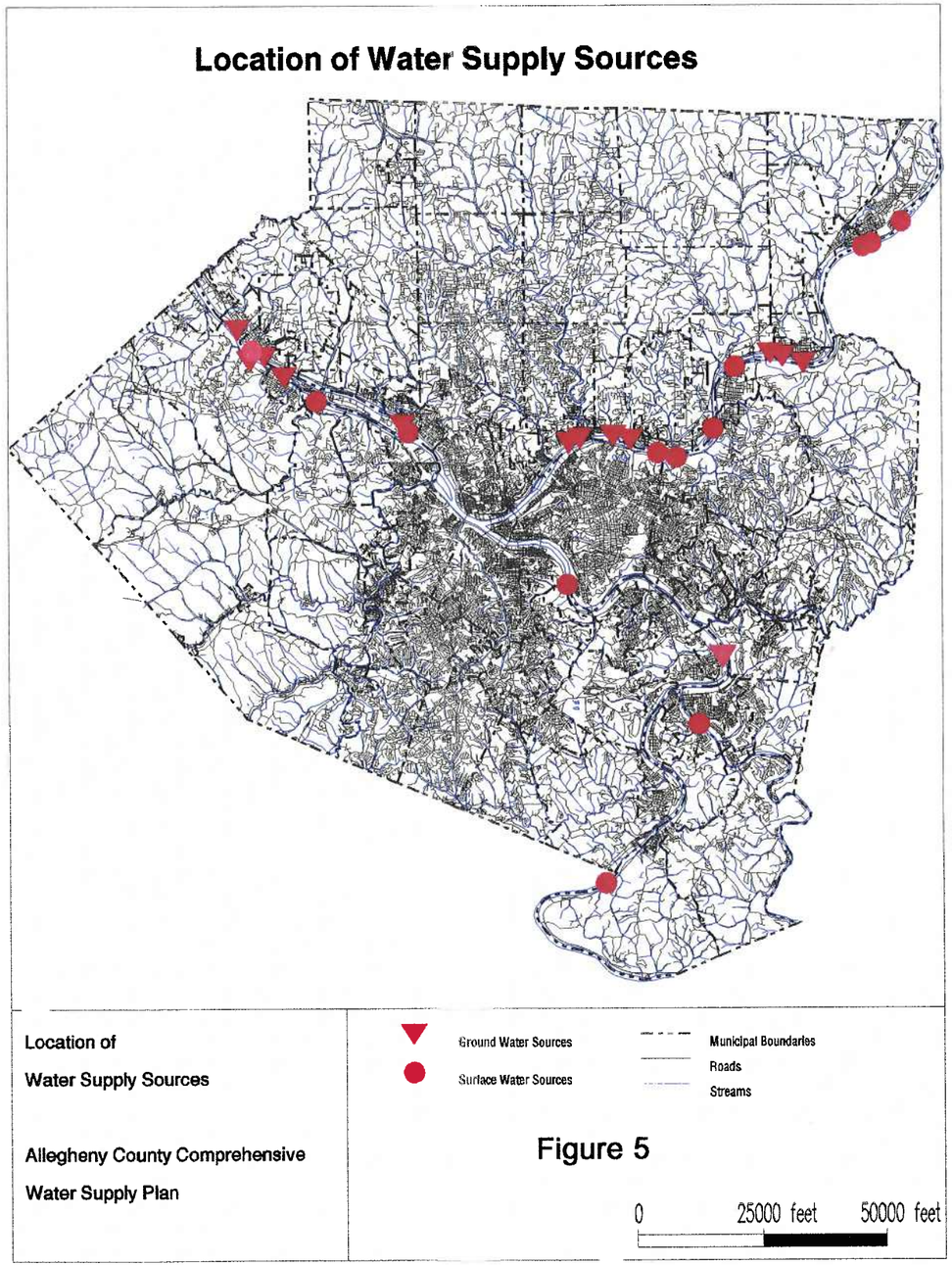


Figure 5

Quantity

Ground Water Sources

The water suppliers operating in Allegheny County that use ground water obtain their supplies from the unconsolidated sand and gravel valley fill deposits along the major river valleys in the County (the Ohio, Allegheny and Monongahela Rivers). These are prolific water bearing sand and gravel aquifers with extensive water supply capacities. It is estimated that the public water suppliers currently withdraw an average of 14.1 mgd from these aquifers. This use is projected to increase to 18.4 mgd by the year 2015. Sufficient capacity exists in this aquifer to meet current and anticipated public water demands for ground water. As is indicated later in this report, limitations of the established safe yield may be experienced by individual suppliers. However, these limitations are primarily a function of limitations to existing well capacities and not aquifer limitations. These limitations can be rectified through further well development.

Surface Water Sources

The Allegheny County public water suppliers withdraw an average of 242.5 mgd of water from the streams in the region. Public water supplier surface water usage is projected to increase to 310.8 mgd by the year 2015. As was indicated previously, these projected total water demands are within the total allocations to the water suppliers by the Pennsylvania Department of Environmental Protection. These allocations are issued in consideration of the safe yield of the water supplies. Consequently, the surface water resources in Allegheny County are adequate to satisfy current and future needs.

Quality

Ground Water Sources

The Allegheny County Wellhead Protection Program investigation completed in August 1995 included the installation of a network of ground water monitoring wells at five of the public water suppliers utilizing ground water sources. Two existing monitoring/test wells at two additional systems were also included in the investigation. Samples were drawn from the wells and analyzed to measure the quantities of organic and inorganic contaminants in the *raw* water supplies. The measured contaminant levels were compared to established primary and secondary maximum contaminant levels. The results of this analysis indicate that the raw ground water meets most of the primary and secondary maximum contaminant levels specified in the Safe Drinking Water regulations. Problem contaminants identified in the analysis included two primary contaminants (cadmium and trichloroethylene) at one location each and four secondary contaminants (iron, manganese, color, and dissolved solids) at a total of five locations. All of the water suppliers for which testing indicated contaminant levels above established maximum levels utilize treatment processes that are appropriate for the removal of the contaminant(s) identified in their supplies. All of the ground water suppliers in the County achieved full compliance with finished water primary maximum contaminant levels during 1993. Therefore, Allegheny County's

public ground water supply quality is acceptable and amenable to treatment using techniques currently employed by the County's water suppliers. Recent testing completed in accordance with the surface water identification protocol has determined that the ground water supplies currently in use are properly characterized as ground water sources and are not under the direct influence of surface water.

In order to protect the quality of ground water used by the County's water suppliers, the Allegheny County Department of Development and the Allegheny County Health Department are implementing a wellhead protection program. All of the public water supply systems that use ground water supplies on a routine basis are included in the program. The overall goal of the project is to ensure that the systems participating in the program are able to provide reliable, efficient, and safe drinking water for their customers. The specific goals of the wellhead protection program are:

1. To inform local officials of the wellhead protection program and seek their support, input, and cooperation.

2. To compile available physical data relative to wells and well fields to provide the necessary database to support the Allegheny County Wellhead Protection Program.

3. To develop a computer model of the hydrogeologic systems associated with each respective well field.

4. To delineate the wellhead protection area for each of the system well fields based upon time of travel and particle tracking from the computer model.

5. To complete an inventory of potential sources of contamination.

6. To review existing ground water monitoring and the monitoring network.

7. To locate, install, and sample monitoring wells in the study area.

8. To identify management strategies that can be used to develop a comprehensive wellhead protection program, including model zoning ordinances, municipal inspection programs, and installation of water supply signs.

9. To develop and implement a wellhead protection program for Allegheny County.

10. To conduct a wellhead protection program conference at the end of the project to present the results and findings of the study.

As of this date, items one through eight have been completed, including the development of model zoning ordinances and municipal inspection programs. This work will provide the basis for subsequent actions by the County and participating water suppliers that will develop and implement a wellhead protection program for Allegheny County. This is an important factor in the preservation of the generally high quality of the County's ground water resources and the avoidance of potential water quality problems in the future.

Surface Water Sources

The Ohio River Valley Water Sanitation Commission (ORSANCO) has published a report on the quality of the water in the Ohio River. The report, titled Assessment of Water Quality Conditions - Ohio River 1992-1993, describes general water quality conditions in the Ohio River in terms of degree of use support. Among the water uses studied in the preparation of the report is public water supply. All of the surface water supplies used in Allegheny County are tributary to the Ohio River and water quality conditions in the river are generally representative of regional water quality. This assessment found that the quality of the water fully supports its use as a public water supply source.

Water Treatment Facilities

Twenty-three water suppliers currently produce the water that is delivered throughout Allegheny County. Two of the water suppliers operate more than one water treatment plant (Pennsylvania American Water Company [2] and Westmoreland County Municipal Authority [3]). A total of twenty-six water treatment facilities are currently being operated by the water suppliers serving Allegheny County. The total rated capacity of these treatment facilities is 441.46 mgd. This total treatment capacity exceeds current and projected average daily and maximum daily demands. The current total treatment capacity represents approximately 134 percent of the current maximum day demand and approximately 107 percent of the projected year 2015 maximum day demand. Treatment plant expansion projects currently under construction by the Robinson Township Municipal Authority and the Westmoreland County Municipal Authority will add 7.0 mgd to the total treatment capacity. The City of Duquesne and the Fox Chapel Authority are planning to cease production at their water treatment facilities in 1996, reducing the capacity of the treatment facilities on line by 3.7 mgd. The net result of these changes will be to increase total treatment plant capacity to 444.76 mgd (108 percent of the projected year 2015 maximum day demand). As is discussed in subsequent sections of this report, while the total treatment capacity exceeds demands, individual system deficiencies do exist.

The water treatment processes used by the County's water suppliers are summarized in Table 1. Table 1 lists the water treatment processes reported as being used by each supplier in their 1992 Annual Water Supply Report. The types of treatment that are being used by the water suppliers are appropriate for the general categories of water (i.e., ground water or surface water) being treated.

The Allegheny County Health Department conducts annual inspections of the water treatment plants in the County. Annual inspection reports completed for ground water treatment plants during 1995 were reviewed as were surface water treatment plant filter plant performance evaluations completed in 1994. With the exception of the City of Duquesne water treatment plant, the facilities are adequately maintained and operational. The Duquesne treatment facility is scheduled to be taken off line in 1996. The 1994 surface water treatment plant filter plant

performance evaluations identified no major operational or water quality problems at the surface water treatment facilities. All of the facilities displayed acceptable performance. The evaluations and inspections produced specific, generally minor, operational recommendations for a number of the facilities that will serve to enhance treatment effectiveness and reliability.

Table 1
Water Treatment Plants

Supplier	Source	Disinfection	Flocculation	Coagulation	Sedimentation	Filtration	Fluoridation	Corrosion Control	Taste & Odor	Aeration	Softening	Iron & Manganese	Ammoniation	Ozonation
Borough of Aspinwall	Ground Water	■	■	■		■	■	■				■		
Borough of Brackenridge	Surface Water	■	■	■	■	■	■	■				■		
Borough of Cheswick	Ground Water	■									■	■		
Borough of Coraopolis	Ground Water	■						■				■		
Creswell Heights Joint Authority	Ground Water	■										■		
City of Duquesne	Ground Water	■	■	■	■	■				■		■		
Edgeworth Municipal Authority	Ground Water	■					■	■			■	■		
Fox Chapel Authority	Surface Water	■	■	■	■	■	■	■	■			■		
Harmar Township Municipal Authority	Ground Water	■				■		■				■		■
Harrison Township Water Authority	Surface Water	■	■	■	■	■	■		■		■	■		
Moon Townhip Municipal Authority	Ground Water	■	■	■	■	■	■	■	■		■	■		
Borough of Oakmont Municipal Authority	Surface Water	■	■	■	■	■	■	■	■			■		
PA American Water Co. (Hayes Mine)	Surface Water	■	■	■	■	■	■	■	■			■		
PA American Water Co. (Aldrich)	Surface Water	■	■	■	■	■	■	■	■			■		
Pittsburgh Water and Sewer Authority	Surface Water	■	■	■	■	■	■	■	■			■		
Robinson Township Municipal Authority	Surface Water	■	■	■	■	■	■	■	■			■		
Sewickley Borough Water Authority	Ground Water	■					■	■			■	■		
Township of Shaler	Ground Water	■		■	■			■			■	■		
Borough of Sharpsburg	Ground Water	■						■				■		
Borough of Springdale	Ground Water	■						■		■	■	■		
Borough of Tarentum	Surface Water	■	■	■	■	■	■	■	■			■		
Westmoreland County M.A. (McKeesport)	Surface Water	■	■	■	■	■		■	■			■		
Westmoreland County M.A. (Indian Creek)	Surface Water	■	■	■	■	■		■	■			■	■	
Westmoreland County M.A. (Beaver Run)	Surface Water	■	■	■	■	■		■	■			■		
West View Borough Municipal Authority	Surface Water	■	■	■	■	■	■	■	■			■		
Wilkinsburg-Penn Joint Water Authority	Surface Water	■	■	■	■	■	■	■	■			■	■	

The water treatment facilities currently operated by the Allegheny County water suppliers are effective in producing finished water in compliance with the Safe Drinking Water Act regulations. Although the requirements of the Safe Drinking Water Act will continue to evolve, it is anticipated that the primary treatment techniques employed at the treatment works serving the County will be generally adequate for the foreseeable future. However, improvements and modifications to the facilities and/or operational procedures that will increase the efficiency and reliability of treatment, respond to evolving drinking water regulations, and provide required increased capacity should be anticipated. Key issues to be addressed in the future include:

- Anticipated additional Safe Drinking Water Act Regulations
  - Disinfection/disinfection by-products rule
  - Enhanced surface water treatment rule (giardia and cyrptosporidium issues)
  - Information collection rule
- Implementation of the Wellhead Protection Program
- Capacity requirements
- Sludge and backwash disposal
- Zebra mussel controls

Individual water suppliers should be encouraged to consider the resources and capabilities offered by neighboring suppliers as they evaluate their specific water treatment needs in the future. To the extent practicable, efforts that utilize existing surplus treatment capacity and capabilities to address specific treatment needs should be encouraged.

Distribution System Storage Facilities

In the context of this plan, distribution system storage facilities are defined as water storage reservoirs and tanks that are located throughout the water distribution systems. These facilities store treated water in proximity to the points of demand. Distribution system storage facilities serve several functions, including (1) providing reserves of supply in the event of interruptions to the source of treated water, (2) satisfying peak demands, (3) providing water for fire fighting purposes, (4) stabilizing working pressures, and (5) improving pumping efficiency. Because of the multiple uses of distribution system storage, the siting and sizing of storage facilities is very site specific. However, as a general rule, the goal is to provide distribution system storage volumes greater than or equal to the average daily demand of the system. In addition, the Allegheny County Health Department has established a policy under which water suppliers should be able to provide a 3-day supply of water in the event that its primary supply is interrupted. This 3-day emergency supply may be provided by distribution storage, emergency connections, or a combination of both.

The total distribution storage volume operated by Allegheny County water suppliers is approximately 751.7 million gallons. This is equivalent to approximately 293 percent of the current average daily demand and 241 percent of the projected year 2015 average daily demand. Viewed on a county-wide basis, the distribution storage volume appears to be adequate to satisfy the one-day storage goal. However, over half of the distribution system storage volume is in the City of Pittsburgh system and, as is discussed in subsequent sections of this report, individual system deficiencies exist.

As stated above, the use of distribution storage is one means of maintaining service in the event of interruptions in the supply of treated water. Another method of accommodating such interruptions is through the use of emergency interconnections between neighboring water systems. The U.S. Army Corps of Engineers, under contract to the Allegheny County Department of Development, is in the process of preparing an Emergency Water Supply Study. The overall intentions of the study are to identify, describe, and quantify the crucial County water

supply and distribution system network and to simulate the performance of the system during a large, protracted emergency. The study will provide an analyst or decision maker with a sense of the magnitude of water that may be available to assist temporarily distressed water systems, identify the systems that would be involved in the emergency supply effort, and identify the pathways that must be used to deliver the water. In addition to facilitating real-time responses to large scale water supply interruptions, the study will assist in long-range emergency response planning.

The geographic information system (GIS) based water distribution system mapping that has been completed as part of this Comprehensive Water Supply Plan includes the facilities that are modeled in the Emergency Water Supply Study. For all of the water suppliers in the County, the GIS includes the locations and sizes of, at minimum, the water mains identified by the Corps of Engineers as being key elements of the emergency supply distribution system. In addition, water treatment, pumping, storage, and system interconnection facilities included in the Corps of Engineers computer model have been included in the GIS database assembled as part of this plan.

Supplier Specific Data

Scope and Procedures

Information was compiled and analyzed for the purpose of developing capsule descriptions of each of the community water suppliers that are active in Allegheny County. As was stated previously, the purpose of the capsule descriptions and associated data is to provide an overview of the current and future demands placed upon water suppliers and their ability to meet those demands. The capsule descriptions are located at the rear of this report. Information used in this analysis was obtained from the following sources:

- Annual Water Supply Reports submitted to the Allegheny County Health Department
- Annual Reports of Municipal Authorities submitted to the Pennsylvania Department of Community Affairs
- Annual Audits and Financial Reports submitted to the Pennsylvania Department of Community Affairs
- Annual Reports submitted to the Pennsylvania Public Utility Commission
- Individual water distribution system maps collected by the U. S. Army Corps of Engineers during the preparation of the Interconnect Study

Information obtained from these sources was used to assemble descriptions of each of the water suppliers in terms of:

- Locations of key water supply, treatment, pumping, distribution, and storage facilities
- Source of supply and treatment capabilities
- Size and composition of the customer base
- Total water demands
- Record of compliance with Safe Drinking Water Act regulations
- Key financial indicators

Facility, water demand, and customer base information is presented for the five-year period 1989 through 1993. This information was obtained primarily from the Annual Water Supply Reports that are submitted by the water suppliers to the Allegheny County Health Department. Current service populations were estimated utilizing customer base information reported by the suppliers as well as 1990 U.S. Census data. Service population projections for the year 2015 were developed based upon the Southwestern Pennsylvania Regional Planning Commission's Cycle V forecasts. The projections envision that, by the year 2015, essentially the entire population of the County will be served by public water suppliers. Year 2015 demand projections were developed based upon projected service population changes and associated water demands as exhibited during the 1989 through 1993 period. Bulk sale projections generally assume that bulk sales will be made to satisfy future demands in the same ratios as for current conditions. In other words, a system that purchased 60 percent of its water from supplier "A" and 40 percent from supplier "B" in 1993 is projected to continue to purchase 60 percent of its water from supplier "A" and 40 percent from supplier "B" in the year 2015. Exceptions to this approach were made in cases where significant changes to water supply sales agreements are imminent. The water demand and supply system capacity information presented previously in this report represent summations of the data developed individually for each system.

Statistics relating to compliance with the Safe Drinking Water Act regulations were developed for the 1989 through 1993 time period through an analysis of the Allegheny County Health Department's Model State Information System compliance database. Key financial indicator information was obtained from the suppliers' 1993 Annual Reports of Municipal Authorities, Annual Audit and Financial Reports, and Pennsylvania Public Utility Commission Annual Reports, and water rate schedules in effect in June 1995 as provided by the water suppliers.

Profile of Water Suppliers

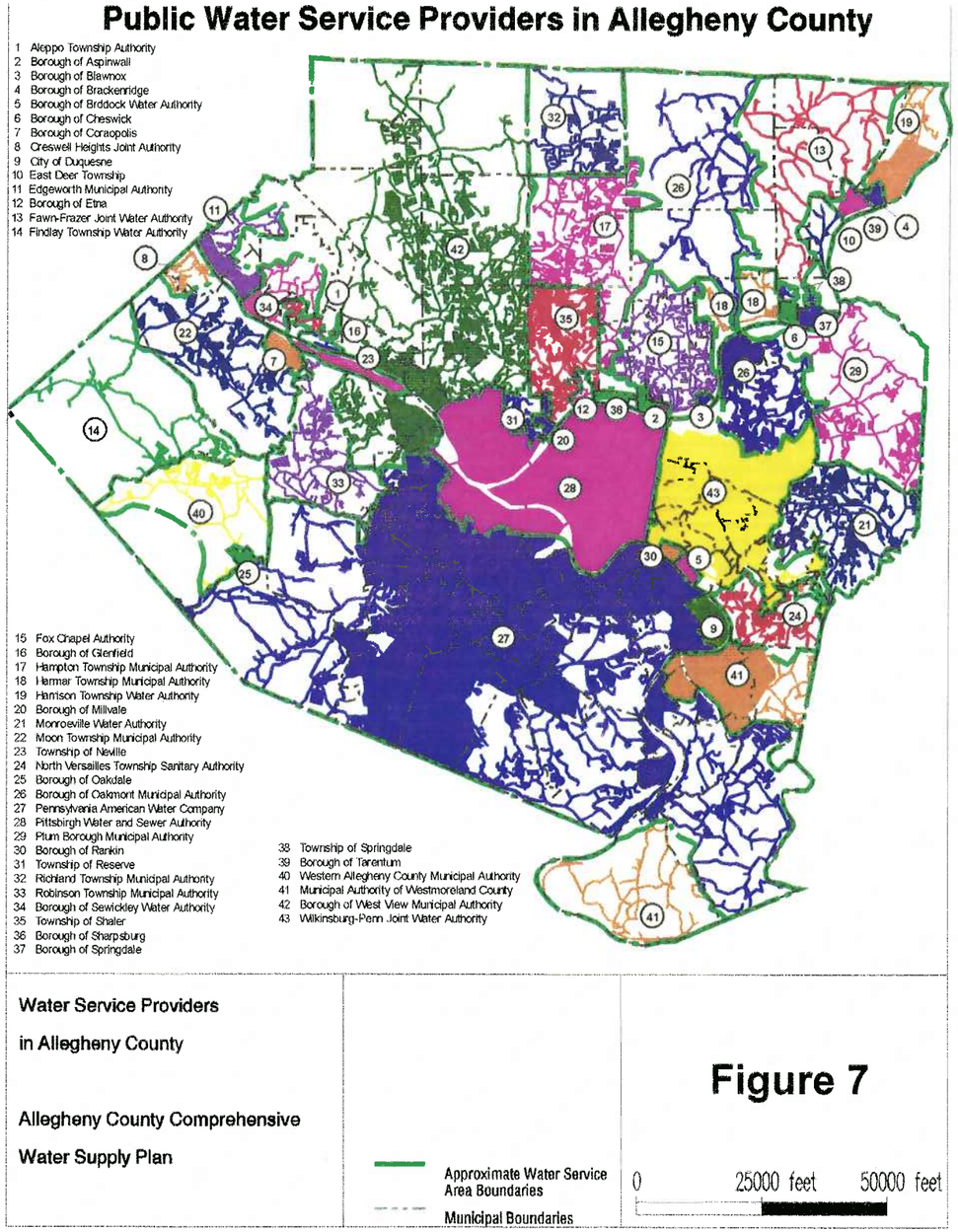
Table 2 contains a listing of water suppliers active in the County, their sources of supply, and municipalities served. Table 3 provides general information concerning the number of customers served by each supplier and the total water use by the each system during 1993. This information is provided to give an indication of the size of each supplier and the relative magnitude of their operations. As is indicated by the information contained in Table 2, 43 water supply systems are currently providing service in Allegheny County. The median number of customers served by each supplier is approximately 2,150. The five largest suppliers serve 79 percent of the total number of customers. Median total water use by each supplier is 0.91 million gallons per day, and total water use averages 6.5 million gallons per day per supplier. The median number of residents served by each supplier is 5,500, and the average Allegheny County service population is 31,076. As a point of comparison, the 1970 Comprehensive Water Supply Plan listed 58 suppliers operating in the County, serving an average of 28,505 County residents and delivering 4.0 million gallons of water per day.

Table 2
General Information: Allegheny County Water Suppliers

Water Supplier	Primary Sources of Supply	Municipalities Served Through Direct Sales	Water Systems Served Through Routine Bulk Sales
Aleppo Township Authority	Mun. Auth. of the Borough of West View, Sewickley Water Auth.	Aleppo Township, Boroughs of Glenfield, Osborne, and Sewickley Heights	Glenfield Borough
Borough of Aspinwall	Allegheny River	Aspinwall Borough, O'Hara Township	
Borough of Blawnox	Pittsburgh Water & Sewer Auth.	Blawnox Borough, O'Hara Township	
Borough of Brackenridge	Allegheny River	Brackenridge Borough	Fawn-Frazer Water Authority
Borough of Braddock Water Auth.	Wilkinsburg-Penn Joint Water Auth.	Braddock Borough	
Borough of Cheswick	Wells	Cheswick Borough, Springdale Township	Springdale Township
Borough of Coraopolis	Wells	Coraopolis Borough, Moon Township	
Creswell Heights Joint Authority	Wells	Townships of Crescent and Moon and 2 Beaver Co. municipalities	
City of Duquesne	Wells	Duquesne City, West Mifflin Borough	
East Deer Township	Tarentum Borough	West Deer Township	
Edgeworth Municipal Authority	Wells	Boroughs of Edgeworth, Bell Acres, and Leetsdale, and Leet Township	
Borough of Etna	Shaler Township	Etna Borough	Shaler Township (raw)
Fawn-Frazer Joint Water Authority	Brackenridge Borough	Townships of East Deer, Fawn , Frazer , Harrison, Springdale, and West Deer, Tarentum Borough, and one Butler County municipality	
Findlay Township Water Authority	Moon Township Mun. Auth., Mun. Auth. of the Township of Robinson	Townships of Robinson and Findlay	
Fox Chapel Authority	Allegheny River, Pittsburgh Water and Sewer Auth.	Borough of Fox Chapel Borough, and Townships of Harmar, Indiana , and O'Hara	
Borough of Glenfield	Aleppo Township Auth.	Glenfield Borough	
Hampton Township Municipal Authority	Shaler Township, Pittsburgh Water and Sewer Auth., Mun. Auth. of the Borough of West View	Townships of Hampton, Indiana, O'Hara, Richland, and West Deer	
Harmar Township Municipal Auth.	Wells	Townships of Harmar and Springdale	Springdale Township
Harrison Township Water Auth.	Allegheny River	Harrison Township	
Borough of Millvale	Pittsburgh Water and Sewer Auth., Reserve Township	Millvale Borough, Reserve Township, Shaler Township	
Monroeville Water Authority	Westmoreland County Municipal Auth., Wilkinsburg-Penn Joint Water Auth.	Municipality of Monroeville	Plum Borough Water Authority
Moon Township Municipal Auth.	Wells, Mun. Auth. of the Township of Robinson	Townships of Moon and Findlay	Findlay Township
Township of Neville	West View Borough Mun. Auth.	Neville Township	
North Versailles Township Sanitary Authority	Westmoreland County Mun. Auth., Wilkinsburg-Penn Joint Water Auth.	North Versailles Township, East McKeesport Borough	
Borough of Oakdale	Pennsylvania American Water Co.	Oakdale Borough, and Townships of North Fayette and South Fayette	
Borough of Oakmont Municipal Authority	Allegheny River	Boroughs of Oakmont, Plum, and Verona ,Townships of Harmar, Indiana, and West Deer, and Municipality of Penn Hills,	
Pennsylvania American Water Company	Monongahela River	Boroughs of: Baldwin, Bethel Park, Brentwood, Bridgeville, Carnegie, Castle Shannon, Crafton, Dormont, Dravosburg, Elizabeth, Glassport, Greentree, Heidelburg, Ingram, Jefferson, Liberty, Lincoln, McDonald, Mt Oliver, Munhall, Pleasant Hills, Rosslyn Farms, Thornburg, West Elizabeth, West Homestead, West Mifflin, Whitaker, Whitehall; Townships of Baldwin, Collier, Elizabeth, Forward, Scott, South Fayette, Upper St. Clair; Municipality of Mt. Lebanon; Cities of Clairton, Pittsburgh; and 27 Washington County municipalities	Oakdale Borough, Westmoreland County Municipal Authority, Western Allegheny County Municipal Authority
Pittsburgh Water and Sewer Authority	Allegheny River	City of Pittsburgh	Blawnox Borough, Fox Chapel Auth., Hampton Township Mun. Auth., Millvale Borough, Pennsylvania American Water Co., Reserve Township, Shaler Township
Plum Borough Municipal Authority	Monroeville Water Auth., Wilkinsburg-Penn Joint Water Auth., City of New Kensington	Plum Borough	Westmoreland County Mun. Auth.
Borough of Rankin	Wilkinsburg-Penn Joint Water Auth.	Rankin Borough	
Township of Reserve	Pittsburgh Water & Sewer Auth.	Reserve Township	Millvale Borough
Richland Township Municipal Authority	Borough of West View Mun. Auth.	Richland Township, Valencia Borough	
Robinson Township Municipal Authority	Ohio River	Robinson Township	Moon Township Mun. Auth. Findlay Township, Western Allegheny County Mun. Auth.
Sewickley Borough Water Authority	Wells	Boroughs of Sewickley, Edgeworth, Haysville, Osborne, and Sewickley Heights	Aleppo Township
Township of Shaler	Allegheny River, Borough of Etna	Townships of Shaler, Hampton, Indiana, and Ross, and Boroughs of Etna Borough and Millvale	Etna Borough, Hampton Township, Millvale Borough
Borough of Sharpsburg	Wells	Sharpsburg Borough	
Borough of Springdale	Wells	Springdale Borough	Springdale Township
Township of Springdale	Cheswick Borough, Harmar Township Mun. Auth., Springdale Borough	Springdale Township	
Tarentum Borough	Allegheny River	Tarentum Borough	East Deer Township
Western Allegheny County Municipal Authority	Mun. Auth. of the Township of Robinson, Pennsylvania American Water Co.	Townships of North Fayette and Findlay	
Municipal Authority of Westmoreland County	Youghiogheny River, Indian Creek, Beaver Run	Townships of Forward, and North Versailles, McKeesport City, Municipality of Monroeville, and Boroughs of Port Vue, Versailles, and White Oak, six municipalities in Armstrong County, 5 municipalities in Fayette County, and 43 municipalities in Westmoreland County	Monroeville Water Auth., North Versailles Township Auth., Pennsylvania American Water Co., Plum Borough Mun. Auth., and 4 water suppliers operating outside Allegheny County
Borough of West View Municipal Authority	Ohio River	Boroughs of: Avalon, Ben Avon, Ben Avon Heights, Bradford Woods, Emsworth, Franklin Park, McKees Rocks, West View; Townships of Aleppo, Kennedy, Kilbuck, Marshall, Pine, Reserve, Robinson, Ross, Shaler, Stowe; Town of McCandless; City of Pittsburgh, one municipality in Butler County	Aleppo Township Mun. Auth., Hampton Township Mun. Auth., Richland Township Mun. Auth., Neville Township, and two Butler County suppliers
Wilkinsburg-Penn Joint Water Authority	Allegheny River	Boroughs of: Braddock, Braddock Hills, Chalfant, Churchill, East McKeesport, East Pittsburgh, Edgewood, Monroeville, North Braddock, Pitcairn, Swissvale, Trafford, Turtle Creek, Wilkinsburg, Wilmerding; Townships of North Huntington, North Versailles, Wilkins; Municipality of Monroeville; City of Pittsburgh	Braddock Borough Water Auth., Monroeville Water Auth., Plum Borough Water Auth., Rankin Borough, North Versailles Township Water Auth.

Table 3
Allegheny County Public Water Suppliers

Water Supplier	Total Number of Customers		Average Daily Pumpage (mgd)	
	Year 1993	Year 2015	Year 1993	Year 2015
Aleppo Township Authority	484	690	0.16	0.22
Borough of Aspinwall	1,201	1,268	0.33	0.35
Borough of Blawnox	821	896	0.16	0.18
Borough of Brackenridge	1,528	1,621	1.65	2.47
Borough of Braddock Water Authority	1,134	989	0.67	0.62
Borough of Cheswick	897	953	0.19	0.19
Borough of Coraopolis	2,630	2,833	0.91	0.91
Creswell Heights Joint Authority	5,120	6,537	1.09	1.38
City of Duquesne	3,471	3,487	0.91	0.91
East Deer Township	789	1,175	0.39	0.64
Edgeworth Municipal Authority	2,142	2,648	0.84	0.98
Borough of Etna	1,729	1,830	0.54	0.55
Fawn-Frazer Joint Water Authority	1,652	3,686	0.35	0.72
Findlay Township Water Authority	1,502	3,479	0.49	1.01
Fox Chapel Authority	4,927	6,701	1.86	2.42
Borough of Glenfield	89	89	0.02	0.02
Hampton Township Municipal Authority	7,885	14,096	1.87	3.14
Harmar Township Municipal Authority	1,100	1,096	0.67	0.59
Harrison Township Water Authority	4,864	5,237	1.58	1.60
Borough of Millvale	1,799	1,941	0.36	0.37
Monroeville Water Authority	9,364	12,654	3.95	4.82
Moon Township Municipal Authority	6,167	10,064	3.38	4.89
Township of Neville	638	650	0.62	0.63
North Versailles Township Sanitary Authority	4,287	5,318	1.25	1.46
Borough of Oakdale	676	749	0.13	0.14
Borough of Oakmont Municipal Authority	15,657	22,505	5.63	7.62
Pennsylvania American Water Company	188,450	225,984	69.75	81.79
Pittsburgh Water and Sewer Authority	83,976	91,789	65.40	72.08
Plum Borough Municipal Authority	8,379	12,461	1.88	2.83
Borough of Rankin	689	693	0.35	0.35
Township of Reserve	1,461	1,783	0.28	0.34
Richland Township Municipal Authority	2,008	4,570	0.58	1.16
Robinson Township Municipal Authority	3,529	6,.443	2.55	7.03
Borough of Sewickley Water Authority	2,148	2,219	0.98	1.04
Township of Shaler	11,762	14,381	4.67	6.52
Borough of Sharpsburg	1,499	1,608	0.48	0.49
Borough of Springdale	1,758	1,869	0.49	0.50
Township of Springdale	710	1,110	0.13	0.21
Borough of Tarentum	2,171	2,403	1.05	1.40
Western Allegheny County Mun. Authority	3,988	8,964	0.78	1.66
Municipal Authority of Westmoreland County	97,918	136,085	56.91	77.18
Borough of West View Municipal Authority	47,209	67,374	18.45	24.40
Wilkinsburg-Penn Joint Water Authority	43,794	47,616	24.06	27.37



The approximate service area of each supplier is illustrated on Figure 7. The service areas were defined using water facilities location maps provided by the water systems to the U.S. Army Corps of Engineers during their preparation of the Allegheny County Emergency Water Supply Study.

Comparative Statistics

Key comparative statistics have been developed for each of the water suppliers operating within Allegheny County. These statistics are presented to provide a general indication of the relative strengths of the individual water suppliers and a comparison of the capabilities of each water supplier. The data used to develop these comparative statistics were extracted from the information compiled in the individual supplier capsule descriptions presented later in this report.

Projected Growth in Demand

The projected rate of growth in water demand for each of the water suppliers is listed in Table 4 and illustrated in Figure 8. The rate of growth is expressed in terms as percent change in total water demand between 1993 and the year 2015. Water suppliers exhibiting the largest rate of growth can be considered to be under the greatest stress as development progresses.

Table 4
Projected Change in Water Demand

Water Supplier	Projected Increase in Average Daily Water Demand (1993 - 2015) (%)	Water Supplier	Projected Increase in Average Daily Water Demand (1993 - 2015) (%)
Aleppo Township Authority	35.9%	Township of Neville	1.8%
Borough of Aspinwall	5.6%	North Versailles Township Sanitary	16.4%
Borough of Blawnox	9.2%	Borough of Oakdale	7.0%
Borough of Brackenridge	23.6%	Borough of Oakmont Municipal Authority	35.4%
Borough of Braddock Water Authority	-9.9%	Pennsylvania American Water Co.	17.2%
Borough of Cheswick	-2.8%	Pittsburgh Water and Sewer Authority	12.7%
Borough of Coraopolis	-0.2%	Plum Borough Municipal Authority	50.6%
Creswell Heights Joint Authority	26.6%	Borough of Rankin	0.6%
City of Duquesne	0.5%	Township of Reserve	22.3%
East Deer Township	40.9%	Richland Township Municipal Authority	101.3%
Edgeworth Municipal Authority	17.2%	Robinson Township Municipal Authority	111.0%
Borough of Etna	0.2%	Borough of Sewickley Water Authority	6.6%
Fawn-Frazer Joint Water Authority	120.3%	Township of Shaler	34.1%
Findlay Township Water Authority	104.3%	Borough of Sharpsburg	1.6%
Fox Chapel Authority	29.8%	Borough of Springdale	0.4%
Borough of Glenfield	-7.9%	Township of Springdale	56.3%
Hampton Township Municipal Authority	68.1%	Borough of Tarentum	30.3%
Harmar Township Municipal Authority	0.0%	Western Allegheny County Mun. Auth.	32.2%
Harrison Township Water Authority	1.2%	Mun. Authority of Westmoreland County	33.4%
Borough of Millvale	2.0%	Borough of West View Mun. Authority	40.8%
Monroeville Water Authority	27.5%	Wilkinsburg-Penn Joint Water Authority	13.8%
Moon Township Municipal Authority	16.7%		

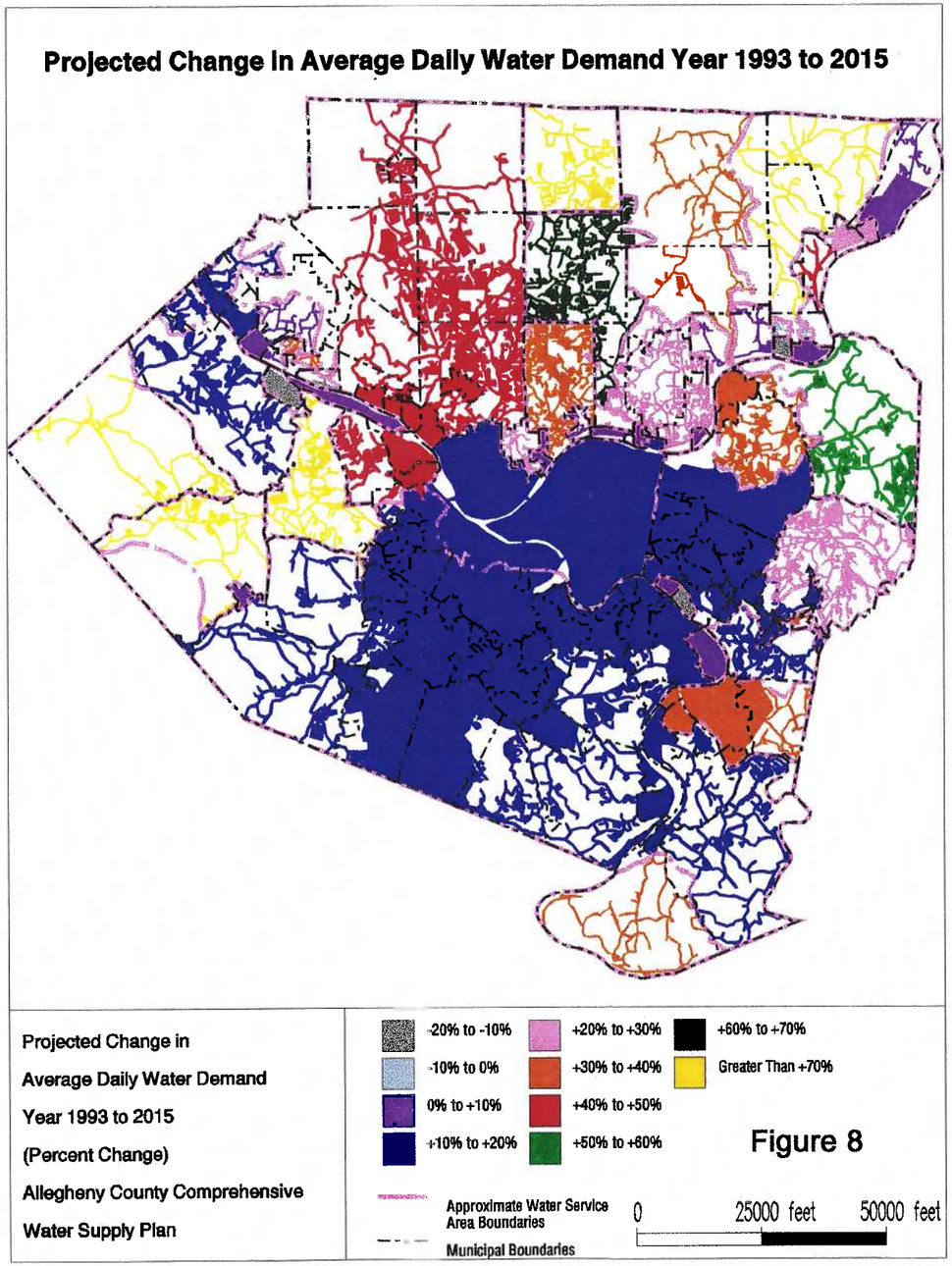


Figure 8

"Unaccounted For and Other" Demands

The average of the rates of "unaccounted for and other" water demands as reported by the water suppliers for the years 1989 through 1993 are tabulated in Table 5 and illustrated in Figure 9 as a percentage of total average daily pumpage. Unaccounted for and other water use, as defined in the Annual Water Supply Reports, is the difference between the water produced at the source(s) and the water used by customers. Generally, this includes water losses through water leakage and such authorized water uses as fire fighting, hydrant testing, water main flushing, sewer and street cleaning, and water treatment plant uses such as filter backwashing that do not produce revenue. Another component of unaccounted for water includes water not registered as being used due to inaccurate customer meters and unauthorized and unmetered usage. Water use in the unaccounted for and other water use category does not generate revenue through sales. Therefore, the general goal should be to minimize the amounts of water in this category to the extent possible. Generally accepted industry standards for acceptable performance indicate that unaccounted for water should be no more than approximately 20 percent.

Table 5
Reported Unaccounted -For and Other Water Use

Water Supplier	Reported "Unaccounted for and Other" Water Demand (% of Average Day Demand)	Water Supplier	Reported "Unaccounted - for and Other" Water Demand (% of Average Day Demand)
Aleppo Township Authority	28.0%	Township of Neville	10.2%
Borough of Aspinwall	9.6%	North Versailles Township Sanitary Authority	32.4%
Borough of Blawnox	4.5%	Borough of Oakdale	24.2%
Borough of Brackenridge	N/A	Borough of Oakmont Municipal Authority	27.7%
Borough of Braddock Water Authority	48.2%	Pennsylvania American Water Company	30.7%
Borough of Cheswick	34.0%	Pittsburgh Water and Sewer Authority	24.1%
Borough of Coraopolis	35.2%	Plum Borough Municipal Authority	10.4%
Creswell Heights Joint Authority	16.9%	Borough of Rankin	21.6%
City of Duquesne	10.8%	Township of Reserve	8.1%
East Deer Township	11.4%	Richland Township Municipal Authority	16.3%
Edgeworth Municipal Authority	7.0%	Robinson Township Municipal Authority	18.3%
Borough of Etna	54.3%	Borough of Sewickley Water Authority	8.6%
Fawn-Frazer Joint Water Authority	26.9%	Township of Shaler	14.2%
Findlay Township Water Authority	24.9%	Borough of Sharpsburg	33.2%
Fox Chapel Authority	14.4%	Borough of Springdale	16.1%
Borough of Glenfield	13.0%	Township of Springdale	11.6%
Hampton Township Municipal Authority	22.8%	Borough of Tarentum	4.8%
Harmar Township Municipal Authority	35.7%	Western Allegheny County M.A.	14.1%
Harrison Township Water Authority	16.9%	M. A. of Westmoreland County	52.2%
Borough of Millvale	18.6%	Borough of West View Municipal Authority	27.1%
Monroeville Water Authority	17.1%	Wilkinsburg-Penn Joint Water Authority	31.5%
Moon Township Municipal Authority	13.6%		

*Note: average of reported 1989 through 1993 values.

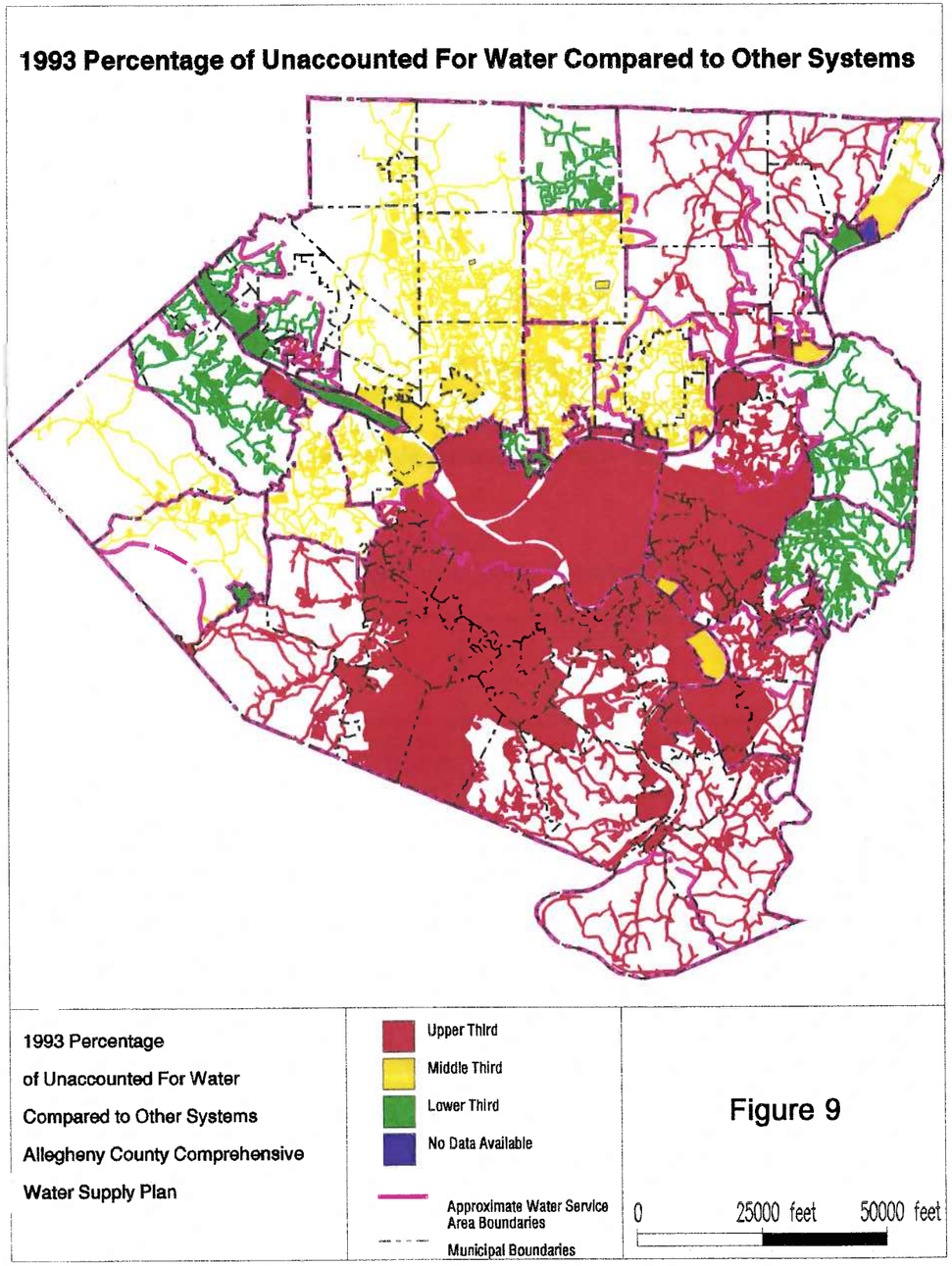


Figure 9

Water Supply Source Capacity

Water supply source capacity is evaluated by comparing the current supply capacity to the maximum-day water demand. General practice is to provide sources of supply that equal or exceed the maximum daily water demand. Water supply source capacity expressed as a percentage of the current and projected maximum daily demands is presented for each of the water systems in Table 6 and Figures 10 and 11. For suppliers utilizing ground water as the source of supply, the water supply capacity is expressed by the reported safe yield of the wells and or ground water cribs. Supply capacities for suppliers using surface water sources are set at the current surface water allocation established for the supplier. Supply capacities for systems that purchase water from other suppliers are expressed as the maximum established supply rates reported by the suppliers or, where no maximum rate has been set, by the estimated maximum physical delivery rate. In instances where multiple sources of supply are employed, the total supply capacity is expressed as the sum of the capacities of the individual sources.

Water systems with source capacities in excess of 110 percent of the maximum-day demands are indicated in green in Table 5 and Figures 9 and 10. These systems can be considered to have a supply surplus have the capacity for potentially supplying water beyond their current limits of service. Systems with source capacities ranging from 90 percent to 110 percent of the maximum-day demands are indicated in black. These systems are considered to have marginal supply capabilities in the face of current and future demands. Systems with source capacities less than 90 percent of the maximum day demands are indicated red and are considered to be deficient. Planning should be undertaken to address the source of supply needs of the water suppliers in the marginal and deficient categories.

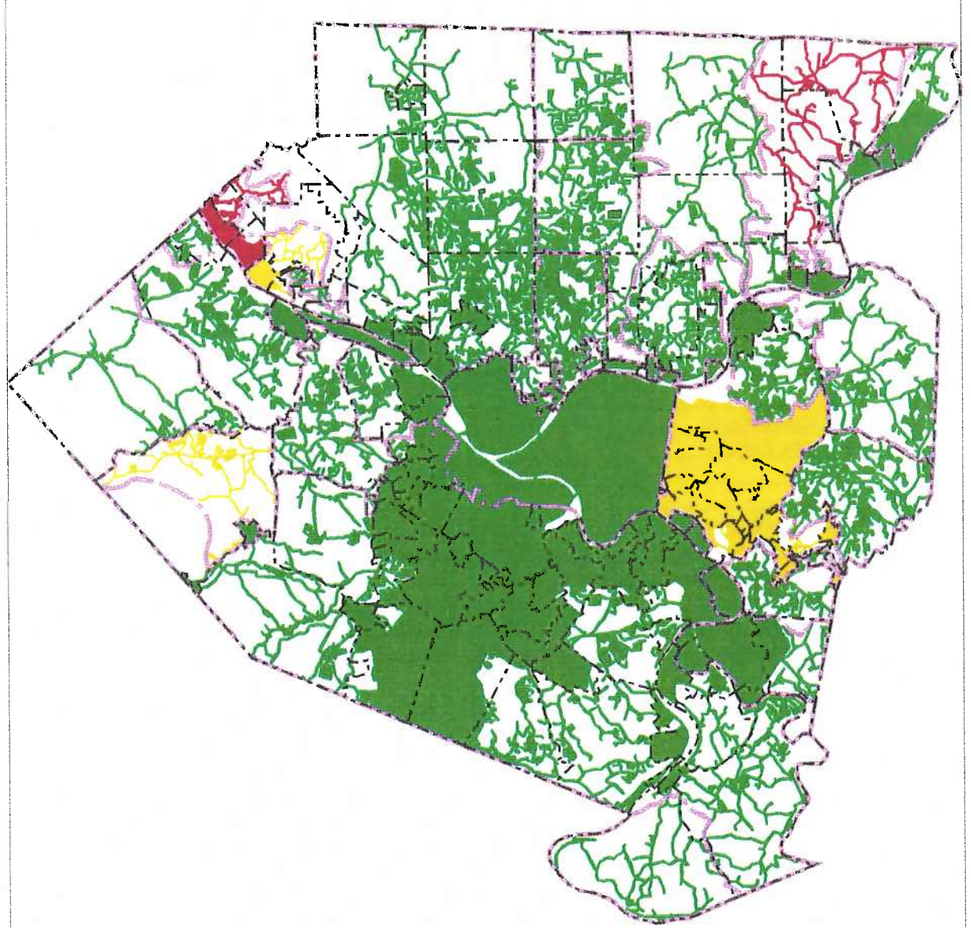
Table 6 contains general recommendations for addressing projected deficiencies in water supplies. The recommended actions for addressing these deficiencies include construction of additional ground water wells, securing additional surface water supply allocations from the Department of Environmental Protection, and negotiating agreements for additional bulk water purchases.

Color Key to Table 5: capacity greater than 110% of demand; capacity between 90% and 110% of demand; capacity less than 90% of demand.

Table 6
Water Supply Capacity

Water Supplier	Source of Supply Capacity (% of Maximum Day Demand) Year 1993	Year 2015	General Recommendations
Aleppo Township Authority	538.6%	391.5%	
Borough of Aspinwall	246.8%	232.6%	
Borough of Blawnox	277.1%	255.2%	
Borough of Brackenridge	127.5%	103.1%	
Borough of Braddock Water Authority	276.7%	275.6%	
Borough of Cheswick	85.3%	127.6%	
Borough of Coraopolis	210.5%	216.4%	
Creswell Heights Joint Authority	184.0%	137.5%	
City of Duquesne	120.2%	123.9%	
East Deer Township	168.0%	103.7%	
Edgeworth Municipal Authority	64.0%	61.1%	Verify and increase well capacity if necessary
Borough of Etna	177.7%	190.3%	
Fawn-Frazer Joint Water Authority	69.2%	35.2%	Negotiate additional purchased supply agreements
Findlay Township Water Authority	222.2%	108.8%	
Fox Chapel Authority	148.8%	121.5%	
Borough of Glenfield	694.0%	837.0%	
Hampton Township Municipal Authority	163.8%	94.3%	
Harmar Township Municipal Authority	164.8%	167.6%	
Harrison Township Water Authority	139.3%	141.1%	
Borough of Millvale	195.3%	190.9%	
Monroeville Water Authority	157.3%	137.9%	
Moon Township Municipal Authority	110.6%	214.4%	
Township of Neville	535.3%	459.9%	
North Versailles Township Sanitary	142.0%	131.1%	
Borough of Oakdale	265.0%	247.9%	
Borough of Oakmont Municipal Authority	116.5%	86.0%	Secure increased surface water allocation
Pennsylvania American Water Company	173.8%	143.5%	
Pittsburgh Water and Sewer Authority	125.5%	98.0%	
Plum Borough Municipal Authority	193.6%	124.4%	
Borough of Rankin	1,120.0%	1,278.0%	
Township of Reserve	163.7%	133.7%	
Richland Township Municipal Authority	276.8%	127.5%	
Robinson Township Municipal Authority	186.7%	182.8%	
Borough of Sewickley Water Authority	102.9%	95.7%	
Township of Shaler	130.1%	90.4%	
Borough of Sharpsburg	800.0%	496.0%	
Borough of Springdale	521.8%	609.3%	
Township of Springdale	522.0%	816.0%	
Borough of Tarentum	117.6%	87.0%	Secure increased surface water allocation
Western Allegheny County Municipal	106.3%	44.7%	Negotiate additional purchased supply agreements
Municipal Authority of Westmoreland	124.8%	96.7%	
Borough of West View Municipal Authority	177.2%	135.6%	
Wilkinsburg-Penn Joint Water Authority	97.8%	87.3%	Secure increased surface water allocation

Year 1993 Water Supply Capacity



Year 1993 Water Supply Capacity

(Percent of Maximum Day Demand)

Allegheny County Comprehensive

Water Supply Plan

Less than 90%

Between 90% and 110%

Greater than 110%

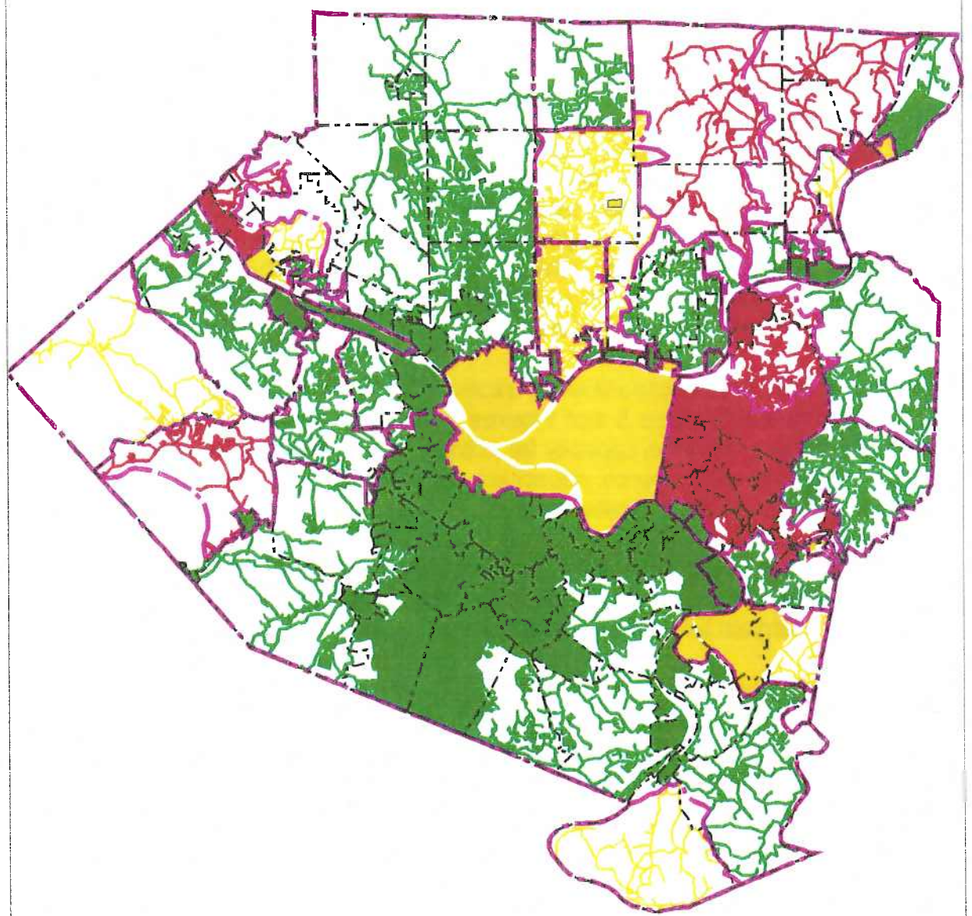
Approximate Water Service Area Boundaries

Municipal Boundaries

0 25000 feet 50000 feet

Figure 10

Year 2015 Water Supply Capacity



Year 2015 Water Supply Capacity

(Percent of Maximum Day Demand)

Allegheny County Comprehensive

Water Supply Plan

Less than 90%

Between 90% and 110%

Greater than 110%

Approximate Water Service Area Boundaries

Municipal Boundaries

0 25000 feet 50000 feet

Figure 11

Water Treatment Capacity

Water treatment capacity is evaluated by comparing the rated capacity of the treatment facilities to the maximum-day water demand. The goal is to provide treatment plant capacities greater than or equal to the maximum daily water demand. Water treatment capacity expressed as a percentage of the current and projected maximum daily demands is presented for each of the water systems in Table 6 and Figures 12 and 13.

Water systems with treatment plant capacities in excess of 110 percent of the maximum-day demands are indicated in green in Table 7 and Figures 12 and 13. These systems can be considered to have a treatment capacity surplus and have the capacity to potentially supply water beyond there current limits of service. Systems with treatment capacities ranging from 90 percent to 110 percent of the maximum-day demands are indicated in black. For these systems, the treatment facility capacities are considered to be marginal in the face of current and future demands. Systems with treatment capacities less than 90 percent of the maximum-day demands are indicated in red and are considered to be deficient. Systems that purchase all of their water from other suppliers and operate no treatment facilities are indicated in blue.

General recommendations regarding the indicated deficiencies are listed in Table 7.

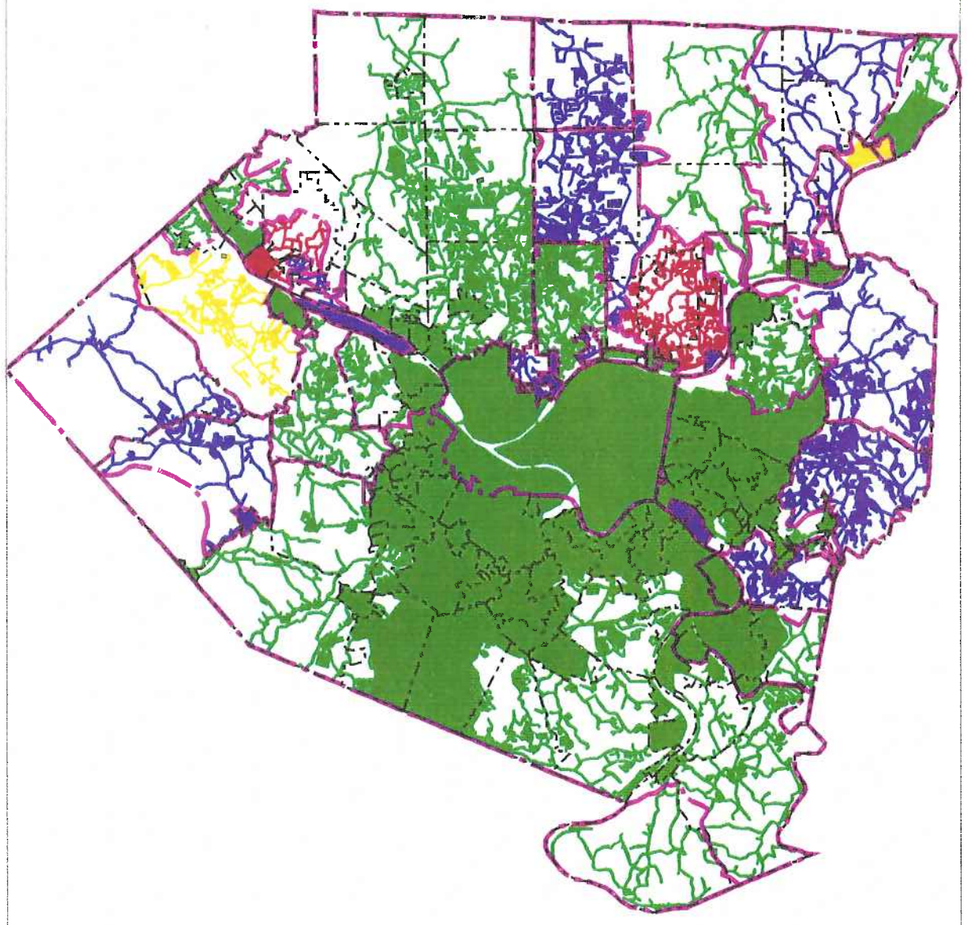
Color Key to Table 6: capacity greater than 110% of demand; capacity between 90% and 110% of demand; capacity less than 90% of demand; no treatment plant.

Table 7
Water Treatment Capacity

Water Supplier	Treatment Plant Capacity (% of Maximum Day Demand)*		General Recommendations
	Year 1993	Year 2015	
Aleppo Township Authority	N/A	N/A	
Borough of Aspinwall	204.2%	192.4%	
Borough of Blawnox	N/A	N/A	
Borough of Brackenridge	105.7%	85.5%	Limit bulk sales to Fawn-Frazer to avoid required capacity increase
Borough of Braddock Water Authority	N/A	N/A	
Borough of Cheswick	89.2%	133.4%	
Borough of Coraopolis	140.1%	144.1%	
Creswell Heights Joint Authority	155.5%	116.2%	
City of Duquesne	120.2%	123.9%	
East Deer Township	N/A	N/A	
Edgeworth Municipal Authority	121.5%	116.0%	
Borough of Etna	N/A	N/A	
Fawn-Frazer Joint Water Authority	N/A	N/A	
Findlay Township Water Authority	N/A	N/A	
Fox Chapel Authority	77.5%	63.3%	Pending implementation of bulk sales purchase agreement with Pittsburgh Water & Sewer Authority will avoid deficiency
Borough of Glenfield	N/A	N/A	
Hampton Township Municipal Authority	N/A	N/A	
Harmar Township Municipal Authority	124.0%	126.1%	
Harrison Township Water Authority	185.8%	188.2%	
Borough of Millvale	N/A	N/A	
Monroeville Water Authority	N/A	N/A	
Moon Township Municipal Authority	98.3%	96.6%	
Township of Neville	N/A	N/A	
North Versailles Township Sanitary	N/A	N/A	
Borough of Oakdale	N/A	N/A	
Borough of Oakmont Municipal Authority	142.4%	105.2%	
Pennsylvania American Water Company	117.5%	97.0%	
Pittsburgh Water and Sewer Authority	148.0%	115.7%	
Plum Borough Municipal Authority	N/A	N/A	
Borough of Rankin	N/A	N/A	
Township of Reserve	N/A	N/A	
Richland Township Municipal Authority	N/A	N/A	
Robinson Township Municipal Authority	88.3%	60.6%	Continue bulk purchases to supplement treatment plant capacity
Borough of Sewickley Water Authority	88.2%	79.2%	Extensive system storage and operational procedures adequately supply demands
Township of Shaler	162.2%	112.8%	
Borough of Sharpsburg	422.8%	262.1%	
Borough of Springdale	112.2%	131.0%	
Township of Springdale	N/A	N/A	
Borough of Tarentum	105.9%	78.3%	Expand plant capacity
Western Allegheny County Municipal	N/A	N/A	
Municipal Authority of Westmoreland	117.5%	95.5%	
Borough of West View Municipal Authority	127.3%	97.4%	
Wilkinsburg-Penn Joint Water Authority	130.4%	116.4%	

*

Year 1993 Water Treatment Capacity



Year 1993 Water Treatment Capacity

(Percent of Maximum Day Demand)

Allegheny County Comprehensive Water Supply Plan

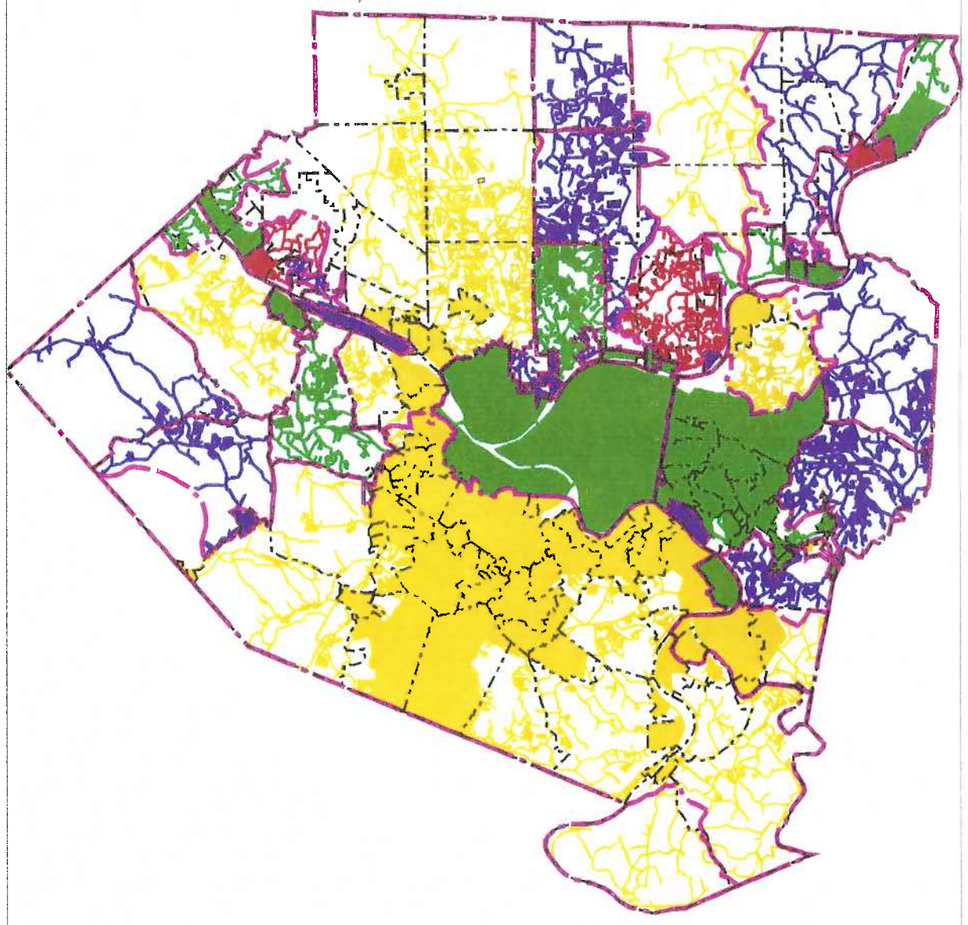
Less than 90%
Between 90% and 110%
Greater than 110%
No Treatment

Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 12

Year 2015 Water Treatment Capacity



Year 2015 Water Treatment Capacity

(Percent of Maximum Day Demand)

Allegheny County Comprehensive Water Supply Plan

Less than 90%
Between 90% and 110%
Greater than 110%
No Treatment

Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 13

Distribution Storage / Emergency Supply Capacity

For the purpose of this plan, distribution storage and emergency supply capacities are evaluated in two ways. First, the volume of water storage facilities operated within the distribution systems are compared to the average daily water demand. The goal is to provide distribution storage volumes greater than or equal to the average daily water demand. Distribution storage capacity expressed as a percentage of the current and projected average daily demand is presented for each of the water systems in Table 8 and Figures 14 and 15.

Water systems with distribution storage volumes in excess of 110 percent of the average daily demands are indicated in green in Table 8 and Figures 14 and 15. These systems can be considered to have adequate distribution system storage volumes viewed from the perspective of reserve supply. However, site and system specific evaluations of distribution storage requirements from the perspective of meeting peak and fire demands, stabilizing working pressures, and optimizing pumping system performance must be conducted on a routine basis. Systems with treatment capacities ranging from 90 percent to 110 percent of the average daily demands are indicated in yellow. For these systems, distribution storage volumes are considered to be marginal in the face of current and future demands. Systems with distribution storage volumes less than 90 percent of the average daily demands are indicated in red and are considered to be deficient.

The second evaluation factor is a comparison of the estimated total emergency supply capacity of systems to the average daily demands. The goal in this instance is to provide a 3-day supply of water in the event that the main source of water is interrupted. The emergency supply capacity includes distribution system storage in the particular system under study and emergency supply interconnections to the system. It also includes distribution system storage and emergency supply interconnections available to any systems to which the supplier under study provides water. The results of this analysis are discussed in the capsule descriptions and summarized in Table 8. Information concerning interconnections and their transfer capacities was obtained from the Allegheny County Emergency Water Supply Study and Annual Water Supply Reports. Since the information available from these sources contains broad estimates of interconnection delivery capacity, the emergency supply capabilities presented herein are approximations based upon available information.

General recommendations for addressing indicated storage and emergency supply capacity deficiencies are indicated in Table 8 and discussed in the capsule descriptions.

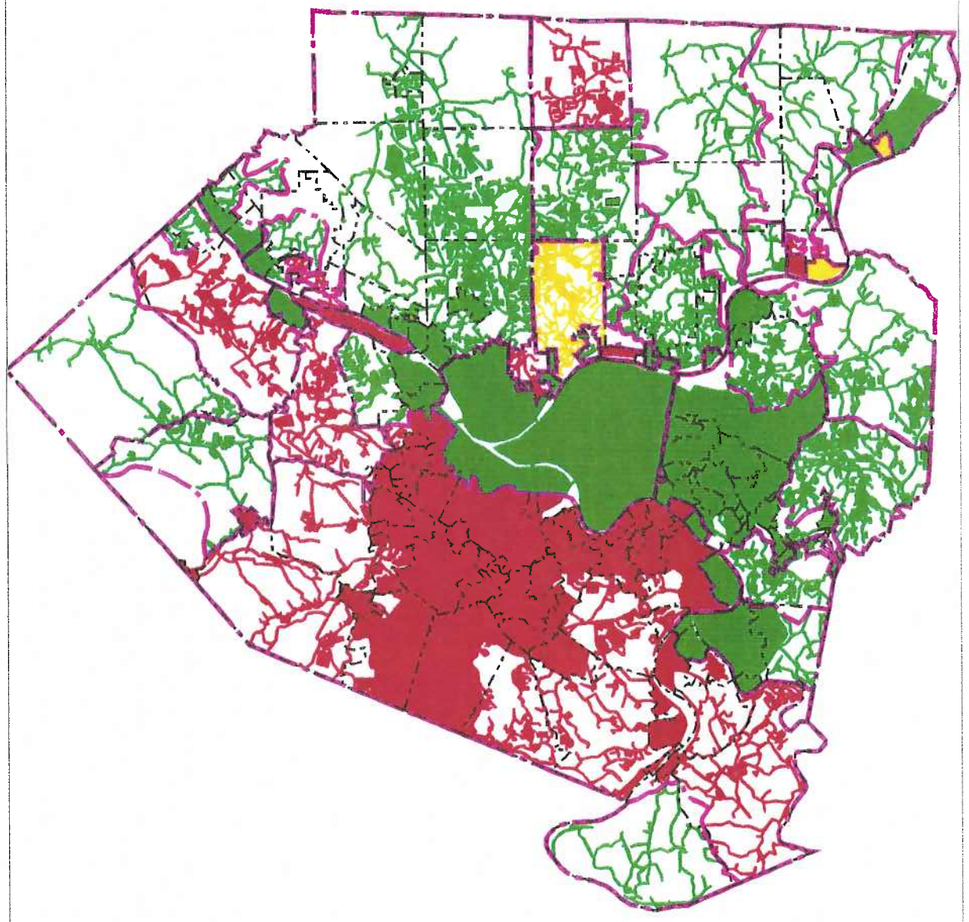
Color Key to Table 8: Distribution storage: volume greater than 110% of demand; volume between 90% and 110% of demand; volume less than 90% of demand.

Emergency supply: > 3 indicates that capacity is greater than or equal to 3-days; n/a indicates that no interconnection capacity estimates are available; <3 indicates that capacity is less than 3-days.

Table 8
Distribution System Storage and Emergency Supply Capacity

Water Supplier	Distribution Storage (% of Average Day)		Estimated Duration of Emergency Supply		Recommendations
	Year 1993	Year 2015	Year 1993	Year 2015	
Aleppo Township Authority	0.0%	0.0%	>3	>3	Continued reliance on supplier's storage
Borough of Aspinwall	112.1%	106.3%	>3	>3	
Borough of Blawnox	215.8%	198.2%	>3	>3	
Borough of Brackenridge	95.7%	63.9%	>3	>3	Limit sales to Fawn-Frazer
Borough of Braddock Water Authority	142.7%	153.1%	<3	<3	Establish additional connection with supplier
Borough of Cheswick	78.3%	80.3%	>3	>3	Construct additional storage
Borough of Coraopolis	294.5%	295.4%	>3	>3	
Creswell Heights Joint Authority	360.8%	284.9%	>3	>3	
City of Duquesne	277.6%	276.4%	>3	>3	
East Deer Township	255.4%	157.5%	>3	<3	Establish emergency connections and/or construct additional storage
Edgeworth Municipal Authority	156.8%	133.8%	>3	>3	
Borough of Etna	172.9%	172.6%	>3	>3	
Fawn-Frazer Joint Water Authority	304.0%	146.8%	>3	>3	
Findlay Township Water Authority	253.5%	124.1%	>3	>3	
Fox Chapel Authority	130.8%	100.8%	>3	>3	
Borough of Glenfield	0.0%	0.0%	<3	<3	Continued reliance on supplier's storage
Hampton Township Municipal Authority	171.1%	101.8%	>3	>3	
Harmar Township Municipal Authority	170.9%	194.4%	>3	>3	
Harrison Township Water Authority	205.8%	203.4%	n/a	n/a	Determine existing capacity and supplement as required
Borough of Millvale	139.7%	136.5%	n/a	n/a	Verify that the capacity of the existing connections provide adequate emergency supply
Monroeville Water Authority	342.1%	280.4%	>3	>3	
Moon Township Municipal Authority	74.7%	82.4%	>3	<3	Construct additional storage
Township of Neville	0.0%	0.0%	<3	<3	Continued reliance on supplier's storage; establish emergency connection
North Versailles Twp. Sanitary Authority	116.4%	100.0%	>3	>3	
Borough of Oakdale	0.0%	0.0%	>3	>3	Continued reliance on supplier's storage
Borough of Oakmont Municipal Authority	179.3%	132.4%	<3	<3	Determine existing capacity and supplement as required
Pennsylvania American Water Company	58.3%	49.8%	>3	>3	Construct additional storage
Pittsburgh Water and Sewer Authority	679.9%	616.9%	>3	>3	
Plum Borough Municipal Authority	372.9%	247.6%	>3	>3	
Borough of Rankin	0.0%	0.0%	>3	>3	Continued reliance on supplier's storage
Township of Reserve	0.0%	0.0%	>3	>3	Continued reliance on supplier's storage
Richland Township Municipal Authority	69.9%	34.6%	>3	<3	Construct additional storage
Robinson Township Municipal Authority	68.6%	46.2%	<3	<3	Construct additional storage
Borough of Sewickley Water Authority	844.0%	792.2%	>3	>3	
Township of Shaler	96.3%	69.0%	>3	>3	Construct additional storage
Borough of Sharpsburg	52.2%	51.2%	>3	>3	Construct additional storage
Borough of Springdale	101.4%	101.0%	<3	<3	Establish emergency connections and/or construct additional storage
Township of Springdale	0.0%	0.0%	>3	>3	Continued reliance on supplier's storage
Borough of Tarentum	118.7%	89.1%	>3	<3	Implementation of East Deer Township recommendations will address these needs
Western Allegheny County Municipal Authority	192.4%	90.1%	<3	<3	Increase emergency connection capacity or construct additional storage
Mun. Authority of Westmoreland County	149.7%	110.4%	>3	>3	
Borough of West View Municipal Authority	186.1%	140.7%	>3	<3	Establish emergency connections and/or construct additional storage
Wilkinsburg-Penn Joint Water Authority	270.1%	237.4%	>3	>3	

Year 1993 Distribution System Storage Capacity



Year 1993 Distribution System
Storage Capacity
(Percent of Average Day Demand)
Allegheny County Comprehensive
Water Supply Plan

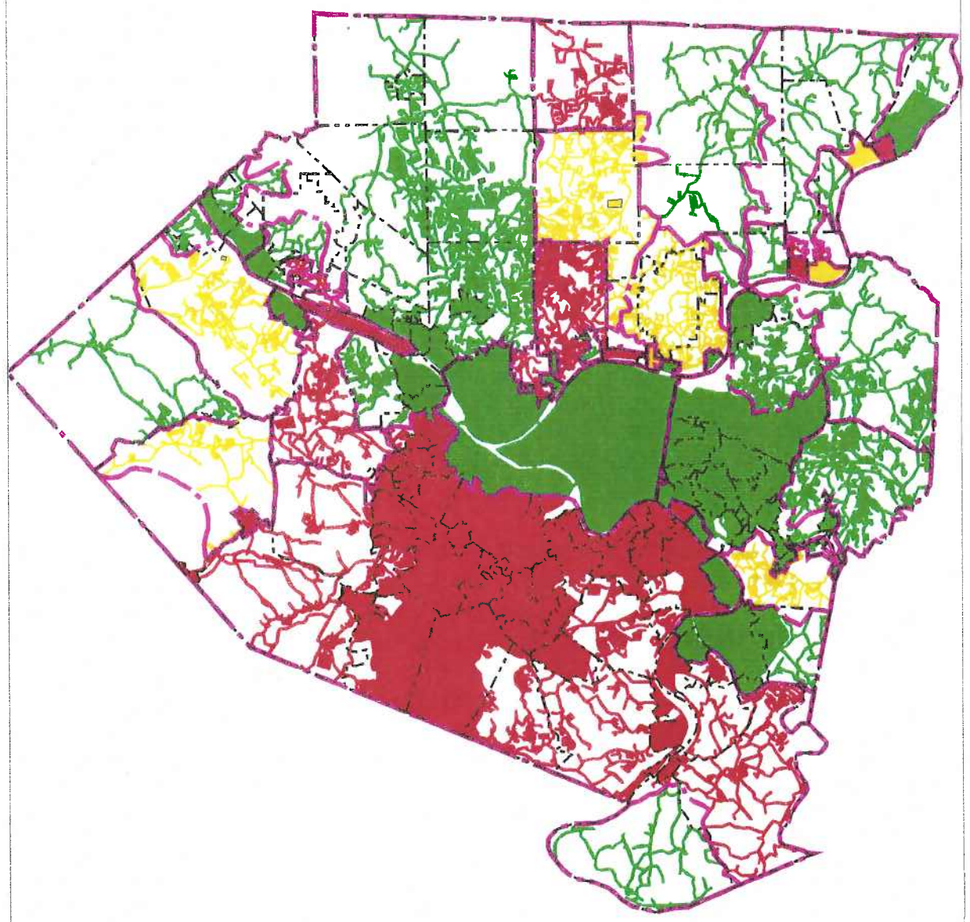
Less than 90%
Between 90% and 110%
Greater than 110%

Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 14

Year 2015 Distribution System Storage Capacity



Year 2015 Distribution System
Storage Capacity
(Percent of Average Day Demand)
Allegheny County Comprehensive
Water Supply Plan

Less than 90%
Between 90% and 110%
Greater than 110%

Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 15

Financial Indicators

Table 9 and Figures 16 through 19 display the following financial indicators: "typical" annual residential water bill (dollars per year per residential customer); percentage of household income expended on water service (percent of median household income); ratio of revenues to expenses; and debt service expenditures (dollars per year per customer served). The typical residential water bills were determined by calculating the water bill associated with the purchase of 17,250 gallons of water per quarter based upon the rate schedules in effect as of June 1995. The 17,250 gallon per quarter consumption rate represents the County-wide consumption average for the domestic or residential billing class. The cost of water in terms of the percentage of the median household income was estimated by dividing the annual water bill by the weighted average of the median annual household incomes reported by the 1990 Census for the municipalities served by each water supplier.

The ratio of total revenues to total expenses was calculated for the year 1993 based upon financial information contained in financial reports submitted by the water systems to the Department of Community Affairs and Public Utility Commission. The estimates of unit debt service expenditures were calculated from debt service expenditures reported in the same financial reports divided by the total number of direct sales customers served during 1993.

It is important to recognize that all of the financial information presented herein represents conditions as they existed during the periods for which the data was reported. Financial information varies over time as costs of operation change, capital projects are financed, and rates are adjusted. The information presented herein provides an indication of conditions as they were reported at the time the data supporting this plan were collected.

Color Key to Table 9:

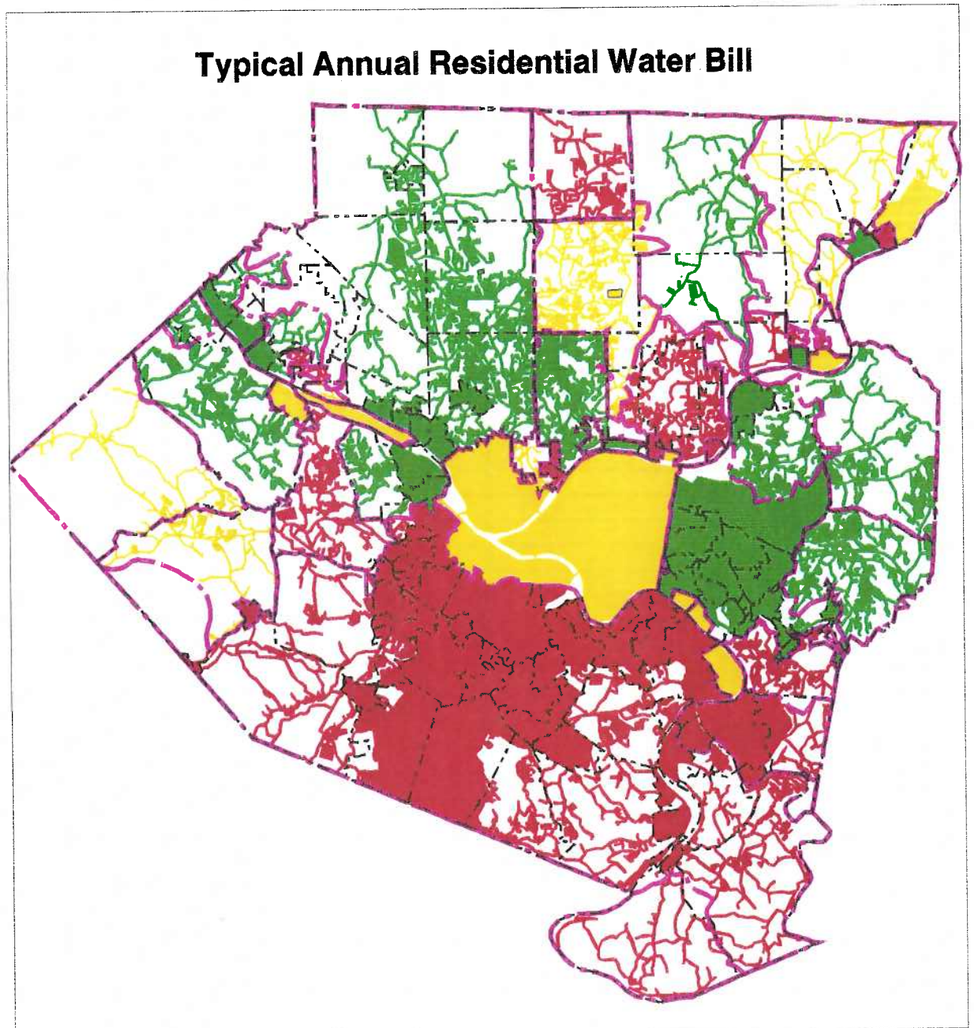
* highest 1/3 of systems; middle 1/3 of systems; lowest 1/3 of systems.

** ratio < 1.0; ratio > 1.0; information not available.

*** highest 1/3 of systems; middle 1/3 of systems; lowest 1/3 of systems; information not available.

Table 9
Financial Indicators

Water Supplier	Typical Residential Water Bill* ($/Year)	Typical Residential Water Bill* (% of Income)	Revenue to Expense Ratio**	Annual Debt Service*** ($/Year/Customer)
Aleppo Township Authority	$298.93	0.70%	1.83	$43.41
Borough of Aspinwall	327.68	1.10%	1.19	55.29
Borough of Blawnox	324.23	1.53%	0.96	7.49
Borough of Brackenridge	337.58	1.52%	1.34	52.86
Borough of Braddock Water Authority	293.48	1.69%	0.96	234.76
Borough of Cheswick	224.20	0.71%	0.99	19.18
Borough of Coraopolis	279.39	1.23%	0.98	6.45
Creswell Heights Joint Authority	212.78	0.57%	1.15	42.17
City of Duquesne	254.35	1.61%	1.04	0.00
East Deer Township	270.84	1.24%	0.87	28.01
Edgeworth Municipal Authority	206.27	0.48%	1.18	0.00
Borough of Etna	206.96	0.83%	1.00	0.00
Fawn-Frazer Joint Water Authority	271.45	0.92%	1.00	20.19
Findlay Township Water Authority	287 79	0.82%	1.08	25.07
Fox Chapel Authority	419.42	0.56%	1.56	31.19
Borough of Glenfield	285.15	1.56%	1.00	0.00
Hampton Township Municipal Authority	285.97	0.66%	1.23	12.86
Harmar Township Municipal Authority	480.67	1.81%	1.05	0.00
Harrison Township Water Authority	267.40	1.08%	1.16	86.13
Borough of Millvale	306.98	1.49%	N/A	N/A
Monroeville Water Authority	213.85	0.59%	1.22	37.63
Moon Township Municipal Authority	137.97	0.33%	1.00	0.00
Township of Neville	265.75	1.14%	N/A	N/A
North Versailles Township Sanitary Authority	341.48	1.36%	1.07	0.00
Borough of Oakdale	381.26	1.19%	1.17	14.33
Borough of Oakmont Municipal Authority	202.90	0.64%	1.06	3.83
Pennsylvania American Water Company	356.80	1.12%	1.29	133.72
Pittsburgh Water and Sewer Authority	250.43	1.21%	1.03	146.76
Plum Borough Municipal Authority	206.35	0.56%	1.02	1.05
Borough of Rankin	281.94	2.59%	0.84	0.00
Township of Reserve	294.29	0.94%	1.00	0.00
Richland Township Municipal Authority	299.97	0.77%	1.06	74.93
Robinson Township Municipal Authority	298.16	0.78%	0.97	356.40
Borough of Sewickley Water Authority	176.58	0.44%	1.25	0.00
Township of Shaler	155.22	0.42%	0.93	35.19
Borough of Sharpsburg	186.26	0.99%	N/A	N/A
Borough of Springdale	241.45	0.88%	0.91	7.06
Township of Springdale	313.45	1.14%	1.05	1.51
Borough of Tarentum	192.11	0.96%	1.01	9.46
Western Allegheny County Municipal Authority	289.75	0.84%	1.20	10.43
Municipal Authority of Westmoreland County	323.45	1.55%	1.25	143.67
Borough of West View Municipal Authority	205.58	0.55%	1.00	39.39
Wilkinsburg-Penn Joint Water Authority	178.28	0.64%	1.31	33.22



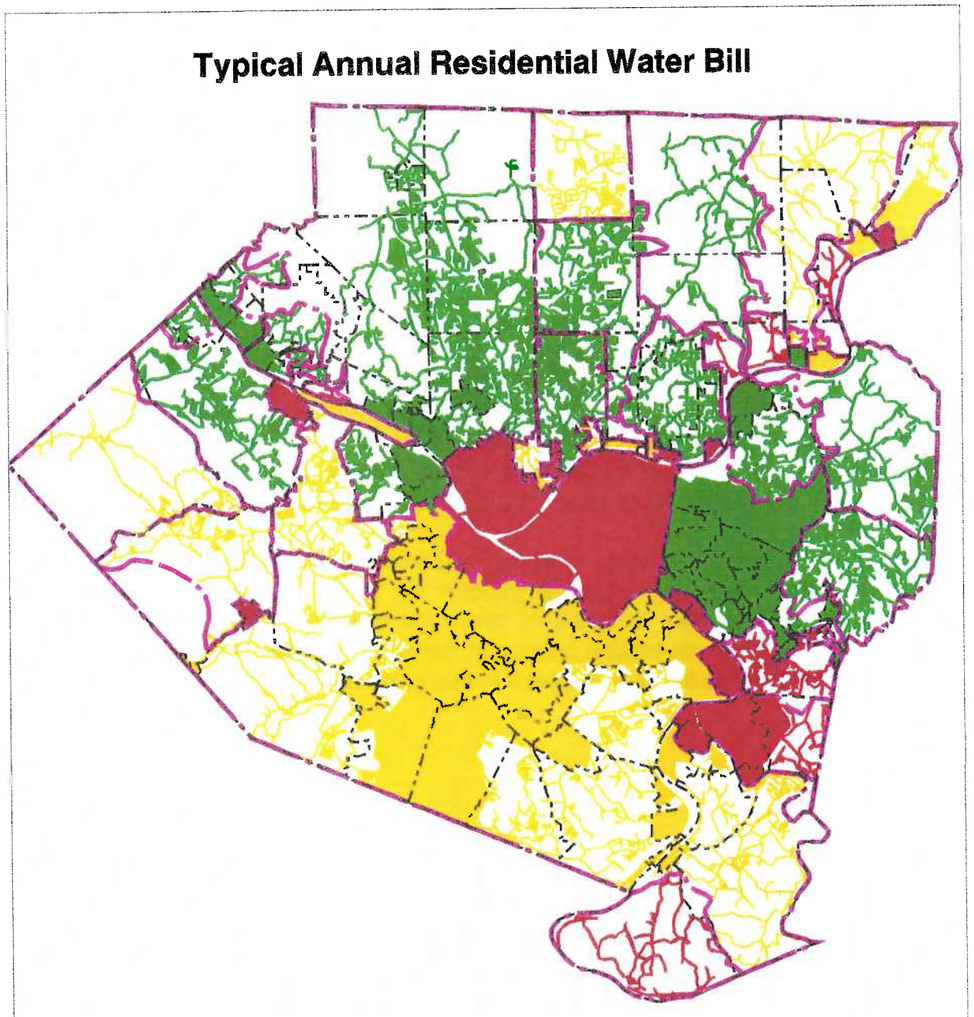
Typical Annual Residential Water Bill
(Dollars per Year)

Allegheny County Comprehensive
Water Supply Plan

Highest third of water bills
Middle third of water bills
Lowest third of water bills
Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 16



Typical Annual Residential Water Bill
(Percent of Median Household Income)

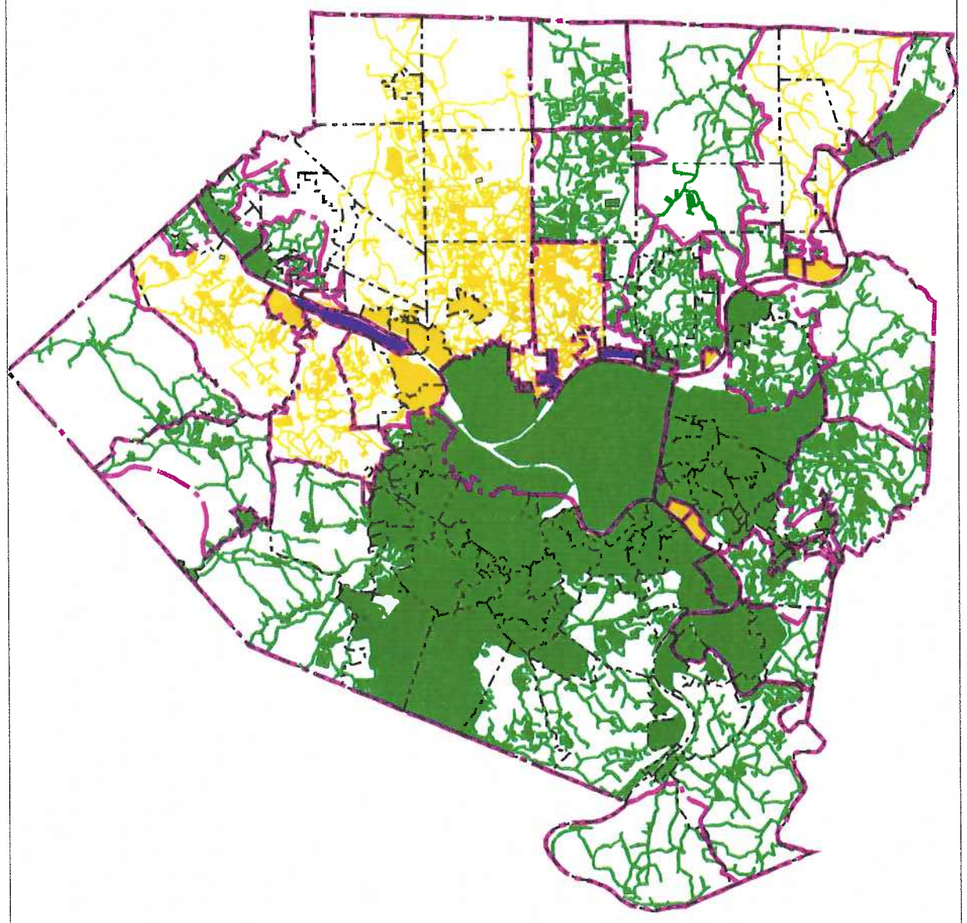
Allegheny County Comprehensive
Water Supply Plan

Highest third of % of income
Middle third of % of income
Lowest third of % of income
Approximate Water Service Area Boundaries
Municipal Boundaries

0 25000 feet 50000 feet

Figure 17

Income to Expense Ratio



Income to Expense Ratio

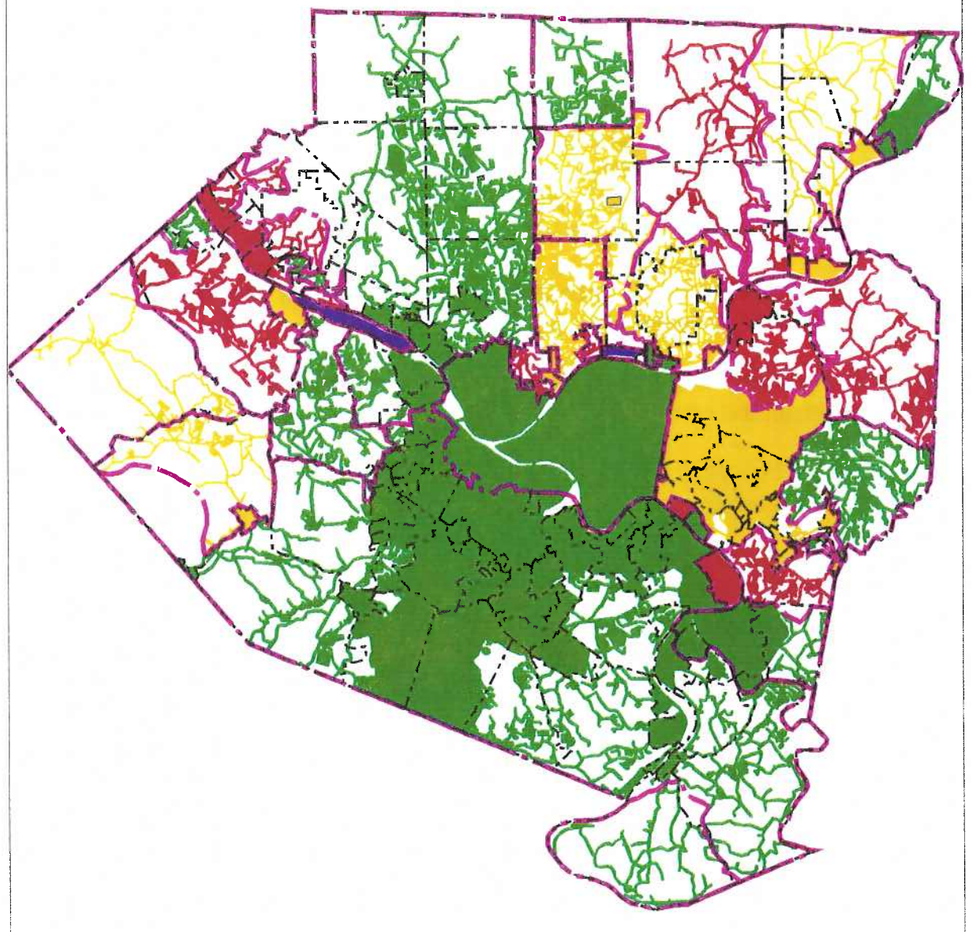
Allegheny County Comprehensive Water Supply Plan

- Ratio less than or equal to 1.0
- Ratio greater than 1.0
- Information not available
- Approximate Water Service Area Boundaries
- Municipal Boundaries

Figure 18

0 25000 feet 50000 feet

Annual Debt Service



Annual Debt Service

(Dollars per Year per Customer)

Allegheny County Comprehensive Water Supply Plan

- Lowest third of debt service
- Middle third of debt service
- Highest third of debt service
- Information not available
- Approximate Water Service Area Boundaries
- Municipal Boundaries

Figure 19

0 25000 feet 50000 feet

General Recommendations

Sources of Supply

Overall, the water resources available to Allegheny County are adequate to meet current and projected future water demands. However, available data indicate that the currently established water supply capacities for several individual water suppliers are less than their estimated maximum-day demands. In addition, our research indicates that a number of ground water suppliers do not have reliable, recent estimates of the safe yields of their supply facilities. The following recommendations are offered in regard to those situations:

- All water suppliers should be encouraged to promote water conservation throughout their service areas through appropriate public education efforts.
- All water suppliers should be encouraged to minimize water losses throughout their systems through the completion of periodic leak detection surveys on a routine basis.
- Ground water suppliers should be encouraged to complete well testing to establish the safe yield of their water supply facilities at a minimum frequency of once every ten years.
- Water suppliers with supply deficiencies should immediately begin planning to increase their supply of raw and/or finished water.
- The shared utilization of available water supplies should be encouraged. This can be accomplished through the purchase of water from nearby systems with surplus capacity.
- Allegheny County and ground water suppliers should proceed with the implementation of the Wellhead Protection Project to protect the quality of the raw water supplies.

Water Treatment Facilities

The total capacity of the water treatment plants serving Allegheny County exceeds current and projected future water demand. However, for several suppliers, current and projected future maximum-day demands approach or exceed treatment capacity. In addition, a number of issues have been identified that may require relatively minor modifications to existing water treatment facilities and operational practices. The following general recommendations are made in regard to water treatment facilities concerns.

- The recommendations concerning water conservation and water loss reduction efforts presented previously are relevant to water treatment issues.
- Water suppliers with indicated deficiencies should immediately begin developing plans for supplementing their water treatment capacities.
- Water suppliers with treatment deficiencies should be encouraged to consider the purchase of water from suppliers with surplus capacity to the extent practicable to avoid or reduce the magnitude of treatment plant expansions. This type of solution offers the opportunity to minimize capital expenditures and more effectively and fully utilize existing water treatment capacities.
- Allegheny County should serve as a technology exchange clearing house for water suppliers. As such, the County should provide periodic regulatory updates concerning the Safe Drinking Water Act regulations that would keep suppliers informed on changes to these regulations.

Distribution Storage / Emergency Supply Facilities

A number of systems have been found to be unable to meet the goals of providing at least one day of distribution system storage and 3-days of emergency water supply. The following recommendations are made relative to distribution storage and emergency water supply interconnections:

- The operation of effective distribution storage volumes at least equal to the average daily water demand in the system should be encouraged as a goal throughout the County.
- Allegheny County should encourage and facilitate projects that provide additional water storage in deficient areas.
- Allegheny County should further evaluate water storage volumes from the perspective of maximizing the capabilities of the emergency water supply delivery system described in the Emergency Water Supply study.
- Allegheny County should proceed with the completion of the Emergency Water Supply study and use the results of the study in emergency response planning. The hydraulic model should be used to estimate the water emergency water supply capacities of the existing interconnections.
- Allegheny County should encourage the installation of additional emergency supply interconnections where feasible. This encouragement can range from advocating the construction of specific interconnections to assisting in the financing of the interconnections.

Specific Recommendations

Specific recommendations for improvements to individual water supply systems have been developed for those systems where current and/or future demands exceed the capacities of their existing sources of supply, treatment, system storage, or total emergency supply capabilities. These recommendations, together with conceptual estimates of the cost of the recommended solutions, are provided in Table 10. The recommendations are preliminary in nature. They are presented in order to describe the type of improvements or solutions that are appropriate and the approximate size of facilities that may be required. Where possible, preliminary project cost estimates for the implementation of the recommendations are presented. Cost estimates include the estimated cost of designing and constructing the recommended facilities in 1995 dollars. The cost estimates are conceptual in nature and include costs for engineering design, construction, and allowances for contingencies. The estimates do not include property acquisition. It is recognized that the final selection of specific recommendations will require detailed feasibility studies and, in some cases, negotiations between suppliers. The recommendations and cost estimates are offered as a guide for further actions.

Capsule Descriptions

Capsule descriptions of each of the water suppliers are presented at the rear of this report. Each description contains the following information:

- A narrative description of the system, together with a discussion of the adequacy of the existing supply, treatment, distribution system storage, and emergency supply facilities under existing and future demand conditions. Recommendations are offered in instances where deficiencies are indicated.

- Tabular and graphical presentations of data describing the capacity of components of the system, the customer base, water demands, and Safe Drinking Water Act compliance record. The graphs of selected customer base, water demand, and facilities capacity information are presented as the values of these parameters graphed against the years of record. These graphs display reported values for the years 1989 through 1993 and the projected values for the year 2015 and are designed to indicate trends in exhibited by each parameter.

- Tabular presentations of representative financial data for each system and graphical representations of key items of financial information in comparison with all of the other systems operating in the County. The graphs of selected financial information are presented as the values for the specific water supplier plotted against the values reported for all of the suppliers. This graphical information is designed to illustrate, at a glance, how each system compares to all of the other systems that serve the County.

- Maps displaying the approximate locations of each system's service area and major facilities. This information is provided for general information purposes. The same information can be accessed at various scales using the County's GIS.

Table 10
Summary of Recommendations

System	Identified Deficiency	Recommendation	Estimated Cost
Borough of Brackenridge	Treatment capacity Distribution storage capacity	Limit future sales to Fawn - Frazer	n/a
Borough of Braddock	Emergency supply capacity	Establish additional connection	$50,000
Borough of Cheswick	Distribution storage capacity	Add 0.25 million gallons of storage	$460,000
East Deer Township	Emergency supply capacity	Increase emergency connections and/or add up to 0.5 million gallons of storage	$750,000 (storage)
Fawn-Frazer Joint Water Authority	Supply capacity	Negotiate bulk service agreements with Borough of Springdale and/or Harrison Township	n/a
Fox Chapel Authority	Treatment capacity	Complete bulk service agreement with Pittsburgh Water and Sewer Authority	n/a
Harrison Township Water Authority	Emergency supply capacity	Determine capacity of existing connections and supplement with additional connections and/or up to 1.0 million gallons of storage	$1,300,000 (storage)
Moon Township Municipal Authority	Distribution storage capacity Emergency supply capacity	Add 2.0 million gallons of storage	$1,000,000
Borough of Oakmont Municipal Authority	Supply capacity Emergency supply capacity	Increase surface water allocation Determine capacity of existing connections and supplement with additional connections and/or up to 10.0 million gallons of storage	$4,300,000 (storage)
Pennsylvania American Water Company	Distribution storage capacity	Add 40.0 million gallons of storage	$17,200,000
Richland Township Municipal Authority	Distribution storage capacity	Add 1.0 million gallons of storage	$1,300,000
Robinson Township Municipal Authority	Treatment capacity Distribution storage capacity Emergency supply capacity	Continue bulk purchases Add 2.0 million gallons of storage	$2,600,000
Shaler Township	Distribution storage capacity	Add 2.0 million gallons of storage	$2,600,000
Borough of Sharpsburg	Distribution storage capacity	Add 0.25 million gallons of storage	$460,000
Borough of Springdale	Emergency supply capacity	Establish emergency connections and/or add up to 0.9 million gallons of storage	$1,200,000
Borough of Tarentum	Supply capacity Treatment capacity	Secure increased surface water allocation and expand plant by 0.6 million gallons per day	n/a
Western Allegheny County Municipal Auth.	Supply capacity Emergency supply capacity	Negotiate increases in supply capacities and increase emergency supply capacities and/or add up to 3.0 million gallons of storage	$3,800,000 (storage)
Borough of West View Municipal Authority	Emergency supply capacity	Establish emergency supply connections and/or add up to 25.0 million gallons of storage	$10,730,000 (storage)
Wilkinsburg-Penn Joint Water Authority	Supply capacity	Secure increased surface water allocation	$5,000

Capsule Descriptions

Aleppo Township Authority

The Aleppo Township Authority serves approximately 484 customers in the following municipalities:

Aleppo Township
Glenfield Borough
Osborne Borough
Sewickley Heights Borough

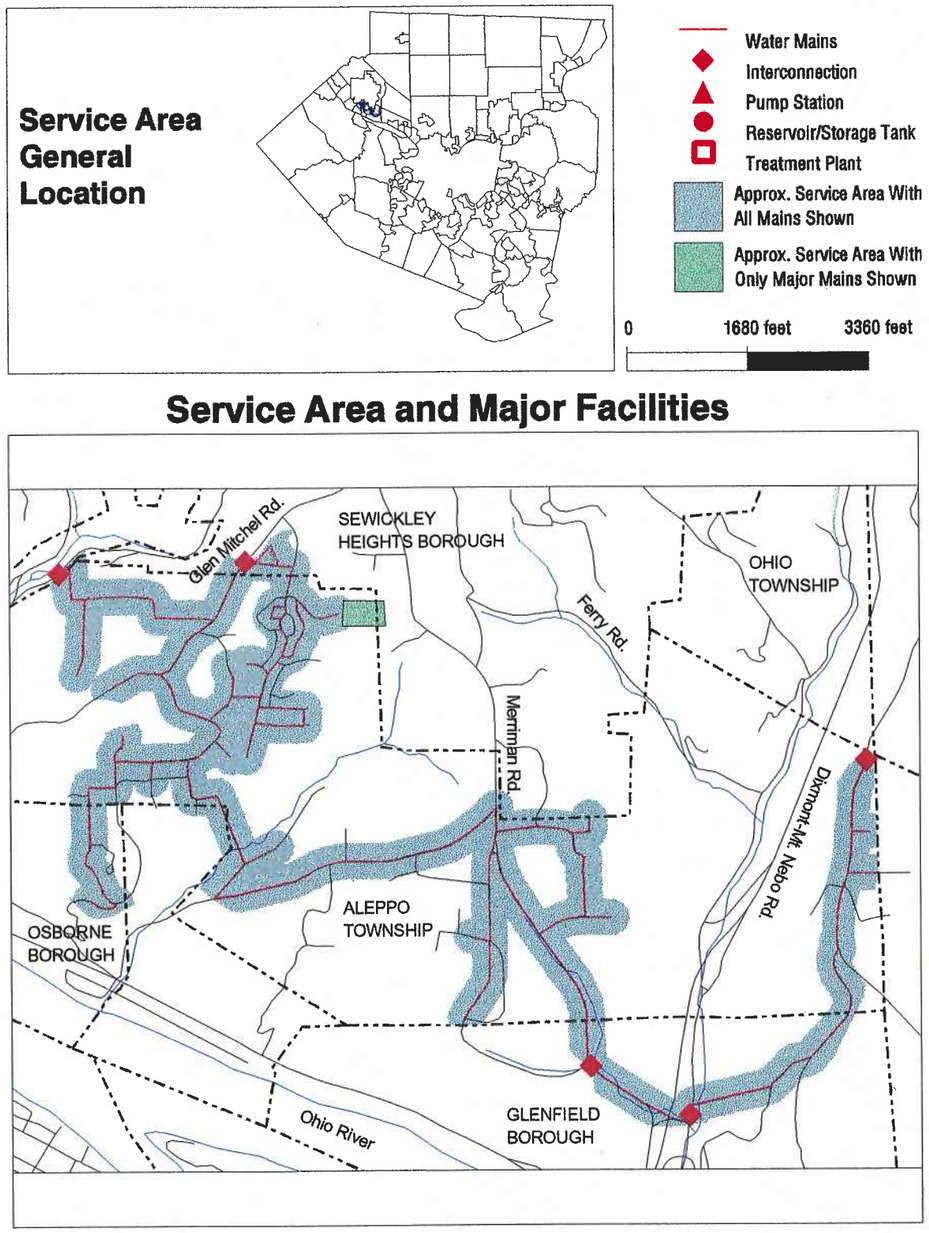
The Authority also sells water in bulk for resale to Glenfield Borough.

The Aleppo Township Authority owns and operates both the water and wastewater facilities serving Aleppo Township. The Authority was established in 1967. The authority board is composed of five members who are appointed by the Aleppo Township supervisors.

The Authority purchases its water supply in bulk from the Municipal Authority of the Borough of West View and the Sewickley Water Authority. The Authority operates no treatment facilities, storage facilities, or pumping stations.

During the past five years, the Authority has experienced an 8.3 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.159 million gallons per day.

The total service population is projected to increase from approximately 1,056 persons in 1993 to approximately 1,563 by the year 2015. Average daily water demands are projected to increase from 0.158 mgd (estimated 0.226 mgd maximum day) in 1993 to 0.215 mgd (0.307 mgd maximum day) in the year 2015. These demands are within the current combined capacity of the Authority's sources of supply. Since the Authority operates no storage facilities, it relies upon the storage capacity of the two supplier systems. Projections indicate that both of these suppliers will have sufficient distribution storage volume to provide more than a 1-day volume through the year 2015. Moreover, each of the Aleppo Township's two water suppliers has the ability to supply the Authority with water in excess of the Authority's current and projected total average daily demands. Therefore, the Authority can be supplied with water for a period exceeding three days with any one of its supply sources interrupted.



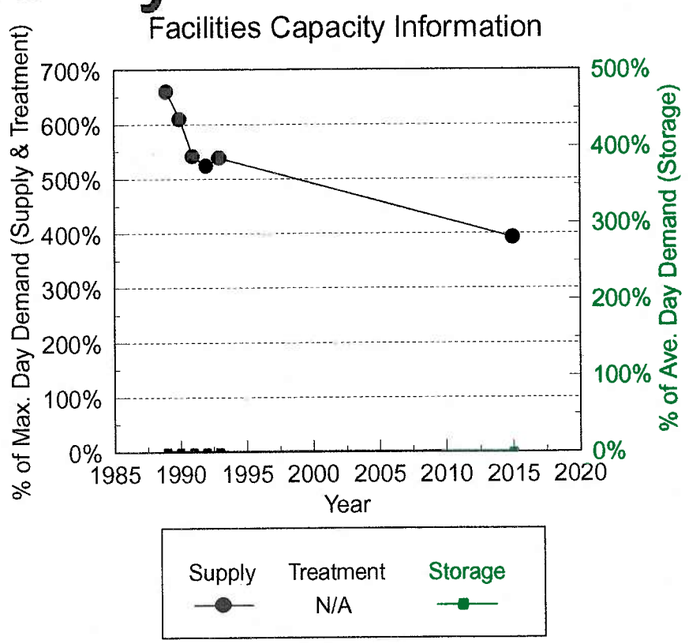
Aleppo Township Authority

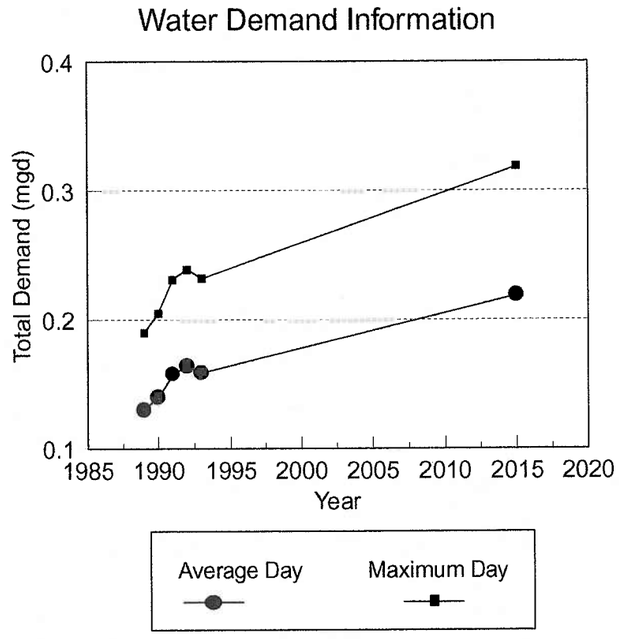
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.25	1.25	1.25	1.25	1.25	1.25
Municipal Authority of Borough of West View	1.00	1.00	1.00	1.00	1.00	1.00
Sewickley Borough	0.25	0.25	0.25	0.25	0.25	0.25
Treatment / Pumping Facility Capacity (mgd)	0.00	0.00	0.00	0.00	0.00	0.00
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	659.4%	609.6%	541.2%	523.2%	538.6%	391.5%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Treated Water Storage (% of ave. day))	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

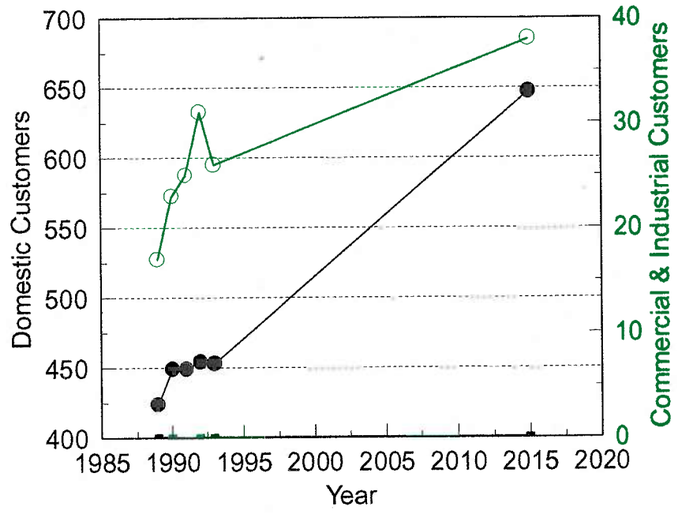
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	92%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	83%	92%	100%	100%	92%	

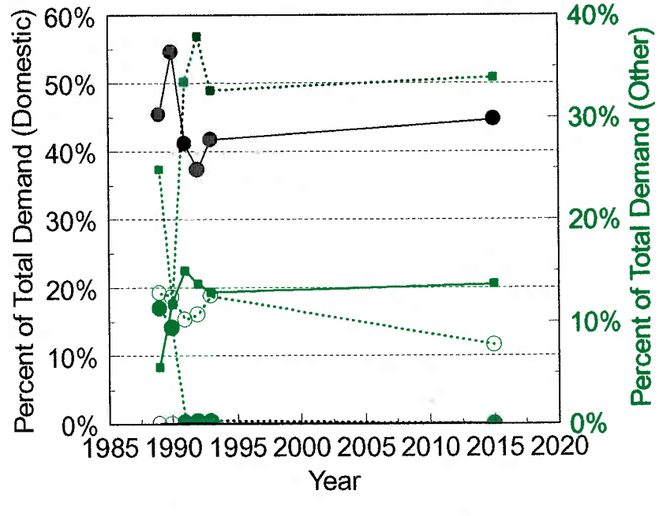
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.130	0.140	0.158	0.164	0.159	0.219
Maximum Day Total Water Use (mgd)	0.190	0.205	0.231	0.239	0.232	0.319
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.059	0.077	0.065	0.061	0.066	0.098
Commercial	0.007	0.017	0.024	0.022	0.020	0.030
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.015	0.013	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.017	0.017	0.016	0.018	0.020	0.017
Unaccounted for and other	0.032	0.016	0.053	0.062	0.052	0.074
Average Daily Water Use (gpd/customer)	218	259	220	207	221	210
Average Daily Water Use by Customer Class (% of total)						
Domestic	45.4%	54.8%	41.1%	37.3%	41.7%	44.7%
Commercial	5.6%	11.8%	15.0%	13.7%	12.9%	13.7%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	11.3%	9.4%	0.2%	0.3%	0.3%	0.0%
Bulk Sales to Suppliers	12.8%	12.4%	10.2%	10.7%	12.5%	7.7%
Unaccounted for and other	24.9%	11.7%	33.5%	37.9%	32.8%	33.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	447	478	479	490	484	690
Number of Customers by Class						
Domestic	424	449	449	454	453	647
Commercial	17	23	25	31	26	38
Industrial	0	0		0	0	0
Institutional	5	5	4	4	4	4
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	988	1,047	1,047	1,058	1,056	1,563
Number of Customers by Class (% of total)						
Domestic	94.9%	93.9%	93.7%	92.7%	93.6%	93.8%
Commercial	3.8%	4.8%	5.2%	6.3%	5.4%	5.5%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	1.1%	1.0%	0.8%	0.8%	0.8%	0.6%
Bulk Sales to Suppliers	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%









Aleppo Township Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$43,660
Dollars per 1,000 gallons sold	$1.13
Other Revenues	$4,355
TOTAL OPERATING REVENUES	$48,015
Dollars per 1,000 gallons sold	$1.24
Expenses	
Operating Expenses	
Total dollars per year	$5,214
Dollars per 1,000 gallons sold	$0.13
Debt Service	
Total dollars per year	$21,012
Dollars per customer served	$43.41
Other Expenses	$0
TOTAL EXPENSES	$26,226
Dollars per 1,000 gallons sold	$0.68
Net Revenues (dollars)	$21,789
Ratio of revenues to expenses	1.83
Average Annual Residential Bill	
Dollars per year per customer	$298.93
% of Median Household Income	0.70%
Retained Earnings	$947,354
Retained Earnings ($/customer)	$1,957.34

Legend

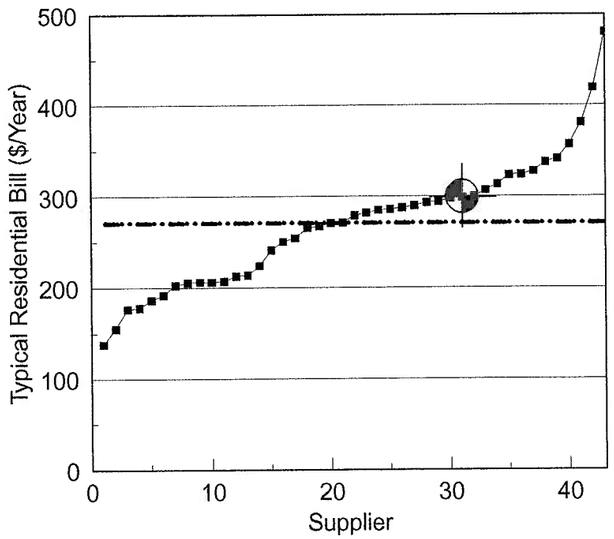
Value for this supplier

Mean value for all suppliers reporting data

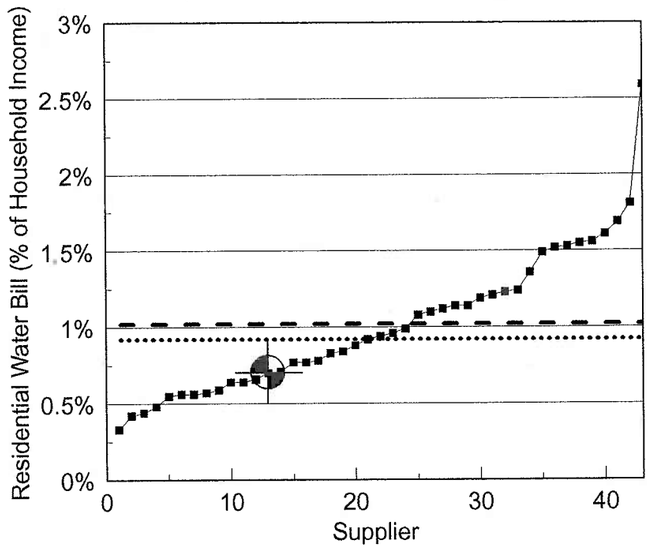
Median value for all suppliers reporting data

Individual supplier data

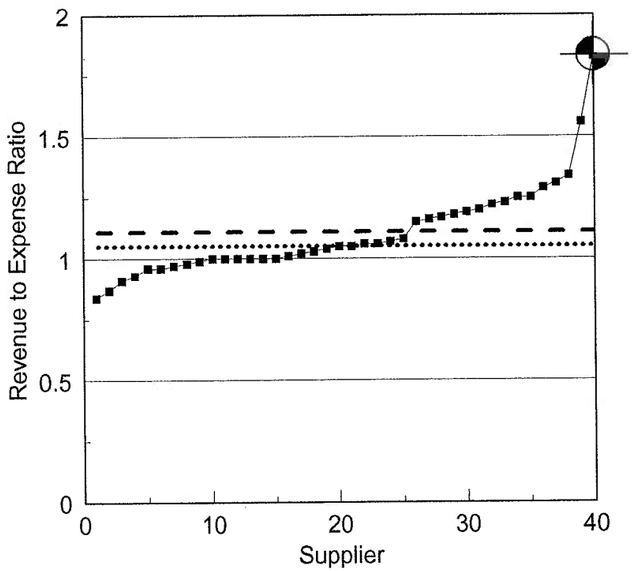
Typical Residential Water Bill
(Dollars Per Year)



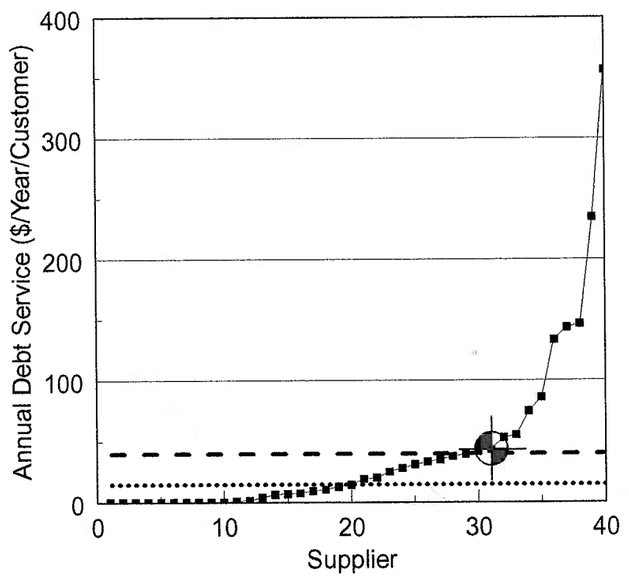
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Aspinwall Borough

Aspinwall Borough serves approximately 1,107 customers in the following municipalities:

Aspinwall Borough
O'Hara Township

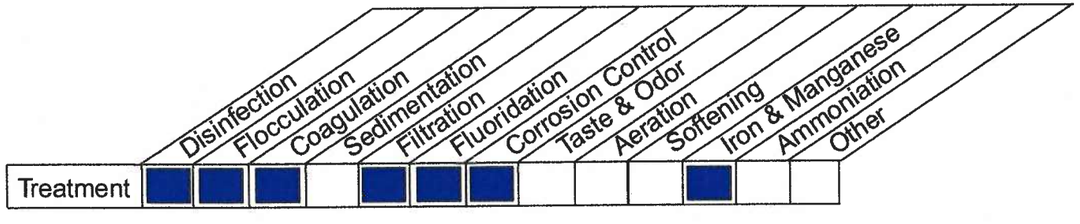
All but 10 of the customers are located in Aspinwall Borough.

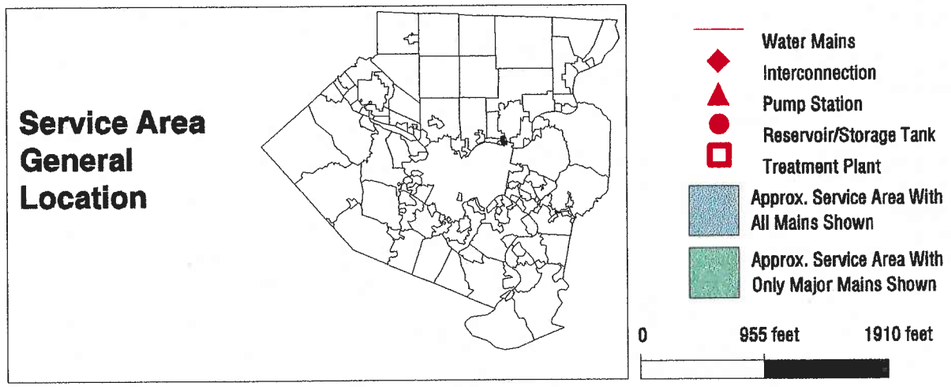
The water system is owned and operated by the Borough of Aspinwall and is managed as a department of the Borough.

The Borough owns a water treatment plant and has wells situated along the Allegheny River as a source of supply. The water treatment process train at the Borough's treatment plant is illustrated below.

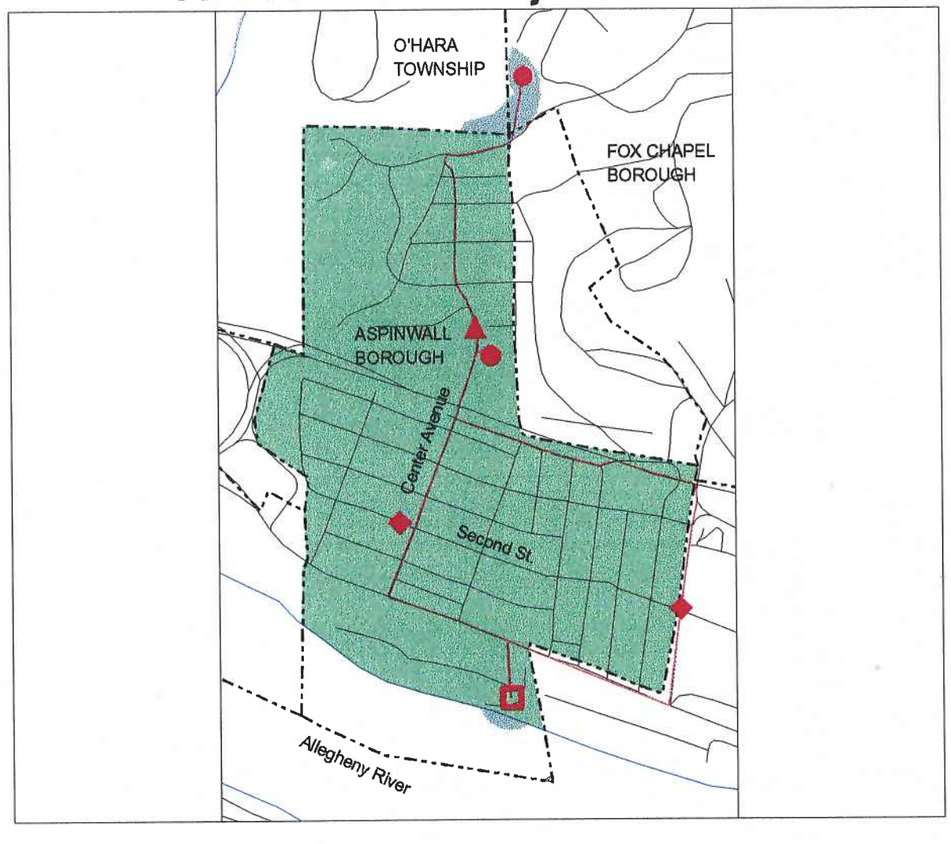
During the past five years, the number of customers served by the Borough has remained essentially constant at approximately 1,200. Total water use in the Borough system averaged 0.335 million gallons per day (mgd) in 1993.

The total service population is projected to increase from approximately 2,904 persons in 1993 to approximately 3,067 by the year 2015. Average daily water demands are projected to increase from 0.335 mgd (0.490 mgd maximum day) in 1993 to 0.353 mgd (0.520 mgd maximum day) in the year 2015. These demands are within capacity of the Borough's water treatment plant through the year 2015. The Borough's storage facilities are expected to provide in excess of a 1-day storage volume throughout the planning period. This storage volume, coupled with the emergency supply capabilities from the Pittsburgh Water & Sewer Authority are expected to be adequate to provide more than a 3- day emergency supply throughout the planning period.





Service Area and Major Facilities



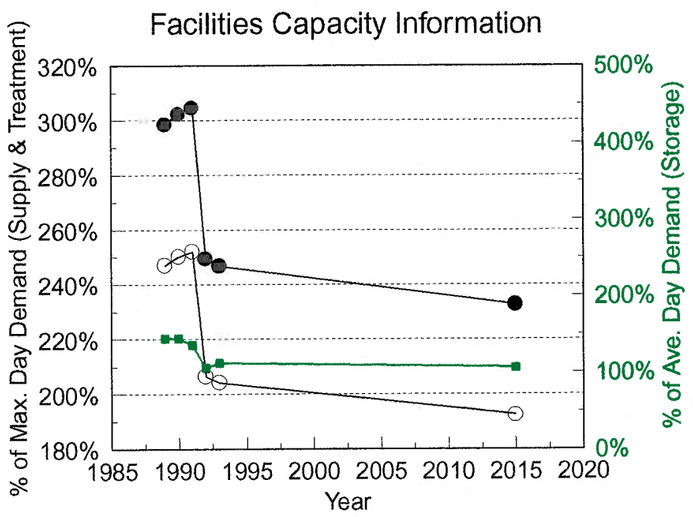
Aspinwall Borough

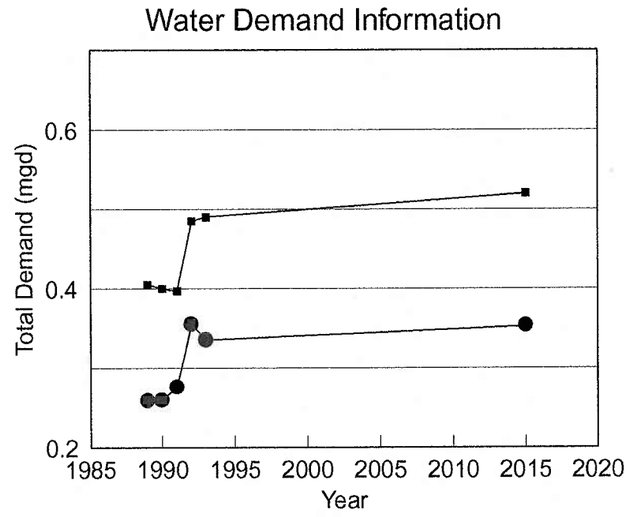
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.21	1.21	1.21	1.21	1.21	1.21
Wells	1.21	1.21	1.21	1.21	1.21	1.21
Treatment / Pumping Facility Capacity (mgd)	1.00	1.00	1.00	1.00	1.00	1.00
Total Treated Water Storage (million gallons)	0.38	0.38	0.38	0.38	0.38	0.38
Total Supply Source(s) Capacity (% of max. day)	298.5%	302.3%	304.5%	249.5%	246.8%	232.6%
Treatment / Pumping Facility Capacity (% of max. day)	246.9%	250.1%	251.9%	206.4%	204.2%	192.4%
Total Treated Water Storage (% of ave. day))	144.5%	144.2%	135.7%	105.7%	112.1%	106.3%

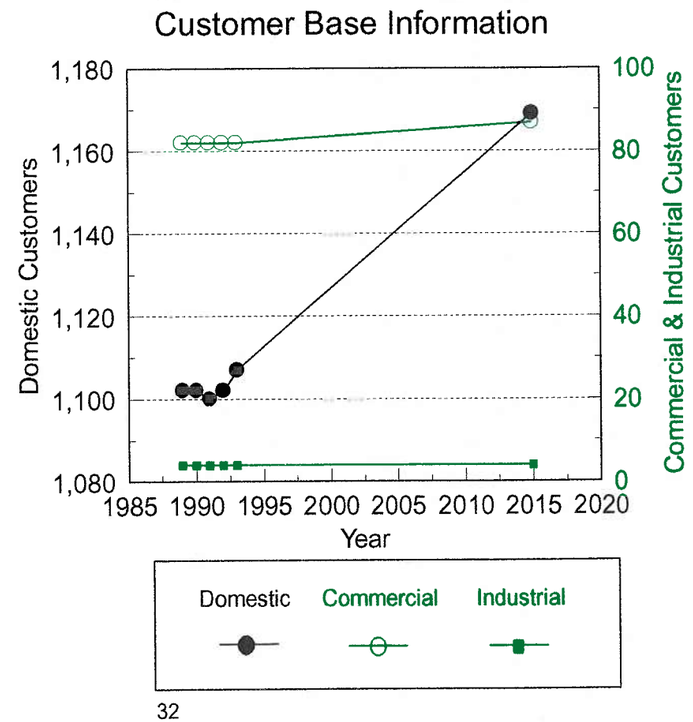
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

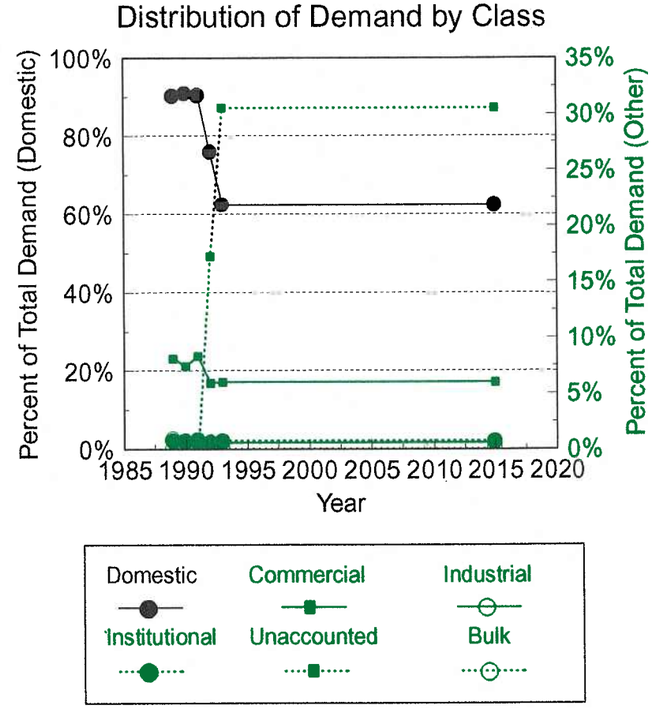
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.259	0.260	0.276	0.355	0.335	0.353
Maximum Day Total Water Use (mgd)	0.405	0.400	0.397	0.485	0.490	0.520
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.234	0.236	0.249	0.269	0.208	0.220
Commercial	0.021	0.019	0.023	0.021	0.020	0.021
Industrial	0.002	0.002	0.002	0.002	0.002	0.002
Institutional	0.002	0.002	0.002	0.002	0.002	0.002
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.000	0.001	0.000	0.061	0.102	0.108
Average Daily Water Use (gpd/customer)	216	217	231	245	194	193
Average Daily Water Use by Customer Class (% of total)						
Domestic	90.1%	90.8%	90.2%	75.8%	62.3%	62.2%
Commercial	8.1%	7.4%	8.3%	5.9%	6.0%	6.0%
Industrial	0.9%	0.7%	0.8%	0.6%	0.6%	0.6%
Institutional	0.7%	0.7%	0.8%	0.5%	0.7%	0.7%
Bulk Sales to Suppliers	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	0.2%	0.3%	0.0%	17.2%	30.5%	30.5%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,197	1,197	1,195	1,197	1,201	1,268
Number of Customers by Class						
Domestic	1,102	1,102	1,100	1,102	1,107	1,169
Commercial	82	82	82	82	82	87
Industrial	4	4	4	4	4	4
Institutional	9	9	9	9	8	8
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	2,891	2,891	2,888	2,891	2,904	3,067
Number of Customers by Class (% of total)						
Domestic	92.1%	92.1%	92.1%	92.1%	92.2%	92.2%
Commercial	6.9%	6.9%	6.9%	6.9%	6.8%	6.8%
Industrial	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Institutional	0.8%	0.8%	0.8%	0.8%	0.7%	0.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Aspinwall Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$287,551
Dollars per 1,000 gallons sold	$3.40
Other Revenues	$47,817
TOTAL OPERATING REVENUES	$335,368
	$3.96
Expenses	
Operating Expenses	
Total dollars per year	$194,611
Dollars per 1,000 gallons sold	$2.30
Debt Service	
Total dollars per year	$66,400
Dollars per customer served	$55.29
Other Expenses	$20,810
TOTAL EXPENSES	$281,821
Dollars per 1,000 gallons sold	$3.33
Net Revenues (dollars)	$53,547
Ratio of revenues to expenses	1.19
Average Annual Residential Bill	
Dollars per year per customer	$327.68
% of Median Household Income	1.10%
Retained Earnings	$88,000
Retained Earnings ($/customer)	$73.27

Legend

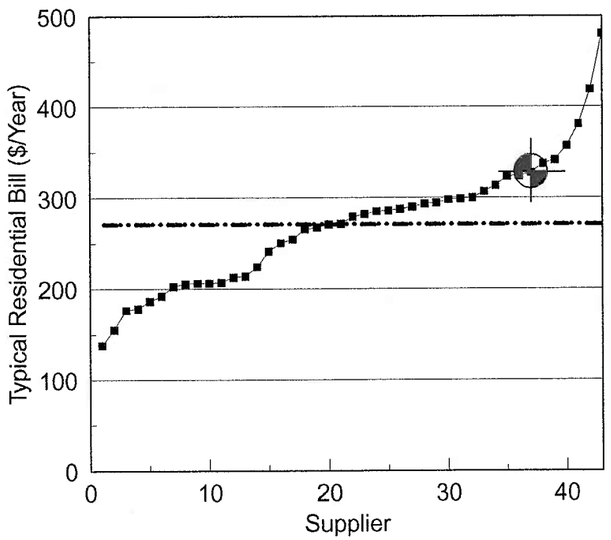
Value for this supplier

Mean value for all suppliers reporting data

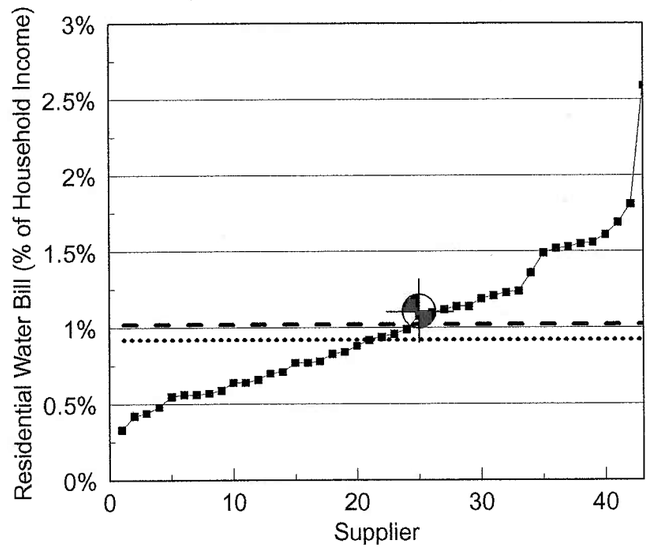
Median value for all suppliers reporting data

Individual supplier data

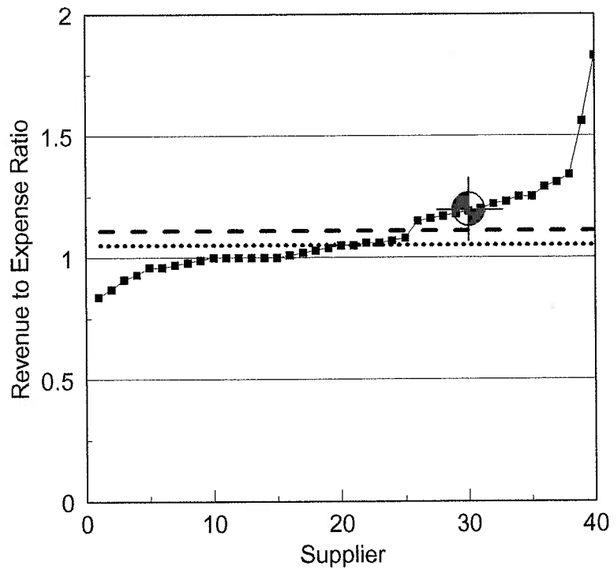
Typical Residential Water Bill
(Dollars Per Year)



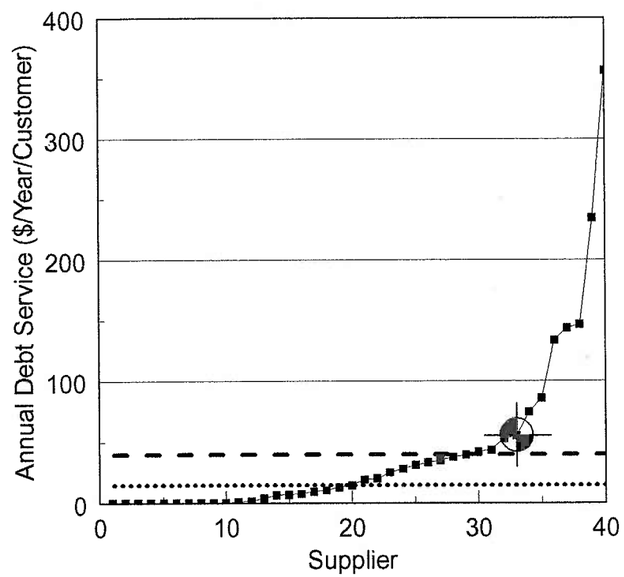
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Blawnox Borough

The Borough of Blawnox serves approximately 821 customers in the following municipalities:

Blawnox Borough
O'Hara Township

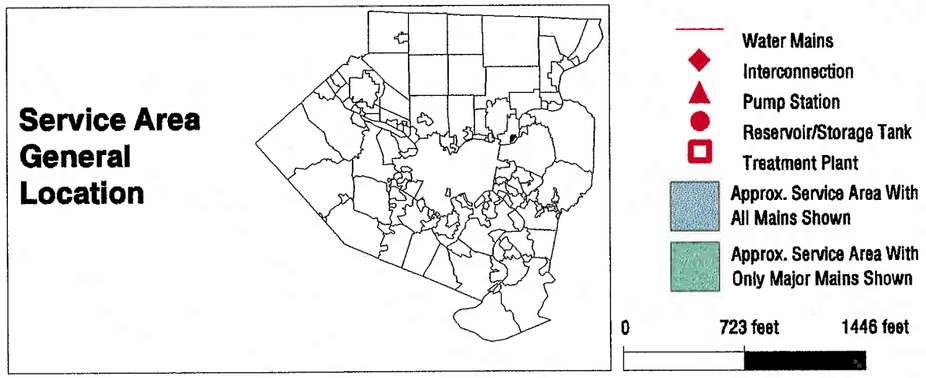
All but 12 of the customers are located in Blawnox Borough.

The water system is owned and operated by Blawnox Borough as a department of the Borough.

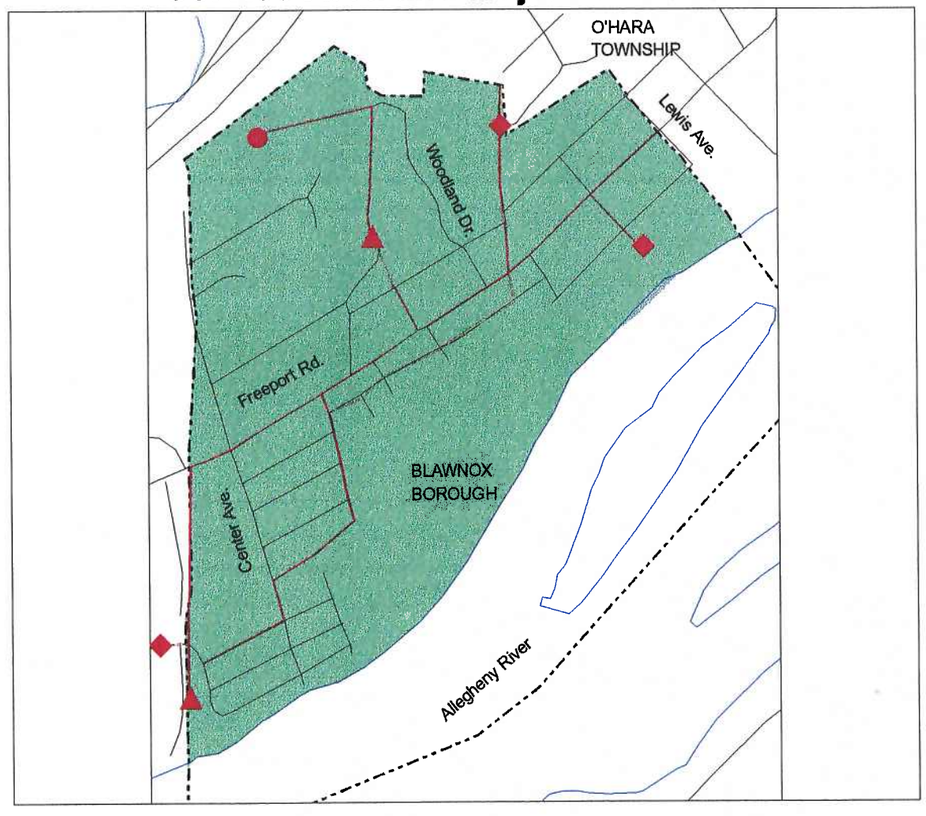
The Borough purchases its water supply in bulk from the Pittsburgh Water and Sewer Authority. The Borough operates no treatment facilities, one distribution system facility, and two booster pumping stations.

Between 1989 and 1992, the Borough has experienced an 18.6 percent rise in the total number of customers served. In 1992, water use averaged 0.162 million gallons per day (mgd).

The total service population is projected to increase from approximately 1,626 persons in 1992 to approximately 1,775 by the year 2015. Average daily water demands are projected to increase from 0.162 mgd (estimated 0.182 mgd maximum day) in 1992 to 0.177 mgd (0.198 mgd maximum day) in the year 2015. These demands are within the current delivery capacity of the Authority's source of supply. Projections indicate that Borough's distribution storage volume will provide in excess of a 2-day storage volume through the year 2015. This storage volume, coupled with emergency connections with the Pittsburgh Water and Sewer Authority and the Fox Chapel Authority provide the Borough with more than a 3-day emergency supply should the main supply be interrupted.



Service Area and Major Facilities



Blawnox Borough

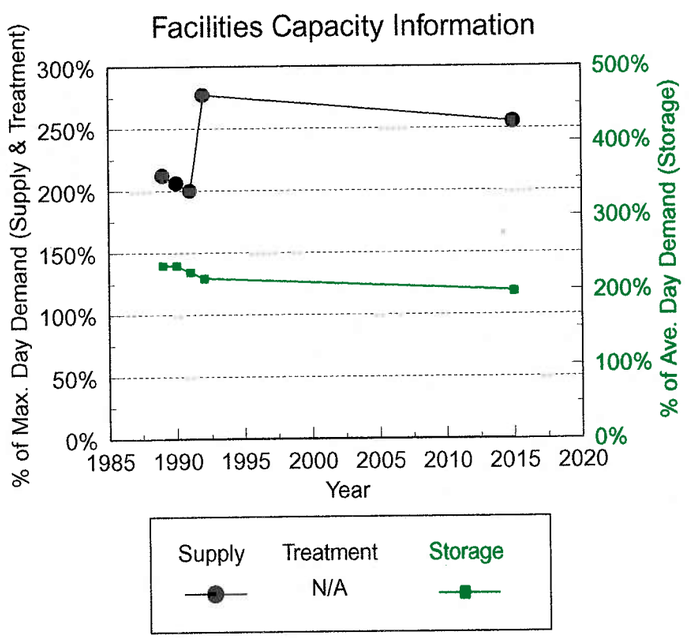
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.35	0.35	0.35	0.50	0.50	0.50
City of Pittsburgh	0.35	0.35	0.35	0.50	0.50	0.50
Treatment / Pumping Facility Capacity (mgd)	0.00	0.00	0.00	0.00	0.00	0.00
Total Treated Water Storage (million gallons)	0.35	0.35	0.35	0.35	0.35	0.35
Total Supply Source(s) Capacity (% of max. day)	212.1%	205.9%	200.0%	277.1%		255.2%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%		0.0%
Total Treated Water Storage (% of ave. day))	233.3%	233.3%	224.4%	215.8%		198.2%

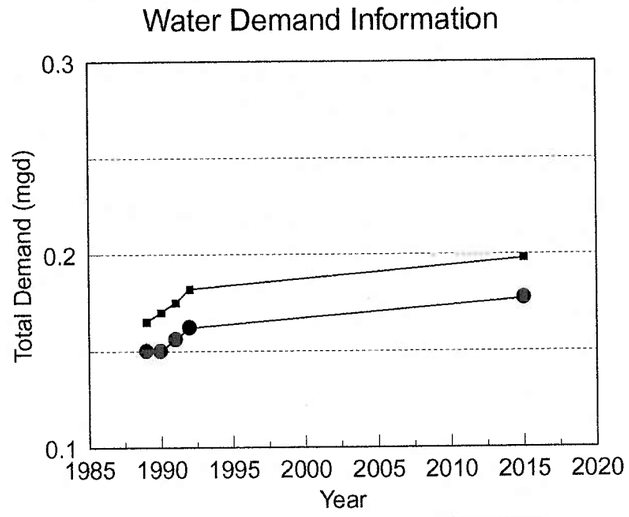
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	92%	100%	92%	83%	

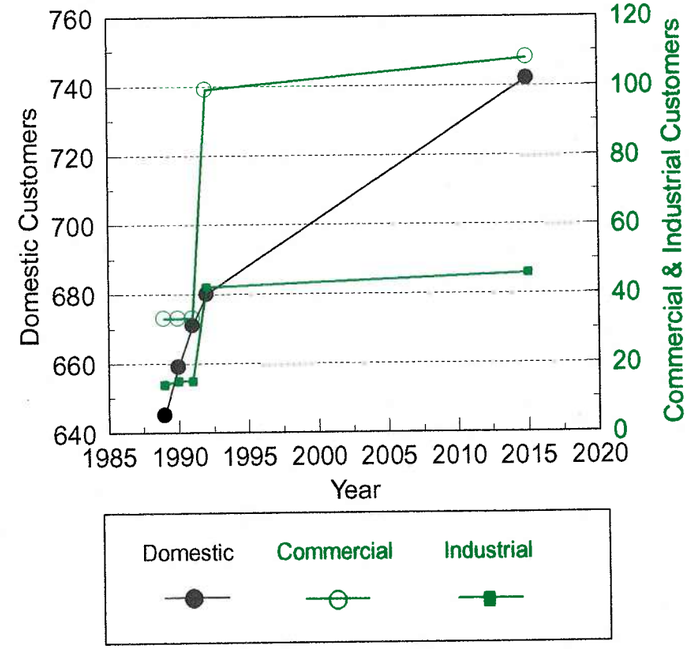
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.150	0.150	0.156	0.162		0.177
Maximum Day Total Water Use (mgd)	0.165	0.170	0.175	0.182		0.198
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.084	0.084	0.088	0.106		0.116
Commercial	0.025	0.025	0.027	0.019		0.020
Industrial	0.041	0.041	0.041	0.008		0.009
Institutional	0.000	0.000	0.000	0.000		0.000
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000		0.000
Unaccounted for and other	0.000	0.000	0.000	0.029		0.032
Average Daily Water Use (gpd/customer)	217	212	217	182		162
Average Daily Water Use by Customer Class (% of total)						
Domestic	56.0%	56.0%	56.4%	65.6%		65.5%
Commercial	16.7%	16.7%	17.3%	11.5%		11.5%
Industrial	27.3%	27.3%	26.3%	4.9%		4.9%
Institutional	0.0%	0.0%	0.0%	0.0%		0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%		0.0%
Unaccounted for and other	0.0%	0.0%	0.0%	18.0%		18.0%

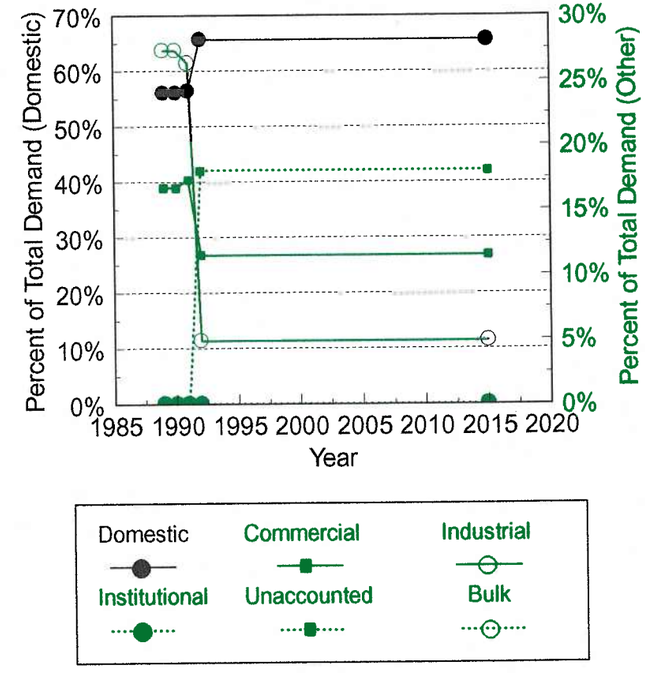
Note: 1992 maximum day not reported. Estimated based upon reported average day and 1991 peaking factor

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	692	707	719	821		896
Number of Customers by Class						
Domestic	645	659	671	680		742
Commercial	33	33	33	99		108
Industrial	14	15	15	42		46
Institutional	0	0	0	0		0
Bulk Sales to Suppliers	0	0	0	0		0
Estimated Service Population	1,542	1,576	1,604	1,626		1,775
Number of Customers by Class (% of total)						
Domestic	93.2%	93.2%	93.3%	82.8%		82.8%
Commercial	4.8%	4.7%	4.6%	12.1%		12.1%
Industrial	2.0%	2.1%	2.1%	5.1%		5.1%
Institutional	0.0%	0.0%	0.0%	0.0%		0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%		0.0%







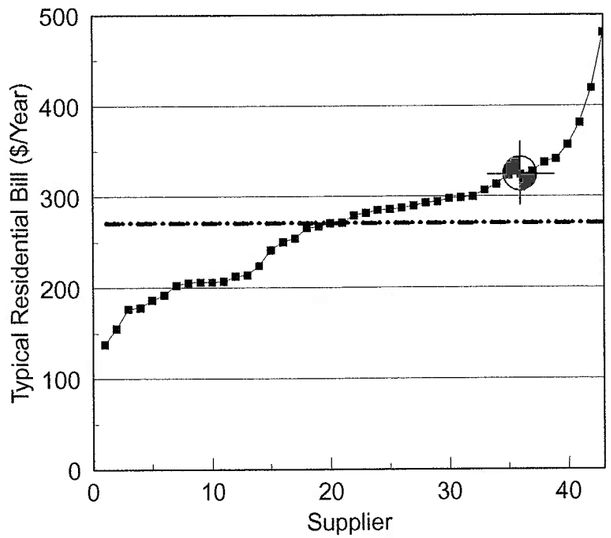


Blawnox Borough

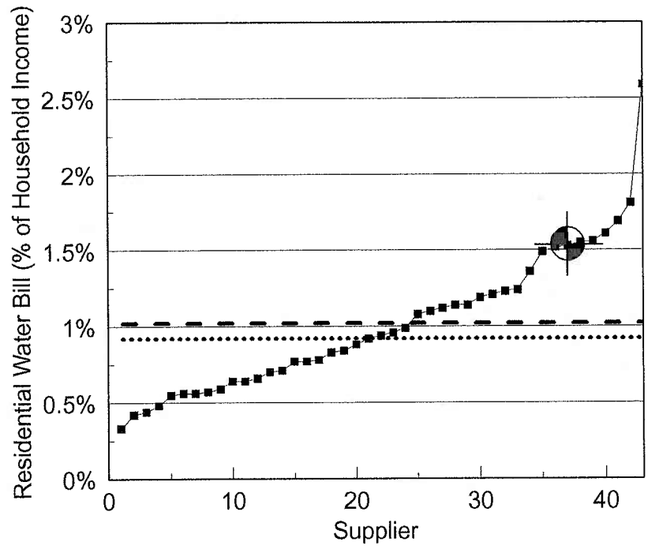
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$224,113
Dollars per 1,000 gallons sold	$4.62
Other Revenues	$15,495
TOTAL OPERATING REVENUES	$239,608
Dollars per 1,000 gallons sold	$4.94
Expenses	
Operating Expenses	
Total dollars per year	$135,056
Dollars per 1,000 gallons sold	$2.78
Debt Service	
Total dollars per year	$5,397
Dollars per customer served	$7.49
Other Expenses	$109,000
TOTAL EXPENSES	$249,453
Dollars per 1,000 gallons sold	$5.14
Net Revenues (dollars)	($9,845)
Ratio of revenues to expenses	0.96
Average Annual Residential Bill	
Dollars per year per customer	$324.23
% of Median Household Income	1.53%
Retained Earnings	$19,610
Retained Earnings ($/customer)	$27.20

Legend	
Value for this supplier	
Mean value for all suppliers reporting data	
Median value for all suppliers reporting data	
Individual supplier data	

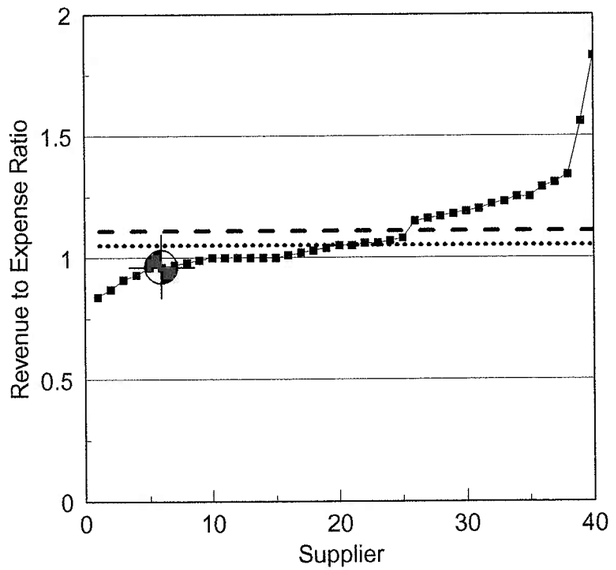
Typical Residential Water Bill
(Dollars Per Year)



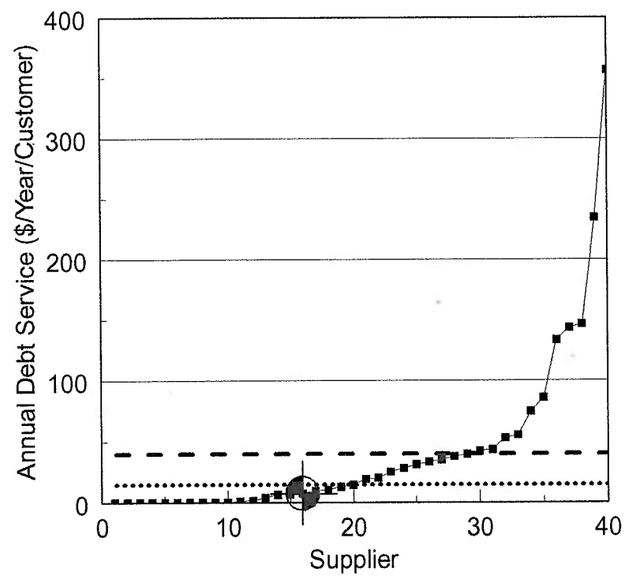
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Brackenridge Borough

Brackenridge Borough serves approximately 1,528 customers in the Borough of Brackenridge. It also sells water in bulk to the Fawn-Frazer Water Authority for resale.

The water system is owned and operated by the Borough of Brackenridge as a department of the Borough.

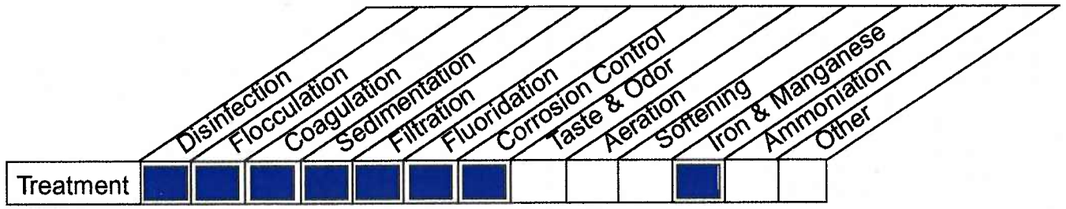
The Borough operates a water supply intake from the Allegheny River and a water treatment plant. The treatment processes included in the Borough's water treatment plant are illustrated below. In addition to this main source of supply, the Borough purchases a small amount of water (roughly 0.2 percent of total usage) from the Borough of Tarentum. The Borough also operates three distribution water storage facilities. There are no booster pumping stations in the Brackenridge distribution system.

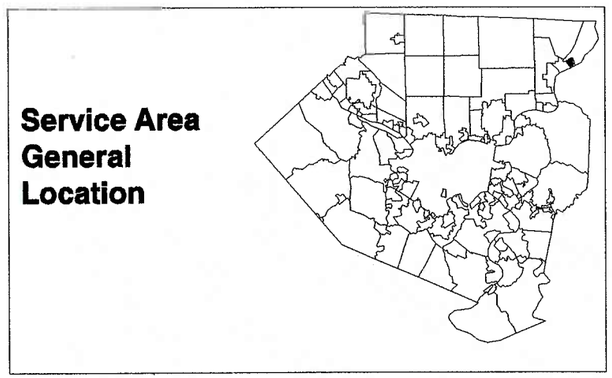
During the past five years, the Borough has experienced essentially no change in the total number of customers served. Total daily water use in 1993 averaged 1.646 million gallons per day (mgd).

The total service population is projected to increase from approximately 3,700 persons in 1993 to approximately 3,937 by the year 2015. Average daily water demands are projected to increase from 1.646 mgd (2.354 mgd maximum day) in 1993 to 2.035 mgd (2.909 mgd maximum day) in the year 2015. Approximately 95 percent of the projected increase in water usage is due to anticipated increases in potential sales to the Fawn-Frazer Authority. Current demands are within the capacity of the Borough's treatment facility. However, projected demands, assuming that the Borough continues to supply all of Fawn-Frazer's needs, will exceed treatment capacity under maximum day demand conditions. Fawn-Frazer currently has established emergency connections with Springdale Borough and the Harrison Township Water Authority. Future routine purchases of water from these auxiliary sources could avoid the need to expand the capacity of the Brackenridge treatment facility. It is recommended that water demands on the Brackenridge system be monitored. As total demands approach the capacity of the Brackenridge facilities, arrangements should be made for the increasing demands from Fawn-Frazer to be met through purchases by Fawn-Frazer from other suppliers. This can avoid a significant capital expenditure for plant expansion by the Borough of Brackenridge.

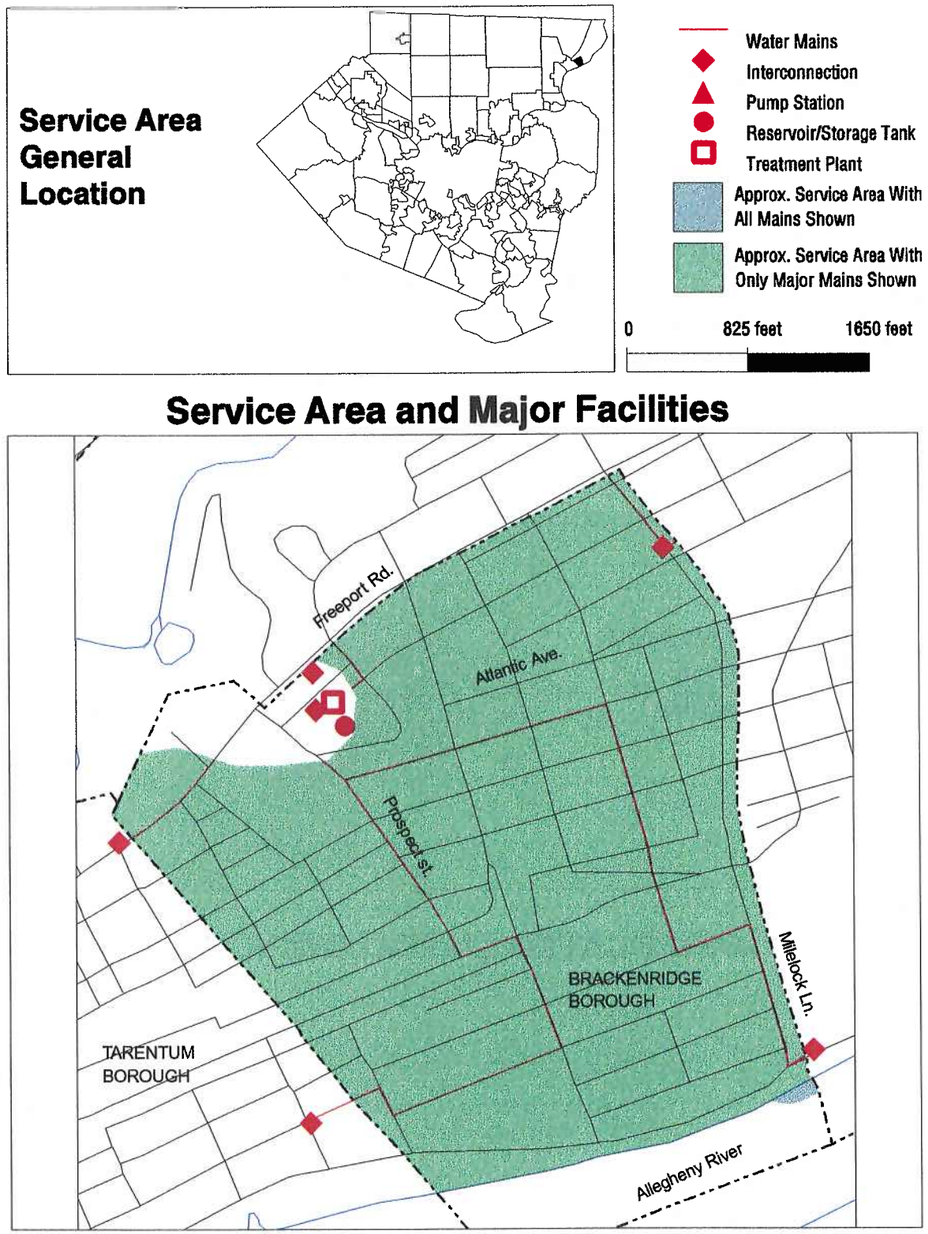
The Borough's distribution system storage is marginally adequate to provide a 1-day storage volume of water under current conditions. If sales to Fawn-Frazer are limited as discussed above, storage capacity will likely remain marginally adequate through the planning period. Otherwise, approximately 0.5 million gallons of additional storage should be provided.

An emergency supply connection to the Borough of Brackenridge exists from the Borough of Tarentum system. In addition, the aforementioned emergency connections to the Fawn-Frazer system from Springdale Borough and the Harrison Township Water Authority are in place. Considering these emergency supply connections and the storage available in the Fawn-Frazer system, in excess of a 3-day emergency water supply is available to the Borough of Brackenridge through the design period.





SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities

Brackenridge Borough

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	3.00	3.00	3.00	3.00	3.00	3.00
Allegheny River	3.00	3.00	3.00	3.00	3.00	3.00
Treatment / Pumping Facility Capacity (mgd)	2.49	2.49	2.49	2.49	2.49	2.49
Total Treated Water Storage (million gallons)	1.58	1.58	1.58	1.58	1.58	1.58
Total Supply Source(s) Capacity (% of max. day)	126.5%	124.5%	126.8%	124.7%	127.5%	103.1%
Treatment / Pumping Facility Capacity (% of max. day)	104.9%	103.3%	105.2%	103.4%	105.7%	85.5%
Total Treated Water Storage (% of ave. day))	94.9%	93.5%	95.2%	93.6%	95.7%	77.4%

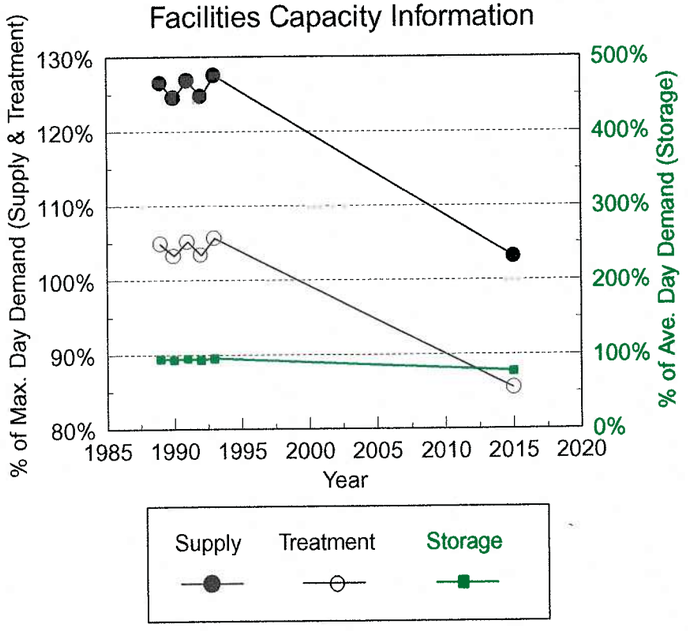
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.659	1.685	1.655	1.683	1.646	2.035
Maximum Day Total Water Use (mgd)	2.372	2.409	2.366	2.407	2.353	2.909
Average Daily Water Use by Customer Class (mgd)						
Domestic						
Commercial						
Industrial	0.328		N/A	0.401		
Institutional						
Bulk Sales to Suppliers	0.359	0.321	0.344	0.341	0.344	0.715
Unaccounted for and other						
Average Daily Water Use (gpd/customer)	1085	1103	1083	1102	1077	1255
Average Daily Water Use by Customer Class (% of total)						
Domestic						
Commercial						
Industrial	19.8%		0.0%	23.8%		
Institutional						
Bulk Sales to Suppliers	21.6%	19.0%	20.8%	20.2%		35.1%
Unaccounted for and other						

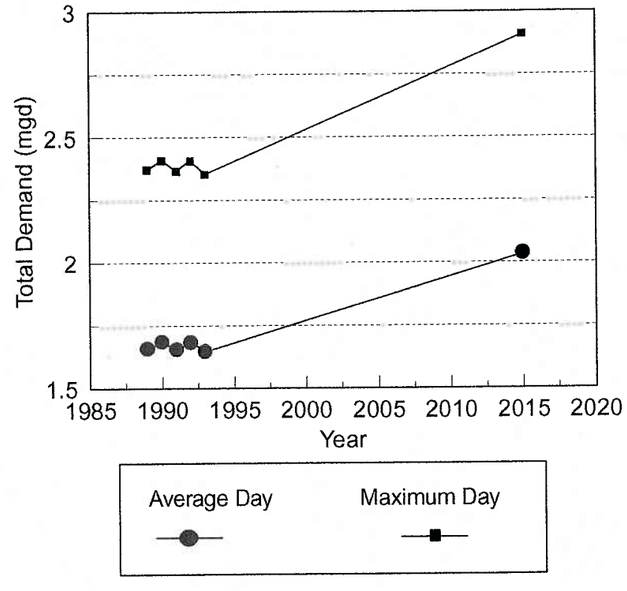
Note: Maximum day demand not reported. Esitmates based upon reported average day demand and County averager peaking factor

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,529	1,528	1,528	1,528	1,528	1,621
Number of Customers by Class						
Domestic	1,457	1,457	1,457	1,457	1,457	1,550
Commercial	61	61	61	61	61	61
Industrial	6	6	6	6	6	6
Institutional	3	3	3	3	3	3
Bulk Sales to Suppliers	2	1	1	1	1	1
Estimated Service Population	3,700	3,700	3,700	3,700	3,700	3,937
Number of Customers by Class (% of total)						
Domestic	95.3%	95.4%	95.4%	95.4%	95.4%	95.6%
Commercial	4.0%	4.0%	4.0%	4.0%	4.0%	3.8%
Industrial	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Institutional	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Bulk Sales to Suppliers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

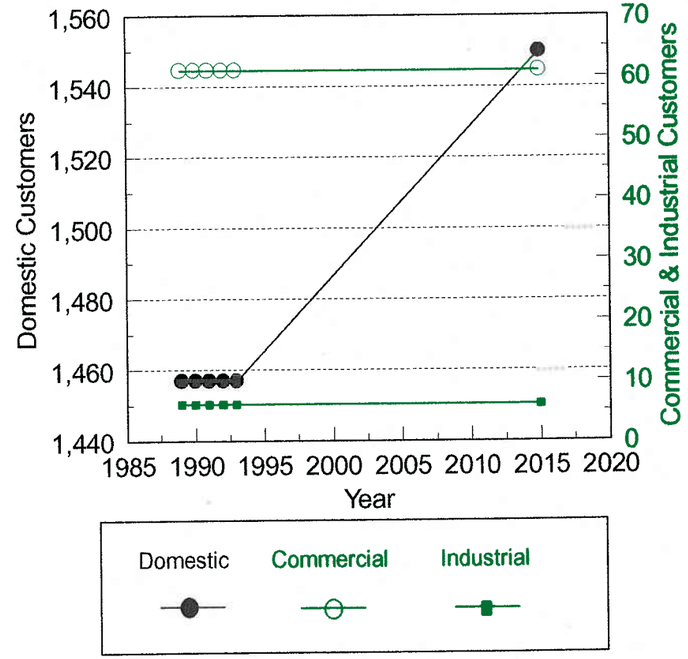
Facilities Capacity Information



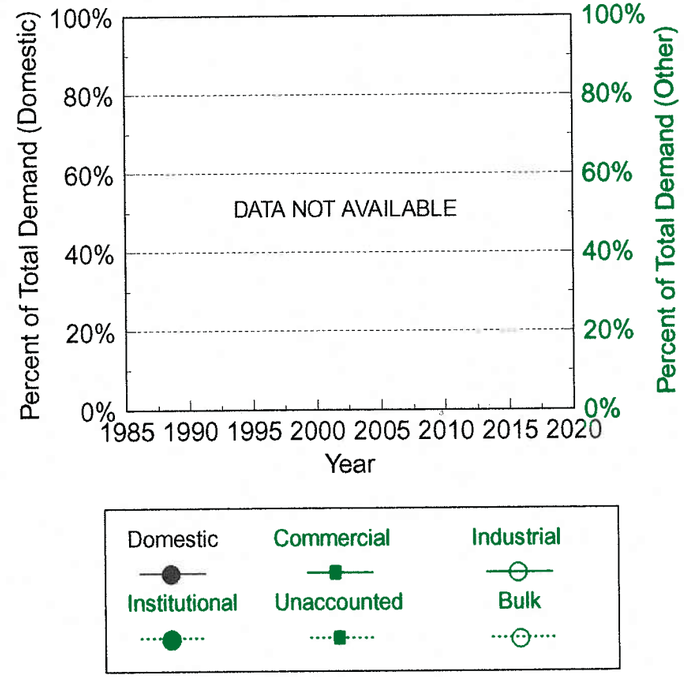
Water Demand Information



Customer Base Information



Distribution of Demand by Class



Brackenridge Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$841,945
Dollars per 1,000 gallons sold	$6.71
Other Revenues	$5,219
TOTAL OPERATING REVENUES	$847,164
Dollars per 1,000 gallons sold	$6.75
Expenses	
Operating Expenses	
Total dollars per year	$549,382
Dollars per 1,000 gallons sold	$4.38
Debt Service	
Total dollars per year	$80,776
Dollars per customer served	$52.86
Other Expenses	$0
TOTAL EXPENSES	$630,158
Dollars per 1,000 gallons sold	$5.02
Net Revenues (dollars)	$217,006
Ratio of revenues to expenses	1.34
Average Annual Residential Bill	
Dollars per year per customer	$337.58
% of Median Household Income	1.52%
Retained Earnings	$1,230,967
Retained Earnings ($/customer)	$805.61

Legend

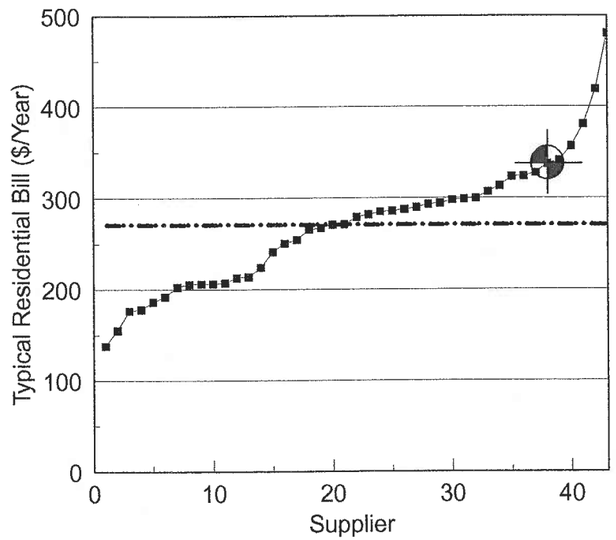
Value for this supplier

Mean value for all suppliers reporting data

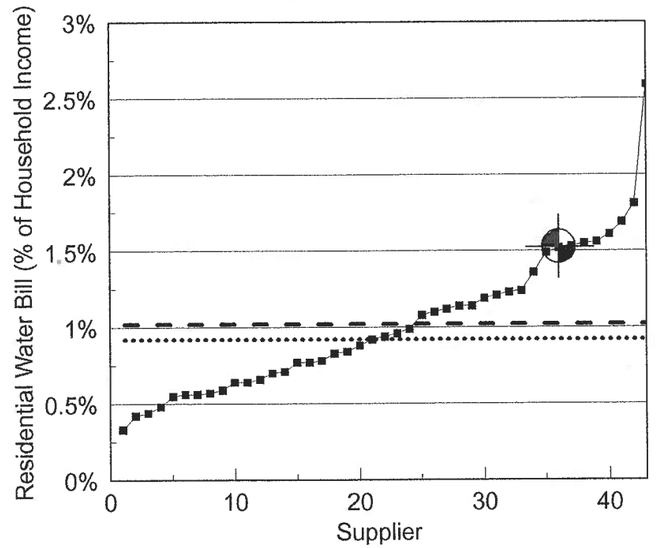
Median value for all suppliers reporting data

Individual supplier data

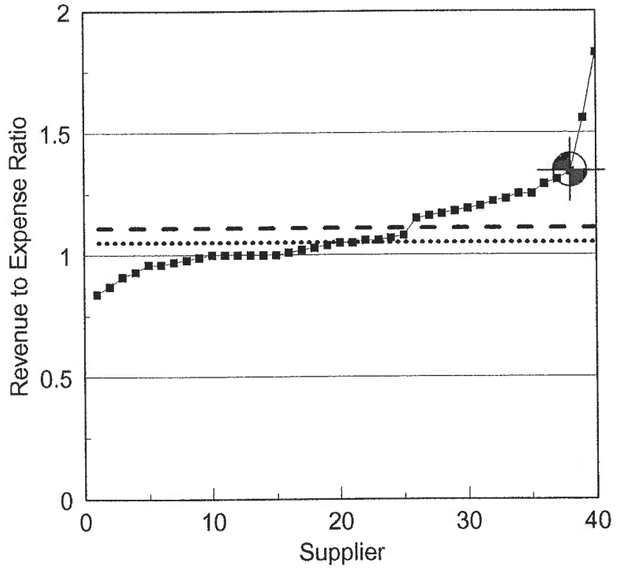
Typical Residential Water Bill
(Dollars Per Year)



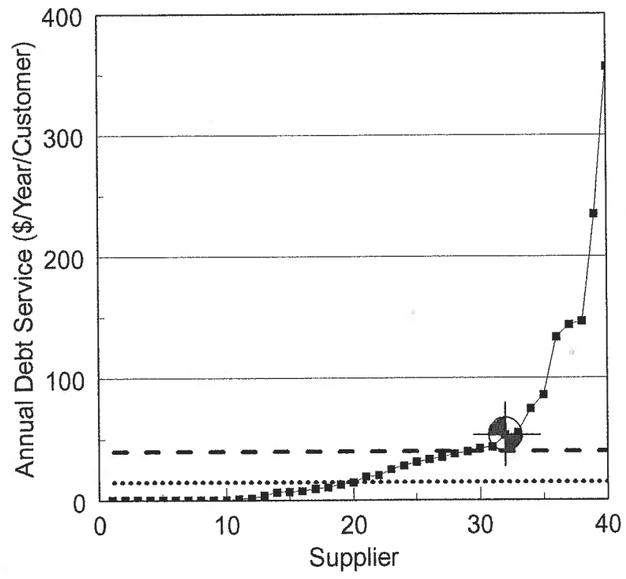
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Borough of Braddock Water Authority

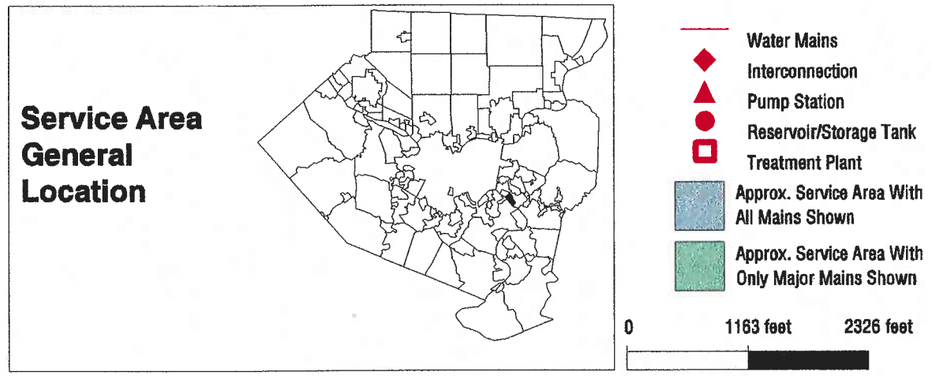
The Borough of Braddock Water Authority serves approximately 1,134 customers in the Borough of Braddock.

The Authority was established in 1974. The authority board consists of five members who are appointed by Braddock Borough council.

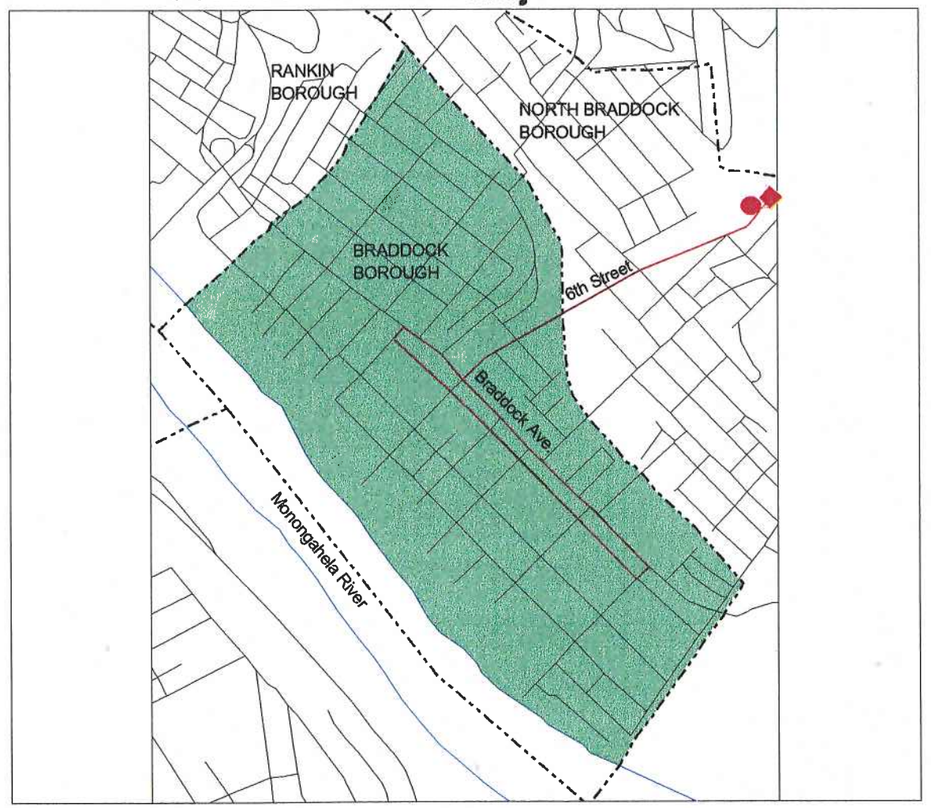
The Authority purchases its water supply in bulk from the Wilkinsburg-Penn Joint Water Authority. It operates no treatment facilities, one distribution system storage facility, and no pumping stations.

During the past five years, the Authority has experienced a 10.7 percent decrease in the total number of customers served. Total daily water use in 1993 averaged 0.665 million gallons per day (mgd). This represents a 61 percent reduction in total water use since 1989. While a portion of this reduction can be attributed to declining water sales, this large reduction is primarily due to the successes of a leak reduction and water line replacement program. "Unaccounted for and other" water uses have been reduced from 1.072 mgd (69% of total use) in 1989 to 0.186 mgd (28% of total use) in 1993.

The total service population is projected to remain relatively constant at 4,632 persons between the present and the year 2015. Average daily water demands are projected to remain essentially stable at approximately 0.665 mgd (0.781 mgd maximum day) through the year 2015. These demands are within the capacity of the Authority's source of supply. The Authority's distribution storage volume provides approximately a 1-day storage throughout the planning period. There is only one point of connection to the Borough's supplier (Wilkinsburg-Penn Joint Water Authority) and there are no emergency connections to the Braddock system. The Borough's distribution system storage is not sufficient alone to provide the target 3-day emergency supply. However, the Wilkinsburg-Penn Joint Authority system meets the 3-day emergency supply capacity target. It is, therefore, recommended that at least one additional point of connection be established with the Wilkinsburg-Penn system in order to provide the desired emergency supply capability. The cost of establishing a point of emergency connection between the two systems will be highly dependent upon the specific conditions at the site selected, but is estimated to approximate $50,000.



Service Area and Major Facilities



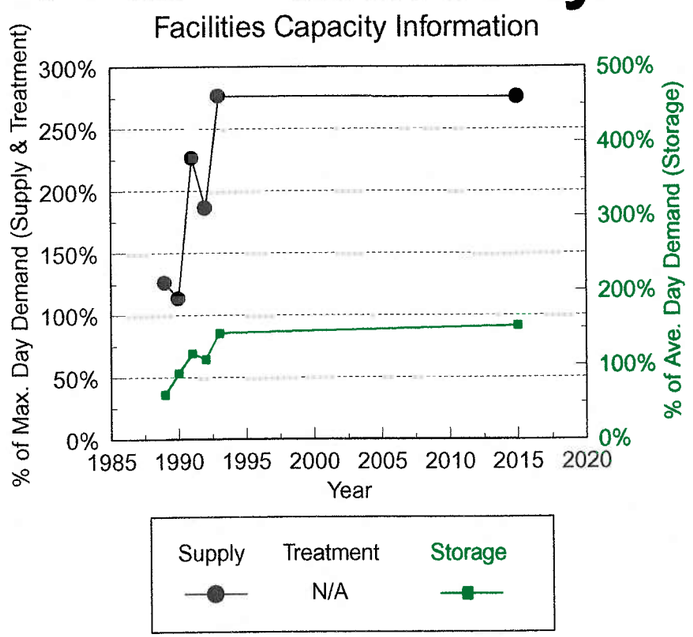
Borough of Braddock Water Authority

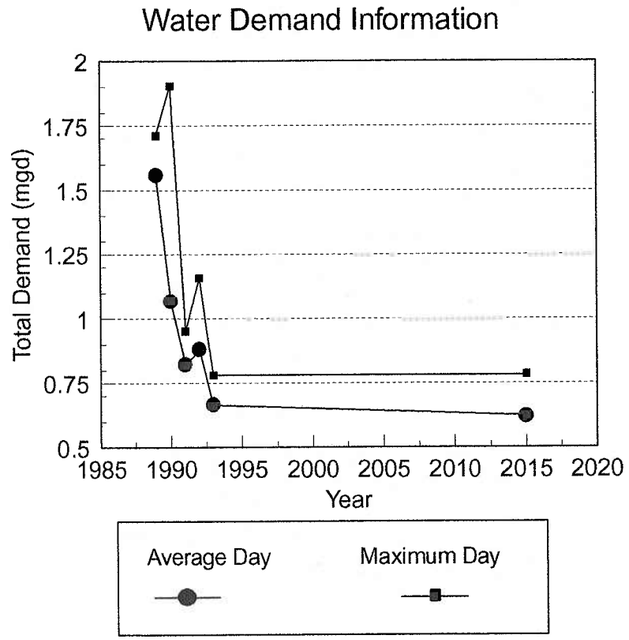
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	2.16	2.16	2.16	2.16	2.16	2.16
Wilkinsburg-Penn Joint Water Authority	2.16	2.16	2.16	2.16	2.16	2.16
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.95	0.95	0.95	0.95	0.95	0.95
Total Supply Source(s) Capacity (% of max. day)	126.2%	113.5%	226.7%	186.3%	276.7%	275.6%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Treated Water Storage (% of ave. day))	61.0%	89.0%	115.6%	107.9%	142.7%	153.1%

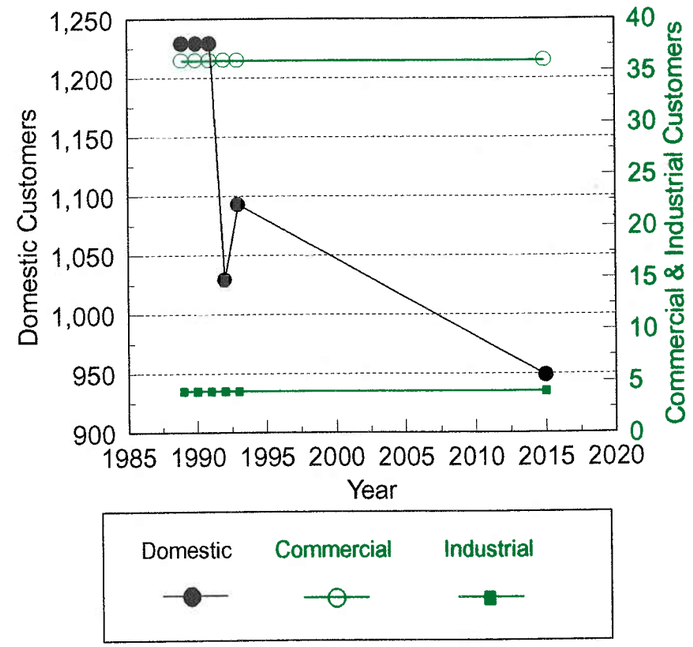
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	92%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	92%	
Monitoring Requirements	92%	83%	100%	100%	83%	

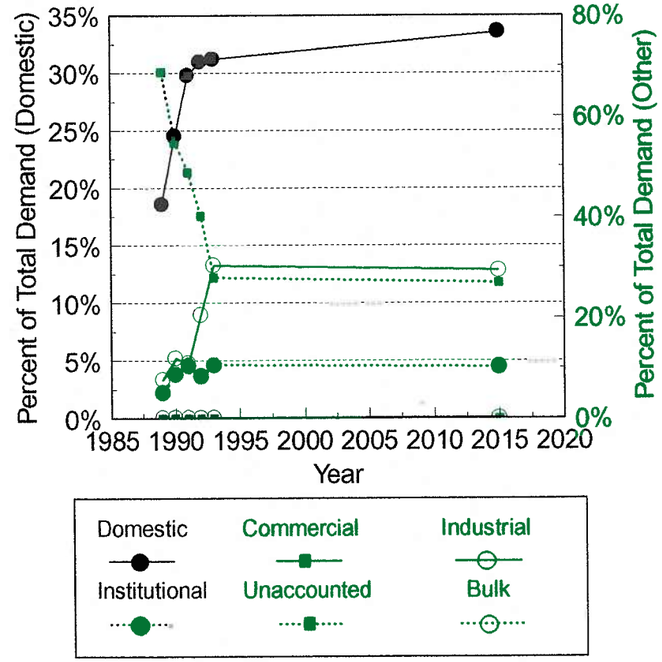
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.556	1.067	0.821	0.880	0.665	0.620
Maximum Day Total Water Use (mgd)	1.712	1.904	0.953	1.159	0.781	0.784
Average Daily Water Use by Customer Class (mgd)						
Domestic & Commercial	0.289	0.262	0.244	0.273	0.208	0.208
Commercial (included above)						
Industrial	0.118	0.127	0.090	0.180	0.202	0.182
Institutional	0.078	0.093	0.085	0.073	0.070	0.063
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	1.072	0.586	0.401	0.354	0.186	0.167
Average Daily Water Use (gpd/customer)	382	379	331	491	423	458
Average Daily Water Use by Customer Class (% of total)						
Domestic	18.6%	24.5%	29.8%	31.0%	31.2%	33.6%
Commercial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial	7.6%	11.9%	11.0%	20.5%	30.3%	29.3%
Institutional	5.0%	8.7%	10.4%	8.3%	10.5%	10.2%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	68.8%	54.9%	48.9%	40.2%	27.9%	26.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,270	1,270	1,270	1,070	1,134	989
Number of Customers by Class						
Domestic	1,229	1,229	1,229	1,029	1,093	948
Commercial	36	36	36	36	36	36
Industrial	4	4	4	4	4	4
Institutional	1	1	1	1	1	1
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	5,208	5,208	5,208	4,361	4,632	4,172
Number of Customers by Class (% of total)						
Domestic	96.8%	96.8%	96.8%	96.2%	96.4%	95.9%
Commercial	2.8%	2.8%	2.8%	3.4%	3.2%	3.6%
Industrial	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%
Institutional	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Borough of Braddock Water Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$895,805
Dollars per 1,000 gallons sold	$5.11
	$112,741
TOTAL OPERATING REVENUES	$1,008,546
Dollars per 1,000 gallons sold	$5.76
Expenses	
Operating Expenses	
Total dollars per year	$725,920
Dollars per 1,000 gallons sold	$4.14
Debt Service	
Total dollars per year	$266,217
Dollars per customer served	$234.76
Other Expenses	$55,134
TOTAL EXPENSES	$1,047,271
Dollars per 1,000 gallons sold	$5.98
Net Revenues (dollars)	($38,725)
Ratio of revenues to expenses	0.96
Average Annual Residential Bill	
Dollars per year per customer	$293.48
% of Median Household Income	1.69%
Retained Earnings	$1,196,653
Retained Earnings ($/customer)	$1,055.25

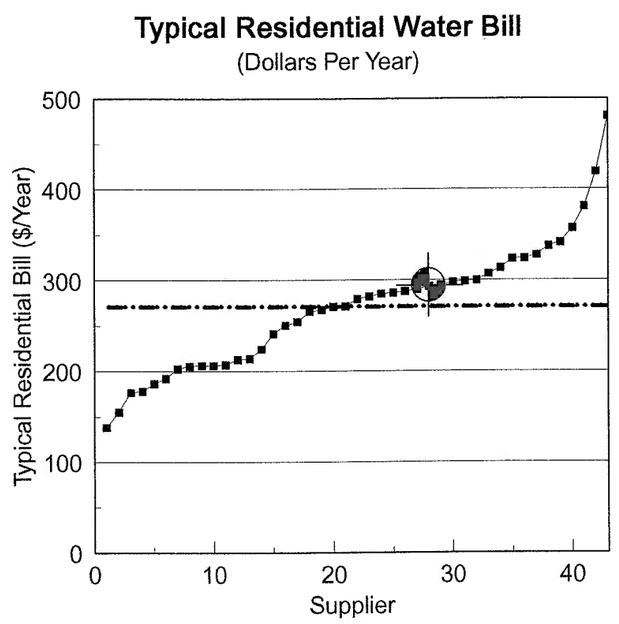
Legend

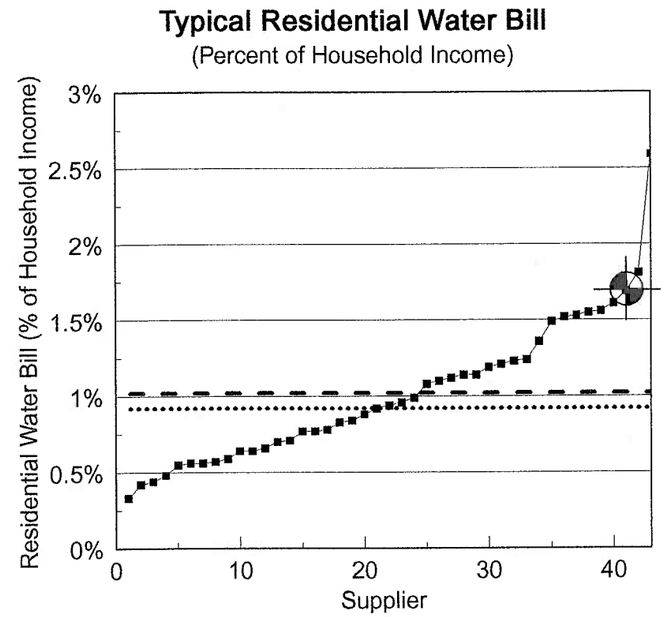
Value for this supplier

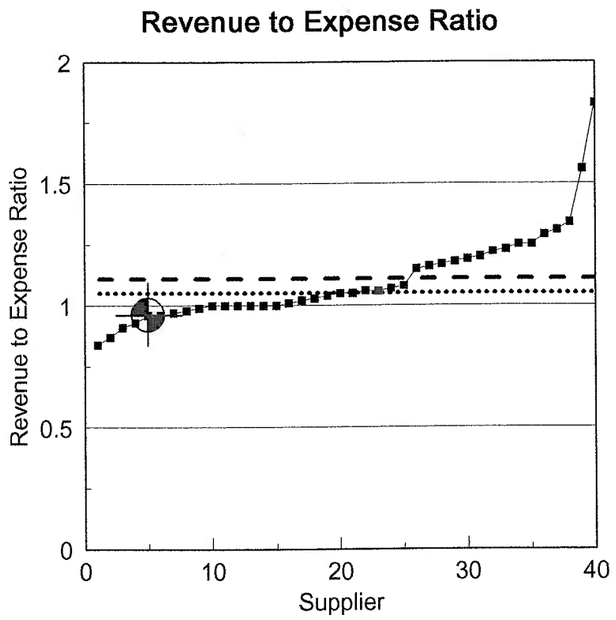
Mean value for all suppliers reporting data

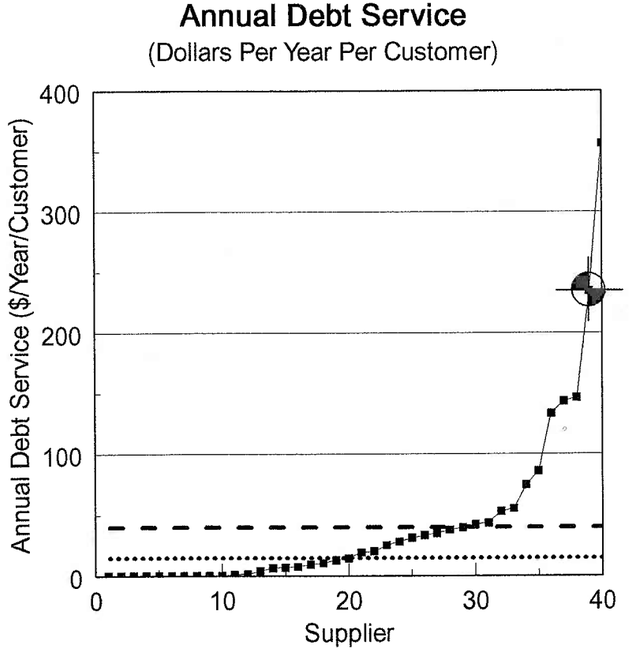
Median value for all suppliers reporting data

Individual supplier data









Cheswick Borough

The Borough of Cheswick serves approximately 897 customers in the following municipalities:

Cheswick Borough
Springdale Township

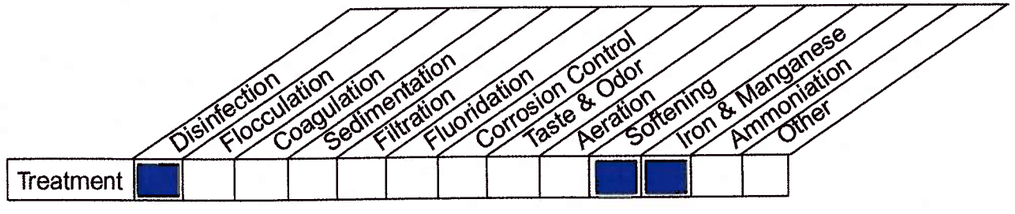
More than 99 percent of the Borough's customers are located in the Borough. The Borough also sells a small amount of water in bulk to Springdale Township for subsequent resale.

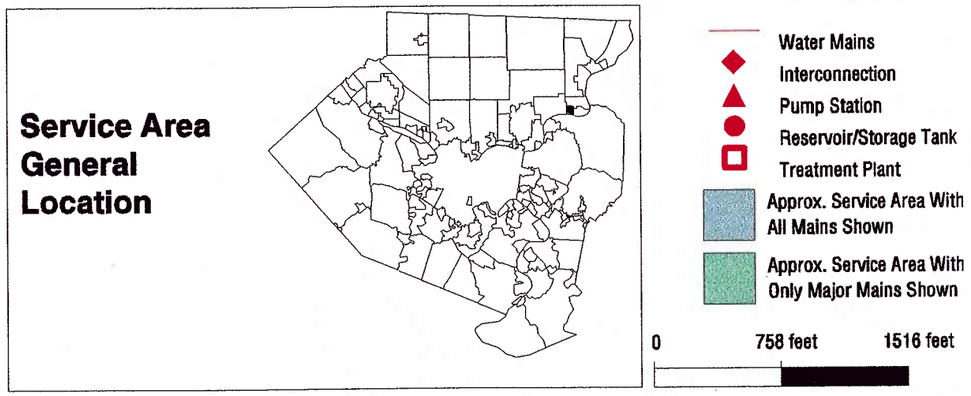
The water system is owned by the Borough of Cheswick and is operated as a department under the Borough council.

The Borough obtains its water supply from wells that are located adjacent to the Allegheny River. The processes employed by the Borough's water treatment plant are illustrated below. In addition to the treatment plant, the Borough operates one distribution system water storage facility and one booster pumping station.

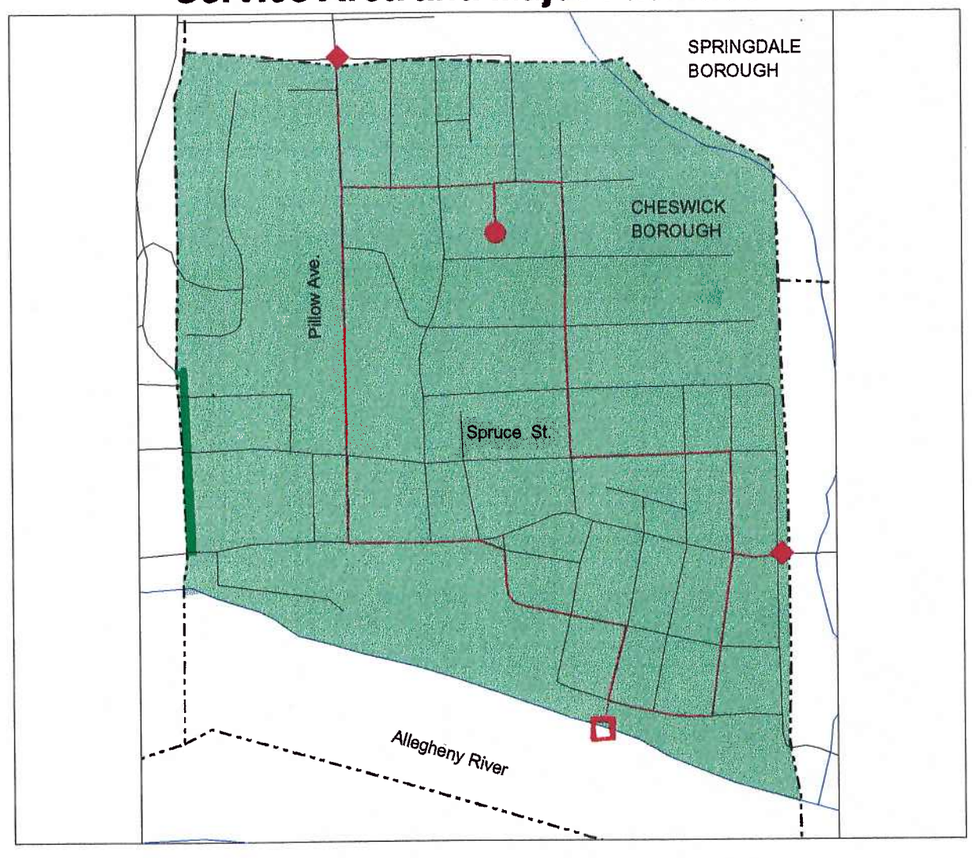
During the past five years, the Borough has experienced a 1.1 percent increase in the total number of customers served. Total daily water use in 1993 averaged 0.192 million gallons per day (mgd).

The total service population is projected to decline from approximately 1,991 persons in 1993 to approximately 1,937 by the year 2015. Average daily water demands are projected to decrease from 0.192 mgd (0.561 mgd maximum day) in 1993 to 0.187 mgd (0.375 mgd maximum day) by the year 2015. These demands are within the capacity of the Borough's source of supply and treatment facility. The Borough's distribution storage volume currently is less that the desired 1-day volume. This deficiency in distribution storage is projected to persist through the year 2015 unless additional storage volumes are provided. The Borough has an emergency connection with Springdale Borough. Available information indicates that this connection has sufficient capacity to provide the target 3-day emergency capacity. Nevertheless, it is recommended that an additional 250,000 gallons of storage be provided to meet the 1-day storage criteria and satisfy the more routine storage requirements. The cost of providing a 250,000 gallon, elevated storage tank is estimated to be approximately $460,000.





Service Area and Major Facilities



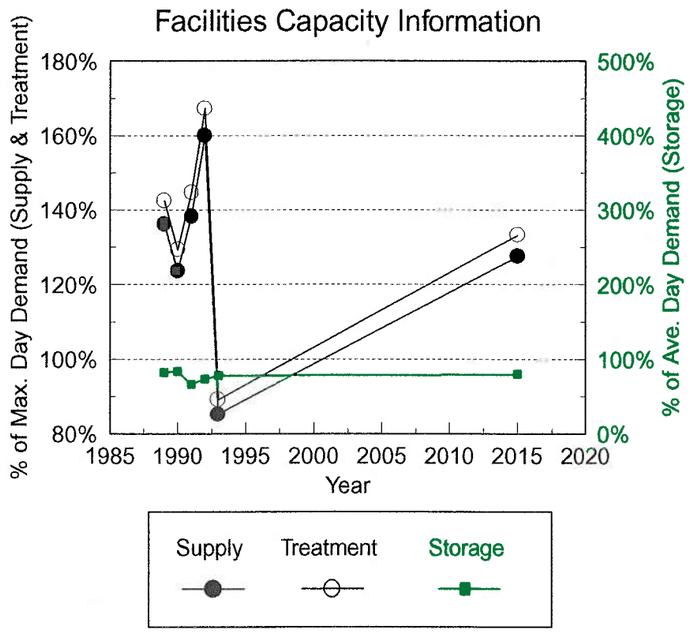
Cheswick Borough

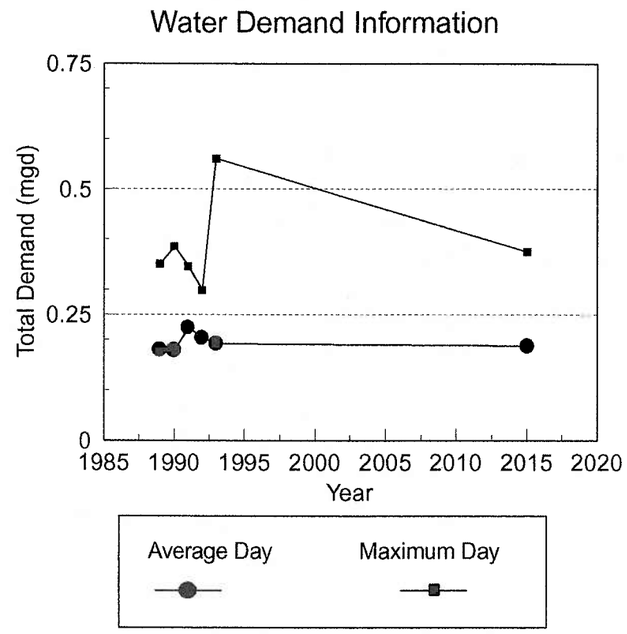
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.48	0.48	0.48	0.48	0.48	0.48
Groundwater	0.48	0.48	0.48	0.48	0.48	0.48
Treatment / Pumping Facility Capacity (mgd)	0.50	0.50	0.50	0.50	0.50	0.50
Total Treated Water Storage (million gallons)	0.15	0.15	0.15	0.15	0.15	0.15
Total Supply Source(s) Capacity (% of max. day)	136.2%	123.7%	138.3%	160.0%	85.3%	127.6%
Treatment / Pumping Facility Capacity (% of max. day)	142.5%	129.4%	144.7%	167.3%	89.2%	133.4%
Total Treated Water Storage (% of ave. day))	82.8%	83.6%	66.8%	73.6%	78.3%	80.3%

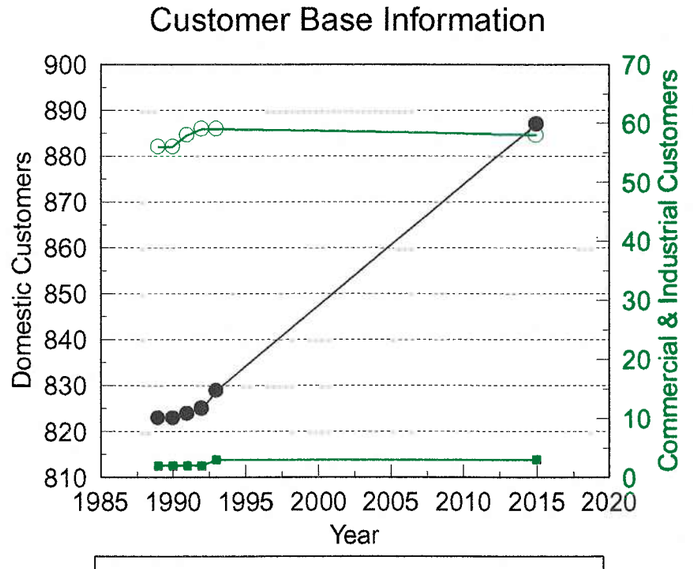
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	92%	92%	100%	92%	

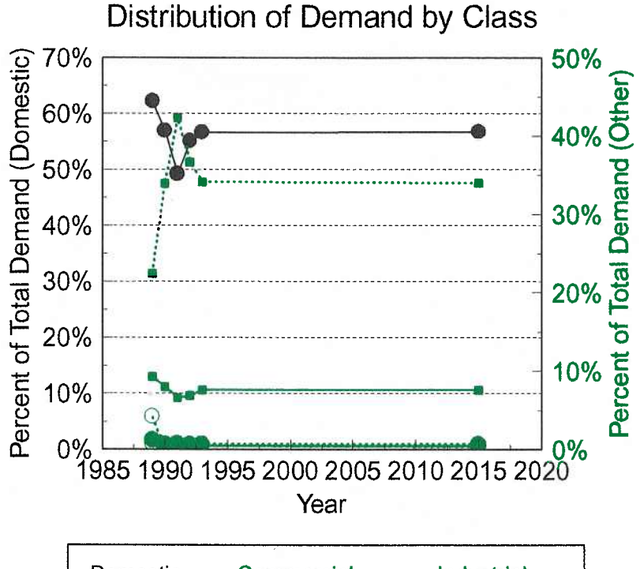
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.181	0.179	0.224	0.204	0.192	0.187
Maximum Day Total Water Use (mgd)	0.351	0.386	0.346	0.299	0.581	0.375
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.113	0.102	0.110	0.112	0.109	0.106
Commercial	0.017	0.014	0.015	0.014	0.014	0.014
Industrial	0.001	0.001	0.001	0.000	0.001	0.001
Institutional	0.002	0.001	0.002	0.001	0.001	0.001
Bulk Sales to Suppliers	0.008	0.000	0.001	0.001	0.001	0.001
Unaccounted for and other	0.041	0.061	0.095	0.075	0.065	0.063
Average Daily Water Use (gpd/customer)	158	134	146	145	141	129
Average Daily Water Use by Customer Class (% of total)						
Domestic	62.2%	57.0%	49.2%	55.1%	56.7%	56.8%
Commercial	9.3%	8.0%	6.6%	6.9%	7.6%	7.6%
Industrial	0.7%	0.5%	0.6%	0.2%	0.5%	0.5%
Institutional	1.2%	0.7%	0.8%	0.6%	0.7%	0.7%
Bulk Sales to Suppliers	4.2%	0.0%	0.5%	0.5%	0.5%	0.4%
Unaccounted for and other	22.4%	33.9%	42.3%	36.7%	34.1%	34.0%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	887	887	890	892	897	953
Number of Customers by Class						
Domestic	823	823	824	825	829	887
Commercial	56	56	58	59	59	58
Industrial	2	2	2	2	3	3
Institutional	5	5	5	5	5	5
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	1,977	1,977	1,979	1,981	1,991	1,937
Number of Customers by Class (% of total)						
Domestic	92.8%	92.8%	92.6%	92.5%	92.4%	93.0%
Commercial	6.3%	6.3%	6.5%	6.6%	6.6%	6.0%
Industrial	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%
Institutional	0.6%	0.6%	0.6%	0.6%	0.6%	0.5%
Bulk Sales to Suppliers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%



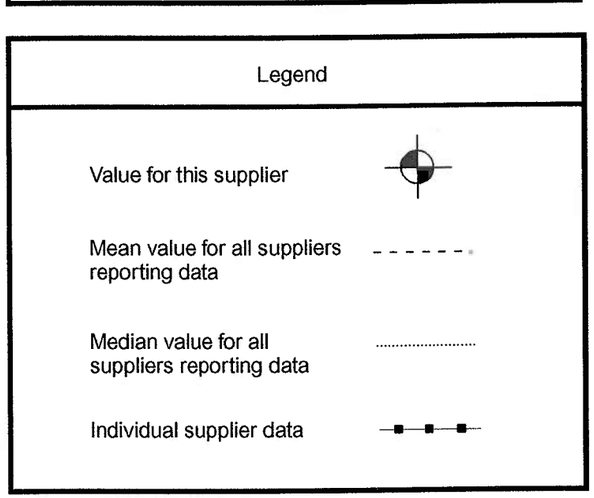


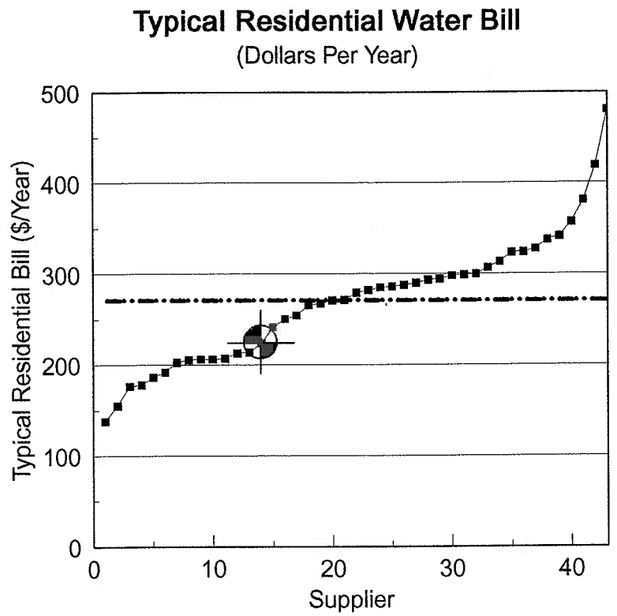


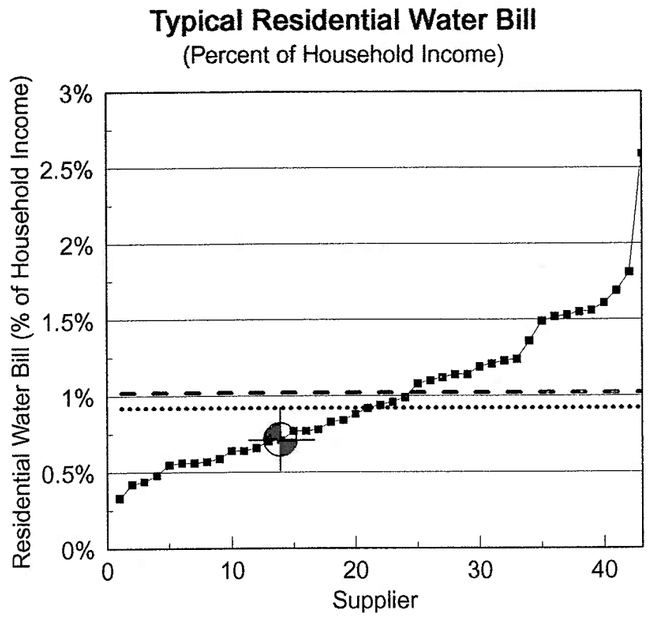


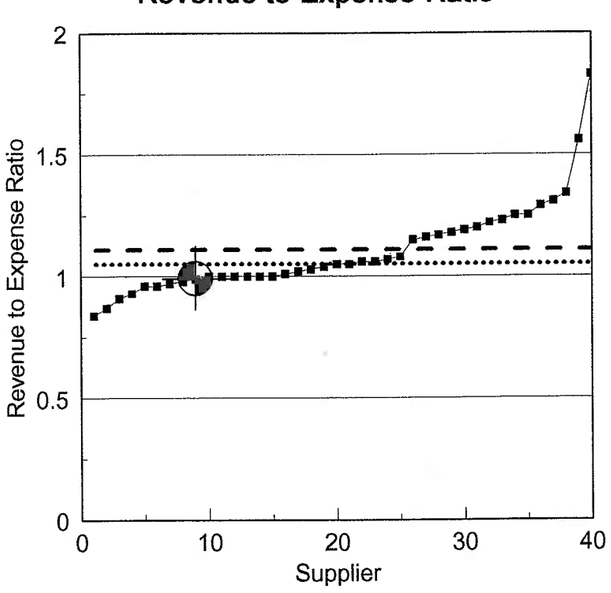
Cheswick Borough

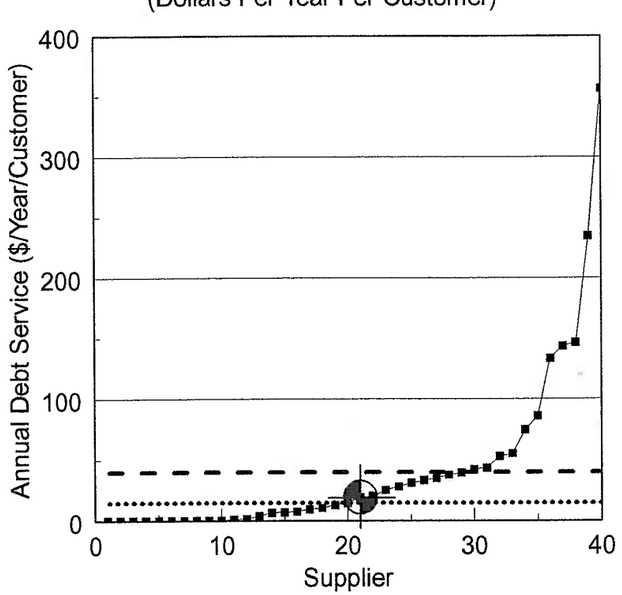
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$139,162
Dollars per 1,000 gallons sold	$3.05
Other Revenues	$8,031
TOTAL OPERATING REVENUES	$147,193
Dollars per 1,000 gallons sold	$3.23
Expenses	
Operating Expenses	
Total dollars per year	$95,123
Dollars per 1,000 gallons sold	$2.08
Debt Service	
Total dollars per year	$15,900
Dollars per customer served	$19.18
Other Expenses	$37,282
TOTAL EXPENSES	$148,305
Dollars per 1,000 gallons sold	$3.25
Net Revenues (dollars)	($1,112)
Ratio of revenues to expenses	0.99
Average Annual Residential Bill	
Dollars per year per customer	$224.20
% of Median Household Income	0.71%
Retained Earnings	($138,301)
Retained Earnings ($/customer)	($166.83)











Coraopolis Borough

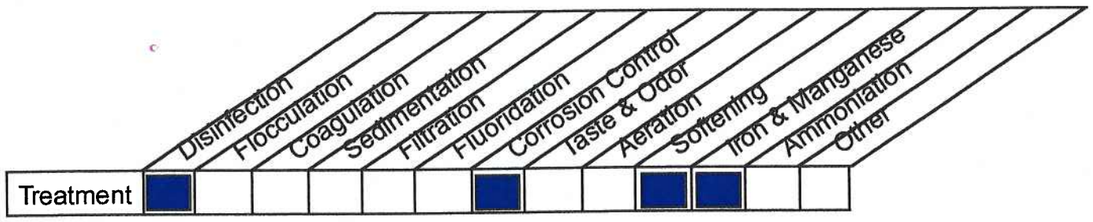
The Borough of Coraopolis serves approximately 2,630 customers in the following municipalities:

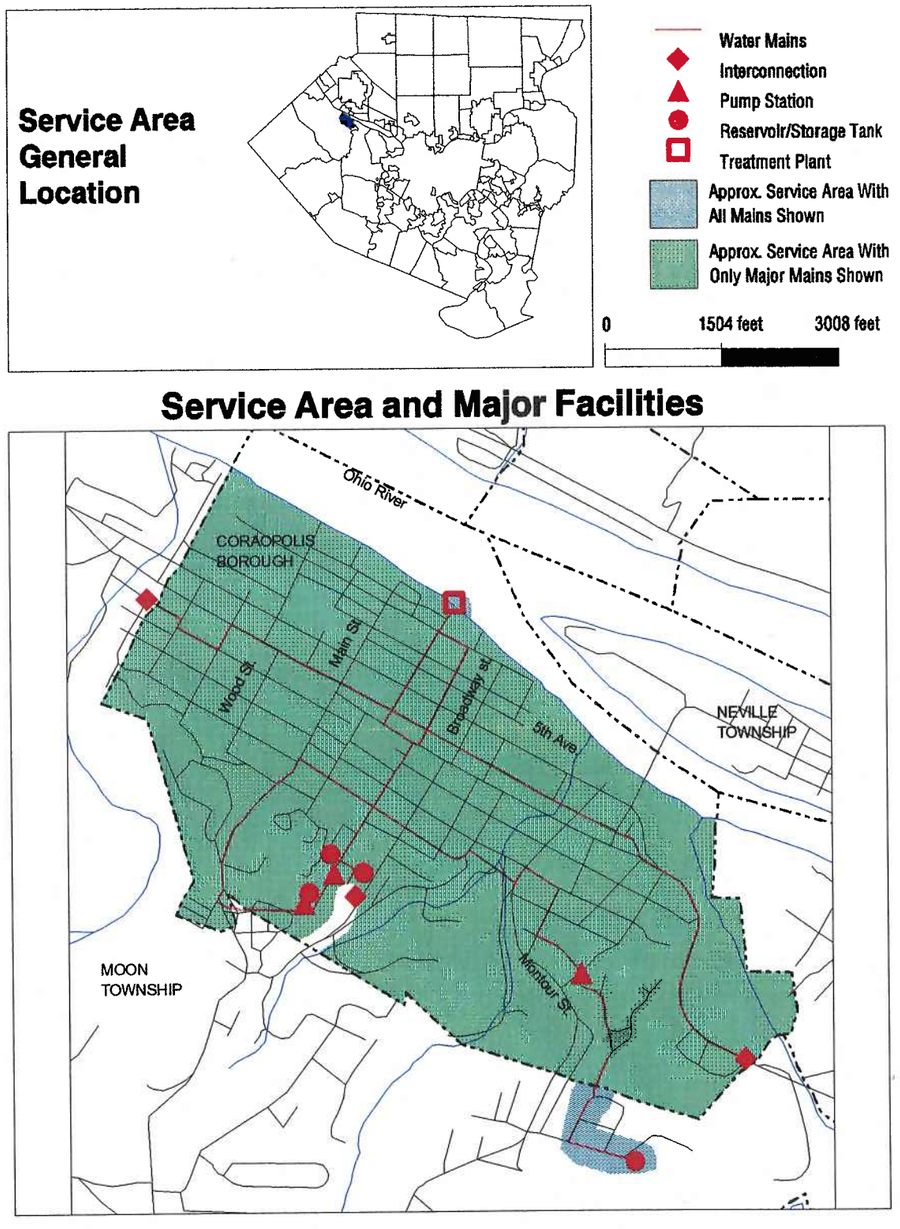
Coraopolis Borough
Moon Township

Roughly 96 percent of the Borough's customers are located in the Borough. The water system is owned by the Borough of Coraopolis and is operated as a department under the Coraopolis Borough council. The Borough obtains its water supply from wells that are adjacent to the Ohio River. The processes employed by the Borough's water treatment plant are illustrated below. In addition to the treatment plant, the Borough operates six distribution system water storage facilities and three booster pumping stations.

During the past five years, the Borough has experienced a 2.6 percent decrease in the total number of customers served. Total daily water use in 1993 averaged 0.909 million gallons per day (mgd).

The total service population is projected to rise from approximately 7,012 persons in 1993 to approximately 7,179 by the year 2015. Average daily water demands are projected to remain relatively constant. The projected average total daily water use in the year 2015 is 0.906 mgd (1.527 mgd maximum day). These demands are within the capacity of the Borough's source of supply and treatment facility. The Borough's distribution system storage provides approximately a 3-day storage volume under current and future demand conditions. The Borough also has emergency connections with the Moon Township Municipal Authority and the Robinson Township water systems. The Borough's system storage facility and these emergency supply connection capacities will, therefore, be adequate throughout the planning period.





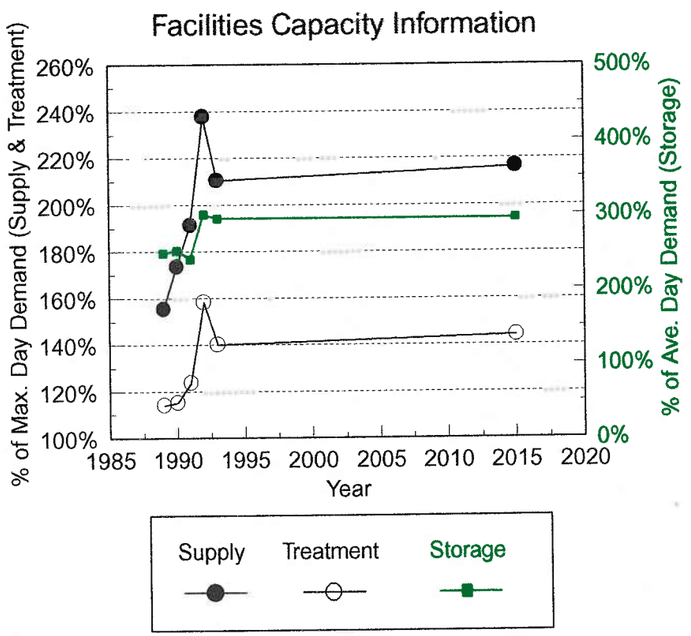
Borough of Coraopolis

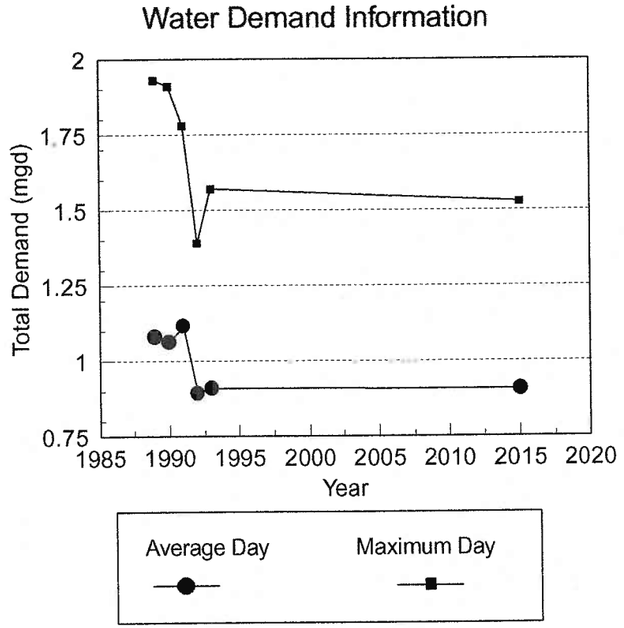
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	3.00	3.32	3.41	3.31	3.31	3.31
Groundwater	3.00	3.32	3.41	3.31	3.31	3.31
Treatment / Pumping Facility Capacity (mgd)	2.20	2.20	2.20	2.20	2.20	2.20
Total Treated Water Storage (million gallons)	2.68	2.68	2.68	2.68	2.68	2.68
Total Supply Source(s) Capacity (% of max. day)	155.4%	173.6%	191.3%	237.8%	210.5%	216.4%
Treatment / Pumping Facility Capacity (% of max. day)	114.0%	115.2%	123.6%	158.3%	140.1%	144.1%
Total Treated Water Storage (% of ave. day))	247.8%	251.5%	239.8%	299.6%	294.5%	295.4%

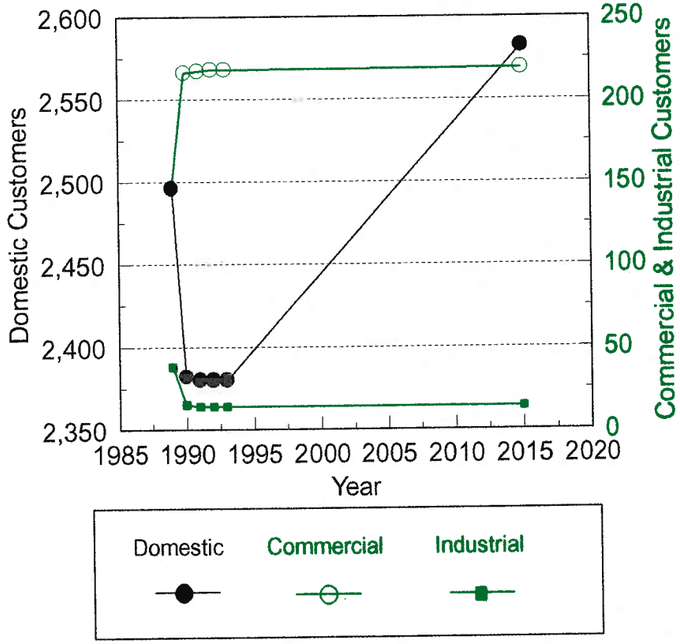
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	8%	100%	100%	

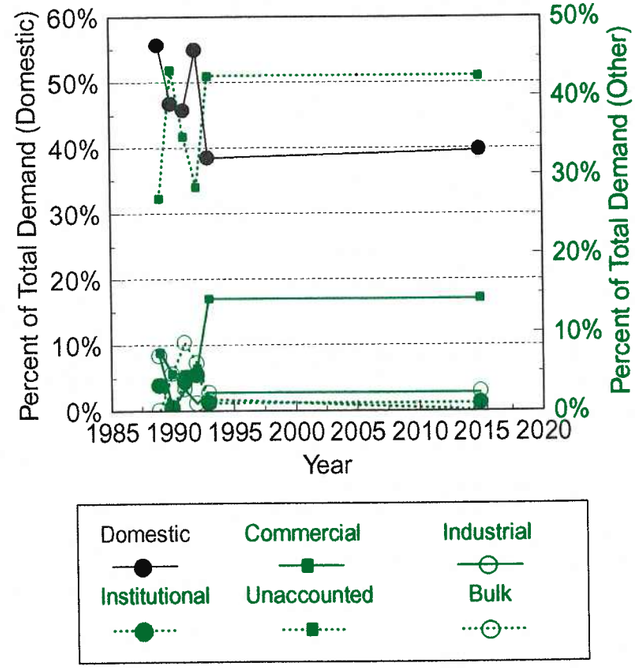
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.080	1.064	1.116	0.893	0.909	0.908
Maximum Day Total Water Use (mgd)	1.930	1.910	1.780	1.390	1.570	1.527
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.600	0.497	0.510	0.490	0.350	0.360
Commercial	0.080	0.050	0.052	0.048	0.129	0.130
Industrial	0.075	0.003	0.030	0.008	0.021	0.021
Institutional	0.035	0.004	0.040	0.040	0.009	0.009
Bulk Sales to Suppliers	0.000	0.050	0.096	0.053	0.013	0.001
Unaccounted for and other	0.290	0.460	0.388	0.254	0.386	0.385
Average Daily Water Use (gpd/customer)	293	229	277	243	199	184
Average Daily Water Use by Customer Class (% of total)						
Domestic	55.6%	46.7%	45.7%	54.9%	38.5%	39.7%
Commercial	7.4%	4.7%	4.7%	5.4%	14.2%	14.3%
Industrial	6.9%	0.3%	2.7%	0.9%	2.3%	2.4%
Institutional	3.2%	0.4%	3.6%	4.5%	1.0%	1.0%
Bulk Sales to Suppliers	0.0%	4.7%	8.6%	6.0%	1.4%	0.1%
Unaccounted for and other	26.9%	43.2%	34.8%	28.4%	42.5%	42.5%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	2,699	2,633	2,629	2,630	2,630	2,633
Number of Customers by Class						
Domestic	2,496	2,382	2,380	2,380	2,380	2,582
Commercial	146	216	217	218	218	219
Industrial	38	15	14	14	14	14
Institutional	16	16	14	14	14	14
Bulk Sales to Suppliers	3	4	4	4	4	4
Estimated Service Population	7,018	7,018	7,012	7,012	7,012	7,179
Number of Customers by Class (% of total)						
Domestic	92.5%	90.5%	90.5%	90.5%	90.5%	91.1%
Commercial	5.4%	8.2%	8.3%	8.3%	8.3%	7.7%
Industrial	1.4%	0.6%	0.5%	0.5%	0.5%	0.5%
Institutional	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%
Bulk Sales to Suppliers	0.1%	0.2%	0.2%	0.2%	0.2%	0.1%









Coraopolis Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$477,386
Dollars per 1,000 gallons sold	$2.51
Other Revenues	$970
TOTAL OPERATING REVENUES	$478,356
Dollars per 1,000 gallons sold	$2.51
Expenses	
Operating Expenses	
Total dollars per year	$471,454
Dollars per 1,000 gallons sold	$2.47
Debt Service	
Total dollars per year	$16,970
Dollars per customer served	$6.45
Other Expenses	$0
TOTAL EXPENSES	$488,424
Dollars per 1,000 gallons sold	$2.56
Net Revenues (dollars)	($10,068)
Ratio of revenues to expenses	0.98
Average Annual Residential Bill	
Dollars per year per customer	$279.39
% of Median Household Income	1.23%
Retained Earnings	$39,036
Retained Earnings ($/customer)	$14.84

Legend

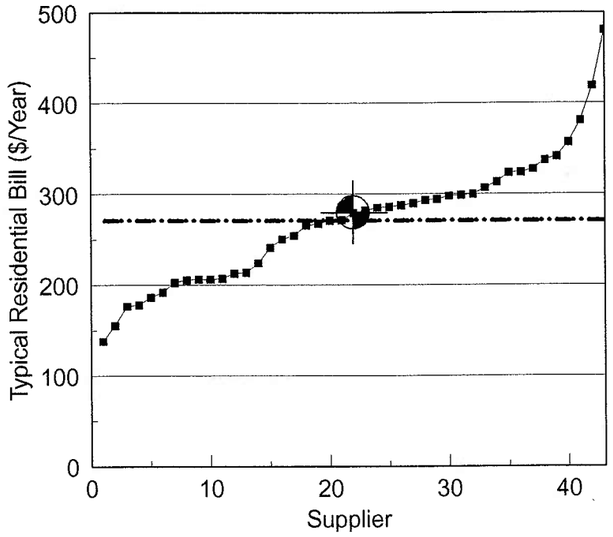
Value for this supplier

Mean value for all suppliers reporting data

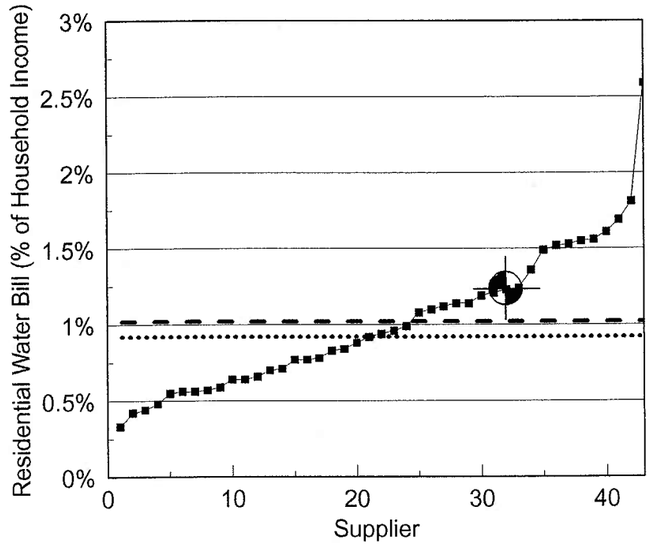
Median value for all suppliers reporting data

Individual supplier data

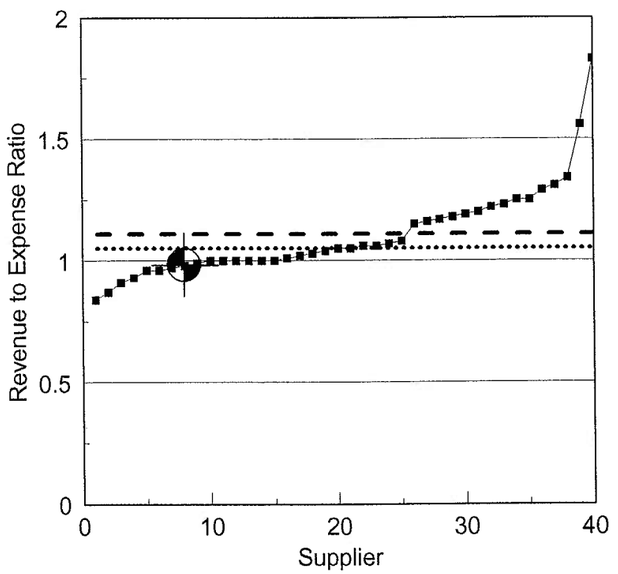
Typical Residential Water Bill
(Dollars Per Year)



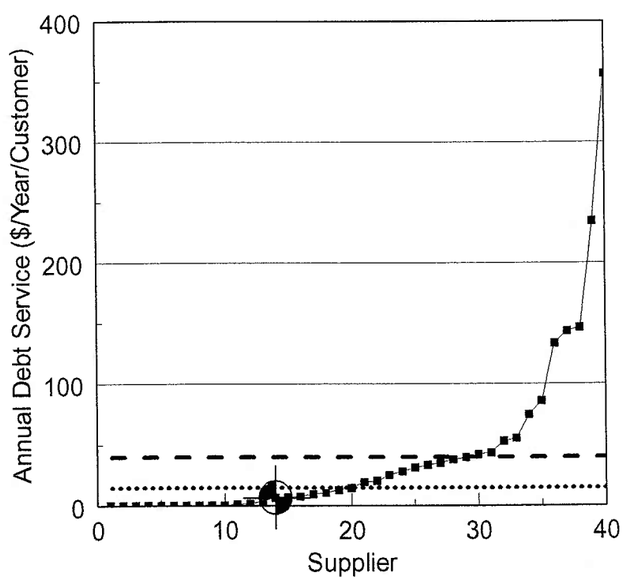
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Creswell Heights Joint Authority

The Creswell Heights Joint Authority serves approximately 5,120 customers in the following municipalities:

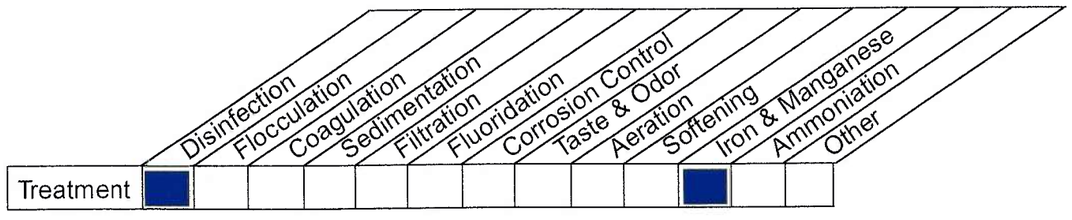
Crescent Township
Hopewell Township (Beaver County)
Moon Township
South Heights Borough (Beaver County)

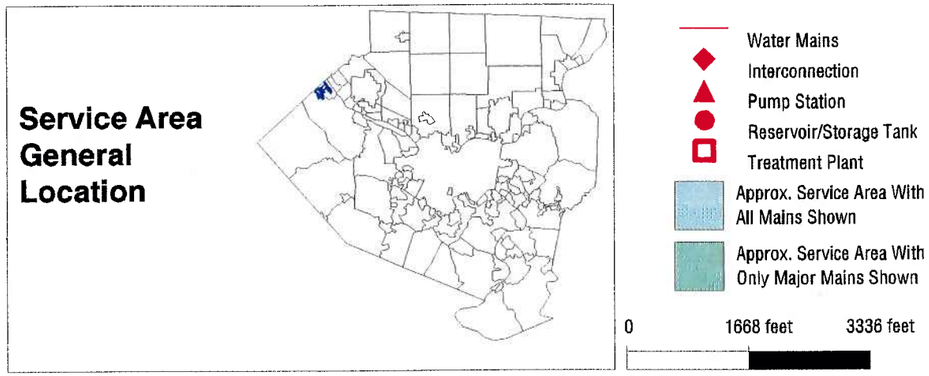
The Authority was established in 1950. The authority board consists of seven members who are appointed by the member municipalities.

The Authority obtains its water supply from wells that are situated adjacent to the Ohio River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates six distribution system water storage facilities and three booster pumping stations.

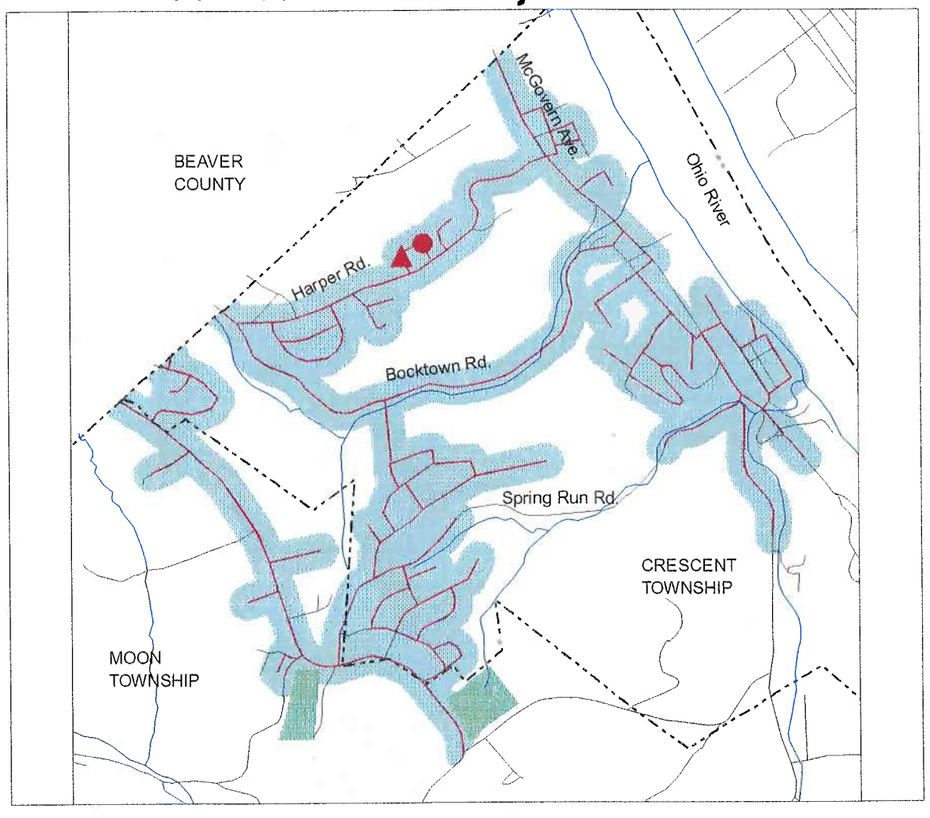
During the past five years, the Authority has experienced a 4.8 percent increase in the total number of customers served. Total daily water use in 1993 averaged 1.086 million gallons per day (mgd).

The total service population is projected to increase from approximately 16,591 persons in 1993 to approximately 21,182 by the year 2015. Average daily water demands are projected to increase from 1.086 mgd (1.454 mgd maximum day) in 1993 to 1.375 mgd (1.946 mgd maximum day) by the year 2015. These demands are within the capacity of the Authority's source of supply and treatment facility. The Authority's distribution storage provides more than a 3-day volume under current demand conditions and approximately a 3-day storage volume under anticipated year 2015 demand conditions. Therefore, the Authority's storage and emergency supply capacities are adequate through the planning period.





Service Area and Major Facilities



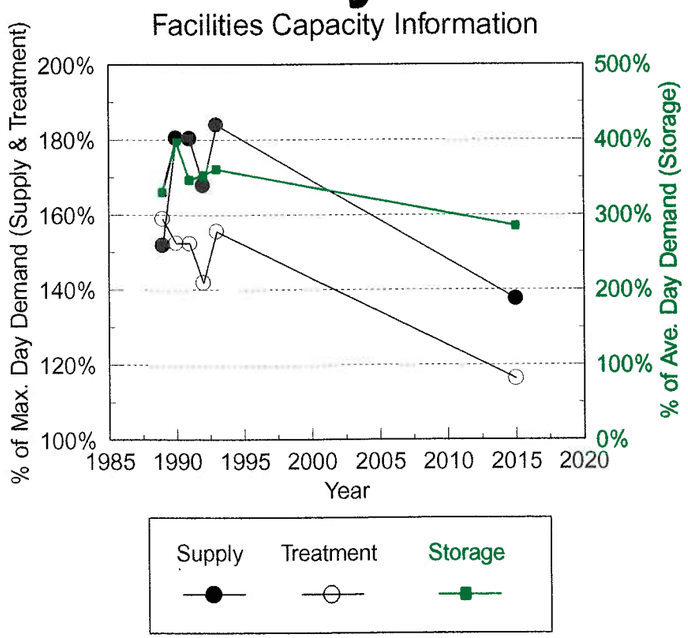
Creswell Heights Joint Authority

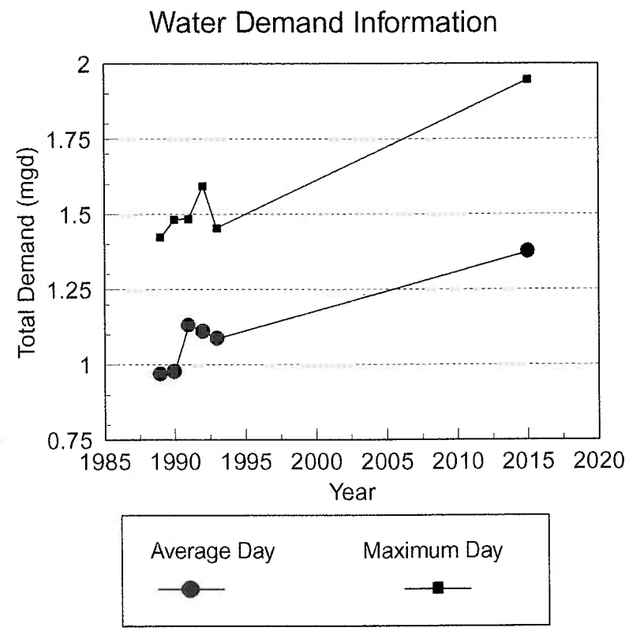
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	2.16	2.68	2.68	2.68	2.68	2.68
Wells	2.16	2.68	2.68	2.68	2.68	2.68
Treatment / Pumping Facility Capacity (mgd)	2.26	2.26	2.26	2.26	2.26	2.26
Total Treated Water Storage (million gallons)	3.20	3.90	3.92	3.92	3.92	3.92
Total Supply Source(s) Capacity (% of max. day)	151.8%	180.4%	180.3%	167.8%	184.0%	137.5%
Treatment / Pumping Facility Capacity (% of max. day)	158.9%	152.4%	152.3%	141.8%	155.5%	116.2%
Total Treated Water Storage (% of ave. day))	330.3%	399.4%	346.5%	353.0%	360.8%	284.9%

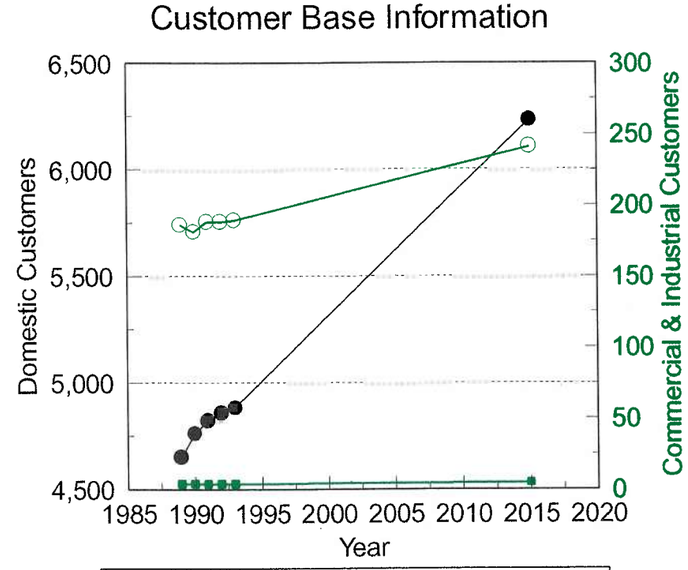
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

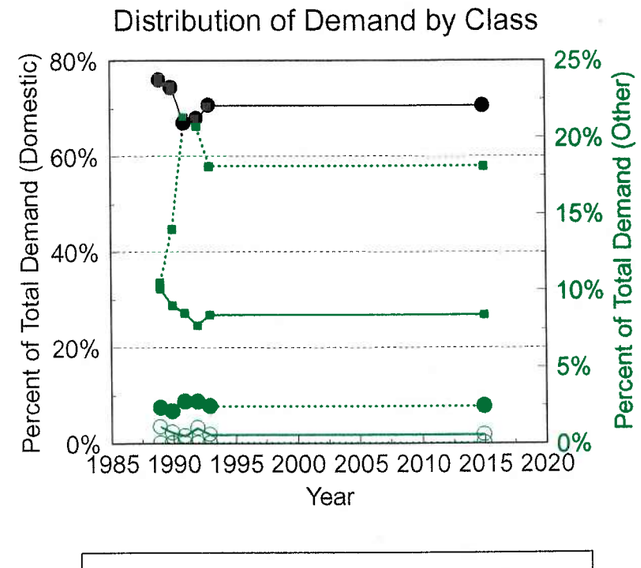
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.969	0.976	1.131	1.110	1.086	1.375
Maximum Day Total Water Use (mgd)	1.423	1.483	1.484	1.594	1.454	1.946
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.736	0.725	0.756	0.753	0.766	0.969
Commercial	0.098	0.087	0.097	0.086	0.091	0.116
Industrial	0.011	0.007	0.005	0.011	0.006	0.008
Institutional	0.022	0.021	0.031	0.030	0.026	0.033
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.102	0.136	0.241	0.230	0.197	0.249
Average Daily Water Use (gpd/customer)	177	168	176	173	174	172
Average Daily Water Use by Customer Class (% of total)						
Domestic	75.9%	74.3%	66.9%	67.8%	70.6%	70.5%
Commercial	10.1%	9.0%	8.5%	7.7%	8.4%	8.4%
Industrial	1.1%	0.7%	0.5%	1.0%	0.6%	0.6%
Institutional	2.3%	2.1%	2.7%	2.7%	2.4%	2.4%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	10.5%	14.0%	21.3%	20.7%	18.1%	18.1%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	4,887	4,991	5,057	5,094	5,120	6,537
Number of Customers by Class						
Domestic	4,651	4,761	4,819	4,856	4,881	6,232
Commercial	186	181	188	188	189	241
Industrial	4	4	4	4	4	5
Institutional	46	45	46	46	46	59
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	15,809	16,183	16,380	16,506	16,591	21,182
Number of Customers by Class (% of total)						
Domestic	95.2%	95.4%	95.3%	95.3%	95.3%	95.3%
Commercial	3.8%	3.6%	3.7%	3.7%	3.7%	3.7%
Industrial	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Institutional	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Creswell Heights Joint Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,111,618
Dollars per 1,000 gallons sold	$3.43
Other Revenues	$34,149
TOTAL OPERATING REVENUES	$1,145,767
Dollars per 1,000 gallons sold	$3.53
Expenses	
Operating Expenses	
Total dollars per year	$761,702
Dollars per 1,000 gallons sold	$2.35
Debt Service	
Total dollars per year	$215,896
Dollars per 1,000 gallons sold	$42.17
Other Expenses	$15,005
TOTAL EXPENSES	$992,603
Dollars per 1,000 gallons sold	3.06
Net Revenues (dollars)	$153,164
Ratio of revenues to expenses	1.15
Average Annual Residential Bill	
Dollars per year per customer	$212.78
% of Median Household Income	0.57%
Retained Earnings	$5,530,725
Retained Earnings ($/customer)	$1,080.22

Legend

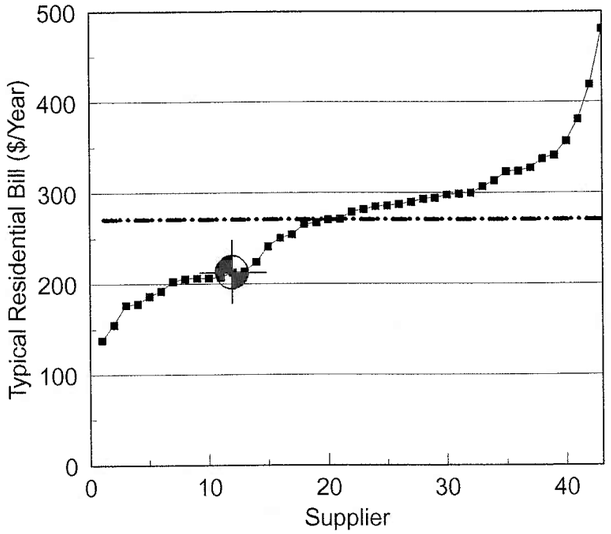
Value for this supplier

Mean value for all suppliers reporting data

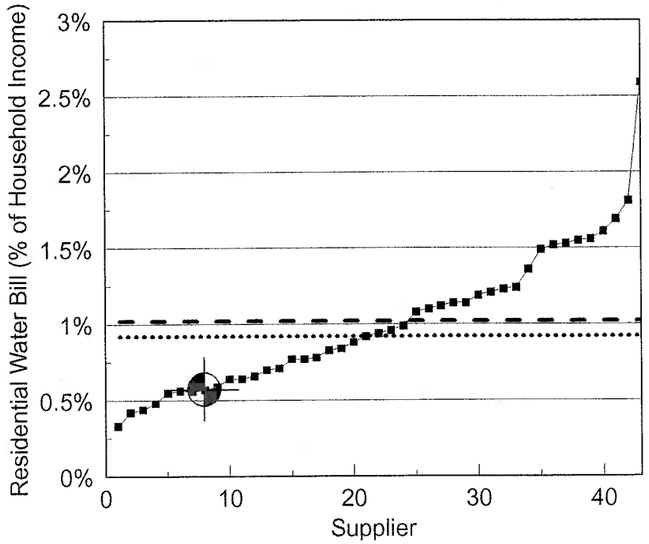
Median value for all suppliers reporting data

Individual supplier data

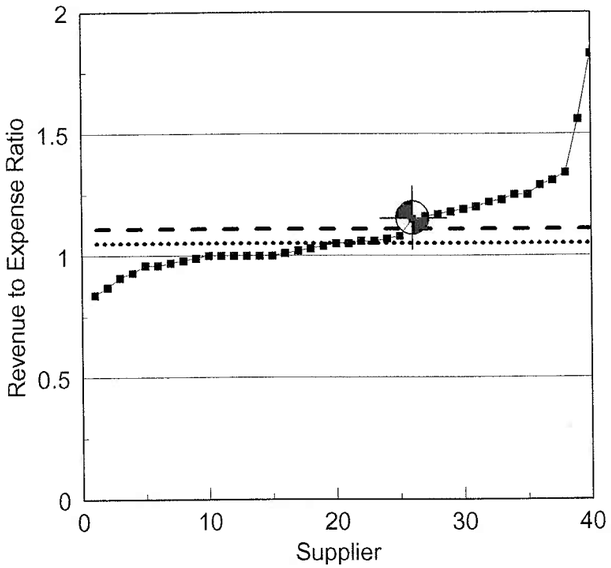
Typical Residential Water Bill
(Dollars Per Year)



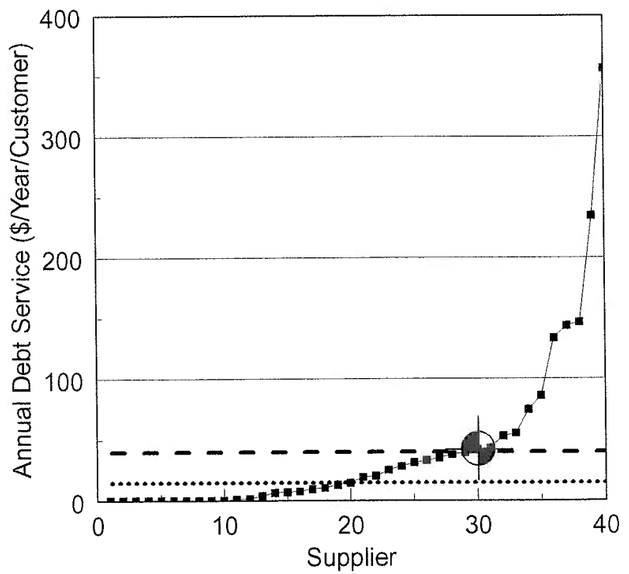
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



City of Duquesne

The City of Duquesne serves approximately 3,471 customers in the following municipalities:

City of Duquesne
West Mifflin Borough

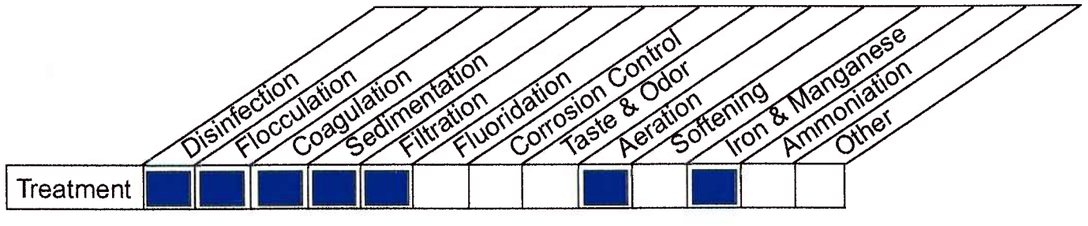
More than 99 percent of the City's customers are located within the City of Duquesne.

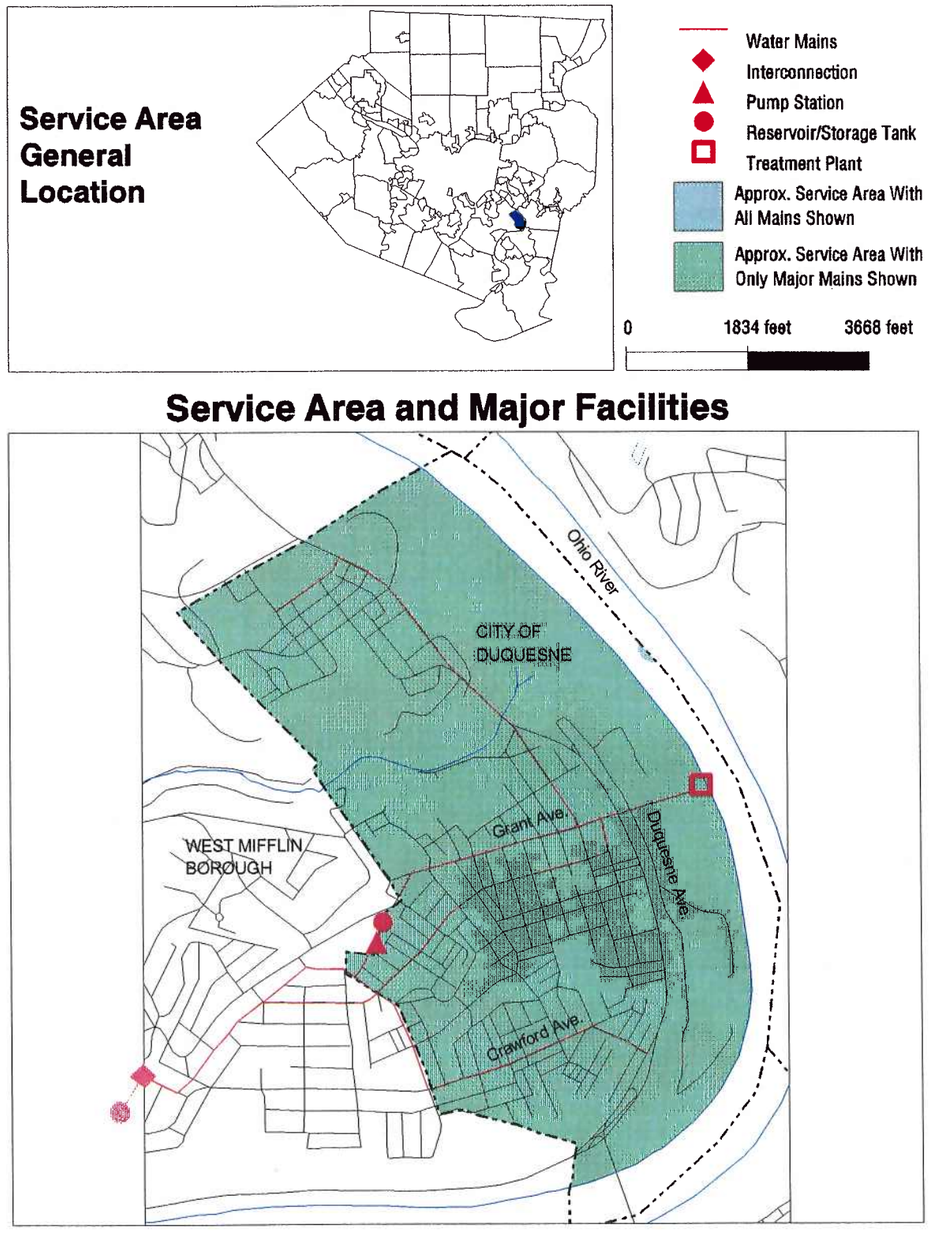
The water system is owned by the City of Duquesne and is operated as a department under the management of City council.

The City owns well water supply facilities adjacent to the Monongahela River and a water treatment plant. The processes employed at the treatment facility are illustrated below. The City plans to shut down the operations at its water treatment plant in early 1996 and to purchase its water supply in bulk from the Municipal Authority of Westmoreland County. The City operates two distribution system water storage facilities and one booster pumping station.

During the past five years, the City has experienced a 2.7 percent decrease in the total number of customers served. Total daily water use in 1993 averaged 0.908 million gallons per day.

The total service population is projected to exhibit a very modest increase from approximately 8,471 persons in 1993 to approximately 8,510 by the year 2015. Average daily water demands are projected to increase from 0.908 mgd (0.998 mgd maximum day) in 1993 to 0.912 mgd (0.969 mgd maximum day) in the year 2015. These demands are within the capacity of the City's sources of supply and treatment facility. The City's distribution storage provides for approximately a 3-day storage volume (2.8 days) under current and anticipated future demand conditions. The system, therefore, provides adequate storage and emergency supply capacity throughout the planning period.





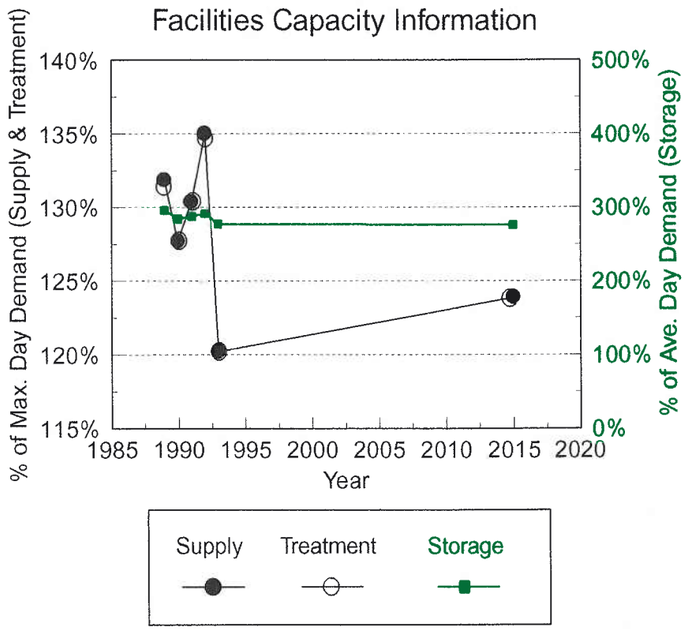
City of Duquesne

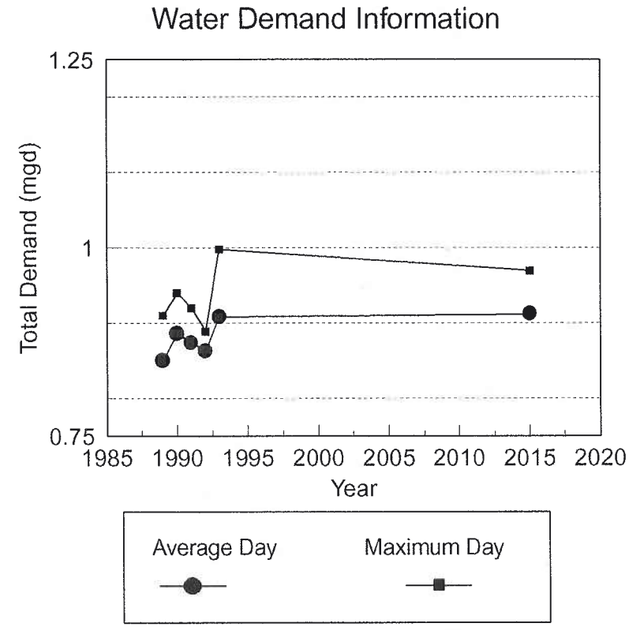
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.20	1.20	1.20	1.20	1.20	1.20
Wells						
Pennsylvania American Water Company	1.20	1.20	1.20	1.20	1.20	1.20
Treatment / Pumping Facility Capacity (mgd)	1.20	1.20	1.20	1.20	1.20	1.20
Total Treated Water Storage (million gallons)	2.52	2.52	2.52	2.52	2.52	2.52
Total Supply Source(s) Capacity (% of max. day)	131.9%	127.7%	130.4%	135.0%	120.2%	123.9%
Treatment / Pumping Facility Capacity (% of max. day)	131.9%	127.7%	130.4%	135.0%	120.2%	123.9%
Total Treated Water Storage (% of ave. day))	296.5%	284.6%	288.3%	292.0%	277.6%	276.4%

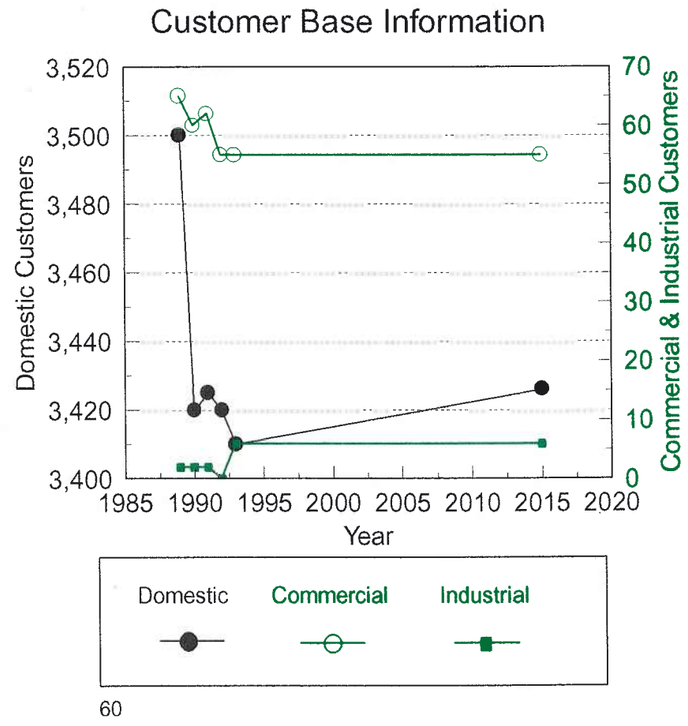
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	92%	100%	

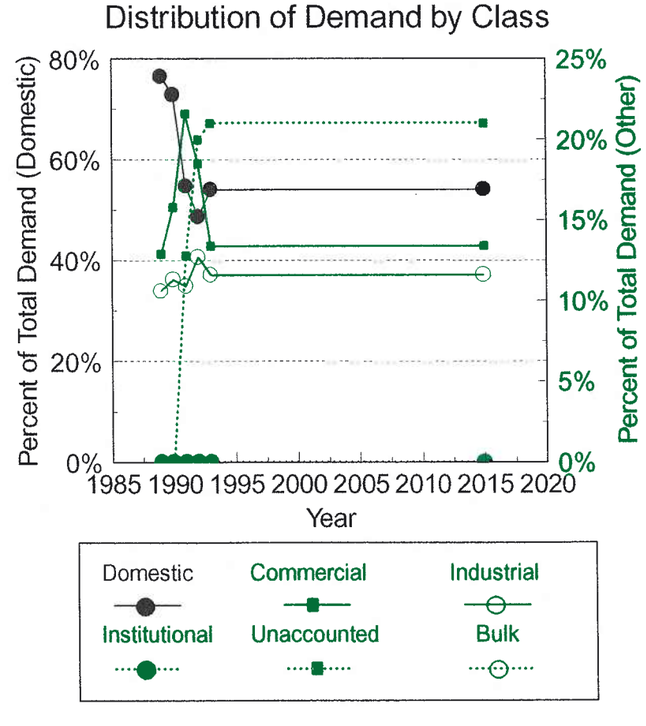
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.850	0.886	0.874	0.863	0.908	0.912
Maximum Day Total Water Use (mgd)	0.910	0.940	0.920	0.889	0.998	0.969
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.650	0.646	0.478	0.420	0.490	0.492
Commercial	0.110	0.140	0.189	0.160	0.122	0.122
Industrial	0.090	0.100	0.095	0.110	0.105	0.105
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.000	0.000	0.112	0.173	0.191	0.191
Average Daily Water Use (gpd/customer)	238	254	218	198	207	207
Average Daily Water Use by Customer Class (% of total)						
Domestic	76.5%	72.9%	54.7%	48.7%	54.0%	54.0%
Commercial	12.9%	15.8%	21.6%	18.5%	13.4%	13.4%
Industrial	10.6%	11.3%	10.9%	12.7%	11.6%	11.6%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	0.0%	0.0%	12.8%	20.0%	21.0%	21.0%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	3,567	3,482	3,489	3,479	3,471	3,487
Number of Customers by Class						
Domestic	3,500	3,420	3,425	3,420	3,410	3,426
Commercial	65	60	62	55	55	55
Industrial	2	2	2	0	6	6
Institutional	0	0	0	4	0	0
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	8,695	8,496	8,508	8,496	8,471	8,510
Number of Customers by Class (% of total)						
Domestic	98.1%	98.2%	98.2%	98.3%	98.2%	98.2%
Commercial	1.8%	1.7%	1.8%	1.6%	1.6%	1.6%
Industrial	0.1%	0.1%	0.1%	0.0%	0.2%	0.2%
Institutional	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









City of Duquesne

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$620,686
Dollars per 1,000 gallons sold	$2.17
Other Revenues	$0
TOTAL OPERATING REVENUES	$620,686
Dollars per 1,000 gallons sold	$2.17
Expenses	
Operating Expenses	
Total dollars per year	$514,514
Dollars per 1,000 gallons sold	$1.80
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$82,000
TOTAL EXPENSES	$596,514
Dollars per 1,000 gallons sold	$2.08
Net Revenues (dollars)	$24,172
Ratio of revenues to expenses	1.04
Average Annual Residential Bill	
Dollars per year per customer	$254.35
% of Median Household Income	1.61%
Retained Earnings	$246,746
Retained Earnings ($/customer)	$71.09

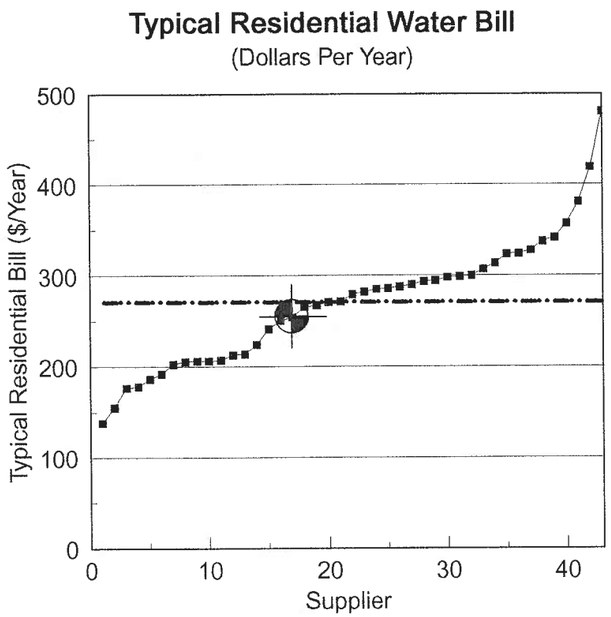
Legend

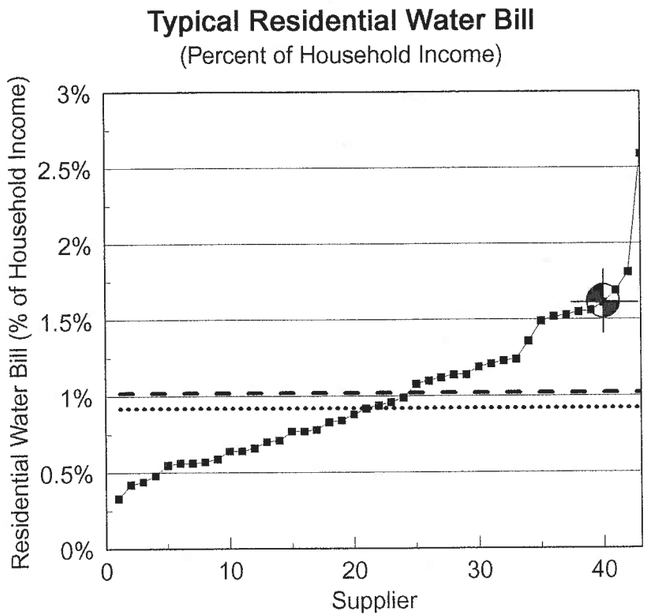
Value for this supplier

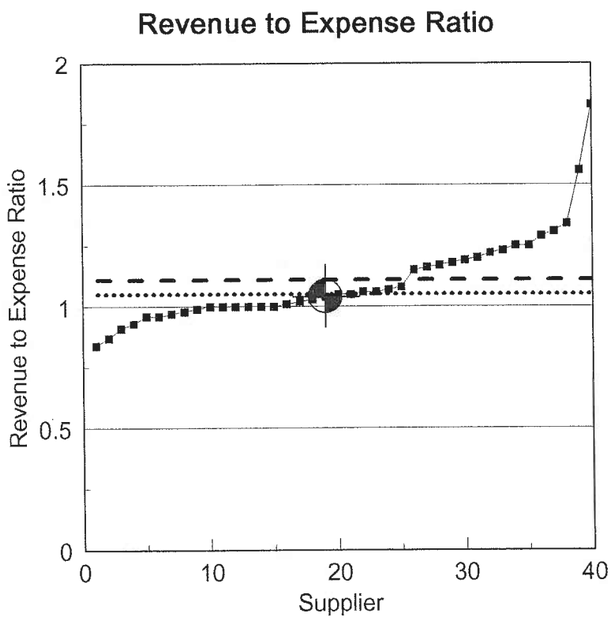
Mean value for all suppliers reporting data

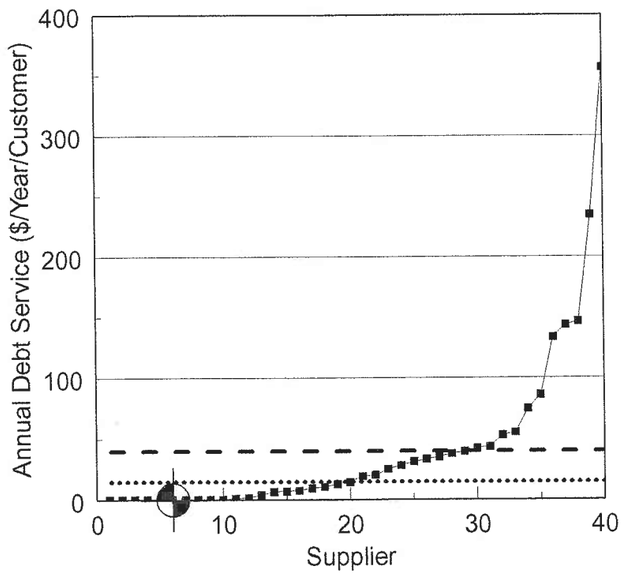
Median value for all suppliers reporting data

Individual supplier data









East Deer Township

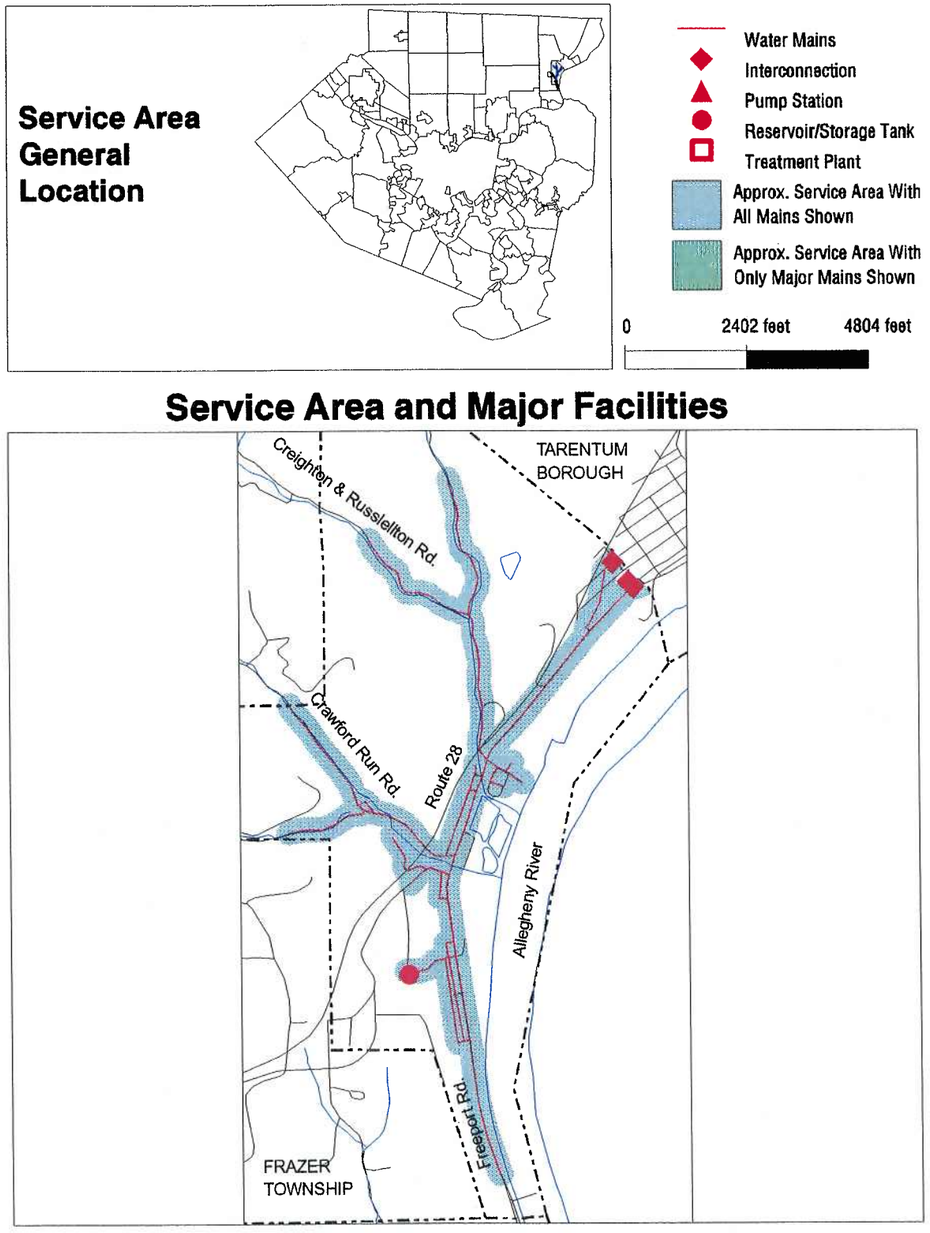
East Deer Township serves approximately 789 customers in the Township.

The water system is owned and operated by the Township under the management of the Township commissioners.

The Township purchases its water supply in bulk from the Borough of Tarentum. It operates no treatment facilities, one distribution system storage facility, and no pumping stations.

During the past five years, the Township has experienced a 3.1 percent increase in the total number of customers served. Total daily water use in 1992 averaged 0.392 million gallons per day (mgd).

The total service population is projected to increase from approximately 1,711 persons in 1993 to approximately 2,411 persons by the year 2015. Average daily water demands are projected to increase from 0.392 mgd (0.446 mgd maximum day) in 1993 to 0.635 mgd (0.723 mgd maximum day) by the year 2015. These demands are within the capacity of the Authority's source of supply. The Authority's distribution storage facilities provide more than a 1-day volume of water throughout the planning period. East Deer Township recently established an emergency supply connection with the Fawn Frazer Water Authority. By agreement, the capacity of this connection is 0.144 mgd. The combined capacity of this connection and system storage does not meet the 3-day target. Additional emergency connections should be established or the delivery capacity of the existing connection should be increased. If additional emergency supply sources cannot be obtained, the 3-day goal can be met by constructing an additional 0.5 million gallons of distribution system storage. The cost of this storage, assuming the construction of a 0.5 million gallon per day elevated storage tank, is estimated to be $750,000.



East Deer Township

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.75	0.75	0.75	0.75	0.75	0.75
Borough of Tarentum	0.75	0.75	0.75	0.75	0.75	0.75
Treatment / Pumping Facility Capacity (mgd)						0.00
Total Treated Water Storage (million gallons)	1.00	1.00	1.00	1.00	1.00	1.00
Total Supply Source(s) Capacity (% of max. day)	143.7%	165.1%	151.1%	168.0%		103.7%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Treated Water Storage (% of ave. day))	227.3%	249.2%	229.7%	255.4%		157.5%

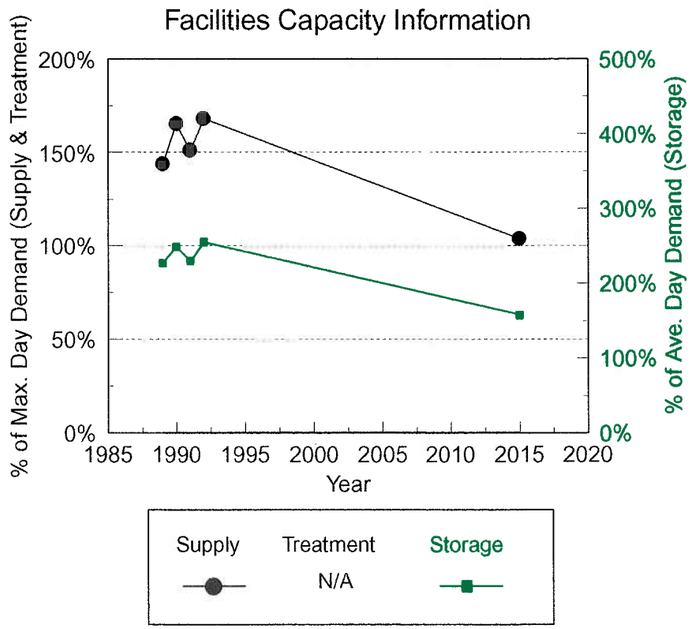
Note: No maximum day supply limit established. Indicated value shown as indicator of sufficient capacity.

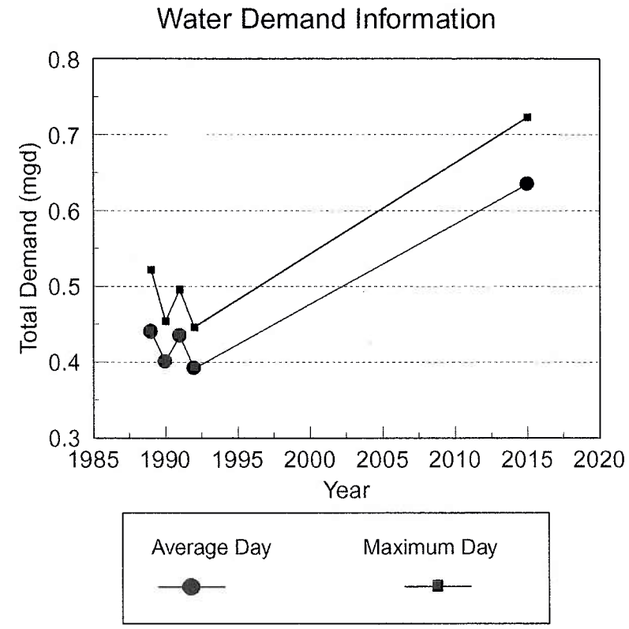
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	92%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	92%	

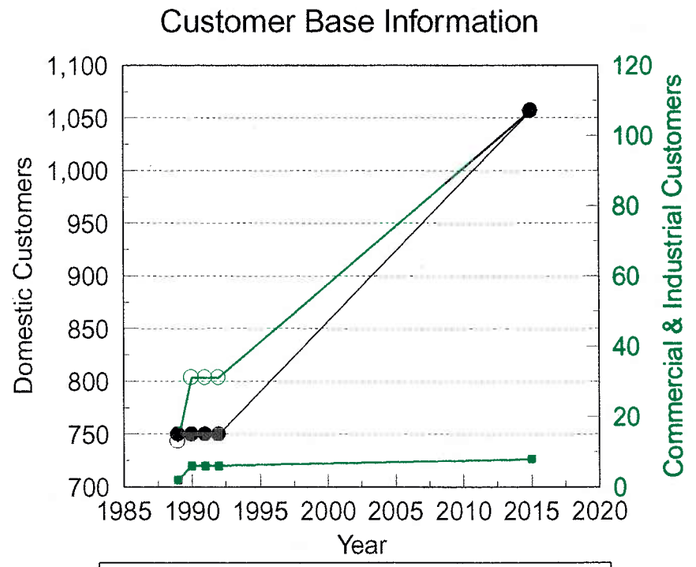
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.440	0.401	0.435	0.392		0.635
Maximum Day Total Water Use (mgd)	0.522	0.454	0.496	0.446		0.723
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.071	0.070	0.073	0.061		0.150
Commercial	0.034	0.012	0.068	0.018		0.080
Industrial	0.335	0.272	0.282	0.228		0.307
Institutional	0.000	0.002	0.002	0.003		0.004
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000		0.000
Unaccounted for and other	0.000	0.047	0.010	0.082		0.114
Average Daily Water Use (gpd/customer)	575	449	539	392		443
Average Daily Water Use by Customer Class (% of total)						
Domestic	16.2%	17.3%	16.7%	15.6%		23.6%
Commercial	7.7%	2.9%	15.6%	4.5%		9.5%
Industrial	76.1%	67.7%	64.9%	58.3%		48.3%
Institutional	0.0%	0.4%	0.4%	0.6%		0.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%		0.0%
Unaccounted for and other	0.0%	11.6%	2.4%	20.9%		18.0%

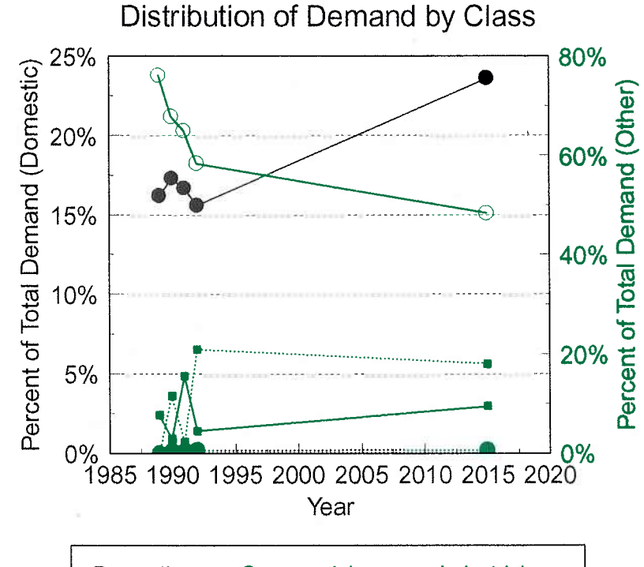
1992 maximum day demand not reported. Estimated based upon average day and previously reported peaking factors

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	765	789	789	789		1,175
Number of Customers by Class						
Domestic	750	750	750	750		1,057
Commercial	13	31	31	31		107
Industrial	2	6	6	6		8
Institutional	0	2	2	2		3
Bulk Sales to Suppliers	0	0	0	0		0
Estimated Service Population	1,711	1,711	1,711	1,711		2,411
Number of Customers by Class (% of total)						
Domestic	98.0%	95.1%	95.1%	95.1%		89.9%
Commercial	1.7%	3.9%	3.9%	3.9%		9.1%
Industrial	0.3%	0.8%	0.8%	0.8%		0.7%
Institutional	0.0%	0.3%	0.3%	0.3%		0.3%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%		0.0%









East Deer Township

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$333,748
Dollars per 1,000 gallons sold	$2.95
Other Revenues	$79,110
TOTAL OPERATING REVENUES	$412,858
Dollars per 1,000 gallons sold	$3.65
Expenses	
Operating Expenses	
Total dollars per year	$230,284
Dollars per 1,000 gallons sold	$2.04
Debt Service	
Total dollars per year	$22,100
Dollars per customer served	$28.01
Other Expenses	$224,028
TOTAL EXPENSES	$476,412
Dollars per 1,000 gallons sold	$4.21
Net Revenues (dollars)	($63,554)
Ratio of revenues to expenses	0.87
Average Annual Residential Bill	
Dollars per year per customer	$270.84
% of Median Household Income	1.24%
Retained Earnings	$54,751
Retained Earnings ($/customer)	$69.39

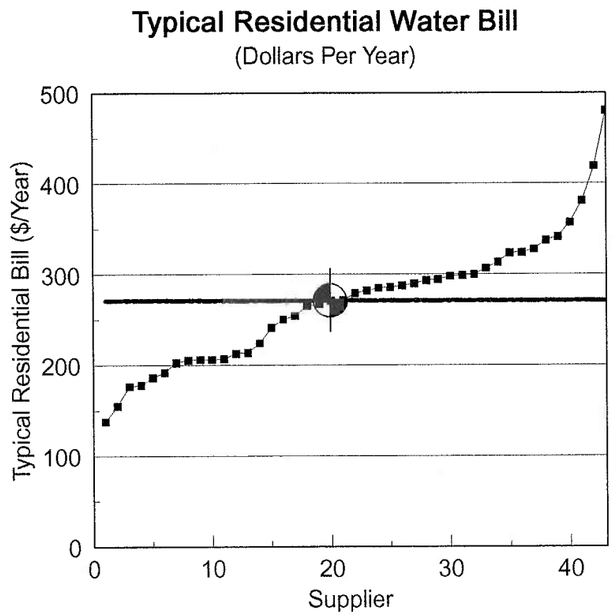
Legend

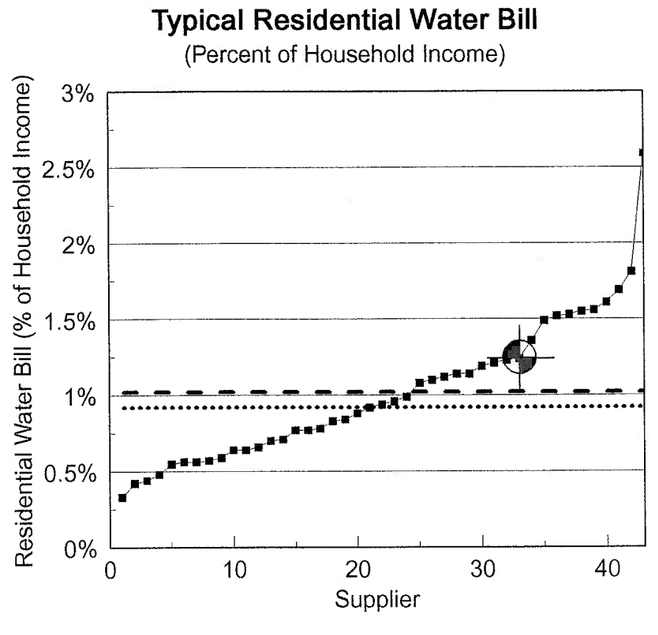
Value for this supplier

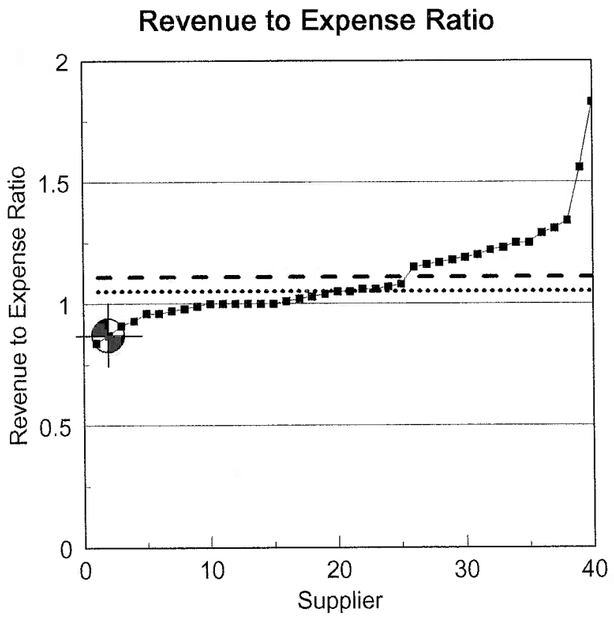
Mean value for all suppliers reporting data

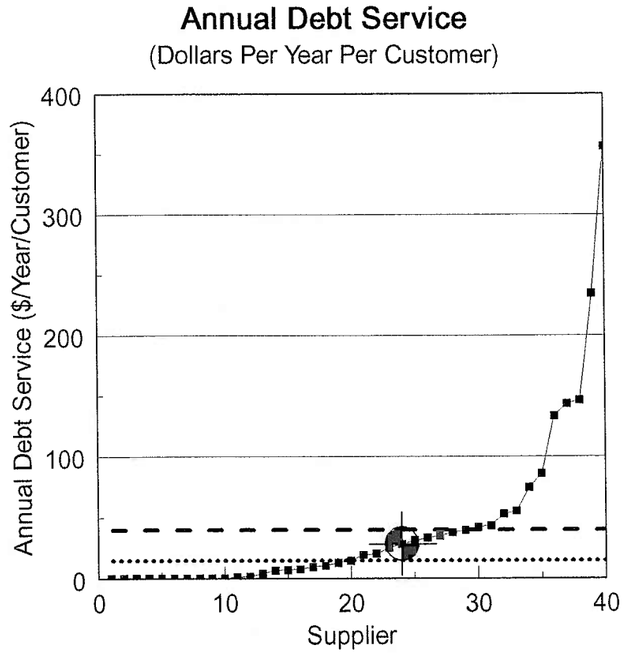
Median value for all suppliers reporting data

Individual supplier data









Edgeworth Borough M.A.

The Municipal Authority of the Borough of Edgeworth serves approximately 2,142 customers in the following municipalities:

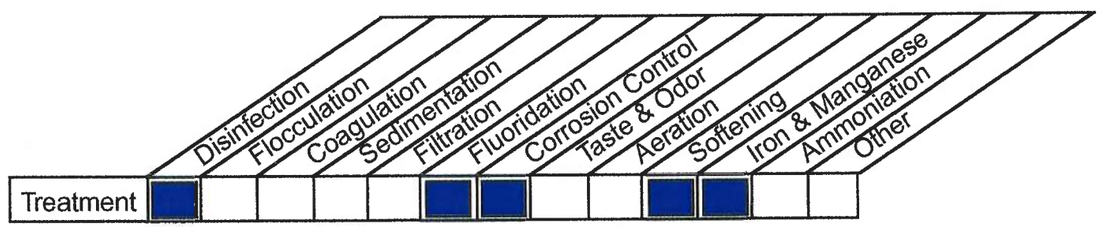
Edgeworth Borough
Leetsdale Borough
Leet Township
Bell Acres Borough

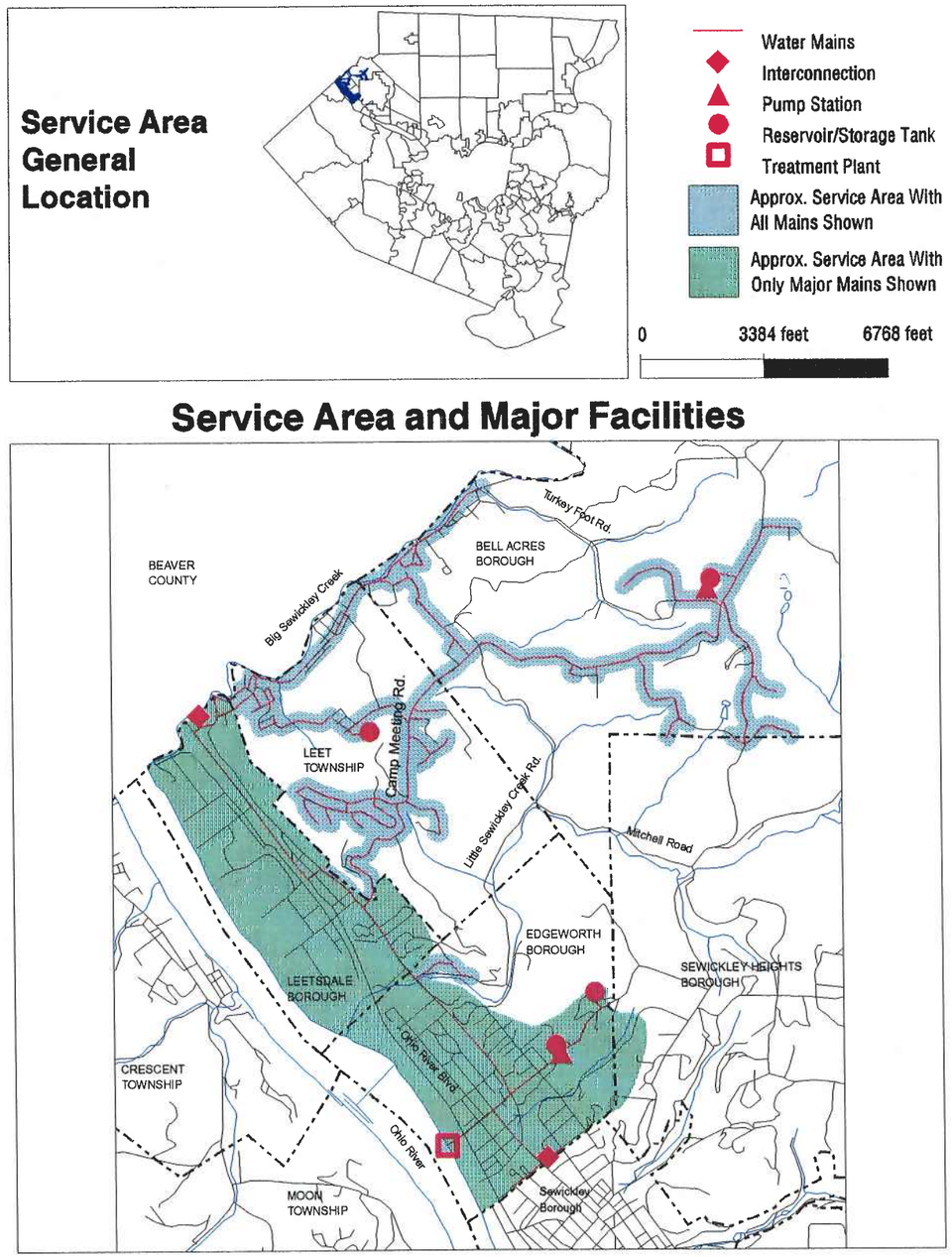
The Authority was formed in 1956. The Board is comprised of five members, three representing Edgeworth Borough and two representing Leetsdale Borough..

The Authority obtains its water supply from wells that are beneath the Ohio River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates four distribution system water storage facilities and two booster pumping stations.

During the past five years, the Authority has experienced a 1.2 percent increase in the total number of customers served. Total daily water use in 1993 averaged 0.836 million gallons per day (mgd).

The total service population is projected to increase from approximately 5,467 persons in 1993 to approximately 6,403 by the year 2015. Average daily water demands are projected to increase from 0.836 mgd (1.235 mgd maximum day) in 1993 to 0.979 mgd (1.293 mgd maximum day) by the year 2015. These demands are within the capacity of the Authority's treatment facility. They however, exceed the safe yield of the well field as reported in the Annual Report, but the accuracy of the reported capacity appears to be questionable. The actual safe yield of the source of supply should be determined and evaluated against current and projected demands. The Authority's distribution storage volume exceeds a 1-day volume under current and future conditions. An emergency supply connection has been established with the Borough of Ambridge Water Authority. This supply connection, coupled with the Edgeworth Municipal Authority's system storage, provides for more than a 3-day emergency supply throughout the planning period.





Municipal Authority of the Borough of Edgeworth

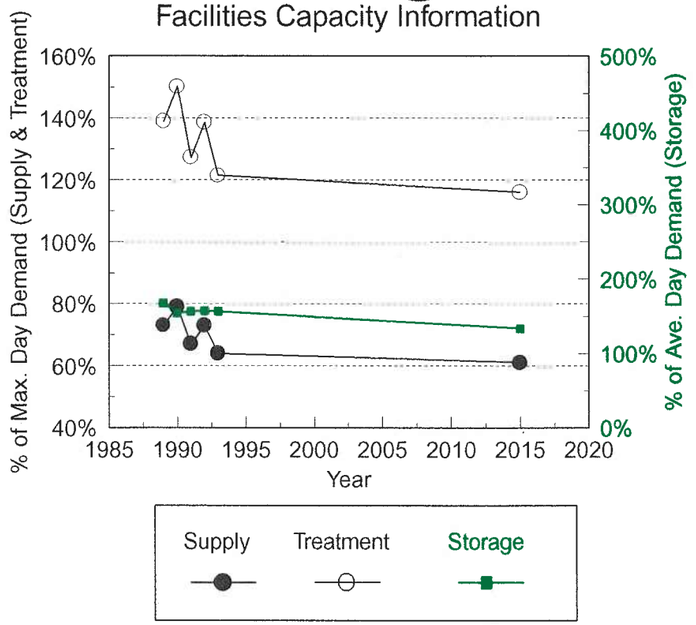
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.79	0.79	0.79	0.79	0.79	0.79
Groundwater	0.79	0.79	0.79	0.79	0.79	0.79
Treatment / Pumping Facility Capacity (mgd)	1.50	1.50	1.50	1.50	1.50	1.50
Total Treated Water Storage (million gallons)	1.35	1.35	1.35	1.35	1.31	1.31
Total Supply Source(s) Capacity (% of max. day)	73.1%	79.1%	67.1%	73.0%	64.0%	61.1%
Treatment / Pumping Facility Capacity (% of max. day)	138.9%	150.2%	127.4%	138.6%	121.5%	116.0%
Total Treated Water Storage (% of ave. day))	167.9%	155.1%	156.8%	157.9%	156.8%	133.8%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	92%	100%	

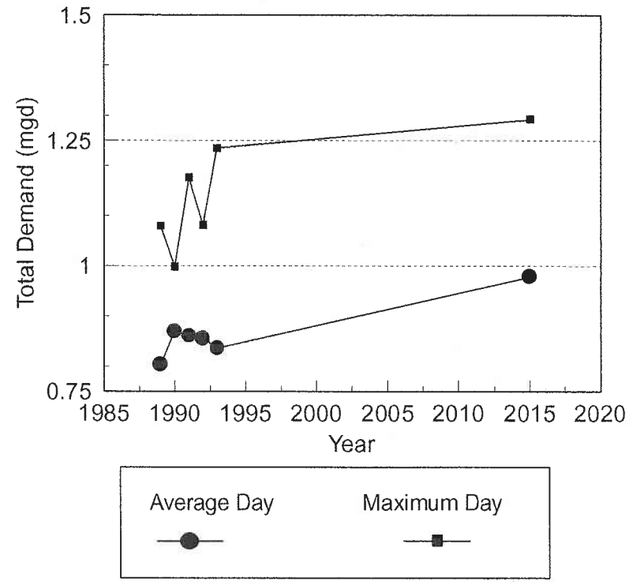
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.804	0.870	0.861	0.855	0.836	0.979
Maximum Day Total Water Use (mgd)	1.080	0.999	1.177	1.082	1.235	1.293
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.342	0.338	0.362	0.342	0.362	0.427
Commercial	0.028	0.038	0.037	0.034	0.032	0.035
Industrial	0.357	0.362	0.414	0.426	0.387	0.453
Institutional	0.010	0.013	0.017	0.014	0.015	0.018
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.068	0.120	0.032	0.038	0.039	0.046
Average Daily Water Use (gpd/customer)	348	355	391	383	372	352
Average Daily Water Use by Customer Class (% of total)						
Domestic	42.6%	38.8%	42.0%	40.0%	43.3%	43.6%
Commercial	3.5%	4.4%	4.2%	3.9%	3.8%	3.5%
Industrial	44.3%	41.6%	48.1%	49.9%	46.3%	46.3%
Institutional	1.2%	1.5%	2.0%	1.7%	1.8%	1.8%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	8.4%	13.7%	3.7%	4.5%	4.7%	4.7%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	2,117	2,116	2,118	2,131	2,142	2,648
Number of Customers by Class						
Domestic	1,976	1,976	1,977	1,988	1,998	2,486
Commercial	75	73	75	74	74	80
Industrial	47	47	48	50	50	59
Institutional	19	20	18	19	20	23
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	5,407	5,407	5,410	5,440	5,467	6,403
Number of Customers by Class (% of total)						
Domestic	93.3%	93.4%	93.3%	93.3%	93.3%	93.9%
Commercial	3.5%	3.4%	3.5%	3.5%	3.5%	3.0%
Industrial	2.2%	2.2%	2.3%	2.3%	2.3%	2.2%
Institutional	0.9%	0.9%	0.8%	0.9%	0.9%	0.9%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

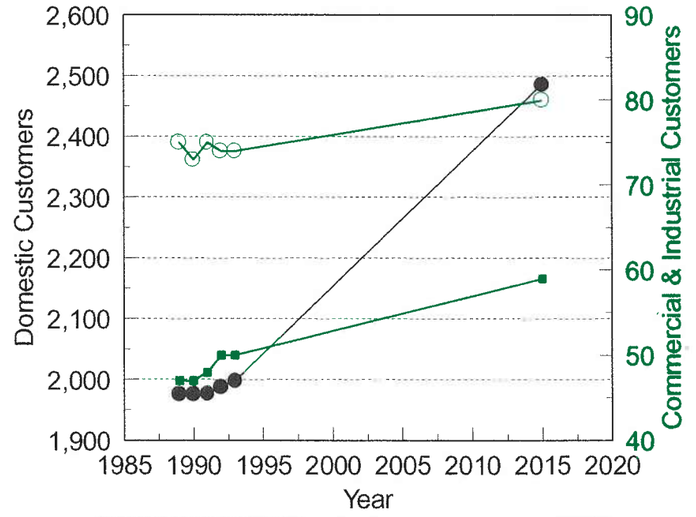
Facilities Capacity Information



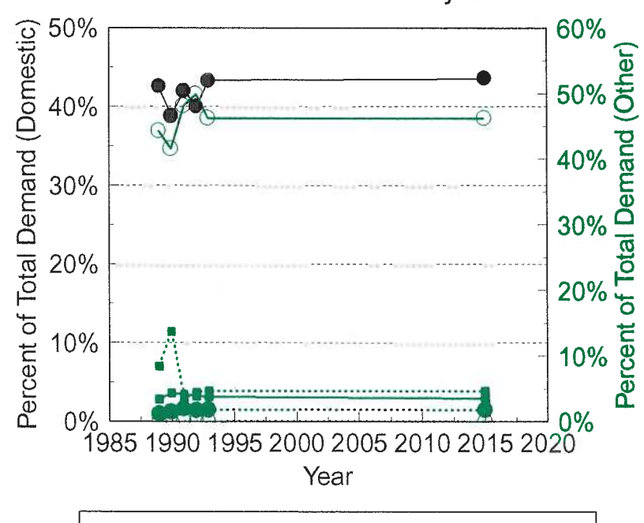
Water Demand Information



Customer Base Information

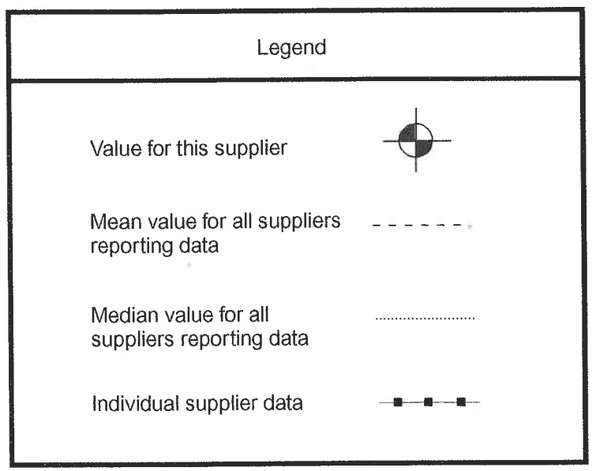


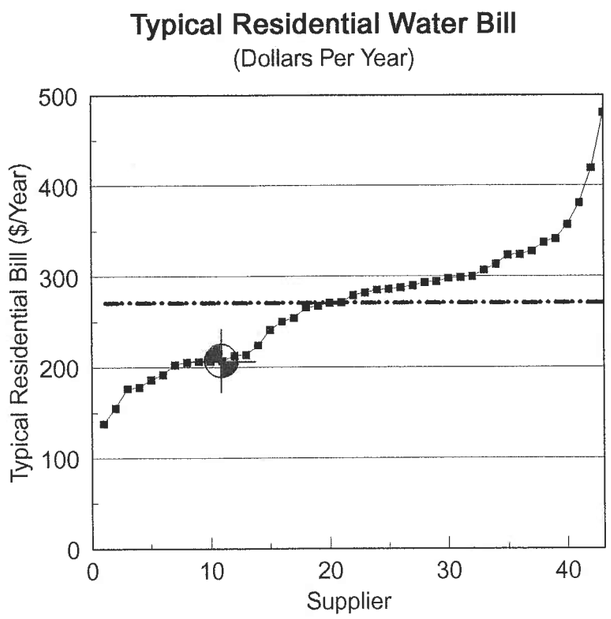
Distribution of Demand by Class

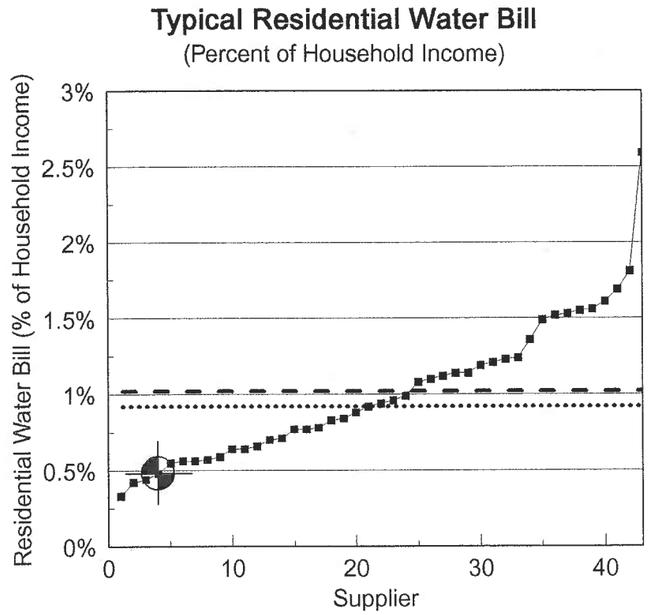


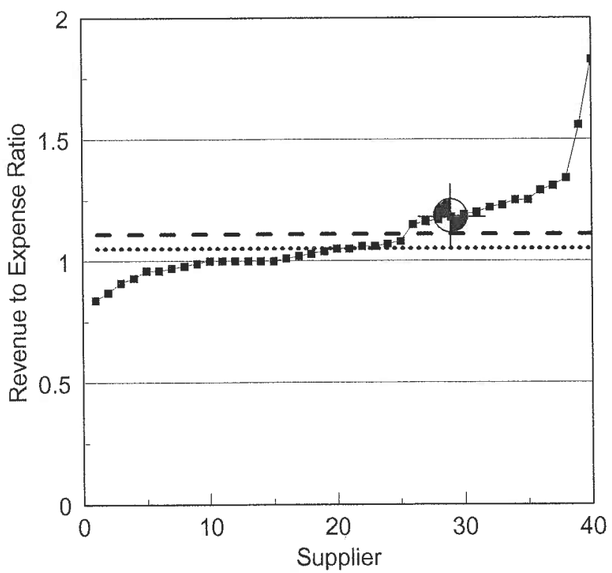
Edgeworth Borough Municipal Authority

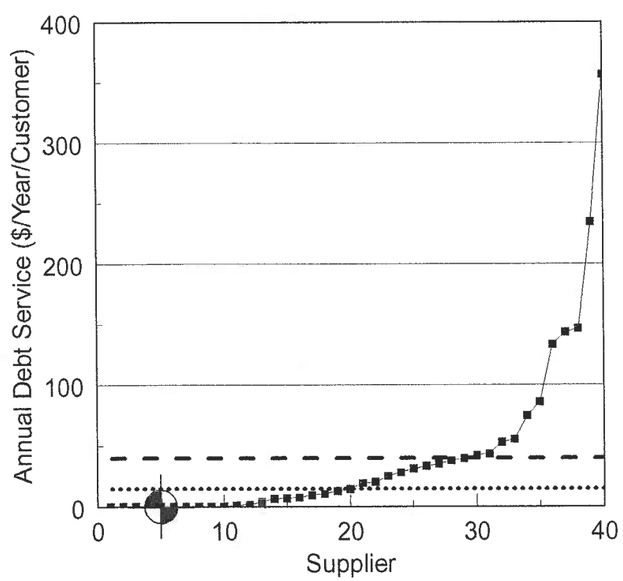
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$734,094
Dollars per 1,000 gallons sold	$2.53
Other Revenues	$9,630
TOTAL OPERATING REVENUES	$743,724
Dollars per 1,000 gallons sold	$2.56
Expenses	
Operating Expenses	
Total dollars per year	$624,258
Dollars per 1,000 gallons sold	$2.15
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$4,126
TOTAL EXPENSES	$628,384
Dollars per 1,000 gallons sold	$2.16
Net Revenues (dollars)	$115,340
Ratio of revenues to expenses	1.18
Average Annual Residential Bill	
Dollars per year per customer	$206.27
% of Median Household Income	0.48%
Retained Earnings	$4,052,011
Retained Earnings ($/customer)	$1,891.70











Etna Borough

Etna Borough serves approximately 1,729 customers in the Borough.

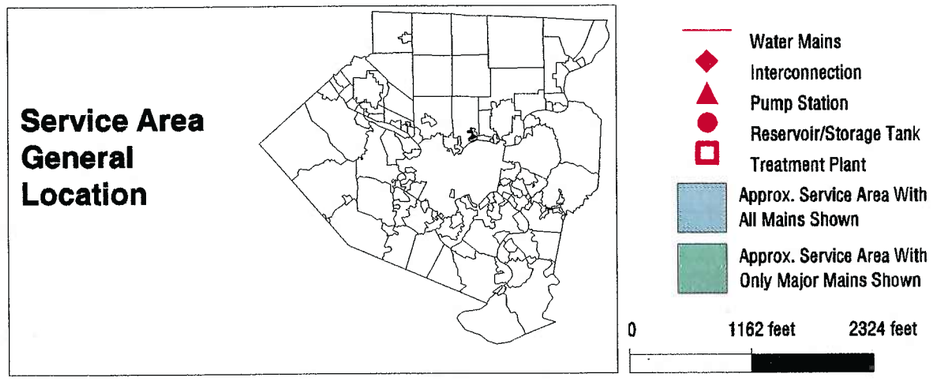
The water system is owned by the Borough and is operated as a municipal department.

The Borough purchases its water supply in bulk from Shaler Township and sells raw water from the Borough's well field to Shaler Township. This is a unique relationship that developed as two water suppliers formulated an arrangement and agreement that simultaneously addressed Etna Borough's need for treated water and Shaler Township's need for additional water supply capacity.

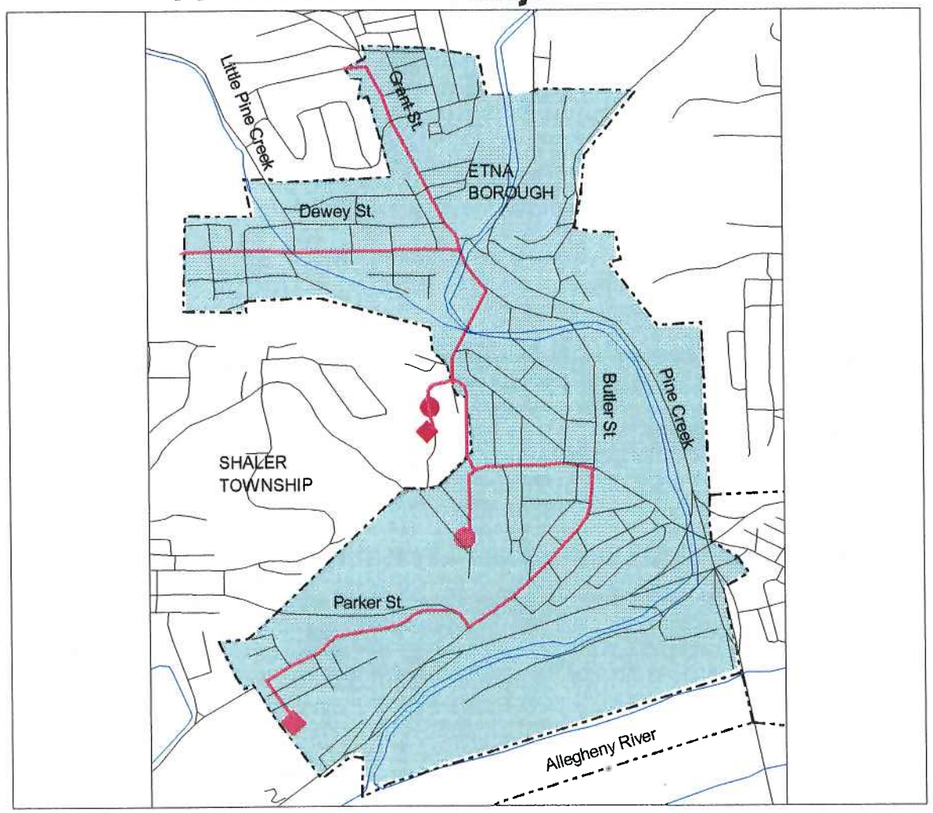
The Borough operates a well field along the Allegheny River, no treatment facilities, three distribution storage facilities, and no booster pumping stations.

During the past five years, the Borough has experienced a 1.2 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.544 million gallons per day (mgd).

The total service population is projected to remain essentially stable at approximately 4,127 persons through year 2015. Average daily water demands are projected to also remain essentially stable at 0.545 mgd (0.788 mgd maximum day) through the year 2015. These demands will remain within the Borough's supply capacities. The Borough's storage facilities provide more than a 1-day storage volume under current and future demand conditions. An emergency supply connection exists with the Pittsburgh Water and Sewer Authority system. This connection is sufficient to provide a 3-day emergency supply.



Service Area and Major Facilities



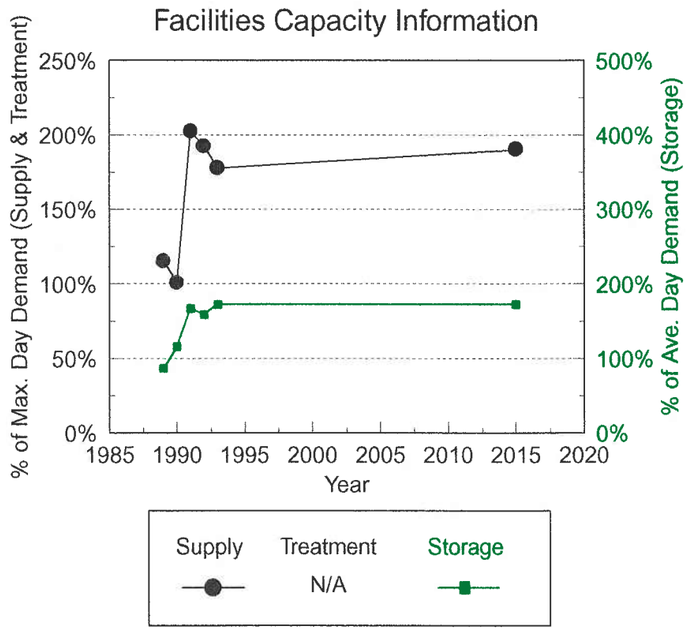
Etna Borough

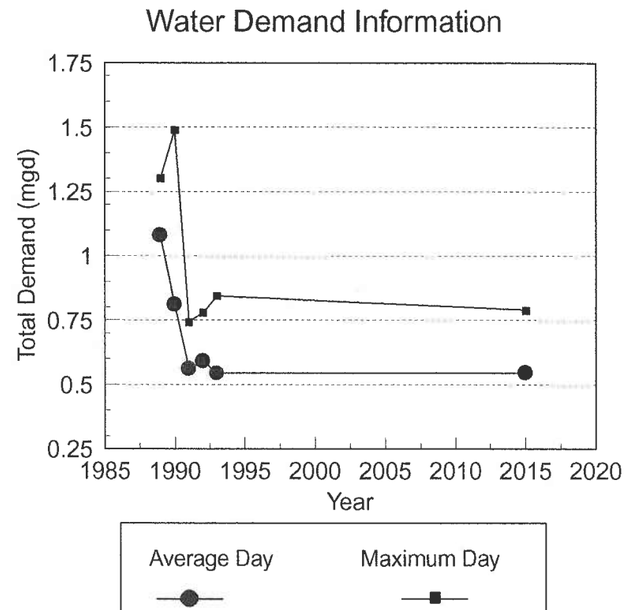
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.50	1.50	1.50	1.50	1.50	1.50
Shaler Township	1.50	1.50	1.50	1.50	1.50	1.50
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.94	0.94	0.94	0.94	0.94	0.94
Total Supply Source(s) Capacity (% of max. day)	115.2%	100.7%	202.2%	192.6%	177.7%	190.3%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Treated Water Storage (% of ave. day))	87.1%	116.0%	167.6%	159.2%	172.9%	172.6%

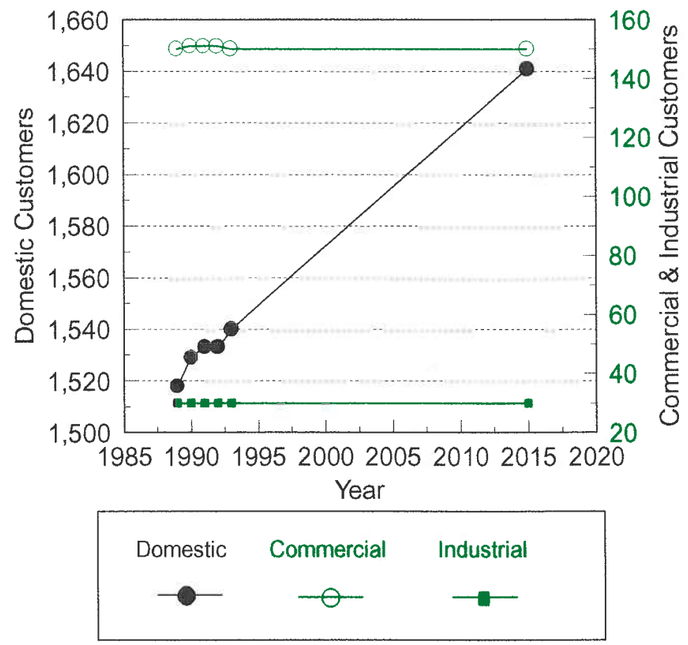
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	92%	92%	100%	

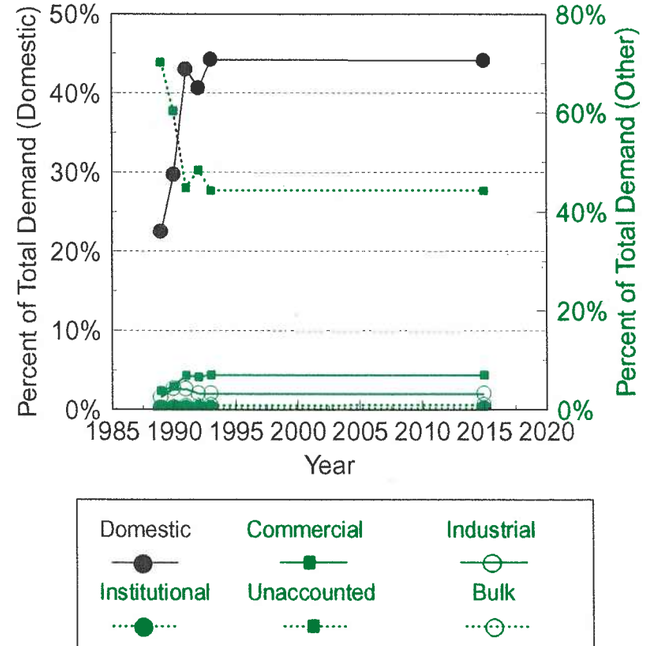
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.079	0.810	0.561	0.591	0.544	0.545
Maximum Day Total Water Use (mgd)	1.302	1.489	0.742	0.779	0.844	0.788
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.242	0.241	0.241	0.240	0.240	0.240
Commercial	0.042	0.039	0.039	0.039	0.039	0.039
Industrial	0.028	0.035	0.023	0.019	0.018	0.018
Institutional	0.002	0.001	0.001	0.001	0.001	0.001
Bulk Sales to Suppliers	0.005	0.004	0.004	0.004	0.005	0.005
Unaccounted for and other	0.759	0.490	0.252	0.287	0.241	0.241
Average Daily Water Use (gpd/customer)	187	166	180	177	175	166
Average Daily Water Use by Customer Class (% of total)						
Domestic	22.5%	29.7%	43.0%	40.6%	44.2%	44.1%
Commercial	3.9%	4.8%	7.0%	6.7%	7.1%	7.1%
Industrial	2.6%	4.3%	4.2%	3.3%	3.3%	3.3%
Institutional	0.2%	0.2%	0.3%	0.2%	0.3%	0.3%
Bulk Sales to Suppliers	0.4%	0.5%	0.7%	0.7%	0.9%	1.0%
Unaccounted for and other	70.3%	60.5%	44.9%	48.5%	44.3%	44.3%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,708	1,718	1,722	1,722	1,729	1,830
Number of Customers by Class						
Domestic	1,518	1,529	1,533	1,533	1,540	1,641
Commercial	150	151	151	151	150	150
Industrial	30	30	30	30	30	30
Institutional	9	7	7	7	8	8
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	4,067	4,097	4,107	4,107	4,126	4,127
Number of Customers by Class (% of total)						
Domestic	88.9%	89.0%	89.0%	89.0%	89.1%	89.7%
Commercial	8.8%	8.8%	8.8%	8.8%	8.7%	8.2%
Industrial	1.8%	1.7%	1.7%	1.7%	1.7%	1.6%
Institutional	0.5%	0.4%	0.4%	0.4%	0.5%	0.4%
Bulk Sales to Suppliers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%



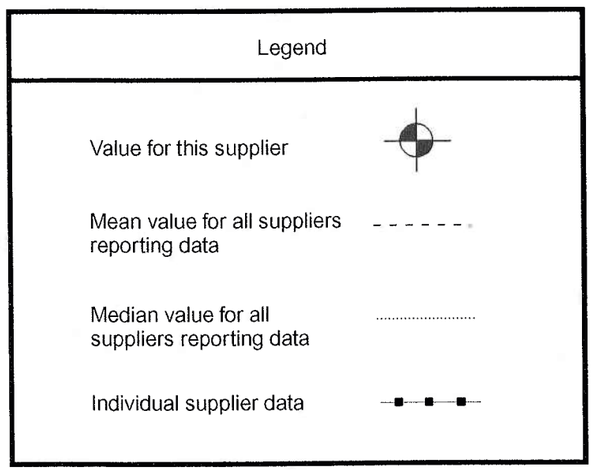


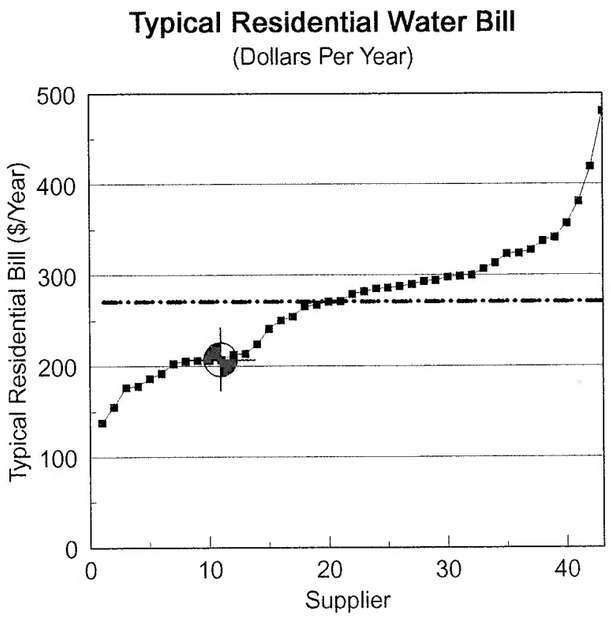


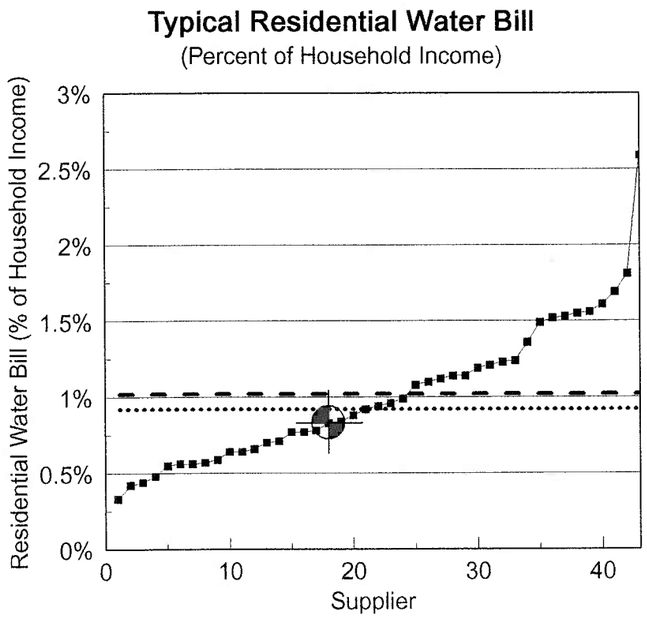


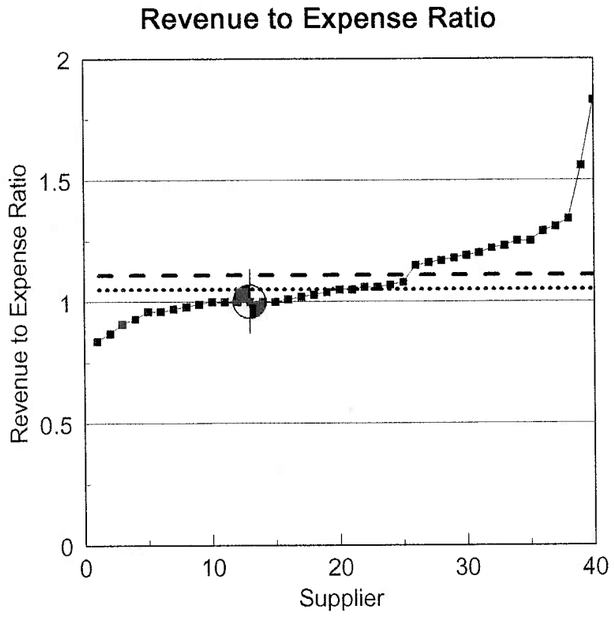
Etna Borough

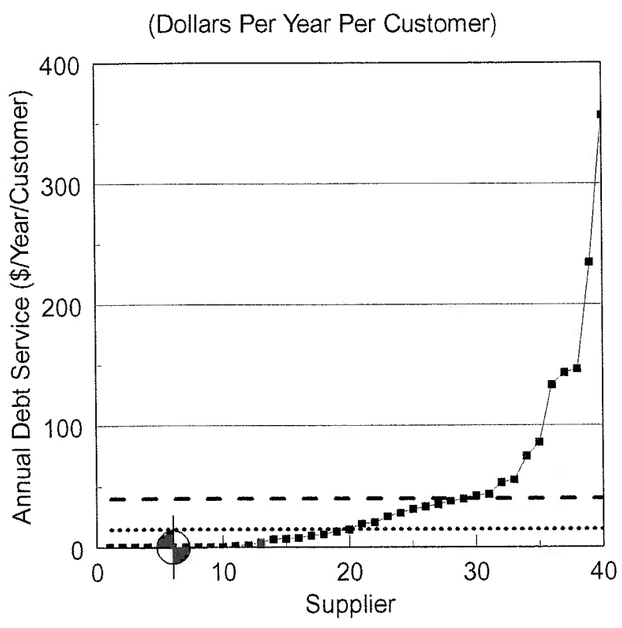
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$309,081
Dollars per 1,000 gallons sold	$2.79
Other Revenues	$0
TOTAL OPERATING REVENUES	$309,081
Dollars per 1,000 gallons sold	$2.79
Expenses	
Operating Expenses	
Total dollars per year	$118,522
Dollars per 1,000 gallons sold	$1.07
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$190,559
TOTAL EXPENSES	$309,081
Dollars per 1,000 gallons sold	$2.79
Net Revenues (dollars)	$0
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$206.96
% of Median Household Income	0.83%
Retained Earnings	$0
Retained Earnings ($/customer)	$0.00











Fawn-Frazer Joint Water Authority

The Fawn-Frazer Joint Water Authority serves approximately 1,652 customers in the following municipalities:

East Deer Township	Springdale Township
Fawn Township	Tarentum Borough
Frazer Township	West Deer Township
Harrison Township	Buffalo Township (Butler County)

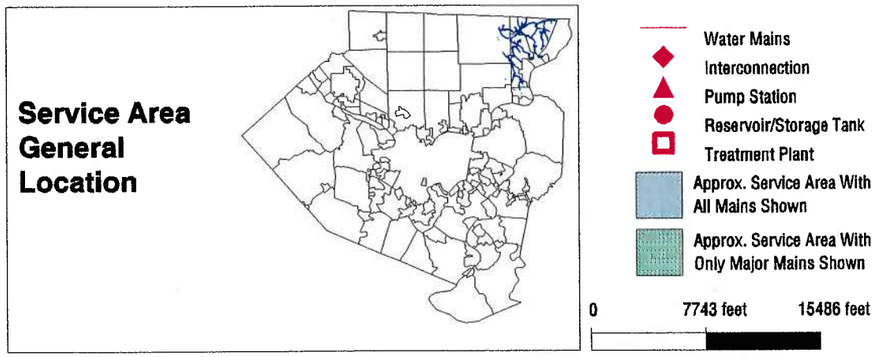
The Authority was established in 1967. The authority board is composed of seven members, four representing Fawn Township and three representing Frazer Township.

The Authority purchases its water supply in bulk from the Borough of Brackenridge.

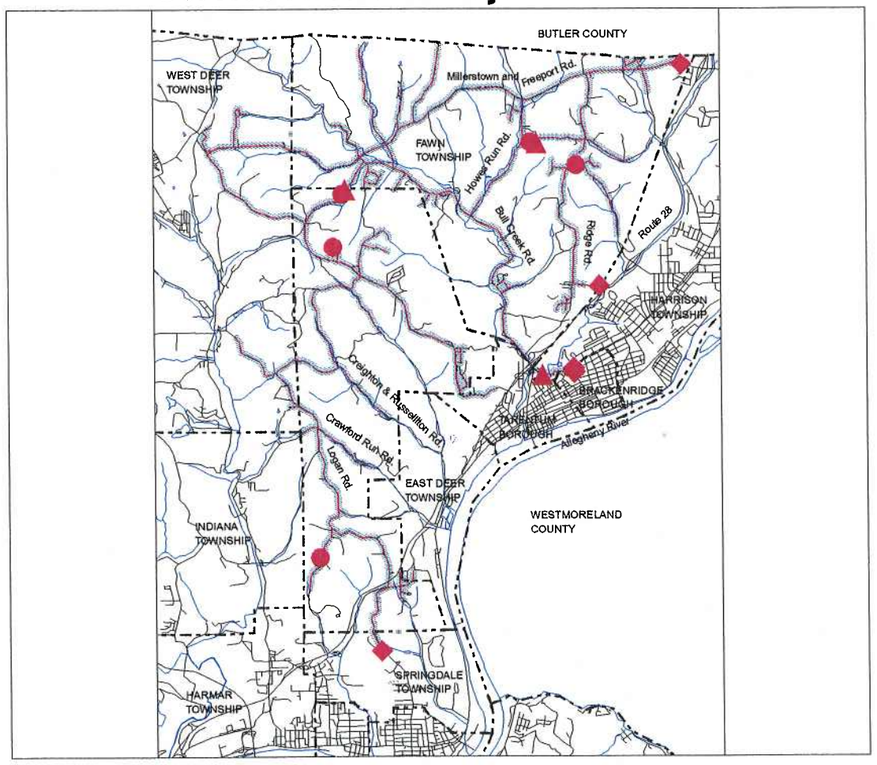
The Authority operates no treatment facilities, five distribution storage facilities, and three booster pumping stations.

During the past five years, the Authority has experienced a 5.8 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.345 million gallons per day (mgd).

The total service population is projected to more than double from approximately 3,928 persons in 1993 to approximately 9,065 by the year 2015. Average daily water demands are projected to increase from 0.345 mgd (0.650 mgd maximum day) in 1993 to 0.715 mgd (1.278 mgd maximum day) in the year 2015. These demands exceed the maximum daily supply rate currently agreed to be supplied to the Authority by its bulk supplier. Therefore, future water demands will require that the Authority negotiate additional water supply commitments from its current water supplier or additional water suppliers. The Authority currently has emergency supply connections with the Borough of Springdale and the Harrison Township Water Authority. It is recommended that efforts be taken to complete bulk purchase agreements with one or both of these suppliers to supplement the current supply. The distribution water storage facilities provide a 1-day storage volume under current demands and projected future demands. As was discussed above emergency connections existing with the Harrison Township and Springdale Borough systems. The maximum capacity of the Harrison Township connection has not been established, but the County Emergency Water Supply Study reports that the Springdale Borough connection can supply all of the Authority's needs. This indicates that the emergency connections, plus the system storage, will provide more that a 3-day emergency supply throughout the planning period.



Service Area and Major Facilities



Fawn-Frazer Joint Water Authority

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.45	0.45	0.45	0.45	0.45	0.45
Borough of Brackenridge	0.45	0.45	0.45	0.45	0.45	0.45
Treatment / Pumping Facility Capacity (mgd)						0.00
Total Treated Water Storage (million gallons)	1.05	1.05	1.05	1.05	1.05	1.05
Total Supply Source(s) Capacity (% of max. day)	78.9%	64.3%	74.1%	88.2%	69.2%	35.2%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Treated Water Storage (% of ave. day))	294.9%	327.5%	307.7%	305.5%	304.0%	146.8%

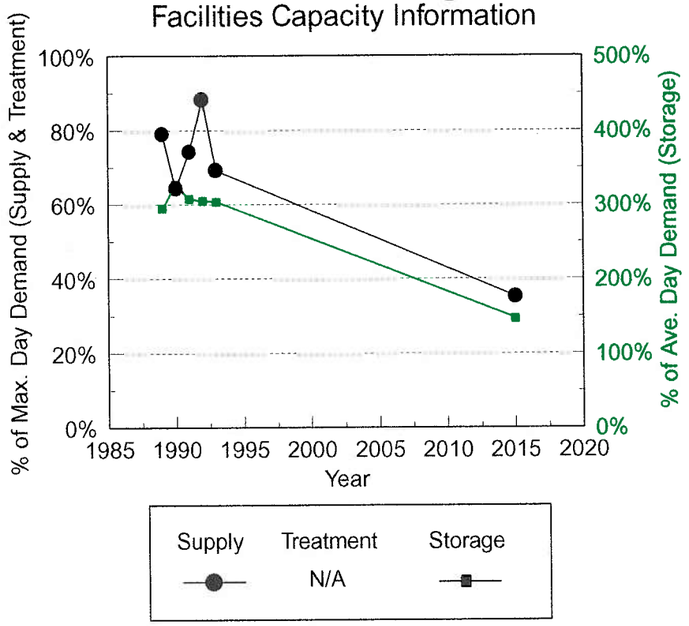
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	92%	100%	

WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.356	0.321	0.341	0.344	0.345	0.715
Maximum Day Total Water Use (mgd)	0.570	0.700	0.607	0.510	0.650	1.278
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.232	0.226	0.240	0.235	0.239	0.494
Commercial	0.017	0.014	0.017	0.015	0.012	0.026
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.107	0.080	0.085	0.094	0.094	0.195
Average Daily Water Use (gpd/customer)	160	153	159	153	152	141
Average Daily Water Use by Customer Class (% of total)						
Domestic	65.1%	70.6%	70.3%	68.3%	69.3%	69.1%
Commercial	4.9%	4.4%	5.0%	4.3%	3.4%	3.6%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	30.0%	24.9%	24.8%	27.3%	27.2%	27.3%

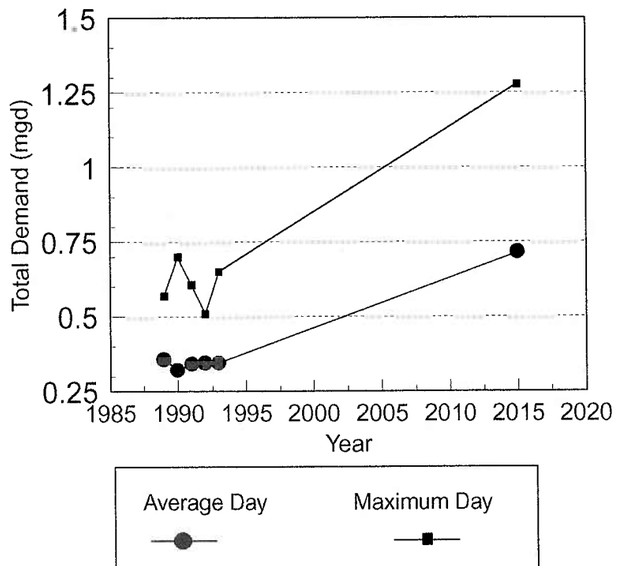
Note: 1991 maximum day not reported. Estimated based upon average day and average reported peaking factor.

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,561	1,577	1,612	1,635	1,652	3,686
Number of Customers by Class						
Domestic	1,548	1,565	1,600	1,623	1,642	3,572
Commercial	13	12	12	12	10	22
Industrial	0	0	0	0	0	0
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	3,928	3,972	4,060	4,119	4,167	9,085
Number of Customers by Class (% of total)						
Domestic	99.2%	99.2%	99.3%	99.3%	99.4%	96.9%
Commercial	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

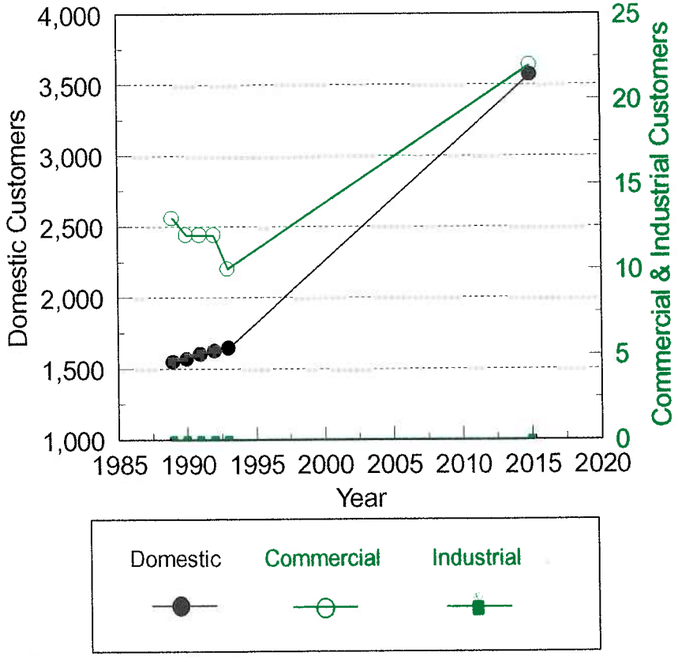
Facilities Capacity Information



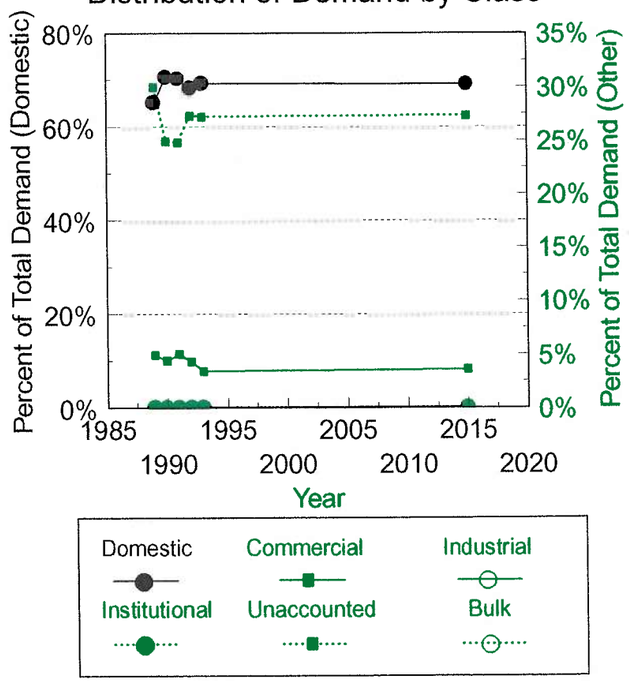
Water Demand Information



Customer Base Information

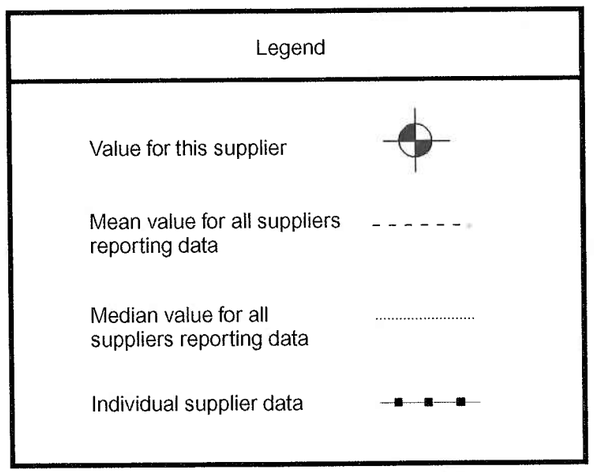


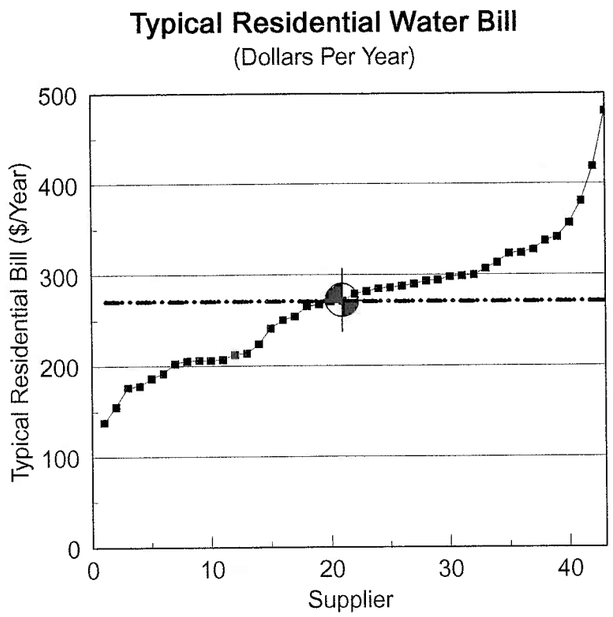
Distribution of Demand by Class

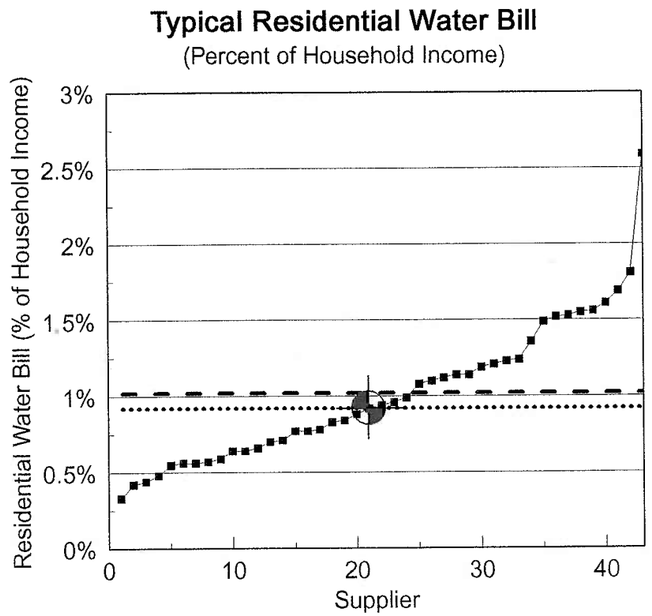


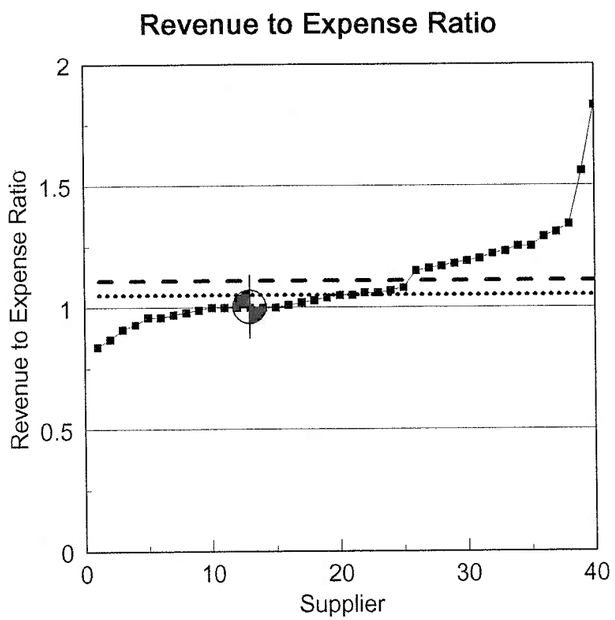
Fawn-Frazer Joint Water Authority

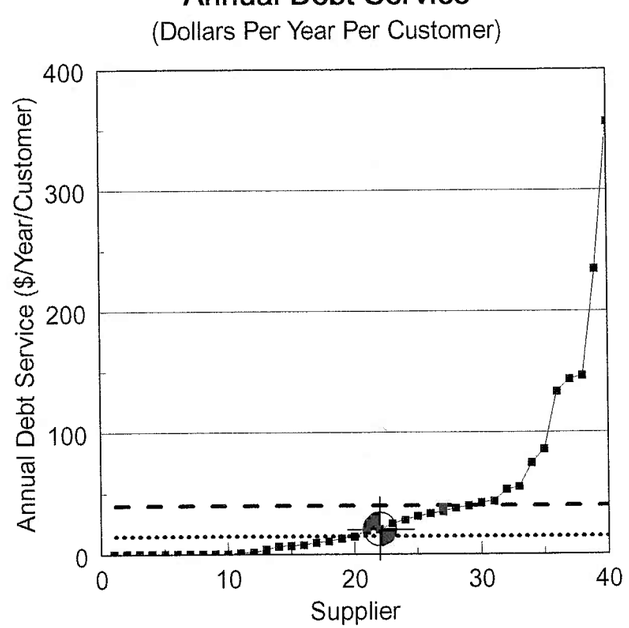
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$403,109
Dollars per 1,000 gallons sold	$4.40
Other Revenues	$52,332
TOTAL OPERATING REVENUES	$455,441
Dollars per 1,000 gallons sold	$4.97
Expenses	
Operating Expenses	
Total dollars per year	$423,674
Dollars per 1,000 gallons sold	$4.62
Debt Service	
Total dollars per year	$33,350
Dollars per customer served	$20.19
Other Expenses	$0
TOTAL EXPENSES	$457,024
Dollars per 1,000 gallons sold	$4.99
Net Revenues (dollars)	($1,583)
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$271.45
% of Median Household Income	0.92%
Retained Earnings	$2,784,816
Retained Earnings ($/customer)	$1,685.72











Findlay Township Water Authority

The Findlay Township Water Authority serves approximately 1,502 customers in Findlay Township and Independence Township in Beaver County.

The Authority was established in 1954. The authority board is composed of five members who are appointed by the Findlay Township supervisors.

The Authority purchases its water supply in bulk from the following suppliers:

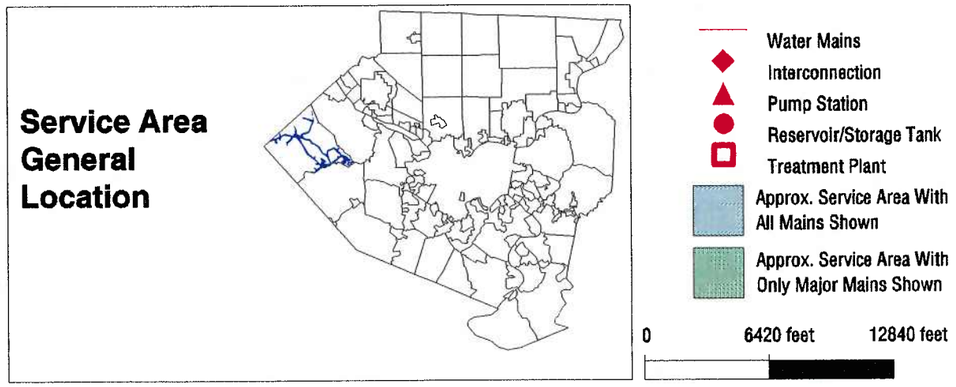
Moon Township Municipal Authority
Municipal Authority of the Township of Robinson

In 1993, the Authority's primary supplier was the Moon Township Municipal Authority. However, the Authority is purchasing over 85% of its supply from the Municipal Authority of the Township of Robinson in 1996.

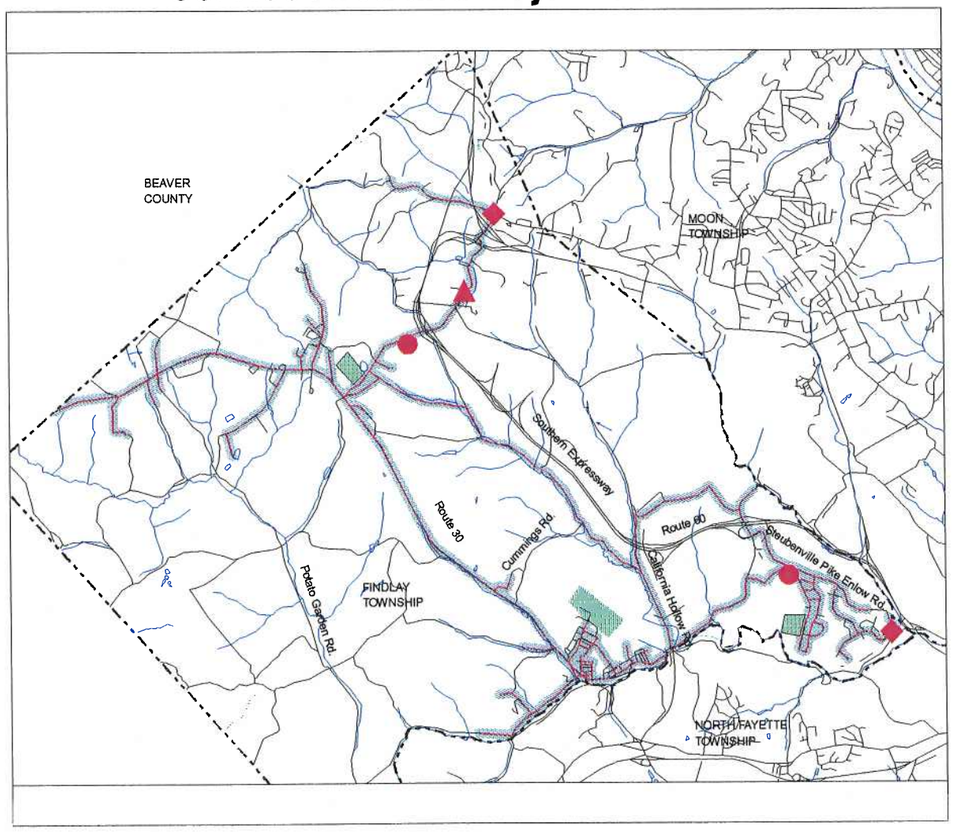
The Authority operates no treatment facilities, two distribution storage facilities, and one booster pumping station.

During the past five years, the Authority has experienced a 12.5 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.493 million gallons per day (mgd).

The total service population is projected to more than double from approximately 4,008 persons in 1993 to approximately 8,973 by the year 2015. Average daily water demands are projected to increase from 0.493 mgd (.675 mgd maximum day) in 1993 to 1.007 mgd (1.379 mgd maximum day) in the year 2015. Current water supply commitments from the Authority's suppliers are sufficient to meet the current and projected demands. The distribution system water facilities provide in excess of a 1-day storage volume throughout the planning period. As is discussed above, the Authority routinely purchases water from two suppliers. In addition, there is an emergency connection with the Western Allegheny County Municipal Water Authority. The reported capacity of these sources, coupled with the storage within the system are sufficient to provide for a 3-day emergency water supply throughout the planning period.



Service Area and Major Facilities



Findlay Township Water Authority

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.50	1.50	1.50	1.50	1.50	1.50
Moon Township Municipal Authority	0.50	0.50	0.50	0.50	0.50	0.50
Robinson Township Municipal Authority	1.00	1.00	1.00	1.00	1.00	1.00
Treatment / Pumping Facility Capacity (mgd)	0.00	0.00	0.00	0.00	0.00	0.00
Total Treated Water Storage (million gallons)	1.25	1.25	1.25	1.25	1.25	1.25
Total Supply Source(s) Capacity (% of max. day)	260.3%	225.0%	216.8%	229.6%	222.2%	108.8%
Treatment / Pumping Facility Capacity (% of max. day)	0.00	0.00	0.00	0.00	0.00	0.00
Total Treated Water Storage (% of ave. day))	296.9%	256.7%	247.3%	261.9%	253.5%	124.1%

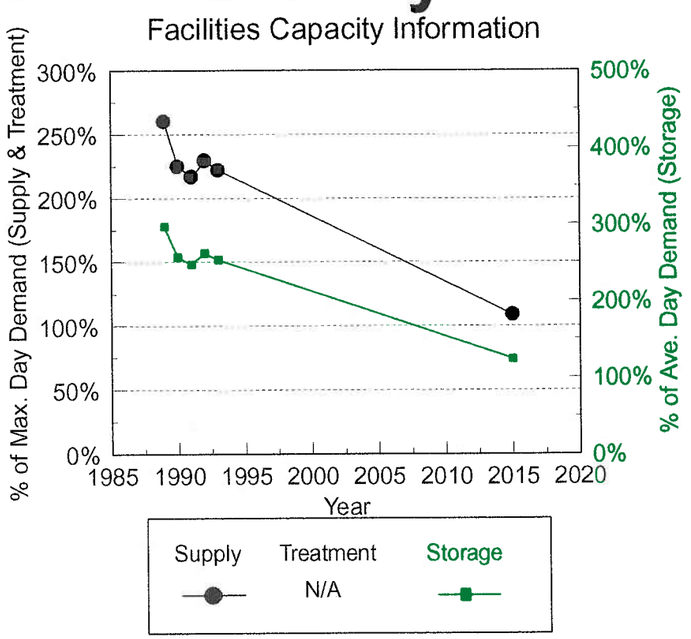
Note: No maximum day supply limits established. Indicated values shown as indicator of sufficient capacity.

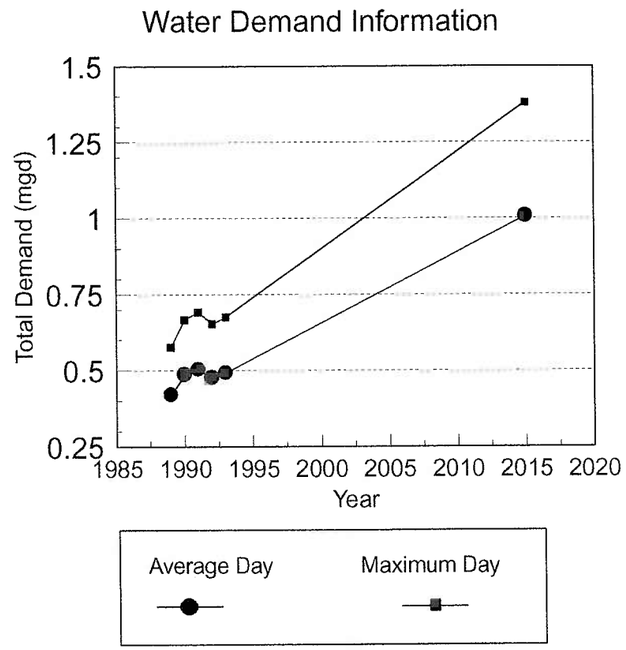
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	75%	100%	100%	

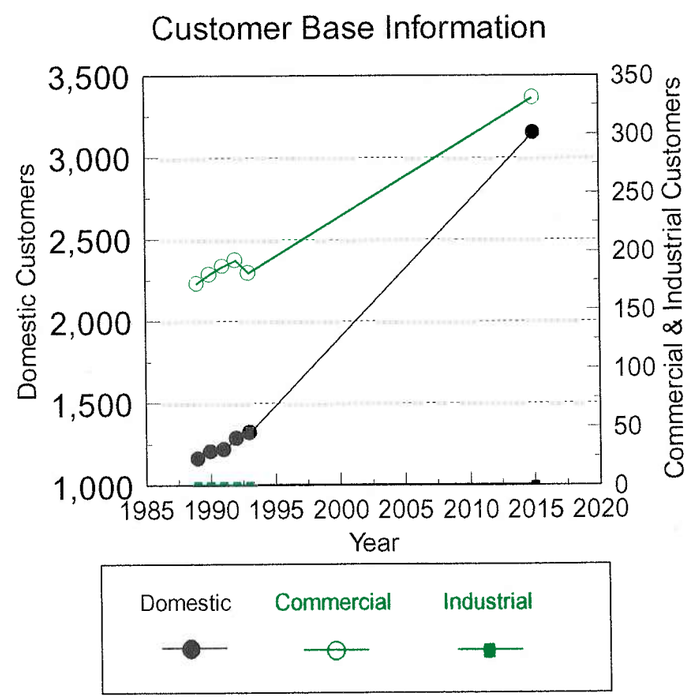
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.421	0.487	0.505	0.477	0.493	1.007
Maximum Day Total Water Use (mgd)	0.576	0.667	0.692	0.653	0.675	1.379
Average Daily Water Use by Customer Class (mgd)						
Domestic					0.195	0.437
Commercial					0.180	0.329
Industrial					0.000	0.000
Institutional					0.000	0.000
Bulk Sales to Suppliers					0.000	0.000
Unaccounted for and other					0.118	0.241
Average Daily Water Use (gpd/customer)	315	351	359	323	250	220
Average Daily Water Use by Customer Class (% of total)						
Domestic					39.6%	43.3%
Commercial					36.5%	32.7%
Industrial					0.0%	0.0%
Institutional					0.0%	0.0%
Bulk Sales to Suppliers					0.0%	0.0%
Unaccounted for and other					23.9%	23.9%

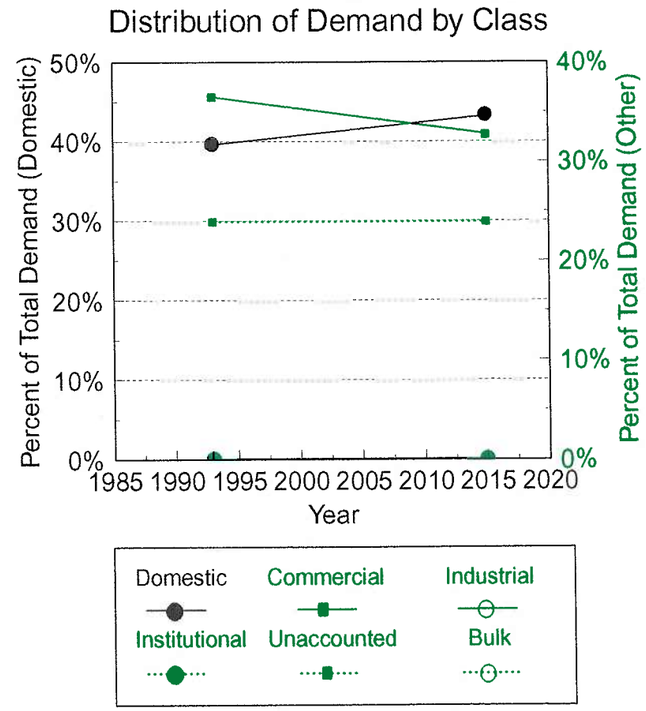
Note: 1989 - 1992 maximum day demand not reported. Estimated based upon 1993 average day and peaking factorr.

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,335	1,388	1,406	1,479	1,502	3,479
Number of Customers by Class						
Domestic	1,163	1,208	1,219	1,287	1,321	3,148
Commercial	172	180	187	192	181	331
Industrial	0	0	0	0	0	0
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	3,529	3,665	3,699	3,905	4,008	8,973
Number of Customers by Class (% of total)						
Domestic	87.1%	87.0%	86.7%	87.0%	87.9%	90.5%
Commercial	12.9%	13.0%	13.3%	13.0%	12.1%	9.5%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



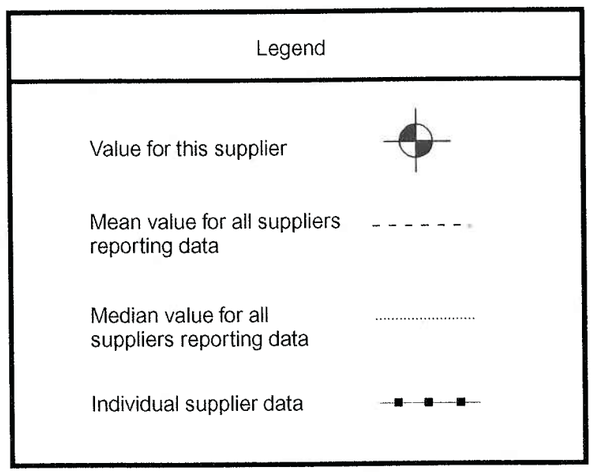


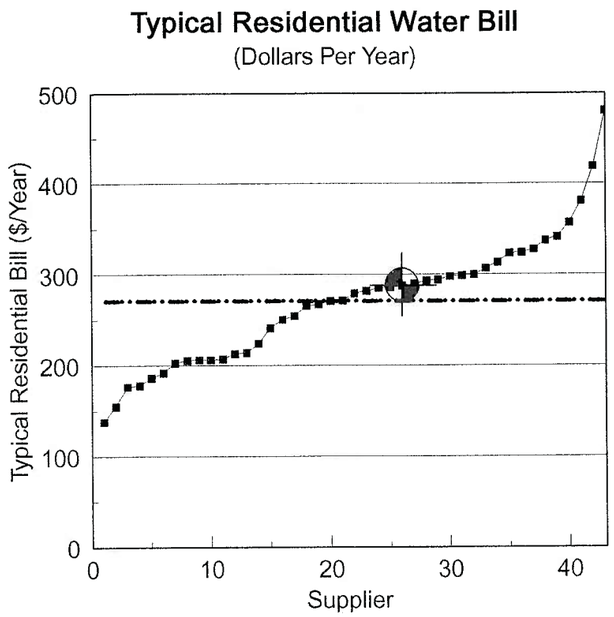


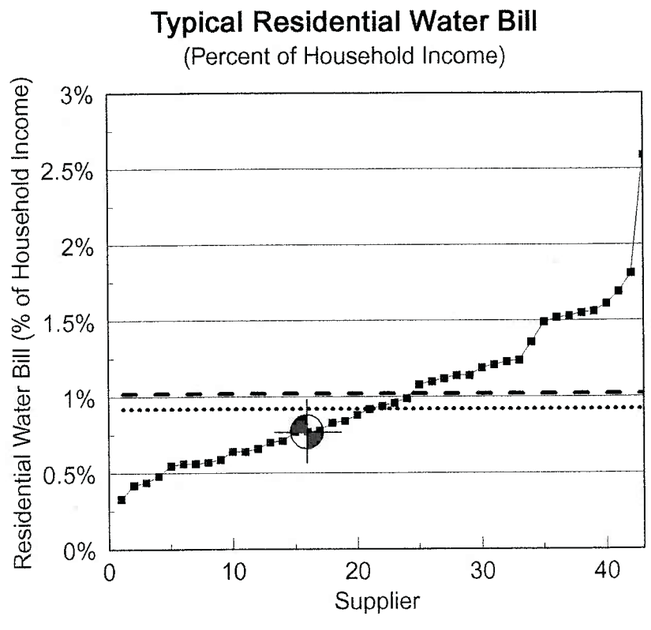


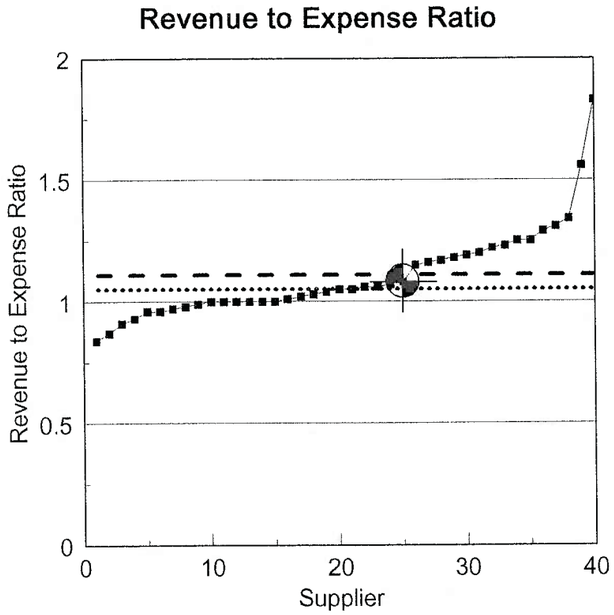
Findlay Township Water Authority

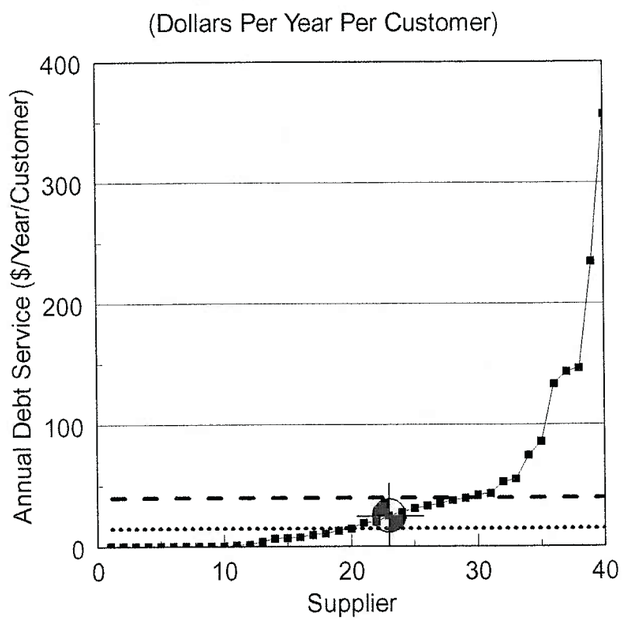
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$751,095
Dollars per 1,000 gallons sold	$5.49
Other Revenues	$9,294
TOTAL OPERATING REVENUES	$760,389
Dollars per 1,000 gallons sold	$5.56
Expenses	
Operating Expenses	
Total dollars per year	$667,621
Dollars per 1,000 gallons sold	$4.88
Debt Service	
Total dollars per year	$37,660
Dollars per customer served	$25.07
Other Expenses	$1,045
TOTAL EXPENSES	$706,326
Dollars per 1,000 gallons sold	$5.16
Net Revenues (dollars)	$54,063
Ratio of revenues to expenses	1.08
Average Annual Residential Bill	
Dollars per year per customer	$287.79
% of Median Household Income	0.82%
Retained Earnings	$1,963,099
Retained Earnings ($/customer)	$1,306.99











Fox Chapel Authority

The Fox Chapel serves approximately 4,927 customers in the following municipalities:

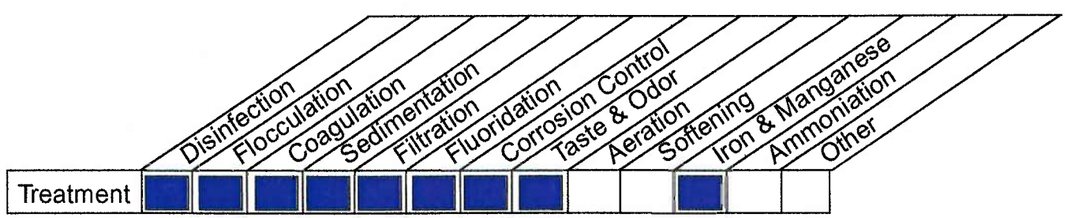
Fox Chapel Borough	Indiana Township
Harmar Township	O'Hara Township

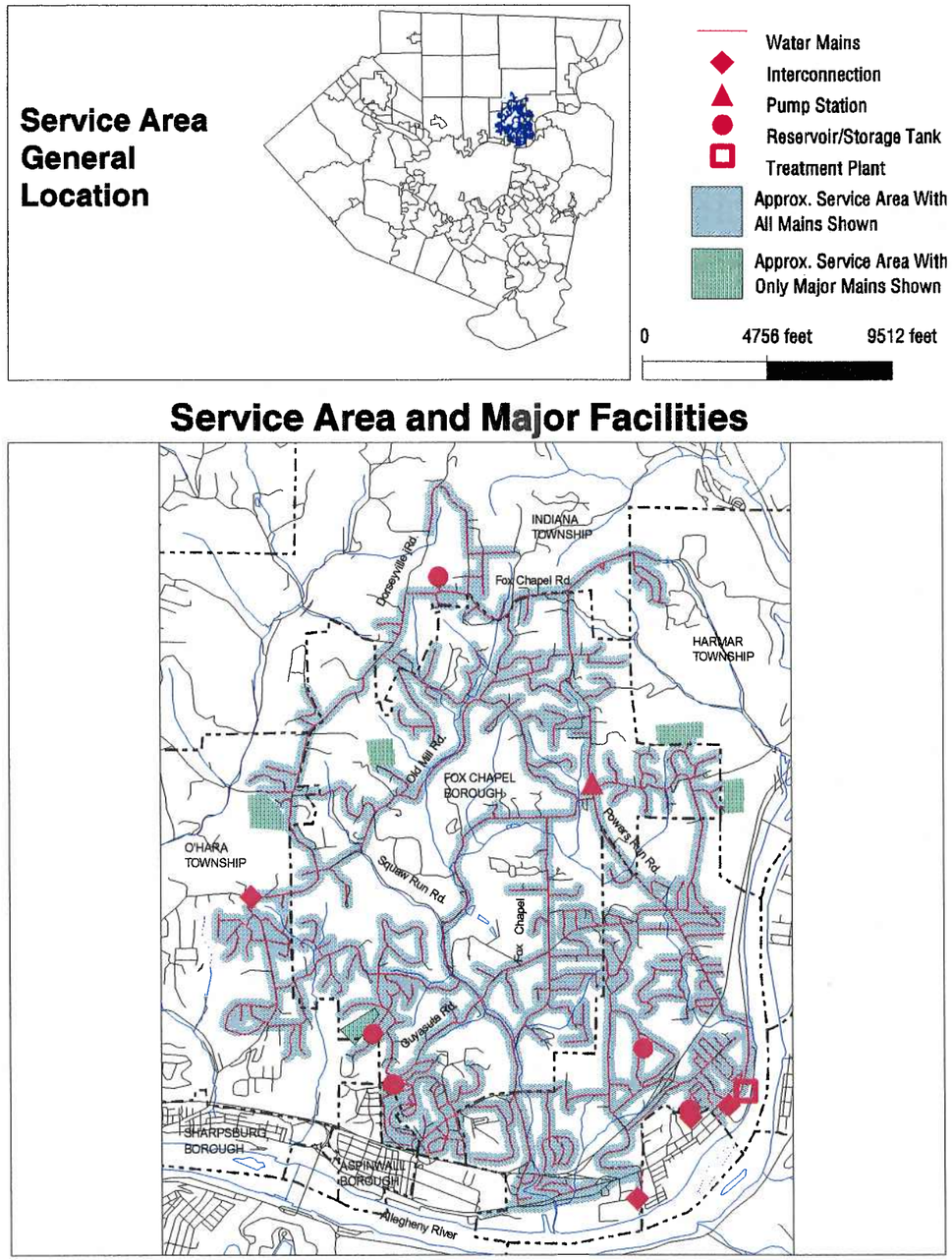
The Fox Chapel Authority was formed in 1938. The board consists of seven members, four from Fox Chapel Borough and one each from Harmar Township, Indiana Township, and O'Hara Township.

The Authority obtains its main water supply from the Allegheny River. The processes employed by the Authority's water treatment plant are illustrated below. The Authority also purchases finished water in bulk from the Pittsburgh Water and Sewer Authority. An agreement has been reached with the Pittsburgh Water and Sewer Authority to purchase all of the Fox Chapel water supply from the Pittsburgh system. It is anticipated that the Fox Chapel treatment plant will be taken off line in mid-1996 and, at that time, the entire Fox Chapel supply will be drawn from the Pittsburgh system. In addition to the treatment plant, the Authority operates five distribution system water storage facilities and one booster pumping station.

During the past five years, the Authority has experienced a 4.4 percent increase in the total number of customers served. Total daily water use in 1993 averaged 1.861 million gallons per day (mgd).

The total service population is projected to increase from approximately 13,903 persons in 1993 to approximately 18,395 by the year 2015. Most of this population growth is expected to occur in the townships. Average daily water demands are projected to increase from 1.861 mgd (3.225 mgd maximum day) in 1993 to 2.416 mgd (3.951 mgd maximum day) in the year 2015. These demands are within the capacity of the Borough's combined sources of supply. The new agreement with the Pittsburgh Water and Sewer Authority will provide a sufficient water supply throughout the planning period. The Authority's distribution system storage facilities provide in excess of 1-day of storage volume throughout the planning period. Upon implementation of the service agreement, there will be two connections with the Pittsburgh system. The capacity of any one of these connections, coupled with the Fox Chapel Authority's distribution system storage, will provide approximately a 3-day emergency water supply throughout the planning period.





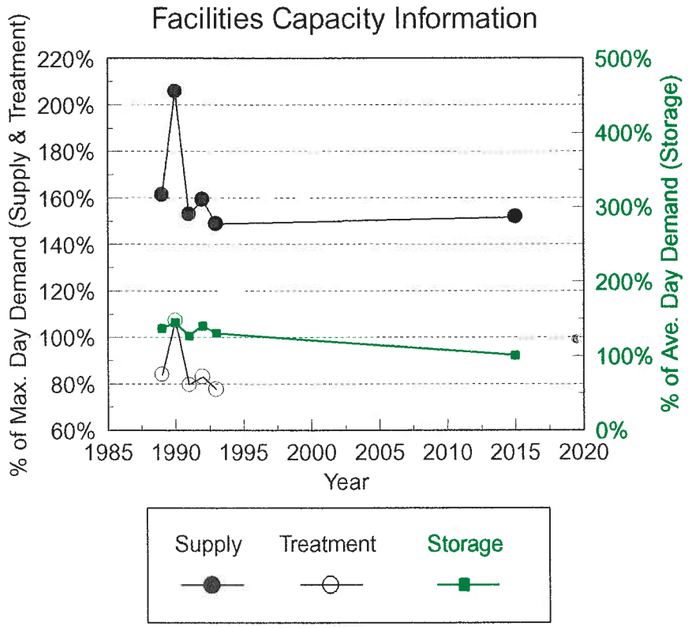
Fox Chapel Authority

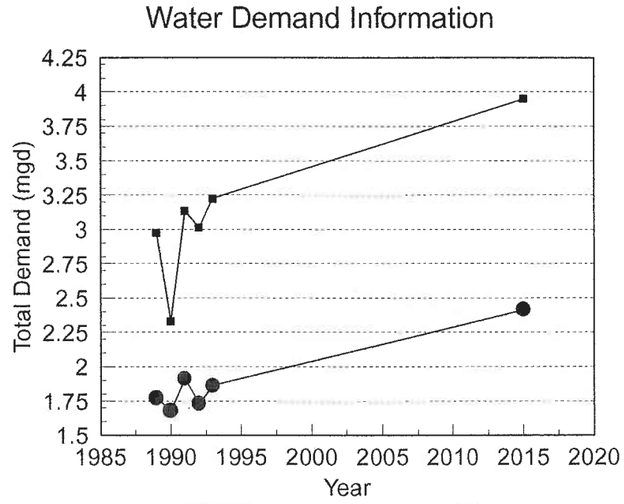
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	4.80	4.80	4.80	4.80	4.80	6.00
Allegheny River	3.00	3.00	3.00	3.00	3.00	0.00
City of Pittsburgh	1.80	1.80	1.80	1.80	1.80	6.00
Treatment / Pumping Facility Capacity (mgd)	2.50	2.50	2.50	2.50	2.50	0.00
Total Treated Water Storage (million gallons)	2.44	2.44	2.44	2.44	2.44	2.44
Total Supply Source(s) Capacity (% of max. day)	161.3%	205.8%	153.1%	159.4%	148.8%	151.9%
Treatment / Pumping Facility Capacity (% of max. day)	84.0%	107.2%	79.7%	83.0%	77.5%	0.0%
Total Treated Water Storage (% of ave. day))	137.4%	145.2%	127.2%	140.8%	130.8%	100.8%

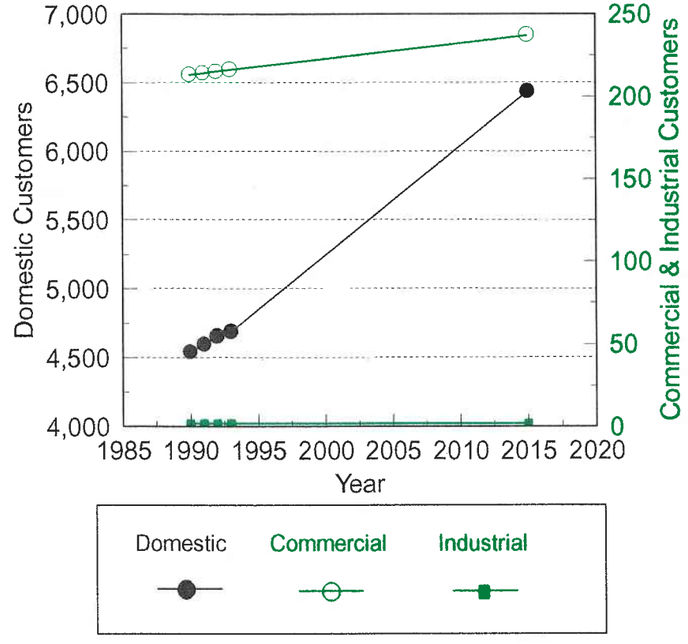
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	92%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	92%	100%	

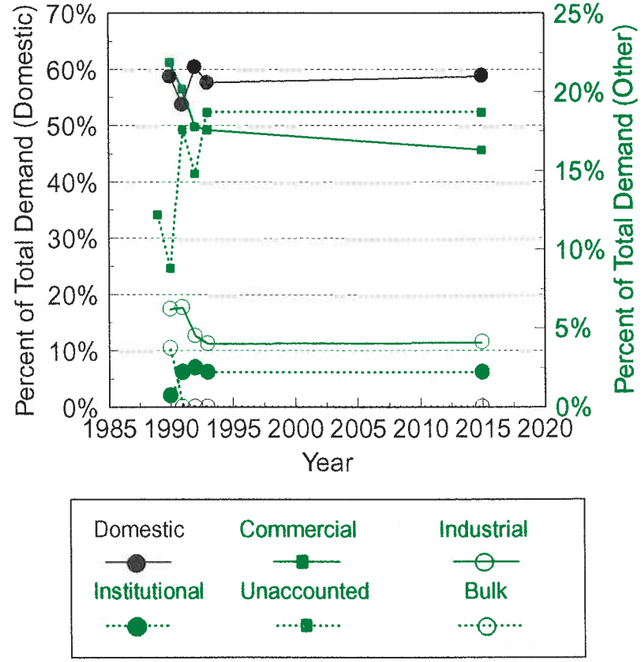
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.772	1.677	1.914	1.729	1.861	2.416
Maximum Day Total Water Use (mgd)	2.976	2.332	3.135	3.011	3.225	3.951
Average Daily Water Use by Customer Class (mgd)						
Domestic	N/A	0.985	1.029	1.044	1.072	1.420
Commercial	N/A	0.368	0.387	0.308	0.327	0.393
Industrial	N/A	0.104	0.121	0.078	0.074	0.098
Institutional	N/A	0.011	0.042	0.044	0.040	0.053
Bulk Sales to Suppliers	0.045	0.062	0.000	0.000	0.000	0.000
Unaccounted for and other	0.216	0.148	0.336	0.255	0.348	0.451
Average Daily Water Use (gpd/customer)	330	320	327	301	307	293
Average Daily Water Use by Customer Class (% of total)						
Domestic	N/A	58.7%	53.8%	60.4%	57.6%	58.8%
Commercial	N/A	21.9%	20.2%	17.8%	17.6%	16.3%
Industrial	N/A	6.2%	6.3%	4.5%	4.0%	4.1%
Institutional	N/A	0.7%	2.2%	2.5%	2.2%	2.2%
Bulk Sales to Suppliers	N/A	3.7%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	12.2%	8.8%	17.6%	14.8%	18.7%	18.7%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	4,720	4,778	4,831	4,892	4,927	6,701
Number of Customers by Class						
Domestic	N/A	4,541	4,594	4,653	4,687	6,433
Commercial	N/A	213	214	215	216	237
Industrial	N/A	2	2	2	2	2
Institutional	N/A	21	21	22	22	29
Bulk Sales to Suppliers	1	1	0	0	0	0
Estimated Service Population	N/A	13,470	13,627	13,802	13,903	18,395
Number of Customers by Class (% of total)						
Domestic	N/A	95.0%	95.1%	95.1%	95.1%	96.0%
Commercial	N/A	4.5%	4.4%	4.4%	4.4%	3.5%
Industrial	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	N/A	0.4%	0.4%	0.4%	0.4%	0.4%
Bulk Sales to Suppliers	N/A	0.0%	0.0%	0.0%	0.0%	0.0%







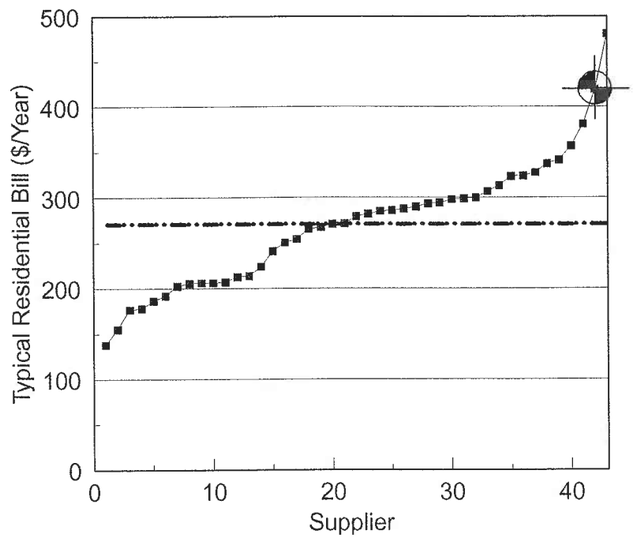


Fox Chapel Authority

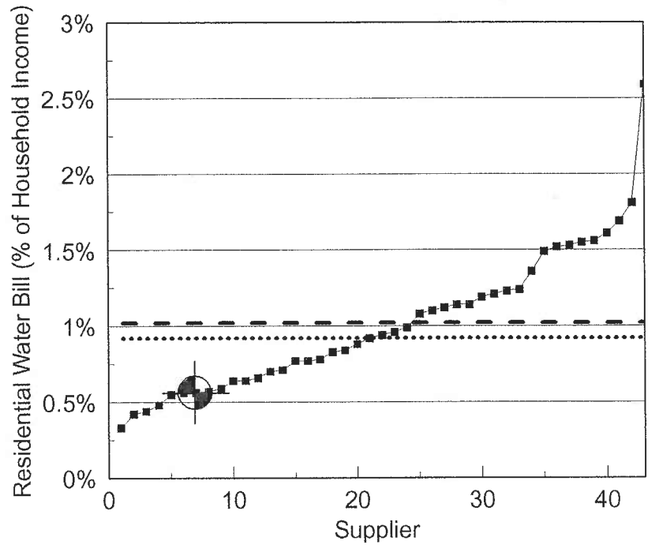
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$3,287,309
Dollars per 1,000 gallons sold	$5.95
Other Revenues	$79,642
TOTAL OPERATING REVENUES	$3,366,951
Dollars per 1,000 gallons sold	$6.10
Expenses	
Operating Expenses	
Total dollars per year	$2,003,017
Dollars per 1,000 gallons sold	$3.63
Debt Service	
Total dollars per year	$144,331
Dollars per customer served	$31.19
Other Expenses	$6,864
TOTAL EXPENSES	$2,154,212
	$3.90
Net Revenues (dollars)	$1,212,739
Ratio of revenues to expenses	1.56
Average Annual Residential Bill	
Dollars per year per customer	$419.42
% of Median Household Income	0.56%
Retained Earnings	$6,424,466
Retained Earnings ($/customer)	$1,388.47

Legend	
Value for this supplier	
Mean value for all suppliers reporting data	
Median value for all suppliers reporting data	
Individual supplier data	

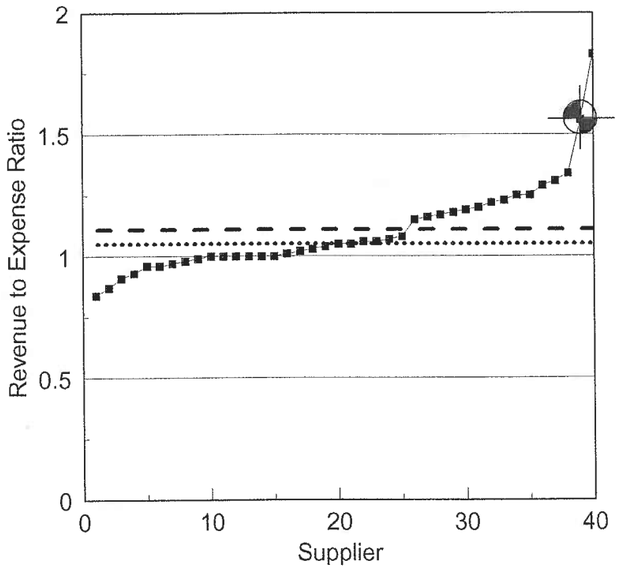
Typical Residential Water Bill
(Dollars Per Year)



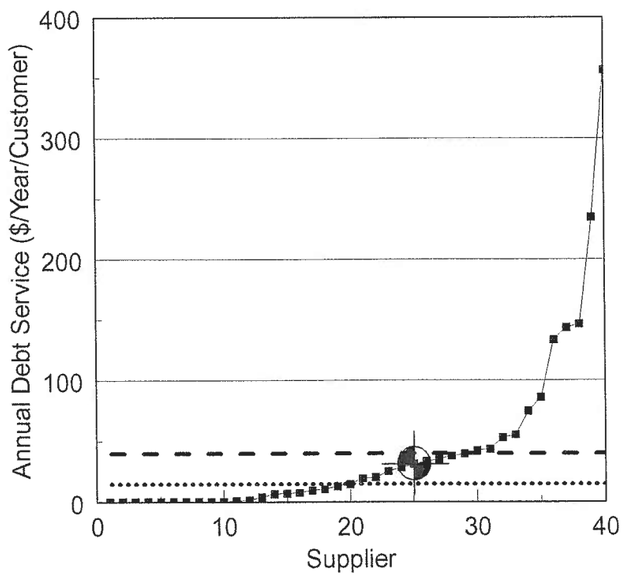
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Glenfield Borough

The Borough of Glenfield serves approximately 89 customers within the Borough.

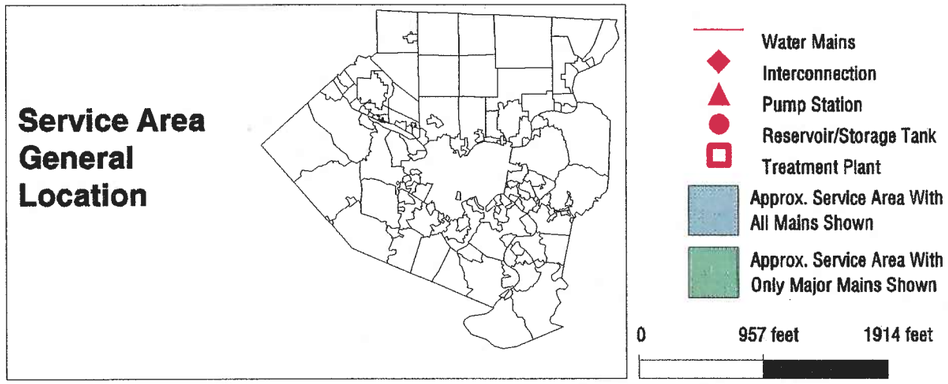
The water system is owned by the Borough of Glenfield and is operated by the Borough.

The Borough purchases its water supply in bulk from the Aleppo Township Authority.

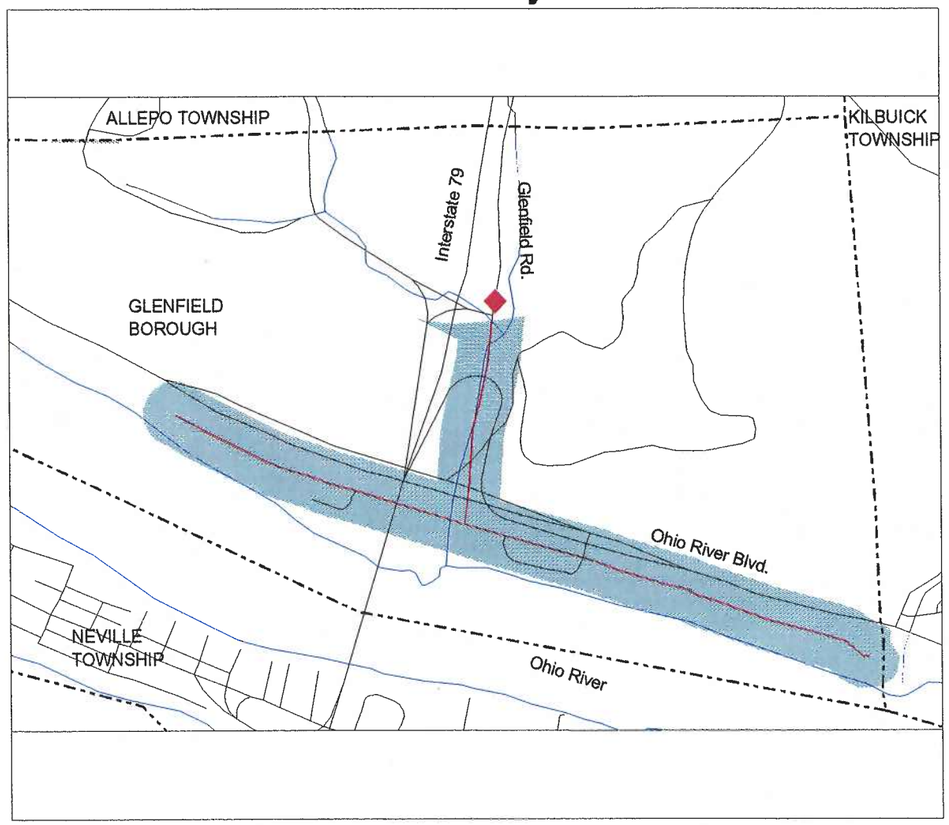
The Borough operates no treatment facilities, no distribution storage facilities, and no booster pumping station.

During the past five years, the number of customers served by the Borough has remained essentially constant. Total daily water use in 1993 averaged 0.018 million gallons per day (mgd).

The total service population is projected to remain essentially constant as are average water demands, The 1993 service population is estimated to be 168 persons. The 2015 service population is estimated to be 157. Average daily water demands are projected to decrease marginally from 0.018 mgd (0.029 mgd maximum day) in 1993 to 0.017 mgd (0.024 mgd maximum day) in the year 2015. The current water supply commitment from the Authority's supplier is sufficient to meet the current and projected demands. The Borough operates no distribution storage facilities, relying instead upon the facilities operated by the water suppliers. The Aleppo Township Authority also does not operate distribution storage facilities. However, considering its multiple supply sources, Aleppo Township has an emergency supply capacity of more than 3-days. Currently, there is a single point of connection between the Glenfield and Aleppo systems. It would be preferable to establish a second, emergency connection point. Due to the small size of the Glenfield system and the layout of the two water systems, this is impractical at this time. However, at the completion of at least one additional point of connection should be considered a long term goal.



Service Area and Major Facilities



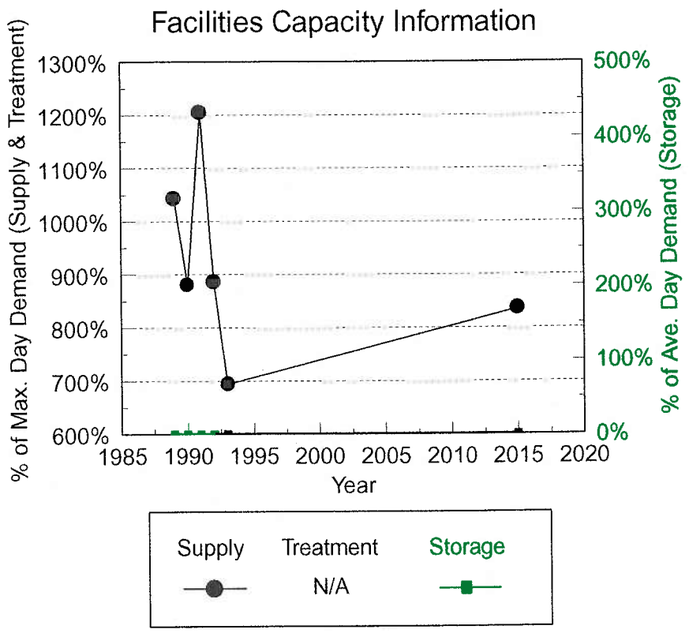
Glenfield Borough

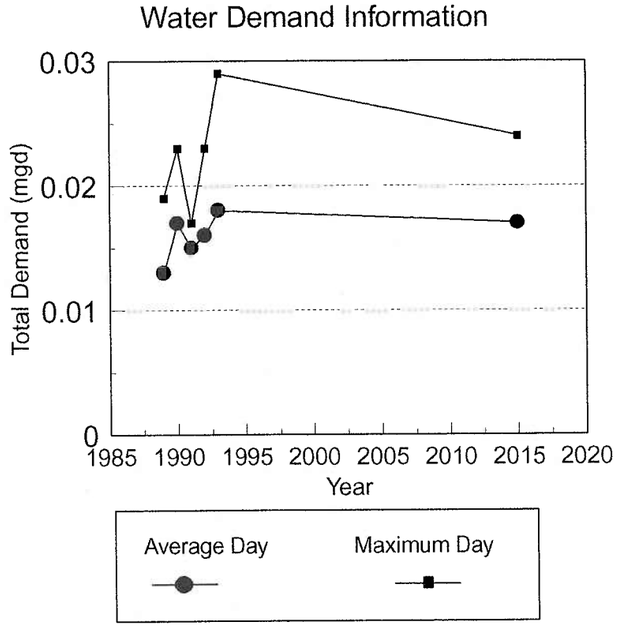
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.20	0.20	0.20	0.20	0.20	0.20
Aleppo Township Authority	0.20	0.20	0.20	0.20	0.20	0.20
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	1043%	881%	1205%	886%	694%	837%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

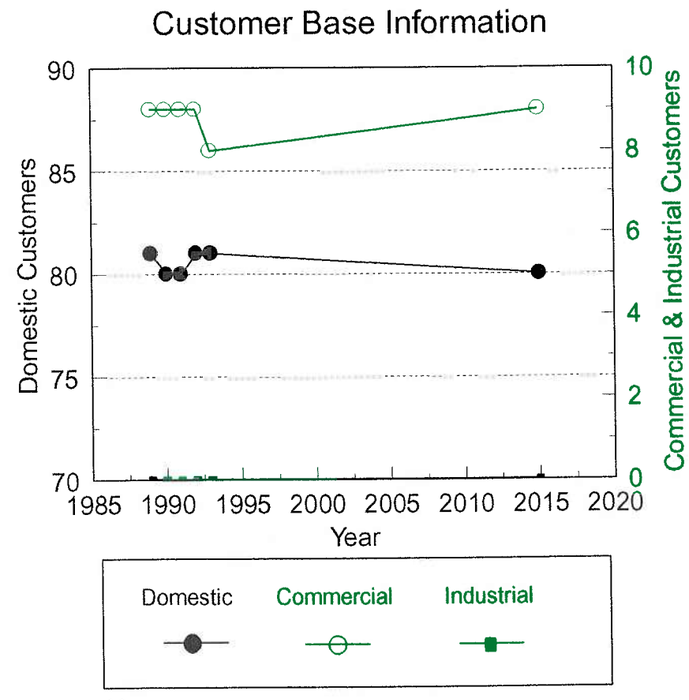
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	92%	83%	

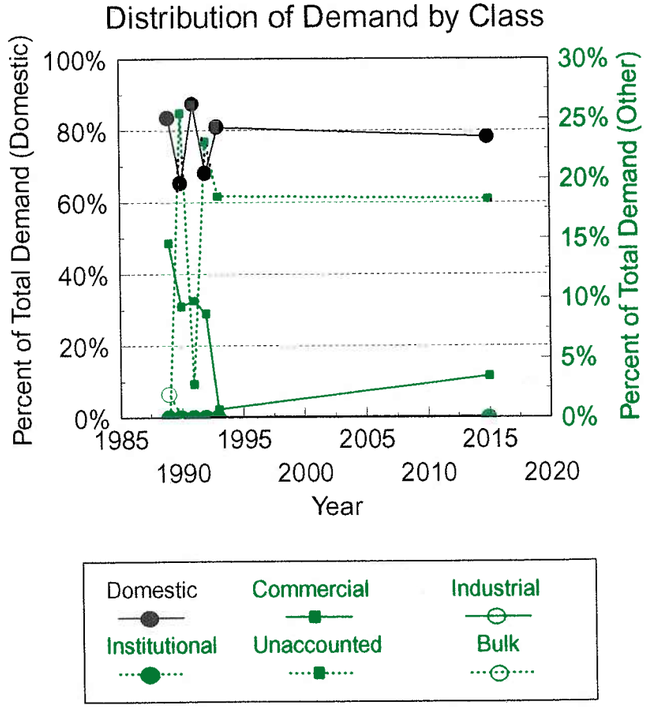
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.013	0.017	0.015	0.016	0.018	0.017
Maximum Day Total Water Use (mgd)	0.019	0.023	0.017	0.023	0.029	0.024
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.011	0.011	0.013	0.011	0.015	0.013
Commercial	0.002	0.002	0.002	0.001	0.000	0.001
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.000	0.004	0.000	0.004	0.003	0.003
Average Daily Water Use (gpd/customer)	147	146	167	135	168	157
Average Daily Water Use by Customer Class (% of total)						
Domestic	83.5%	65.2%	87.4%	68.1%	80.9%	78.2%
Commercial	14.6%	9.3%	9.8%	8.7%	0.7%	3.5%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	0.0%	25.5%	2.8%	23.1%	18.5%	18.3%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	90	89	89	90	89	89
Number of Customers by Class						
Domestic	81	80	80	81	81	80
Commercial	9	9	9	9	8	9
Industrial	0	0	0	0	0	0
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	201	201	201	201	201	192
Number of Customers by Class (% of total)						
Domestic	90.0%	89.9%	89.9%	90.0%	91.0%	89.9%
Commercial	10.0%	10.1%	10.1%	10.0%	9.0%	10.1%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



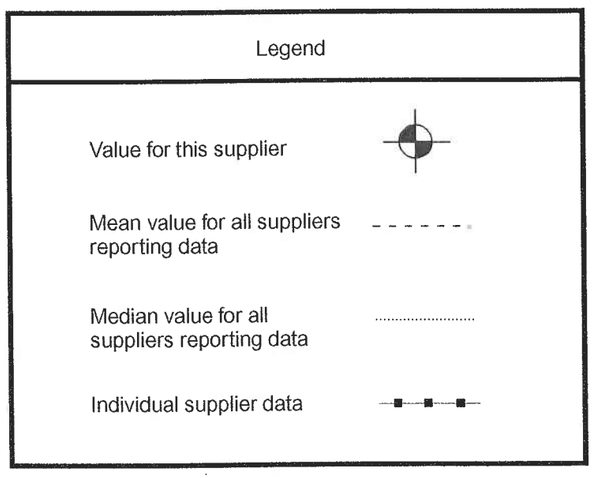


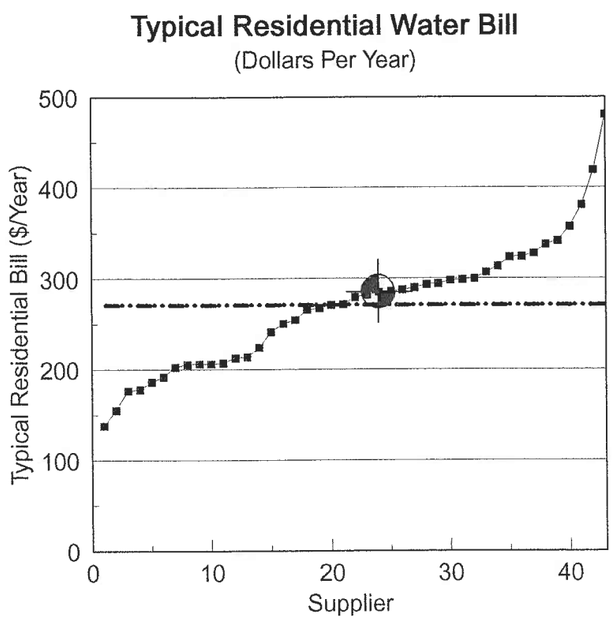


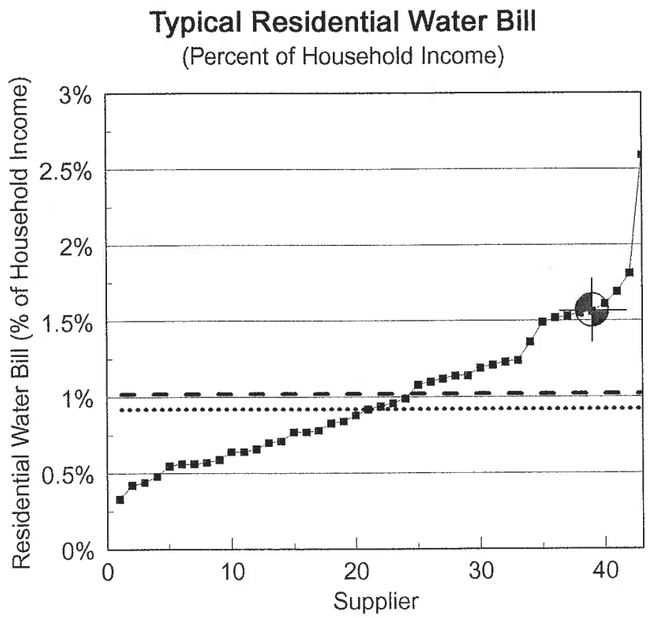


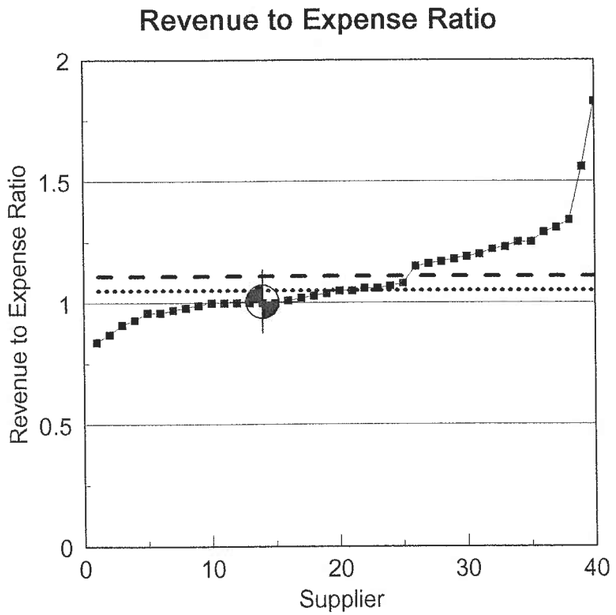
Glenfield Borough

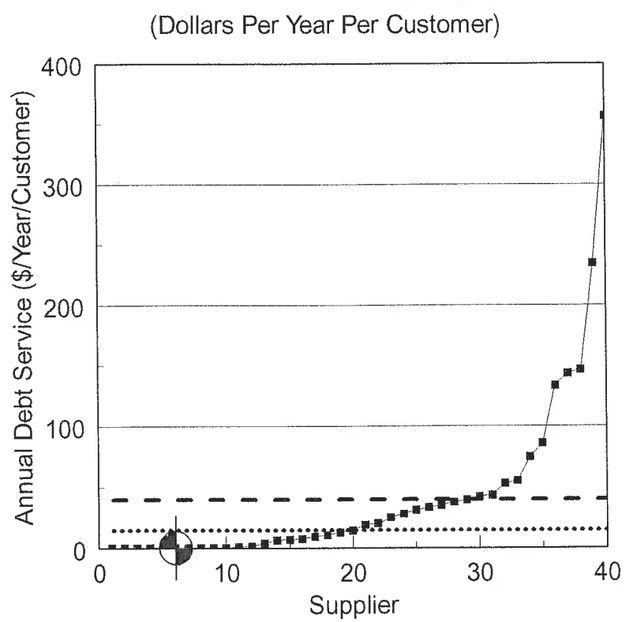
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$18,573
Dollars per 1,000 gallons sold	$3.39
Other Revenues	$215
TOTAL OPERATING REVENUES	$18,788
Dollars per 1,000 gallons sold	$3.43
Expenses	
Operating Expenses	
Total dollars per year	$18,730
Dollars per 1,000 gallons sold	$3.42
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$55
TOTAL EXPENSES	$18,785
Dollars per 1,000 gallons sold	$3.43
Net Revenues (dollars)	$3
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$285.15
% of Median Household Income	1.56%
Retained Earnings	$39,545
Retained Earnings ($/customer)	$444.33











Hampton Township Municipal Authority

The Hampton Township Municipal Authority serves approximately 1,870 customers in the following municipalities:

Hampton Township
Indiana Township
O'Hara Township
Richland Township
West Deer Township

The Authority also sells water in bulk for resale to Shaler Township.

The Authority was established in 1951. The authority board is composed of five members who are appointed by the Hampton Township supervisors.

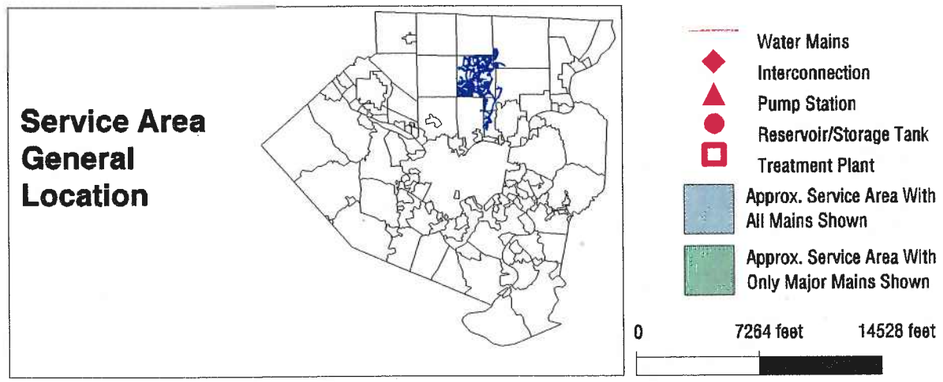
The Authority purchases its water supply in bulk from the following suppliers:

Shaler Township
Pittsburgh Water and Sewer Authority
Municipal Authority of the Borough of West View

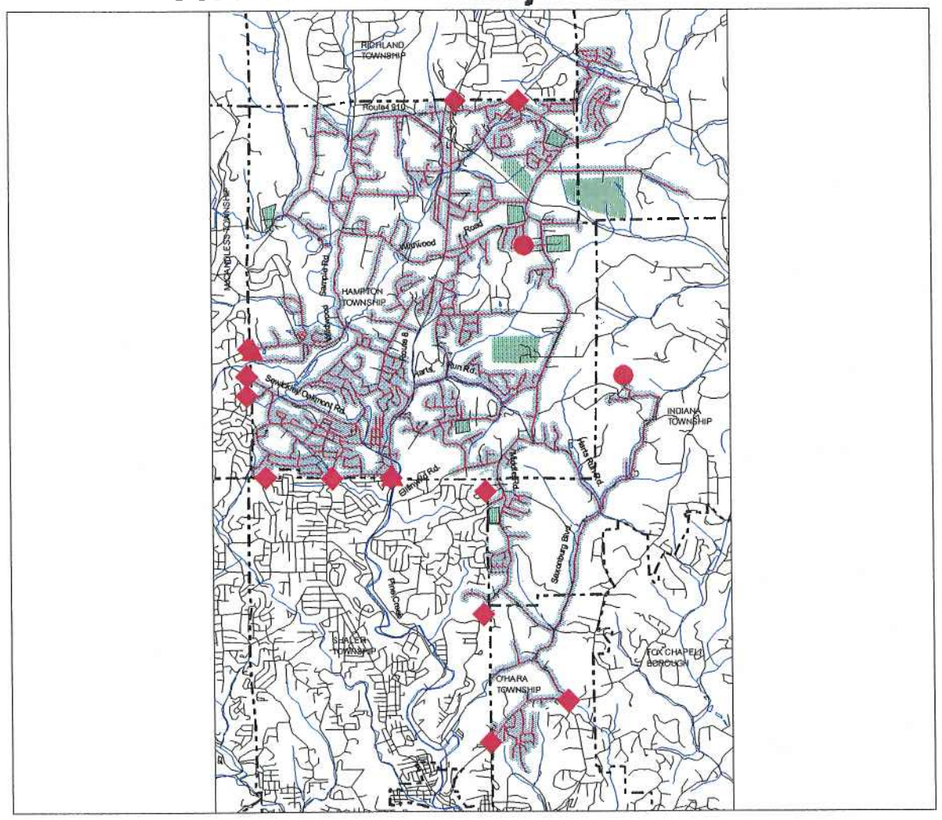
The Authority operates no treatment facilities, three distribution storage facilities, and two booster pumping stations.

During the past five years, the Authority has experienced a 3.4 percent rise in the total number of customers served. Total daily water use in 1993 averaged 1.870 million gallons per day (mgd).

The total service population is projected to increase from approximately 21,433 persons in 1993 to approximately 36,657 by the year 2015. Average daily water demands are projected to increase from 1.870 mgd (2.564 mgd maximum day) in 1993 to 3.143 mgd (4.456 mgd maximum day) in the year 2015. Current water supply commitments from the Authority's suppliers are not sufficient to meet the projected demands. Consequently, actions will be required to increase the water supply commitments from the Authority's suppliers or otherwise increase the supply capacity. Each of the Authority's three suppliers is expected to have sufficient capacity to support increased sales to Hampton. The Authority's distribution system contains sufficient storage to provide in excess of a 1-day storage volume throughout the planning period. Hampton's three primary suppliers plus emergency connections with the Fox Chapel and Richland Township authorities and Hampton's distribution system storage provide more than a 3-day emergency supply throughout the planning period.



Service Area and Major Facilities



Hampton Township Municipal Authority

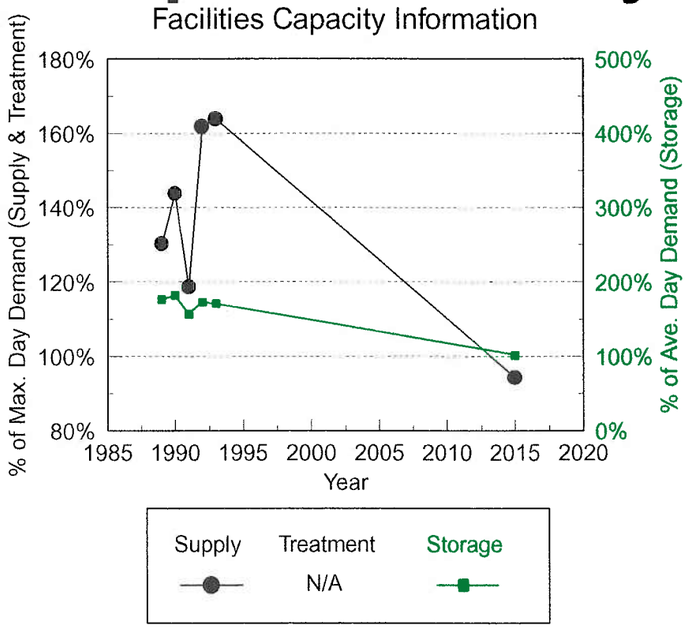
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	3.50	3.50	3.50	4.20	4.20	4.20
West View Borough Municipal Authority	2.00	2.00	2.00	2.00	2.00	2.00
Township of Shaler	1.50	1.50	1.50	1.50	1.50	1.50
Pittsburgh Water and Sewer Authority				0.70	0.70	0.70
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	3.20	3.20	3.20	3.20	3.20	3.20
Total Supply Source(s) Capacity (% of max. day)	130.2%	143.8%	118.6%	161.8%	163.8%	94.3%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	177.0%	182.2%	157.0%	173.0%	171.1%	101.8%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	92%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	92%	

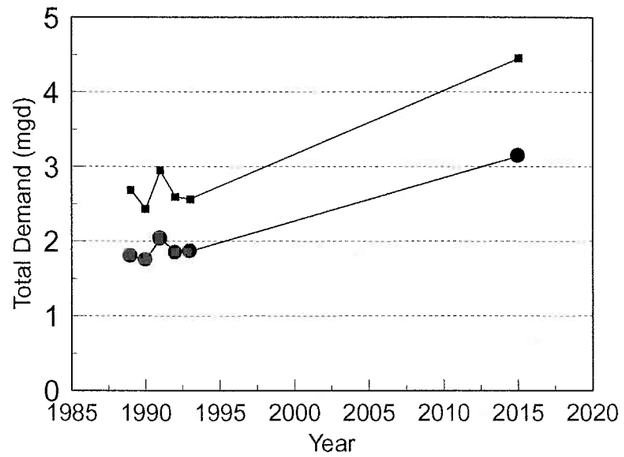
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.808	1.756	2.038	1.850	1.870	3.143
Maximum Day Total Water Use (mgd)	2.689	2.434	2.950	2.595	2.564	4.456
Average Daily Water Use by Customer Class (mgd)						
Domestic	1.025	1.047	1.213	1.206	1.254	2.140
Commercial	0.169	0.149	0.164	0.167	0.148	0.216
Industrial	0.095	0.067	0.076	0.057	0.047	0.081
Institutional	0.027	0.047	0.059	0.058	0.046	0.079
Bulk Sales to Suppliers	0.013	0.011	0.023	0.018	0.010	0.014
Unaccounted for and other	0.479	0.435	0.503	0.345	0.365	0.613
Average Daily Water Use (gpd/customer)	206	185	206	197	191	179
Average Daily Water Use by Customer Class (% of total)						
Domestic	56.7%	59.6%	59.5%	65.2%	67.0%	68.1%
Commercial	9.4%	8.5%	8.1%	9.0%	7.9%	6.9%
Industrial	5.3%	3.8%	3.7%	3.1%	2.5%	2.6%
Institutional	1.5%	2.7%	2.9%	3.1%	2.5%	2.5%
Bulk Sales to Suppliers	0.7%	0.6%	1.1%	1.0%	0.5%	0.5%
Unaccounted for and other	26.5%	24.8%	24.7%	18.6%	19.5%	19.5%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	6,451	7,154	7,444	7,635	7,885	14,096
Number of Customers by Class						
Domestic	5,978	6,766	7,048	7,222	7,461	13,465
Commercial	446	340	347	363	374	546
Industrial	3	7	7	7	7	12
Institutional	23	40	41	42	42	72
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	17,173	19,436	20,247	20,746	21,433	36,657
Number of Customers by Class (% of total)						
Domestic	92.7%	94.6%	94.7%	94.6%	94.6%	95.5%
Commercial	6.9%	4.8%	4.7%	4.8%	4.7%	3.9%
Industrial	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%
Institutional	0.4%	0.6%	0.6%	0.6%	0.5%	0.5%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

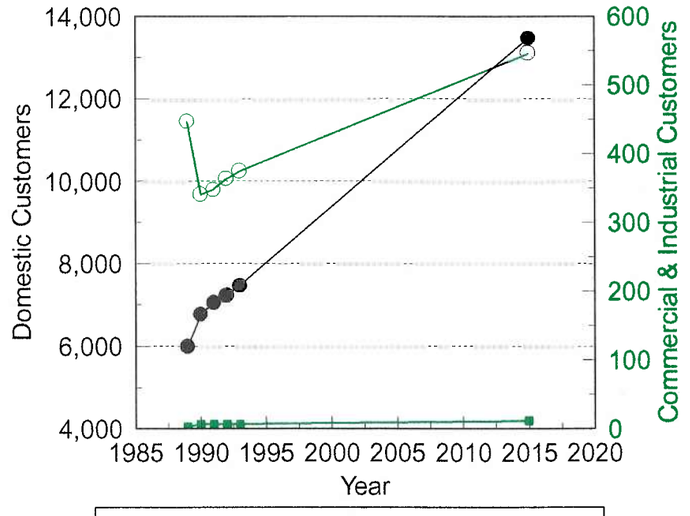
Facilities Capacity Information



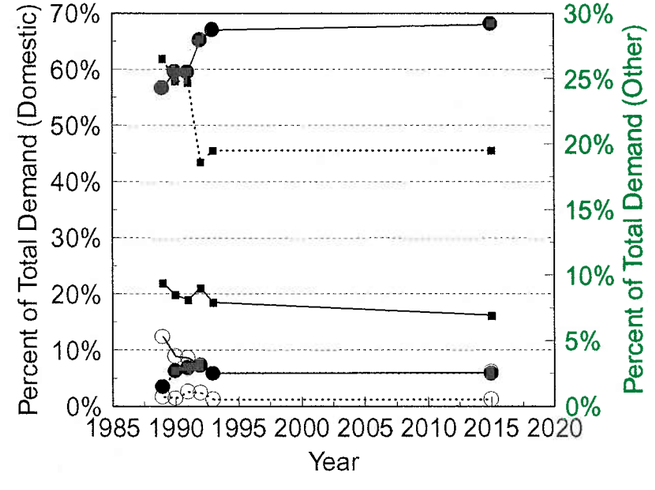
Water Demand Information



Customer Base Information

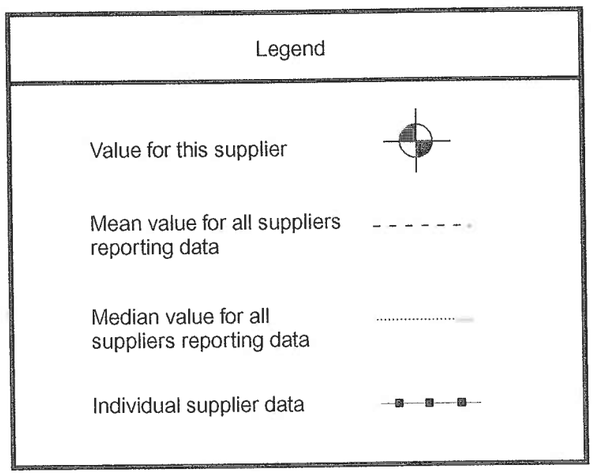


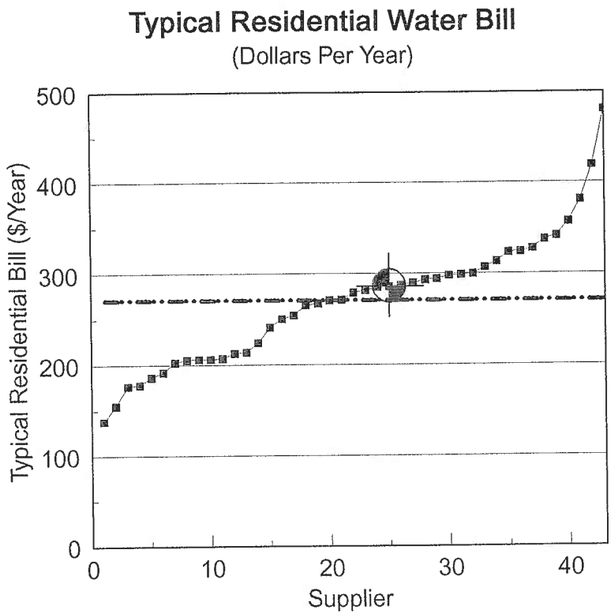
Distribution of Demand by Class

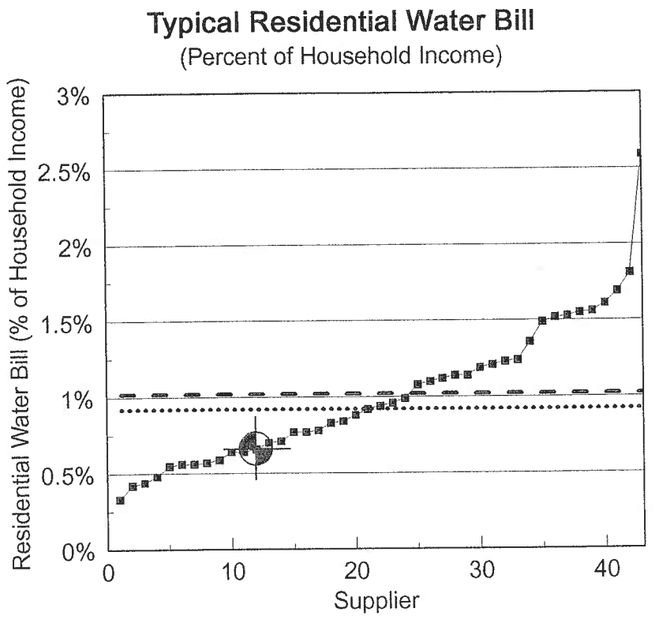


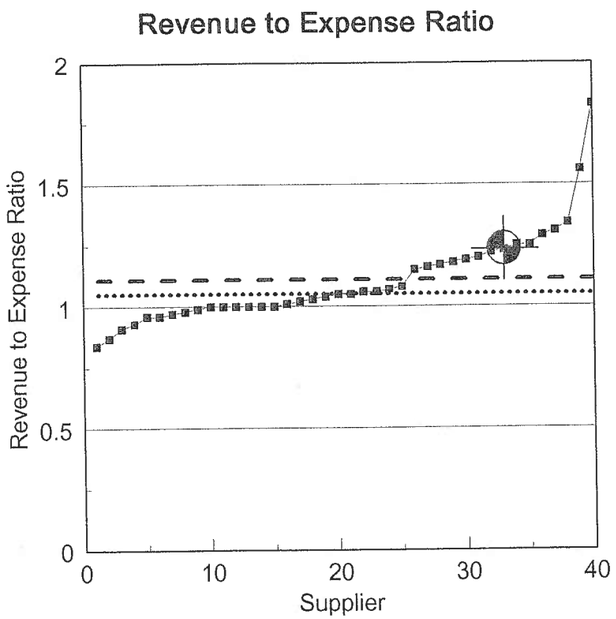
Hampton Township Municipal Authority

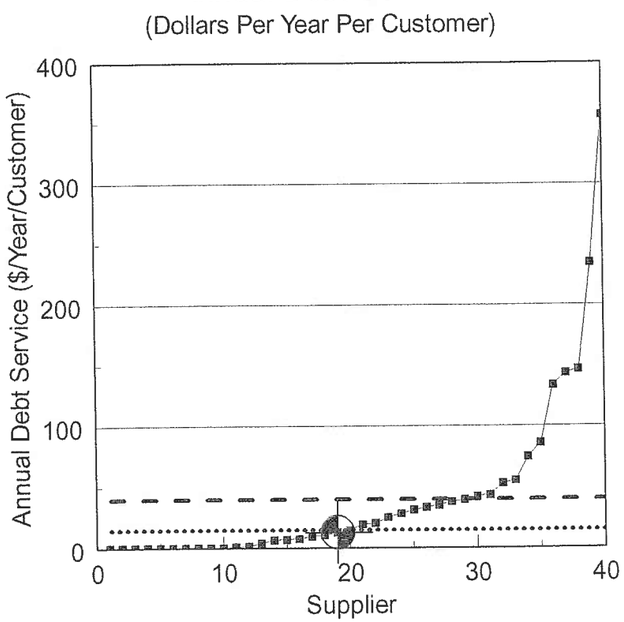
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$2,522,271
Dollars per 1,000 gallons sold	$4.59
Other Revenues	$63,316
TOTAL OPERATING REVENUES	$2,585,587
Dollars per 1,000 gallons sold	$4.71
Expenses	
Operating Expenses	
Total dollars per year	$1,996,152
Dollars per 1,000 gallons sold	$3.63
Debt Service	
Total dollars per year	$101,405
Dollars per customer served	$12.86
Other Expenses	$0
TOTAL EXPENSES	$2,097,557
Dollars per 1,000 gallons sold	$3.82
Net Revenues (dollars)	$488,030
Ratio of revenues to expenses	1.23
Average Annual Residential Bill	
Dollars per year per customer	$285.97
% of Median Household Income	0.66%
Retained Earnings	$7,182,924
Retained Earnings ($/customer)	$910.96











Harmar Township Municipal Authority

The Harmar Township Municipal Authority serves approximately 1,100 customers in the following municipalities:

Harmar Township
Springdale Township

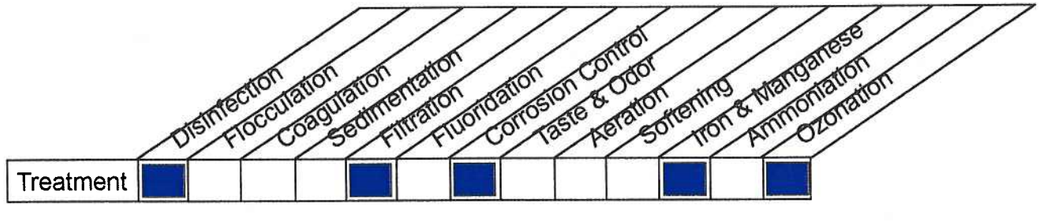
The Authority also sells water in bulk for resale to Springdale Township.

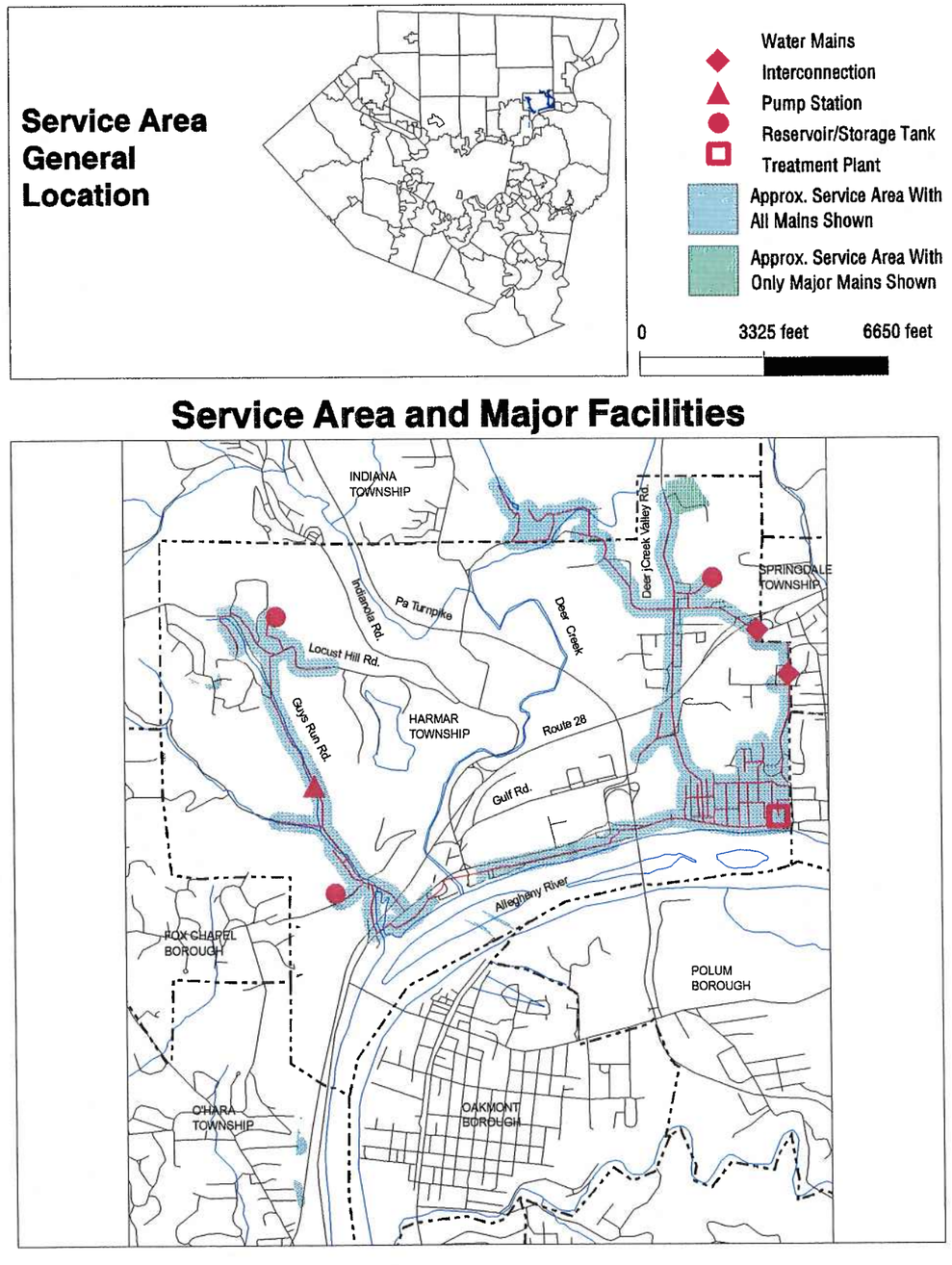
The Authority was established in 1951. The authority board is composed of five members who are appointed by the Harmar Township supervisors.

The Authority obtains its raw water supply from wells located along the Allegheny River. The treatment processes employed at the Authority's treatment plant are illustrated below. In addition to the treatment plant, the Authority operates three distribution storage facilities and two booster pumping stations.

During the past five years, the Authority has experienced a 23.3 percent decline in the total number of customers served. Total daily water use in 1993 averaged 0.673 million gallons per day (mgd).

The total service population is projected to remain essentially constant through the planning period, approximating 2,996 persons in the year 2015 as compared to the 3,006 estimate for the year 1993. Average daily water demands are projected to remain essentially constant at 0.673 mgd (1.049 mgd maximum day) in 1993 to 0..672 mgd (1.031 mgd maximum day) by the year 2015. The Authority's source of supply is expected to remain adequate through the design period. Distribution storage will provide in excess of a 1-day volume throughout the planning period. Harmar Township has an emergency supply connection with the Borough of Oakmont Authority's system. The reported capacity of this connection, coupled with the Township's distribution system storage, is sufficient to provide for a 3-day emergency supply through the year 2015.





Harmar Township Municipal Authority

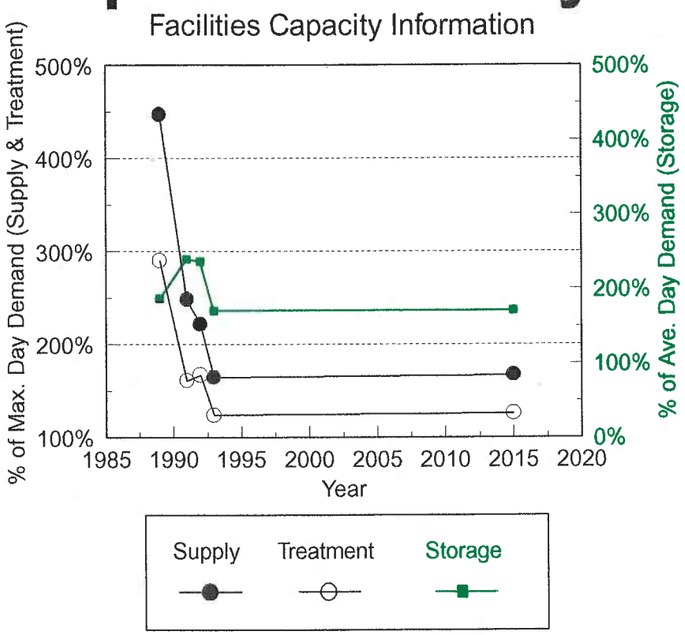
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	2.00	1.73	2.00	1.73	1.73	1.73
Wells	1.73	1.73	1.73	1.73	1.73	1.73
Oakmont Borough	0.27		0.27	0.00	0.00	0.00
Treatment / Pumping Facility Capacity (mgd)	1.30		1.30	1.30	1.30	1.30
Total Treated Water Storage (million gallons)	0.65		1.15	1.15	1.15	1.15
Total Supply Source(s) Capacity (% of max. day)	446.7%		248.1%	221.6%	164.8%	167.6%
Treatment / Pumping Facility Capacity (% of max. day)	290.0%		161.1%	166.7%	124.0%	126.1%
Total Treated Water Storage (% of ave. day))	187.0%		240.0%	236.9%	170.9%	171.0%

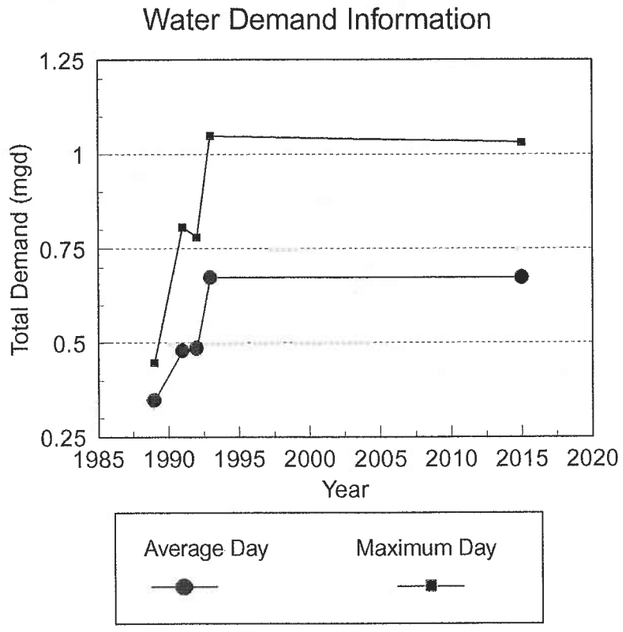
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	92%	83%	100%	100%	

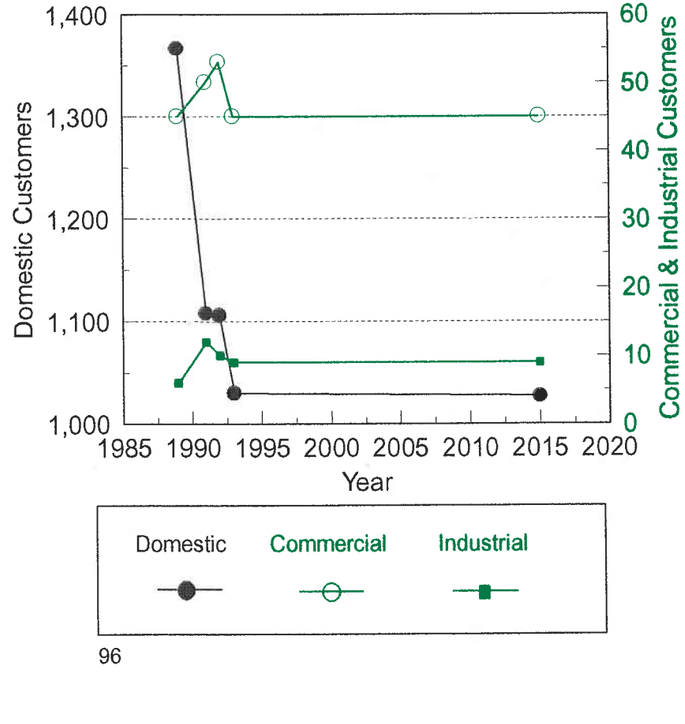
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.348		0.479	0.485	0.873	0.672
Maximum Day Total Water Use (mgd)	0.448		0.807	0.780	1.049	1.031
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.167		0.225	0.234	0.253	0.207
Commercial	0.021		0.028	0.027	0.027	0.027
Industrial	0.024		0.035	0.027	0.032	0.032
Institutional	0.073		0.009	0.004	0.003	0.003
Bulk Sales to Suppliers	0.000		0.000	0.000	0.125	0.200
Unaccounted for and other	0.062		0.182	0.193	0.234	0.204
Average Daily Water Use (gpd/customer)	199		250	247	399	427
Average Daily Water Use by Customer Class (% of total)						
Domestic	48.1%		46.9%	48.2%	37.6%	30.8%
Commercial	6.1%		5.8%	5.6%	4.0%	4.0%
Industrial	7.0%		7.3%	5.6%	4.7%	4.7%
Institutional	21.0%		1.9%	0.9%	0.5%	0.5%
Bulk Sales to Suppliers	0.0%		0.0%	0.0%	18.5%	29.7%
Unaccounted for and other	17.9%		38.1%	39.7%	34.7%	30.3%

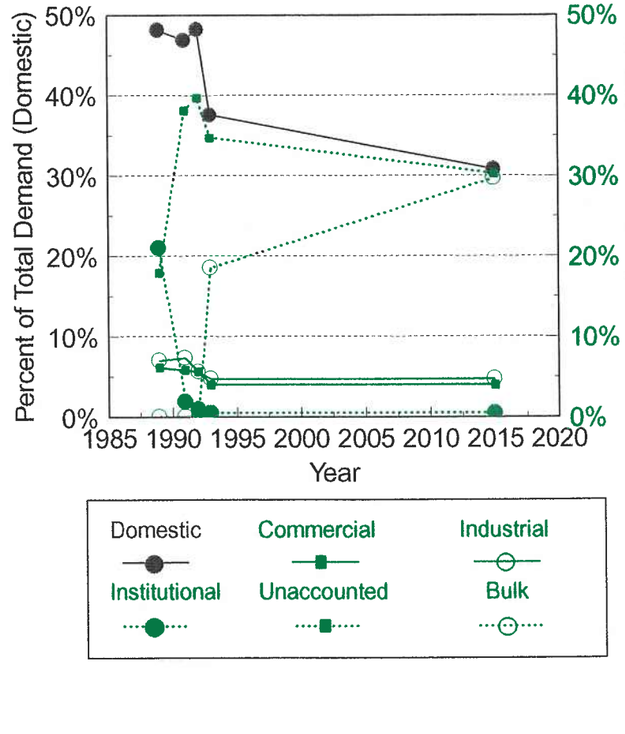
Note: 1990 customer and water use statistics unavailable

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,435		1,189	1,184	1,100	1,096
Number of Customers by Class						
Domestic	1,367		1,108	1,106	1,030	1,027
Commercial	45		50	53	45	45
Industrial	6		12	10	9	9
Institutional	17		19	15	16	16
Bulk Sales to Suppliers	0		0	0	0	0
Estimated Service Population	3,990		3,234	3,228	3,006	2,996
Number of Customers by Class (% of total)						
Domestic	95.3%		93.2%	93.4%	93.6%	93.6%
Commercial	3.1%		4.2%	4.5%	4.1%	4.1%
Industrial	0.4%		1.0%	0.8%	0.8%	0.8%
Institutional	1.2%		1.6%	1.3%	1.5%	1.5%
Bulk Sales to Suppliers	0.0%		0.0%	0.0%	0.0%	0.0%



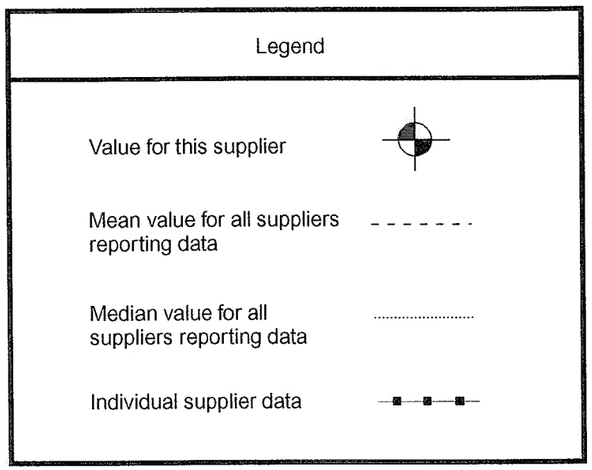


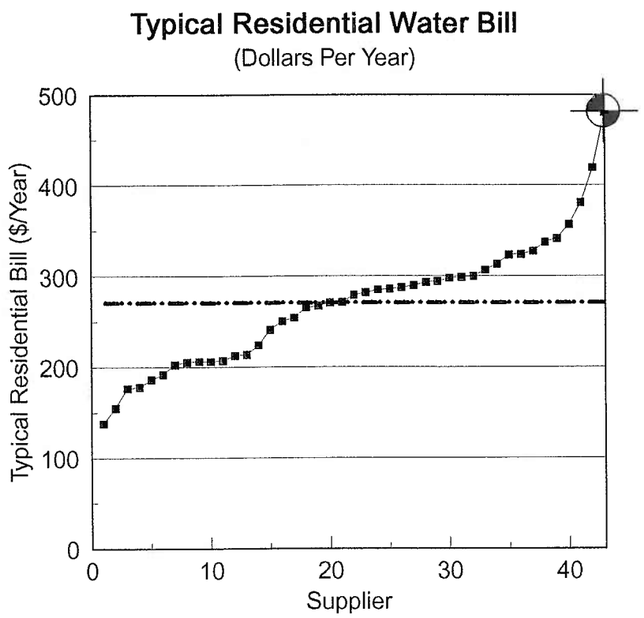


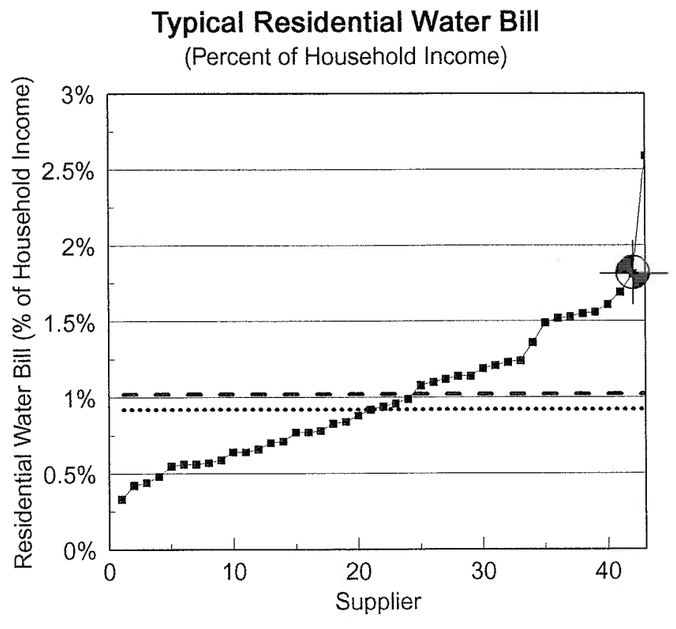


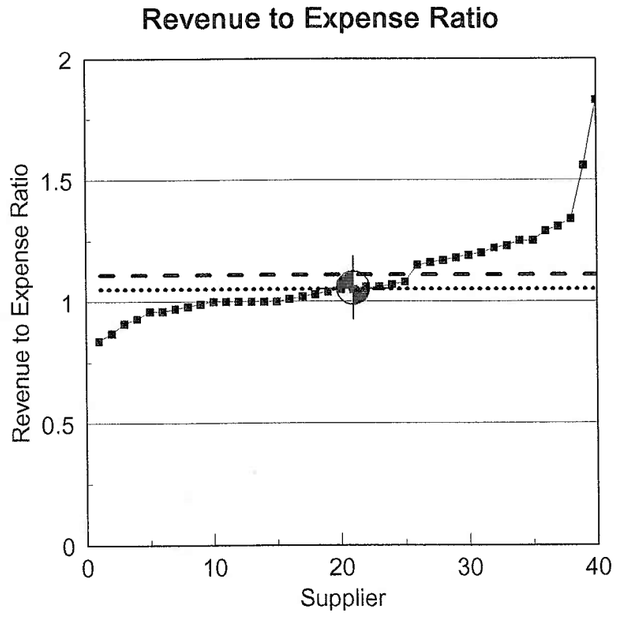
Harmar Township Municipal Authority

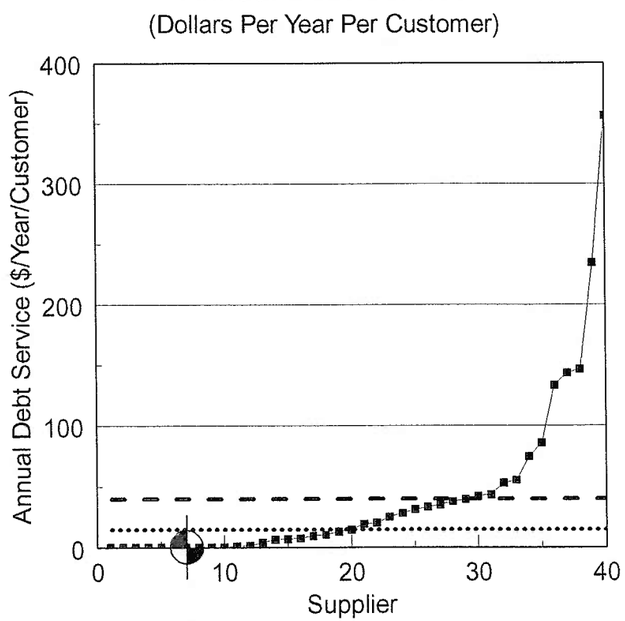
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$551,111
Dollars per 1,000 gallons sold	$4.79
Other Revenues	$25,624
TOTAL OPERATING REVENUES	$576,735
Dollars per 1,000 gallons sold	$5.02
Expenses	
Operating Expenses	
Total dollars per year	$440,329
Dollars per 1,000 gallons sold	$3.83
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$109,677
TOTAL EXPENSES	$550,006
Dollars per 1,000 gallons sold	$4.78
Net Revenues (dollars)	$26,729
Ratio of revenues to expenses	1.05
Average Annual Residential Bill	
Dollars per year per customer	$480.67
% of Median Household Income	1.81%
Retained Earnings	$651,013
Retained Earnings ($/customer)	$591.83











Harrison Township Water Authority

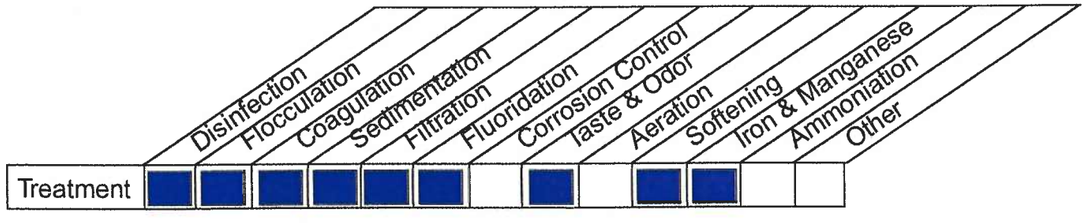
The Harrison Township Water Authority serves approximately 4,864 customers in Harrison Township.

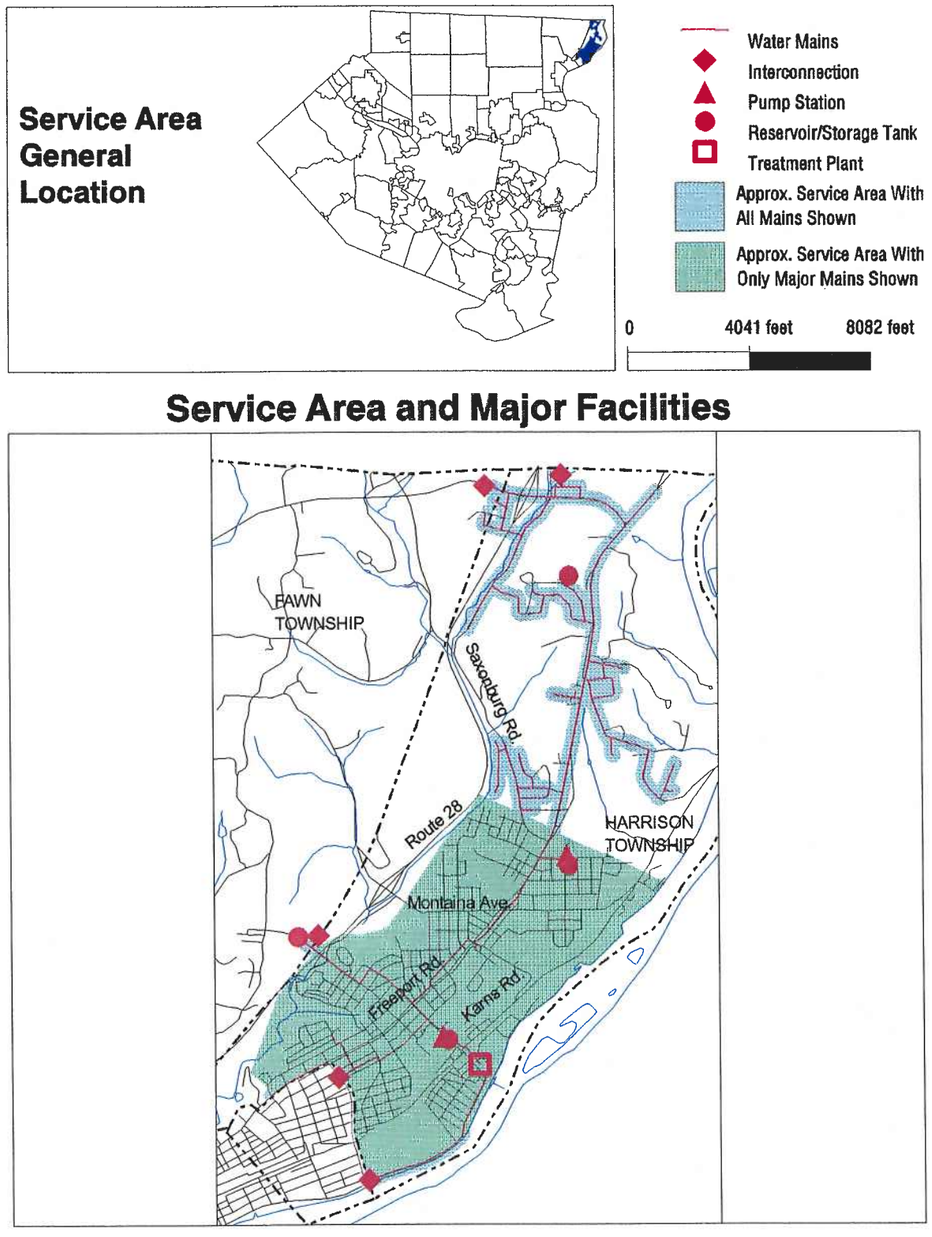
The Authority was formed in 1965. The authority board consists of five members appointed by the Harrison Township commissioners.

The Authority obtains its water supply from the Allegheny River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates six distribution system water storage facility and two booster pumping stations.

During the past five years, the Authority has experienced a 9.8 percent decrease in the total number of customers served. Total daily water use in 1993 averaged 1.579 million gallons per day (mgd).

The total service population is projected to increase from approximately 11,732 persons in 1993 to approximately 11,944 by the year 2015. Average daily water demands are projected to increase from 1.579 mgd (2.153 mgd maximum day) in 1993 to 1.598 mgd (estimated 2.126 mgd maximum day) in the year 2015. These demands are within the capacity of the Authority's source of supply and treatment facility. The Authority's distribution storage facility will be adequate to provide for more than a 1-day storage volume throughout the planning period. The Authority has emergency supply connections with the Brackenridge, Fawn-Frazer, and Buffalo Townships systems. However, the delivery capacity of the connections has not been established and the total emergency supply capacity cannot presently be determined. It is recommended that the delivery capacity of the emergency interconnections be established. Should a 3-day emergency supply capacity be found not to be available, steps should be taken to increase the capacity or provide additional system storage as required. The required additional storage volume ranges from none to 1.0 million gallons depending upon the capacity of the interconnections. In the worst case, if the emergency connection capabilities prove to be negligible, 1.0 million gallons of storage would be required. The cost of this storage, assuming the construction of one 1.0 million gallon elevated storage tank, is estimated to be $1,300,000.





Service Area and Major Facilities

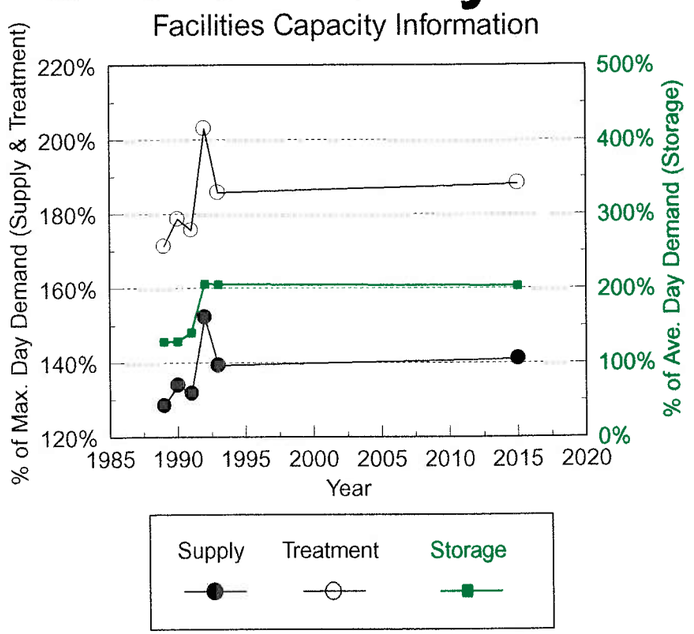
Harrison Township Water Authority

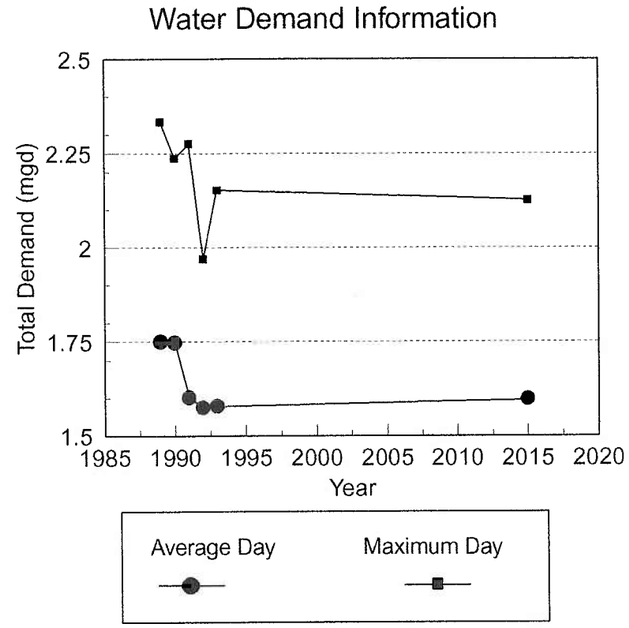
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	3.00	3.00	3.00	3.00	3.00	3.00
Allegheny River	3.00	3.00	3.00	3.00	3.00	3.00
Treatment / Pumping Facility Capacity (mgd)	4.00	4.00	4.00	4.00	4.00	4.00
Total Treated Water Storage (million gallons)	2.25	2.25	2.25	3.25	3.25	3.25
Total Supply Source(s) Capacity (% of max. day)	128.5%	134.0%	131.8%	152.3%	139.3%	141.1%
Treatment / Pumping Facility Capacity (% of max. day)	171.4%	178.7%	175.7%	203.0%	185.8%	188.2%
Total Treated Water Storage (% of ave. day))	128.6%	128.8%	140.4%	206.4%	205.8%	203.4%

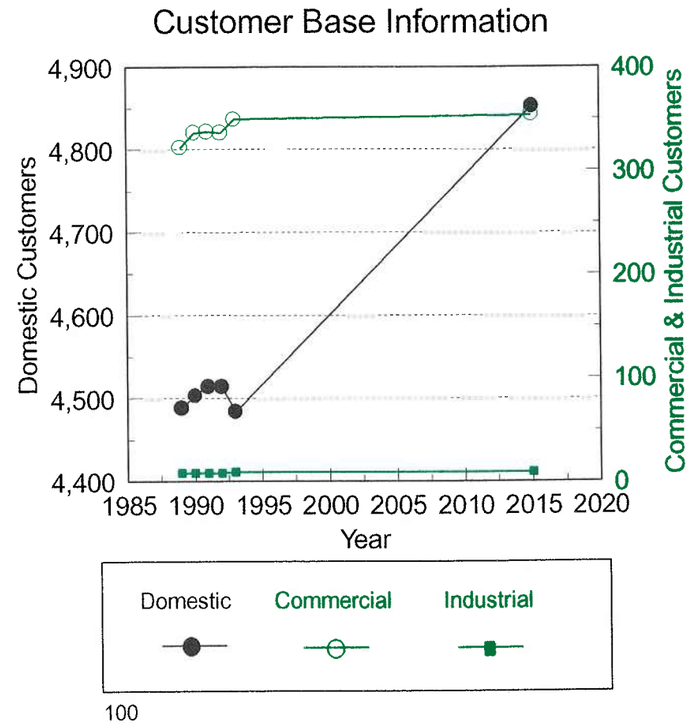
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	100%	

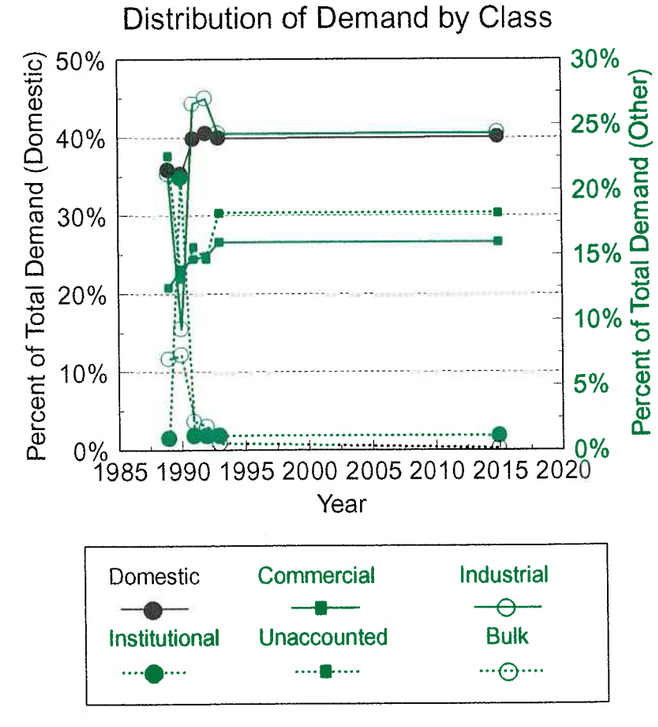
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.750	1.747	1.602	1.575	1.579	1.598
Maximum Day Total Water Use (mgd)	2.334	2.238	2.276	1.970	2.153	2.126
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.627	0.617	0.638	0.638	0.630	0.641
Commercial	0.220	0.243	0.235	0.235	0.253	0.256
Industrial	0.371	0.163	0.425	0.425	0.383	0.390
Institutional	0.015	0.365	0.018	0.018	0.017	0.017
Bulk Sales to Suppliers	0.123	0.127	0.035	0.028	0.008	0.002
Unaccounted for and other	0.395	0.231	0.251	0.231	0.288	0.292
Average Daily Water Use (gpd/customer)	280	312	277	276	265	249
Average Daily Water Use by Customer Class (% of total)						
Domestic	35.8%	35.3%	39.8%	40.5%	39.9%	40.1%
Commercial	12.5%	13.9%	14.7%	14.9%	16.0%	16.0%
Industrial	21.2%	9.3%	26.6%	27.0%	24.3%	24.4%
Institutional	0.9%	20.9%	1.1%	1.1%	1.1%	1.1%
Bulk Sales to Suppliers	7.0%	7.3%	2.2%	1.8%	0.5%	0.1%
Unaccounted for and other	22.6%	13.2%	15.6%	14.7%	18.2%	18.2%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	4,834	4,863	4,878	4,877	4,864	5,237
Number of Customers by Class						
Domestic	4,488	4,503	4,514	4,514	4,484	4,852
Commercial	322	336	337	336	349	354
Industrial	8	8	8	8	9	9
Institutional	15	15	16	16	19	19
Bulk Sales to Suppliers	1	1	1	3	3	3
Estimated Service Population	11,742	11,782	11,810	11,810	11,732	11,944
Number of Customers by Class (% of total)						
Domestic	92.8%	92.6%	92.6%	92.6%	92.2%	92.6%
Commercial	6.7%	6.9%	6.9%	6.9%	7.2%	6.8%
Industrial	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Institutional	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%









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Harrison Township Water Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,485,666
Dollars per 1,000 gallons sold	$3.15
Other Revenues	$159,421
TOTAL OPERATING REVENUES	$1,645,087
Dollars per 1,000 gallons sold	$3.49
Expenses	
Operating Expenses	
Total dollars per year	$954,511
Dollars per 1,000 gallons sold	$2.03
Debt Service	
Total dollars per year	$418,960
Dollars per customer served	$86.13
Other Expenses	$50,788
TOTAL EXPENSES	$1,424,259
Dollars per 1,000 gallons sold	$3.02
Net Revenues (dollars)	$220,828
Ratio of revenues to expenses	1.16
Average Annual Residential Bill	
Dollars per year per customer	$267.40
% of Median Household Income	1.08%
Retained Earnings	($390,128)
Retained Earnings ($/customer)	($80.21)

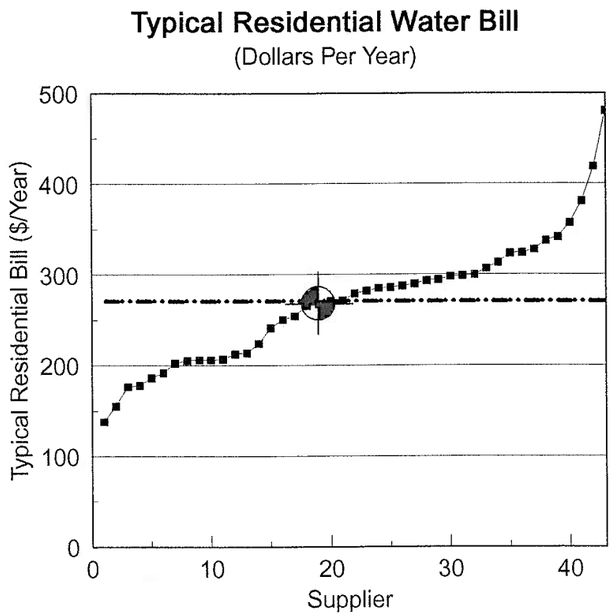
Legend

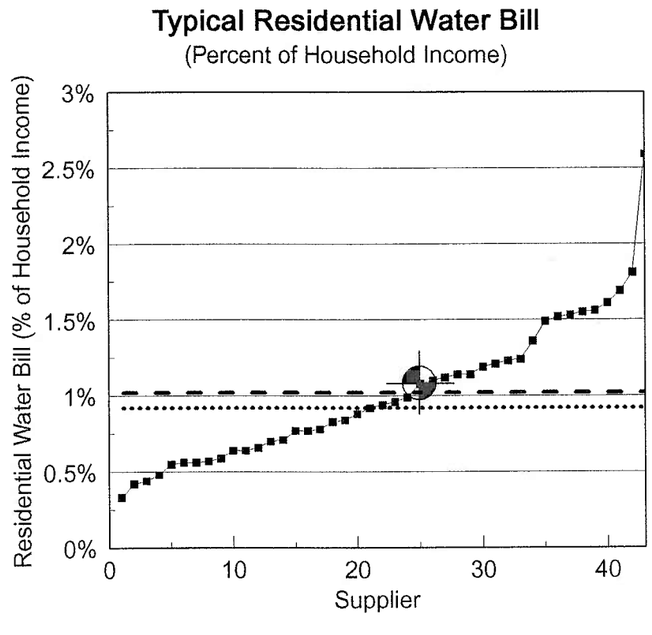
Value for this supplier

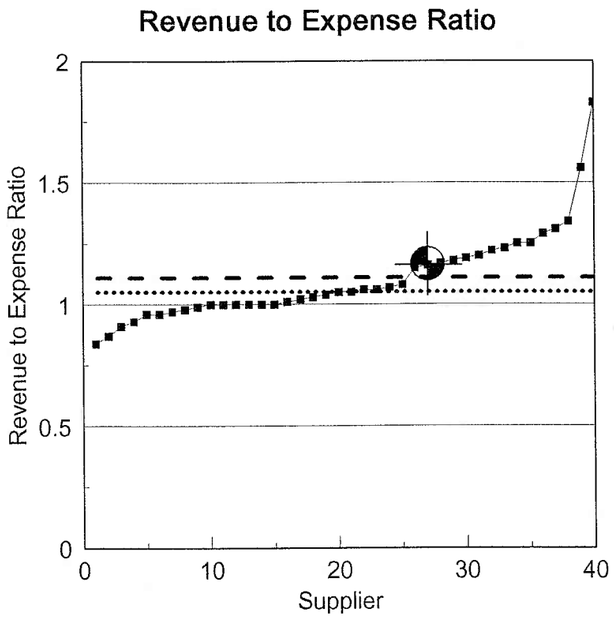
Mean value for all suppliers reporting data

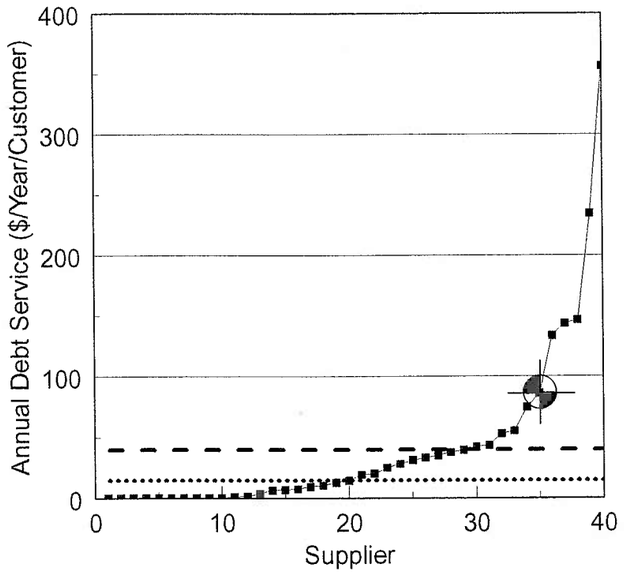
Median value for all suppliers reporting data

Individual supplier data









Millvale Borough

Millvale Borough serves approximately 1,799 customers in the following municipalities:

Millvale Borough
Reserve Township
Shaler Township

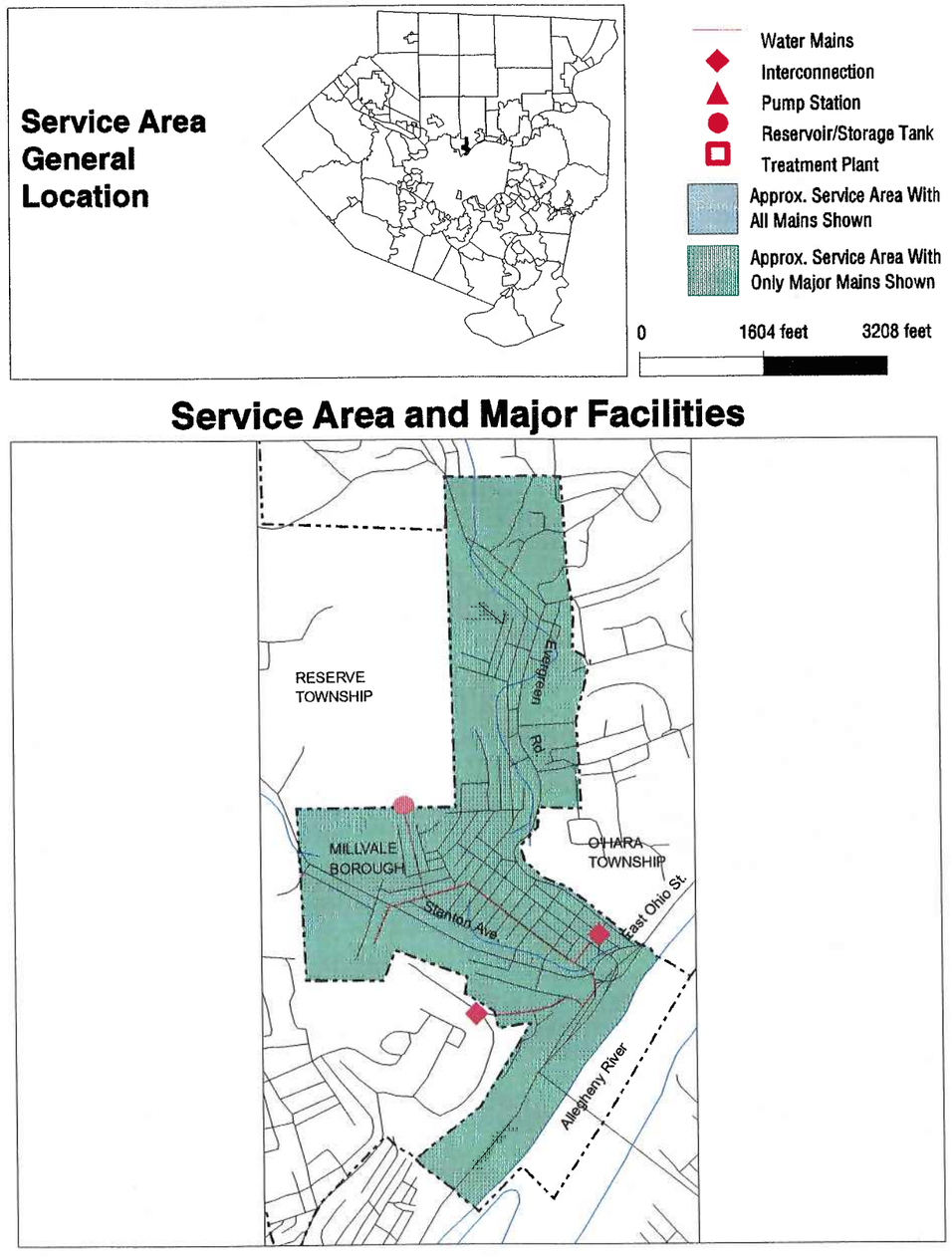
Over 97 percent of the customers served by Millvale Borough are located within the Borough.

The water system is owned the Borough of Millvale and is operated as a department of the Borough.

The Borough purchases its water supply from the Pittsburgh Water and Sewer Authority. A small amount of water is also purchased from Reserve Township. The Borough operates no treatment facilities, one distribution storage facility, and no booster pumping stations.

During the past five years, the Borough has experienced a 3.3 percent decrease in the total number of customers served. Total daily water use in 1993 averaged 0.358 million gallons per day.

The total service population is projected to increase from approximately 4,346 persons in 1993 to approximately 4,440 by the year 2015. Average daily water demands are projected to increase from 0.358 mgd (0.512 mgd maximum day) in 1993 to 0.366 mgd 0.524 mgd maximum day) in the year 2015. The Borough's sources of water supply are expected to be sufficient to satisfy demands through the planning period and its storage facility will provide more than a 1-day storage volume through the year 2015. No information has been reported concerning the maximum delivery capacity of the Pittsburgh and Reserve connections. The capacity of these connections should be established and compared to the Borough's water demands. In the event that less than a 3-day emergency supply is available, additional emergency supply capacity should be provided. However, given the capabilities of the Pittsburgh system and the relatively small demands exerted by the Millvale system. It is anticipated that the emergency supply capacity will prove to be adequate.



Millvale Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	
Dollars per 1,000 gallons sold	
Other Revenues	
TOTAL OPERATING REVENUES	
Dollars per 1,000 gallons sold	
Expenses	
Operating Expenses	
Total dollars per year	
Dollars per 1,000 gallons sold	
Debt Service	
Total dollars per year	
Dollars per customer served	
Other Expenses	
TOTAL EXPENSES	
Dollars per 1,000 gallons sold	
Net Revenues (dollars)	
Ratio of revenues to expenses	
Average Annual Residential Bill	
Dollars per year per customer	$306.98
% of Median Household Income	1.49%
Retained Earnings	
Retained Earnings ($/customer)	

Revenue and expense data unavailable.

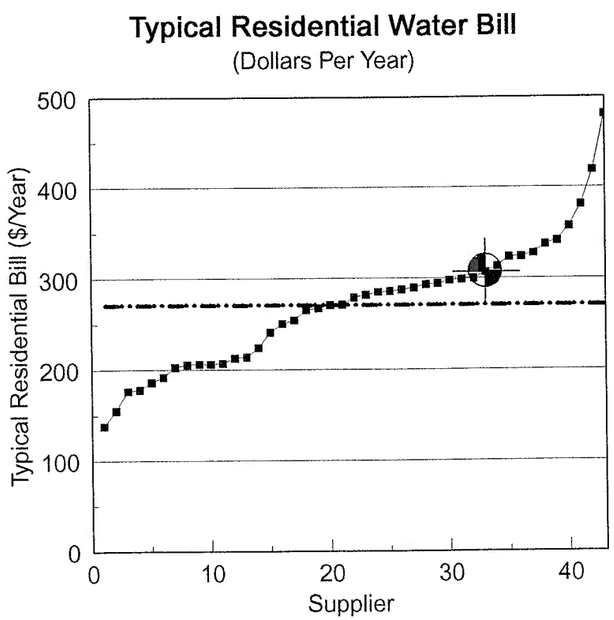
Legend

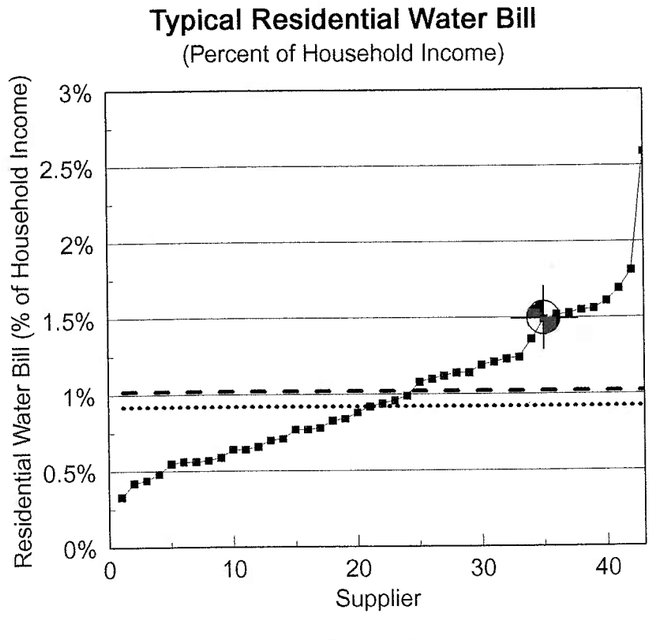
Value for this supplier

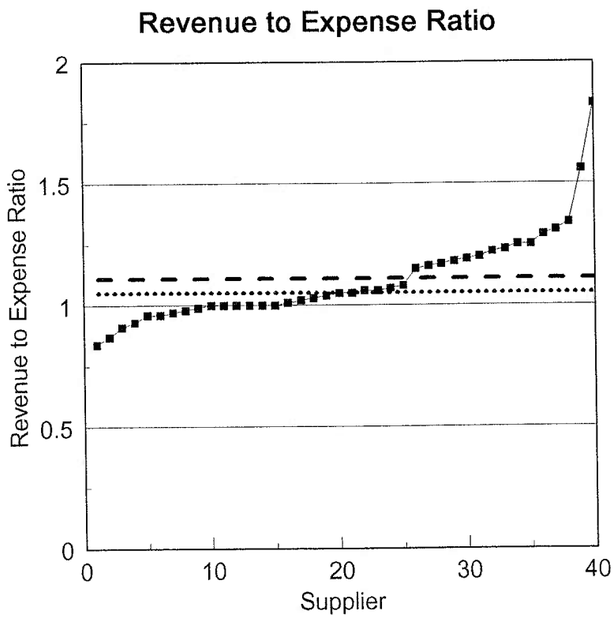
Mean value for all suppliers reporting data

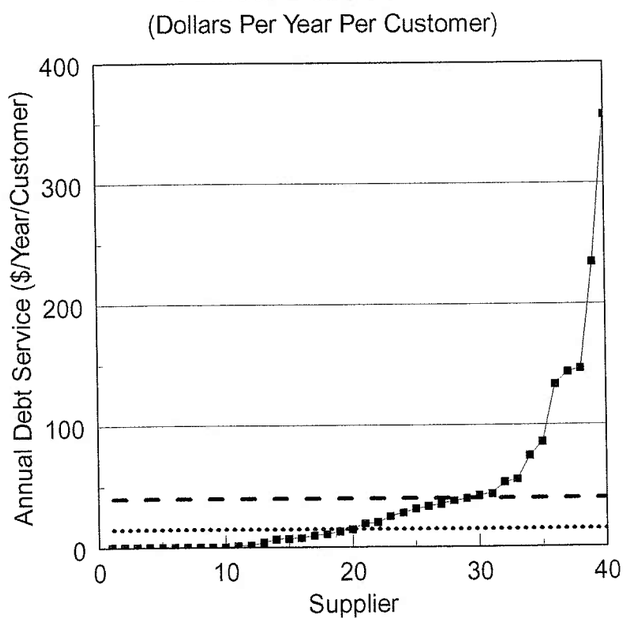
Median value for all suppliers reporting data

Individual supplier data









Monroeville Water Authority

The Monroeville Water Authority serves approximately 9,364 customers in the Municipality of Monroeville. The Authority also sells water in bulk to the Plum Borough Water Authority for resale.

The Authority was established in 1950. The authority board is composed of seven members who are appointed by the Monroeville municipal council.

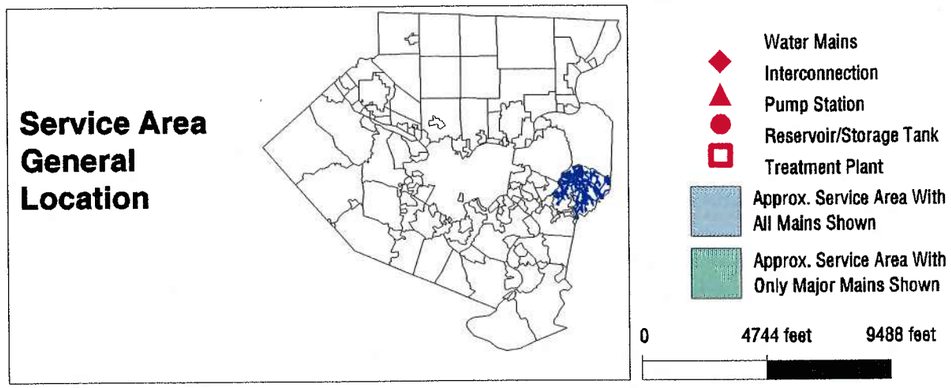
The Authority purchases its water supply in bulk from the following suppliers:

Wilkinsburg-Penn Joint Water Authority

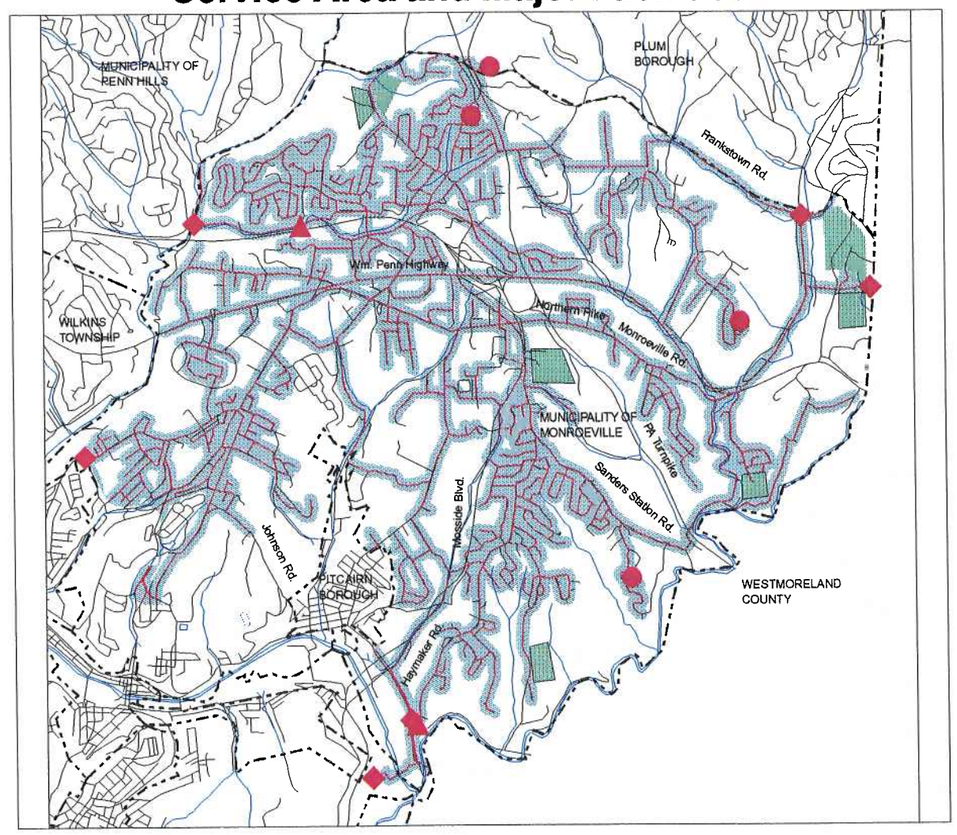
The Authority operates no treatment facilities, four distribution storage facilities, and two booster pumping stations.

During the past five years, the Authority has experienced a 2.8 percent rise in the total number of customers served. Total daily water use in 1993 averaged 3.776 million gallons per day (mgd).

The total service population is projected to increase from approximately 27,285 persons in 1993 to approximately 36,837 by the year 2015. Average daily water demands are projected to increase from 3.776 mgd (6.225 mgd maximum day) in 1993 to 4.841 mgd (7.100 mgd maximum day) by the year 2015. Current water supply commitment from the Authority's supplier is sufficient to meet the current and projected demands. The distribution water storage facilities provide in excess of a 1-day storage volume throughout the planning period. An emergency connection exists with the Westmoreland County Municipal Authority. The Monroeville Water Authority's storage volume and the capacity of the emergency connection are sufficient to provide for more than a 3-day emergency supply.



Service Area and Major Facilities



Monroeville Water Authority

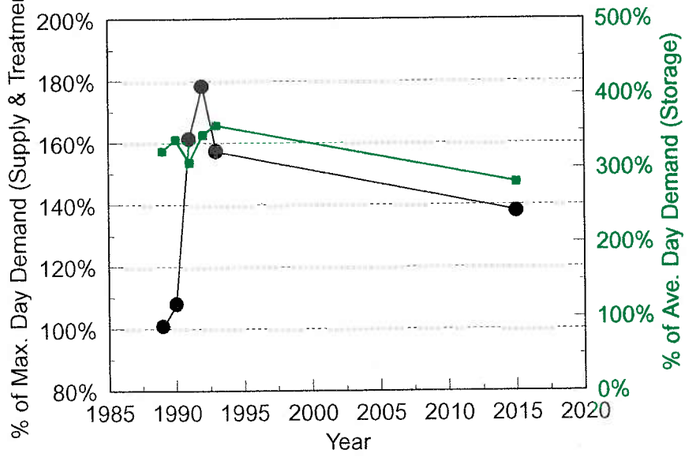
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	6.34	6.34	9.79	9.79	9.79	9.79
Wilkinsburg-Penn Joint Water Authority	3.02	3.02	6.48	6.48	6.48	6.48
Westmoreland County Municipal Authority	3.31	3.31	3.31	3.31	3.31	3.31
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	13.50	13.50	13.50	13.50	13.50	13.50
Total Supply Source(s) Capacity (% of max. day)	100.8%	108.0%	161.2%	178.4%	157.3%	137.9%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	322.6%	337.9%	307.4%	345.1%	357.5%	280.4%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	83%	100%	92%	100%	100%	

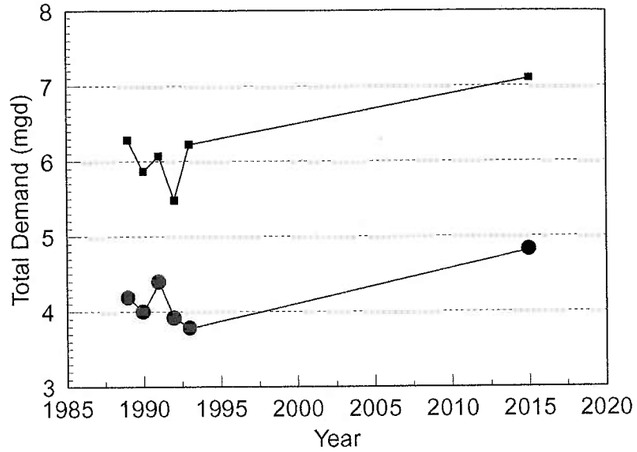
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	4.185	3.995	4.392	3.912	3.776	4.815
Maximum Day Total Water Use (mgd)	6.287	5.868	6.073	5.487	6.225	7.100
Average Daily Water Use by Customer Class (mgd)						
Domestic	1.522	1.492	1.587	1.522	1.553	2.056
Commercial	1.624	1.649	1.747	1.681	1.721	2.103
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.089	0.102	0.178	0.116	0.151	0.227
Unaccounted for and other	0.950	0.752	0.879	0.594	0.352	0.429
Average Daily Water Use (gpd/customer)	356	354	380	357	366	347
Average Daily Water Use by Customer Class (% of total)						
Domestic	36.4%	37.3%	36.1%	38.9%	41.1%	42.7%
Commercial	38.8%	41.3%	39.8%	43.0%	45.8%	43.7%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	2.1%	2.6%	4.1%	3.0%	4.0%	4.7%
Unaccounted for and other	22.7%	18.8%	20.0%	15.2%	9.3%	8.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	9,083	9,172	9,234	9,305	9,364	12,654
Number of Customers by Class						
Domestic	8,302	8,388	8,439	8,508	8,564	11,677
Commercial	780	783	794	796	799	976
Industrial	0	0	0	0	0	0
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	26,450	26,724	26,887	27,107	27,285	36,837
Number of Customers by Class (% of total)						
Domestic	91.4%	91.5%	91.4%	91.4%	91.5%	92.3%
Commercial	8.6%	8.5%	8.6%	8.6%	8.5%	7.7%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

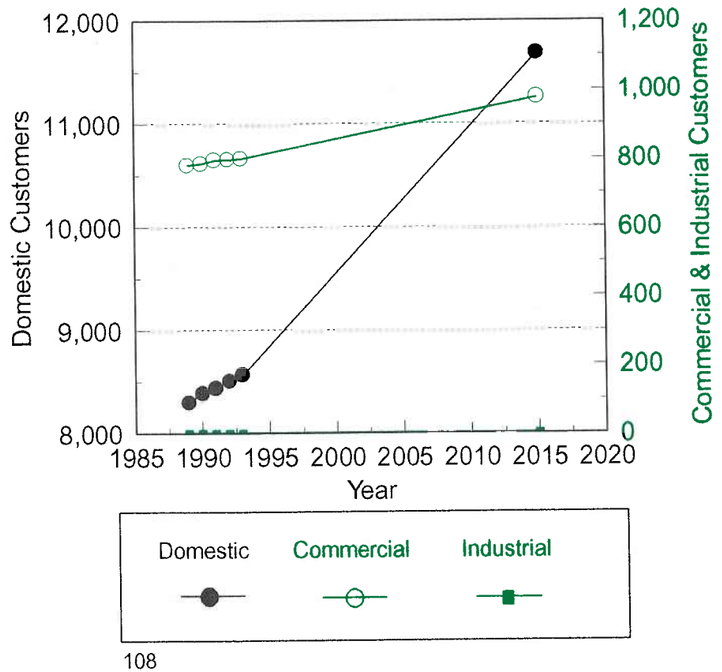
Facilities Capacity Information



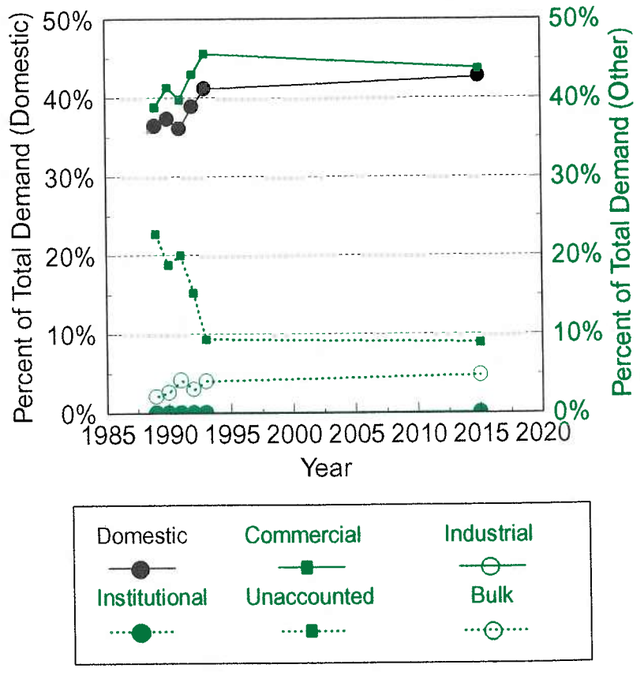
Water Demand Information



Customer Base Information

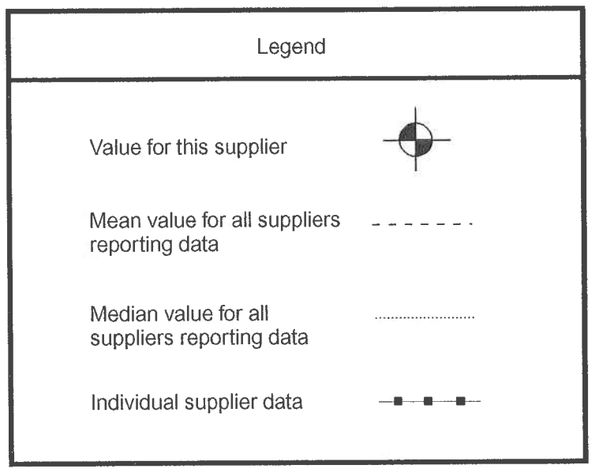


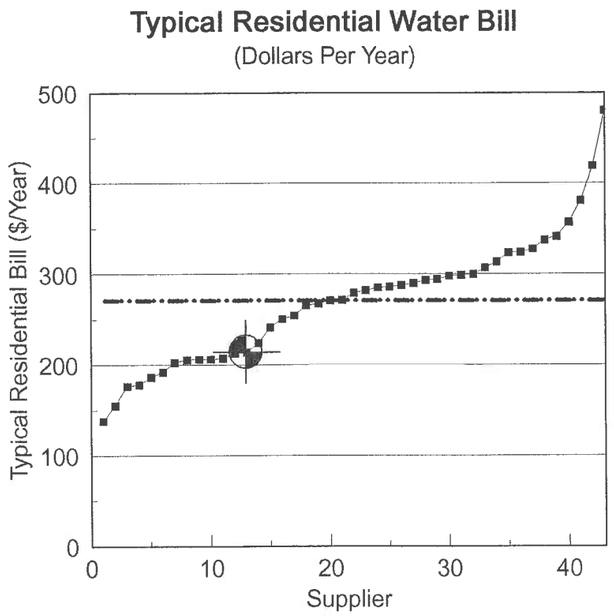
Distribution of Demand by Class

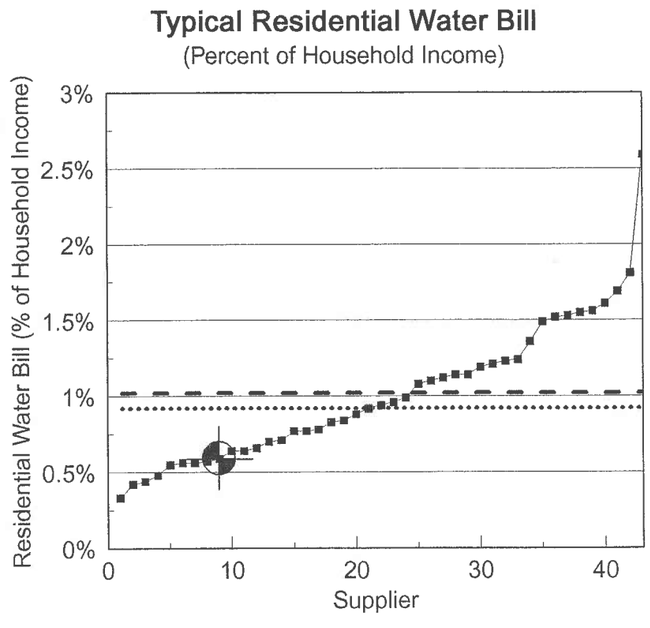


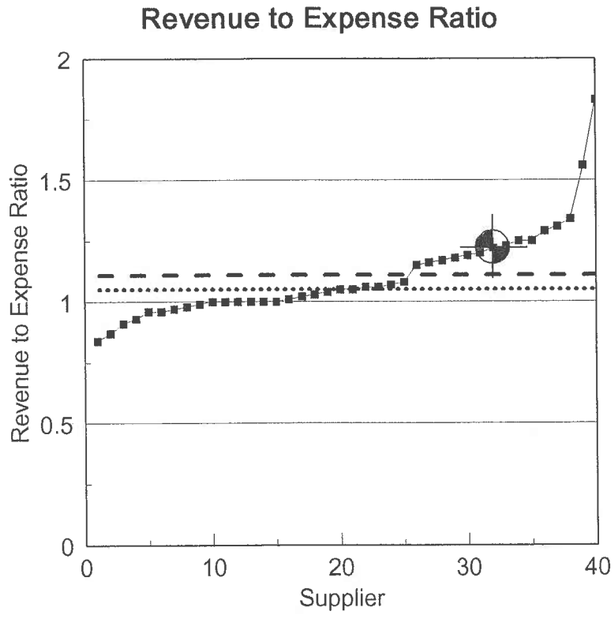
Monroeville Water Authority

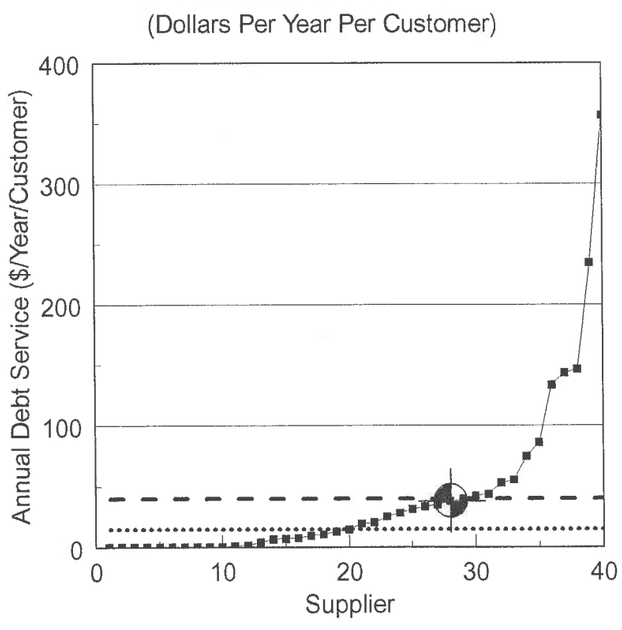
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$4,020,626
Dollars per 1,000 gallons sold	$3.06
Other Revenues	$522,619
TOTAL OPERATING REVENUES	$4,543,245
Dollars per 1,000 gallons sold	$3.46
Expenses	
Operating Expenses	
Total dollars per year	$3,240,770
Dollars per 1,000 gallons sold	$2.47
Debt Service	
Total dollars per year	$352,395
Dollars per customer served	$37.63
Other Expenses	$143,929
TOTAL EXPENSES	$3,737,094
Dollars per 1,000 gallons sold	$2.85
Net Revenues (dollars)	$806,151
Ratio of revenues to expenses	1.22
Average Annual Residential Bill	
Dollars per year per customer	$213.85
% of Median Household Income	0.59%
Retained Earnings	$15,438,898
Retained Earnings ($/customer)	$1,648.75











Moon Township Municipal Authority

The Moon Township Municipal Authority serves approximately 6,137 customers in the following municipalities:

Moon Township
Findlay Township

More than 99 percent of the Authority's customers are located in Moon Township.

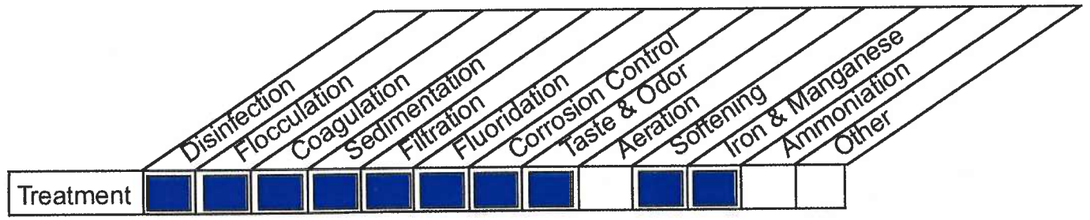
The Authority was formed in 1947. The authority board consists of five members appointed by the Moon Township supervisors.

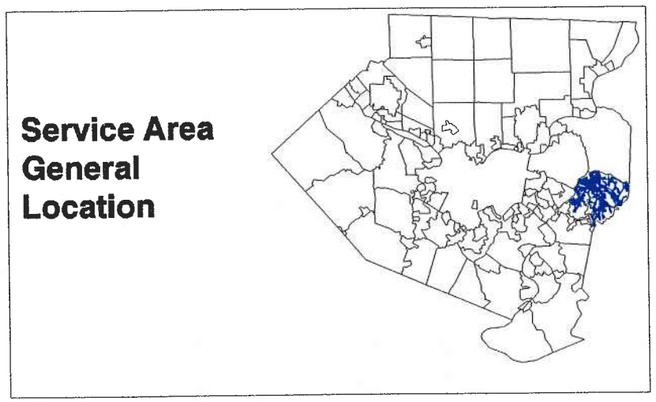
Currently, the Authority obtains its water supply from ground water supplies that are located adjacent to the Ohio River. It recently received a 7.0 mgd allocation of surface water from the Ohio River and is taking steps to construct raw water intake facilities and to modify the treatment plant to process the surface water supply. At the time of this writing, the Authority is completing a study of the treatment plant to identify the required modifications. Currently, there are no plans to increase the capacity of the plant, but the new intake facilities will permit the entire 5.18 mgd plant capacity to be utilized. The processes currently employed at the water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates five distribution system water storage facilities (including an elevated tank constructed in 1995), and four booster pumping stations.

During the past five years, the Authority has experienced a 7.1 percent increase in the total number of customers served. Total daily water use in 1993 averaged 3.384 million gallons per day.

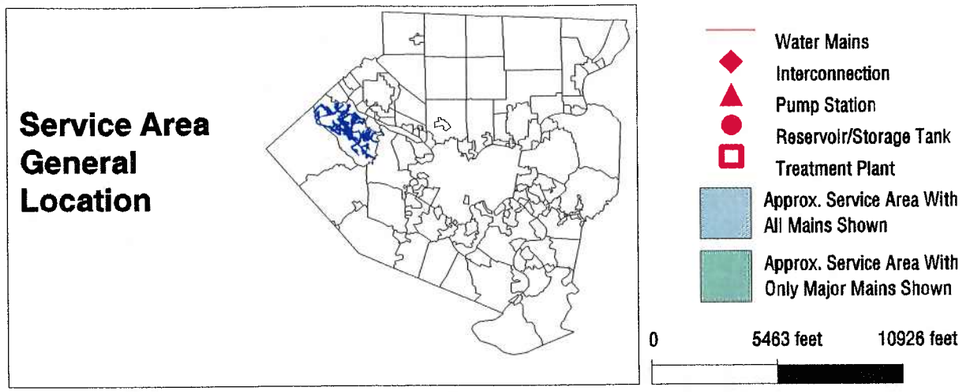
The total service population is projected to increase from approximately 17,314 persons in 1993 to approximately 26,994 by the year 2015. Average daily water sales are projected to increase from 3.384 mgd (4.069 mgd maximum day) in 1993 to 3.949 mgd (5.363 mgd maximum day) in the year 2015. During 1993, the Authority sold approximately 0.5 mgd of water to the Findlay Township Water Authority. The Findlay Township Water Authority has committed to reducing its purchases of water from the Moon Township Municipal Authority to no more than 15% of its needs by 1996. This will significantly reduce the Authority's bulk water sales and has been reflected in the year 2015 demand projections.

Once the planned supply and treatment modifications are completed, the Authority's source of supply will exceed projected demands and the treatment capacity will be marginally adequate through year 2015. Distribution system storage capacity is sufficient to provide more than a 1-day storage volume throughout the planning period. The Authority has emergency interconnections between the Coraopolis Borough, Municipal Authority of Robinson Township, Western Allegheny County Municipal Authority, and Findlay Township systems. These connections, plus the distribution system storage, are sufficient to provide a 3-day emergency supply under current conditions. However, less than a 2-day emergency supply will be available under year 2015 conditions. It is, therefore, recommended that the Authority secure additional emergency supply capacity by increasing emergency connection sources and/or the construction of additional distribution system storage facilities. If additional emergency supplies cannot be obtained, 2.0 million gallons of additional storage capacity will be required to meet the 3-day emergency supply target. The cost of providing this storage, assuming the construction of one 2.0 million gallon ground storage tanks is estimated to be $1,000,000.

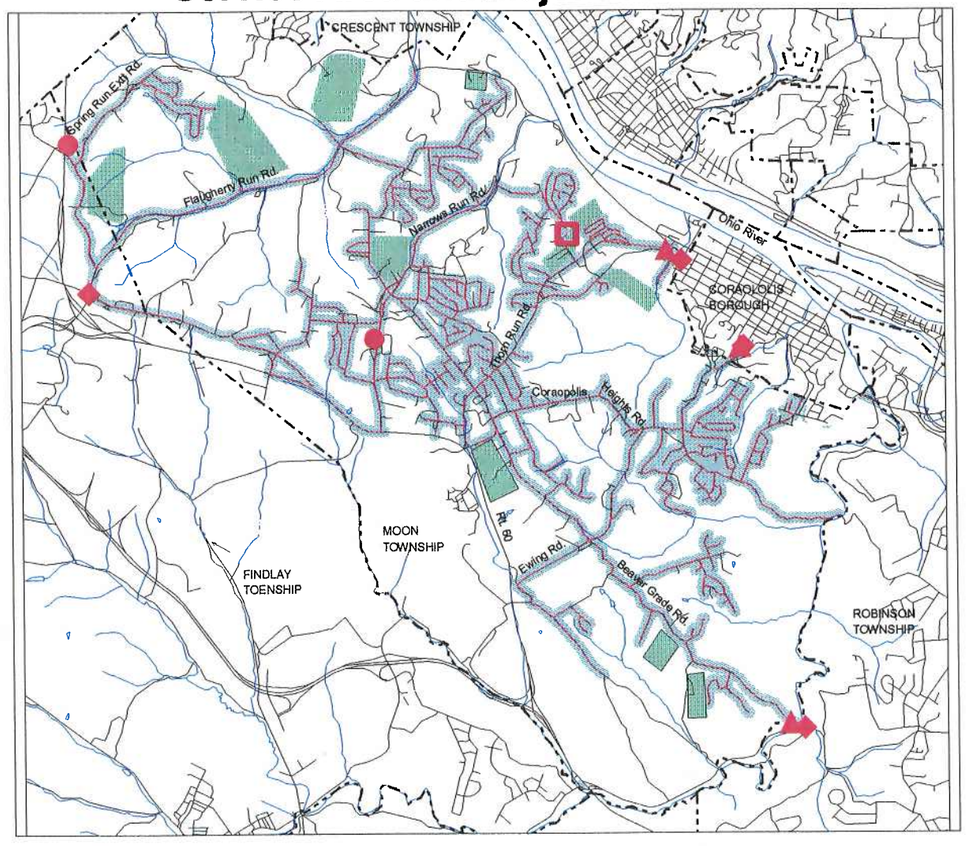




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



Moon Township Municipal Authority

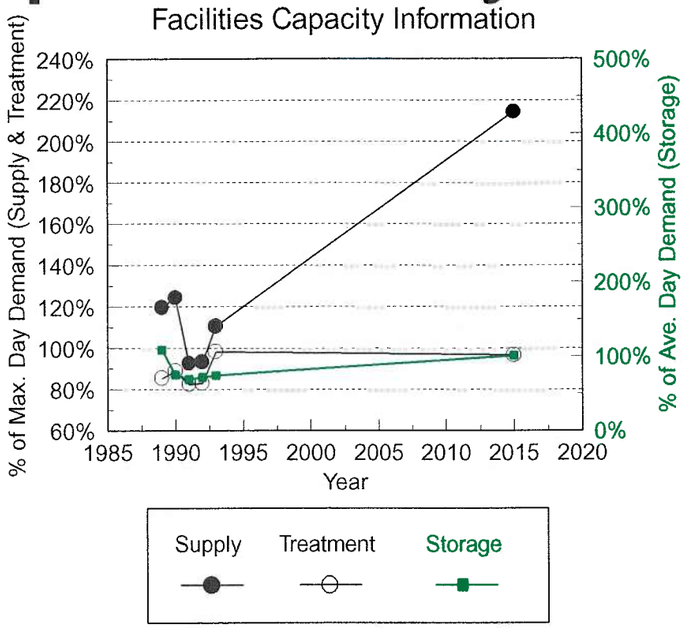
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	5.60	5.60	4.50	4.50	4.50	11.50
Groundwater	5.60	5.60	4.50	4.50	4.50	4.50
Ohio River						7.00
Treatment / Pumping Facility Capacity (mgd)	4.00	4.00	4.00	4.00	4.00	5.18
Total Treated Water Storage (million gallons)	3.35	2.53	2.53	2.53	2.53	4.03
Total Supply Source(s) Capacity (% of max. day)	119.6%	124.4%	92.6%	93.4%	110.6%	214.4%
Treatment / Pumping Facility Capacity (% of max. day)	85.4%	88.8%	82.4%	83.0%	98.3%	96.6%
Total Treated Water Storage (% of ave. day))	109.3%	75.8%	69.6%	72.0%	74.7%	102.0%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	92%	83%	100%	100%	

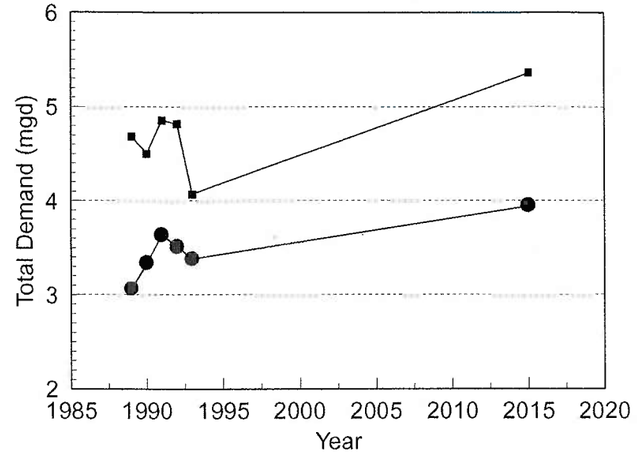
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	3.067	3.337	3.634	3.513	3.384	3.949
Maximum Day Total Water Use (mgd)	4.682	4.502	4.857	4.819	4.069	5.363
Average Daily Water Use by Customer Class (mgd)						
Domestic	1.063	1.071	1.159	1.099	1.152	1.796
Commercial	0.689	0.683	0.775	0.741	0.656	0.856
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.426	0.630	0.640	0.635	0.695	0.695
Bulk Sales to Suppliers	0.473	0.488	0.559	0.507	0.498	0.152
Unaccounted for and other	0.415	0.466	0.501	0.530	0.386	0.450
Average Daily Water Use (gpd/customer)	463	491	526	476	486	348
Average Daily Water Use by Customer Class (% of total)						
Domestic	34.7%	32.1%	31.9%	31.3%	34.0%	45.5%
Commercial	22.5%	20.5%	21.3%	21.1%	19.4%	21.7%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	13.9%	18.9%	17.6%	18.1%	20.5%	17.6%
Bulk Sales to Suppliers	15.4%	14.6%	15.4%	14.4%	14.7%	3.8%
Unaccounted for and other	13.5%	14.0%	13.8%	15.1%	11.4%	11.4%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	5,732	5,848	5,952	6,269	6,167	10,064
Number of Customers by Class						
Domestic	5,384	5,479	5,581	5,886	5,774	9,553
Commercial	346	363	368	380	385	503
Industrial	0	0	0	0	0	0
Institutional	1	5	1	1	6	6
Bulk Sales to Suppliers	1	1	2	2	2	2
Estimated Service Population	16,145	16,429	16,735	17,650	17,314	26,994
Number of Customers by Class (% of total)						
Domestic	93.9%	93.7%	93.8%	93.9%	93.6%	94.9%
Commercial	6.0%	6.2%	6.2%	6.1%	6.2%	5.0%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

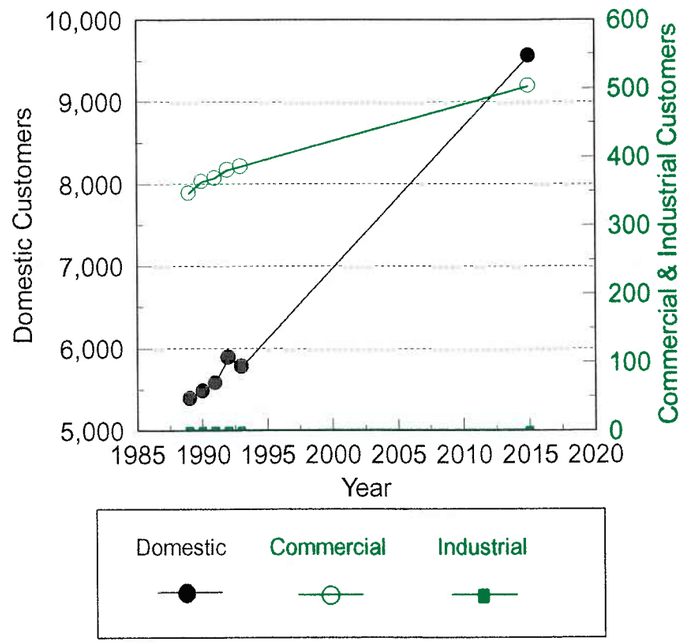
Facilities Capacity Information



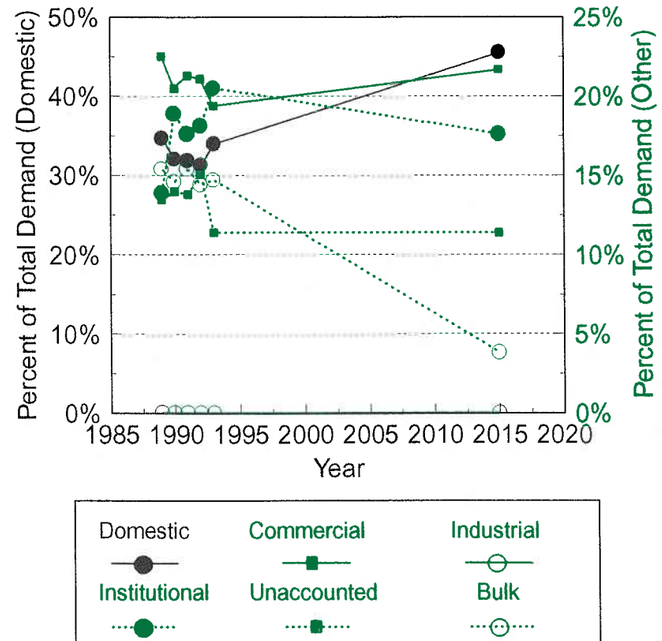
Water Demand Information



Customer Base Information



Distribution of Demand by Class



Moon Township Municipal Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,821,303
Dollars per 1,000 gallons sold	$1.66
Other Revenues	$173,194
TOTAL OPERATING REVENUES	$1,994,497
Dollars per 1,000 gallons sold	$1.82
Expenses	
Operating Expenses	
Total dollars per year	$1,991,965
Dollars per 1,000 gallons sold	$1.82
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$0
TOTAL EXPENSES	$1,991,965
Dollars per 1,000 gallons sold	$1.82
Net Revenues (dollars)	$2,532
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$137.97
% of Median Household Income	0.33%
Retained Earnings	$34,215,107
Retained Earnings ($/customer)	$5,548.10

Legend

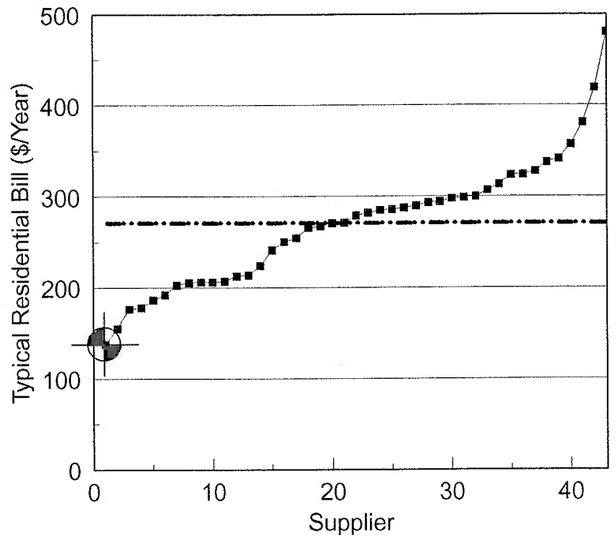
Value for this supplier

Mean value for all suppliers reporting data

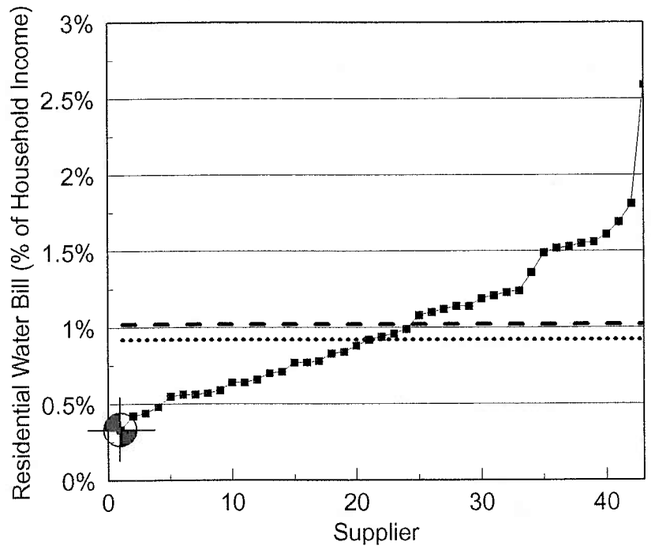
Median value for all suppliers reporting data

Individual supplier data

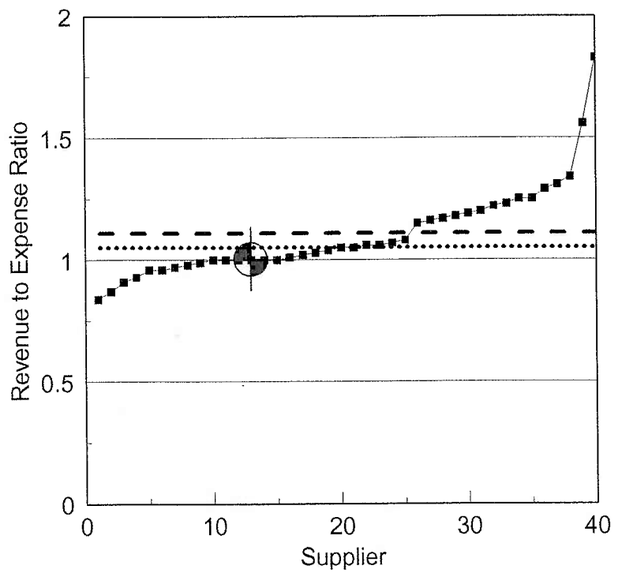
Typical Residential Water Bill
(Dollars Per Year)



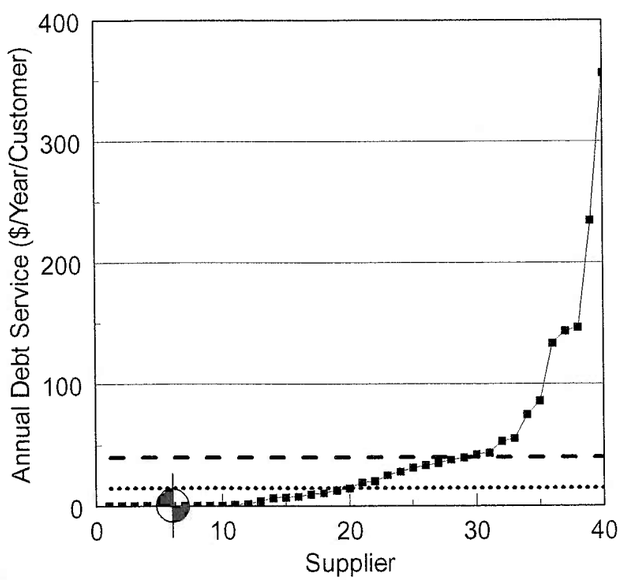
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Neville Township

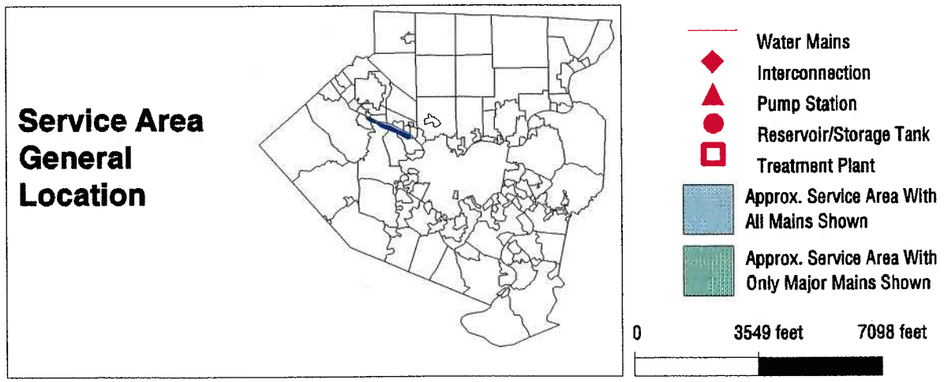
Neville Township serves approximately 638 customers in Neville Township.

The water system is owned and operated by Neville Township.

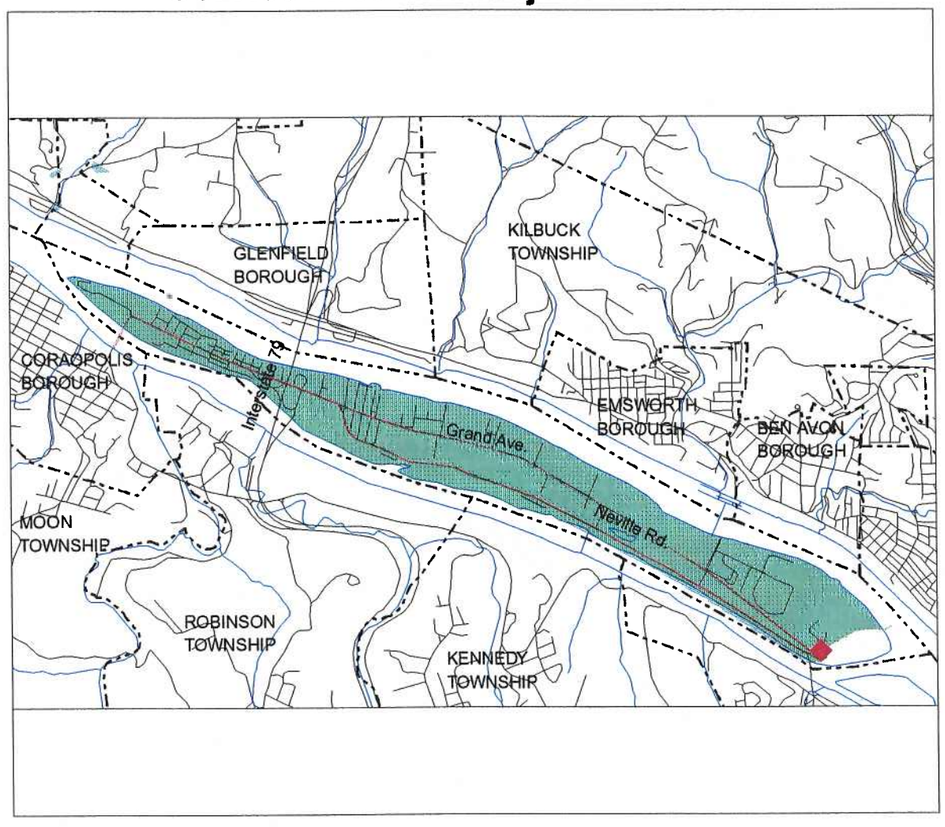
The Township purchases its water supply in bulk from the West View Borough Municipal Authority. The Township operates no treatment facilities, no distribution storage facilities, and no booster pumping stations.

During the past five years, the number of customers served by the Township has remained essentially stable at approximately 640 customers. Total daily water use in 1993 averaged 0.617 million gallons per day (mgd).

The total service population is projected to increase from approximately 1,273 persons in 1993 to approximately 1,296 by the year 2015. Average daily water demands are projected to increase from 0.617 mgd (0.934 mgd maximum day) in 1993 to 0.627 mgd (1.087 mgd maximum day) in the year 2015. The current water supply commitment from the Township's supplier is sufficient to meet the current and projected demands. The Township operates no distribution storage facilities. Instead it relies upon the storage provided by its water supplier. The West View Borough Municipal Authority is expected to have sufficient distribution system storage facilities to provide at least a 1-day storage volume through the year 2015. However, a 3-day emergency water supply for the West View system is not presently available. A water line has been constructed across the Coraopolis-Neville Island Bridge that could provide an interconnection between the Neville Township and Coraopolis Borough systems. This line could also be used to complete a connection with the Robinson Township Municipal Authority. At the present time, no interconnections have been established. Such interconnections would increase the emergency supply capabilities of both of each of the systems. It is, therefore, recommended that at least one interconnection be established. The estimated cost of constructing the interconnection is $50,000, including valves, meter, and vault at one point of connection.



Service Area and Major Facilities



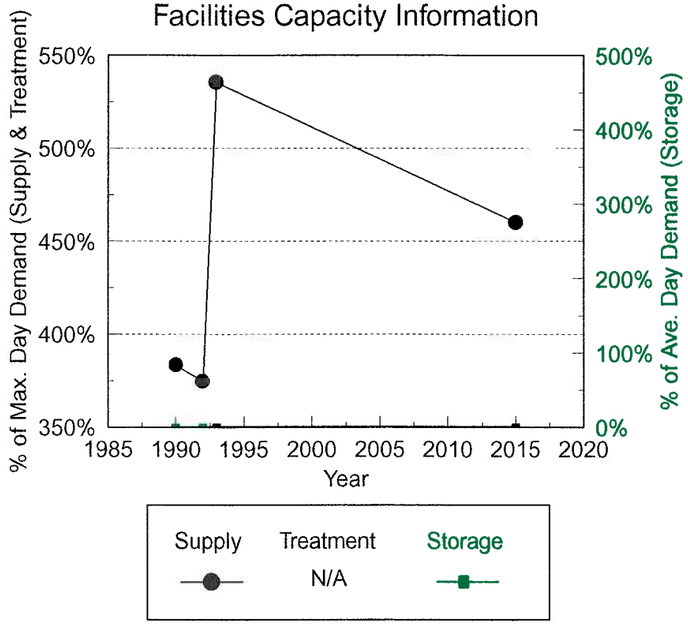
Neville Township

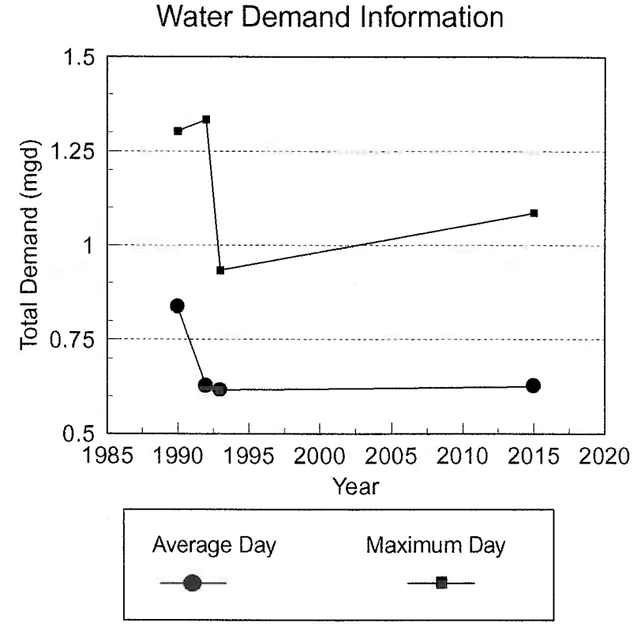
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	5.00	5.00	5.00	5.00	5.00	5.00
West View Borough Water Authority	5.00	5.00	5.00	5.00	5.00	5.00
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)		383.4%		374.8%	535.3%	459.9%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))		0.0%		0.0%	0.0%	0.0%

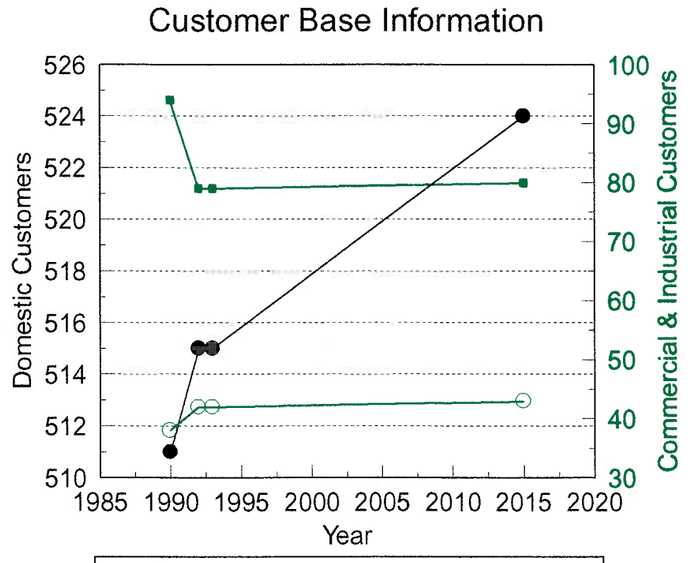
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	83%	100%	100%	

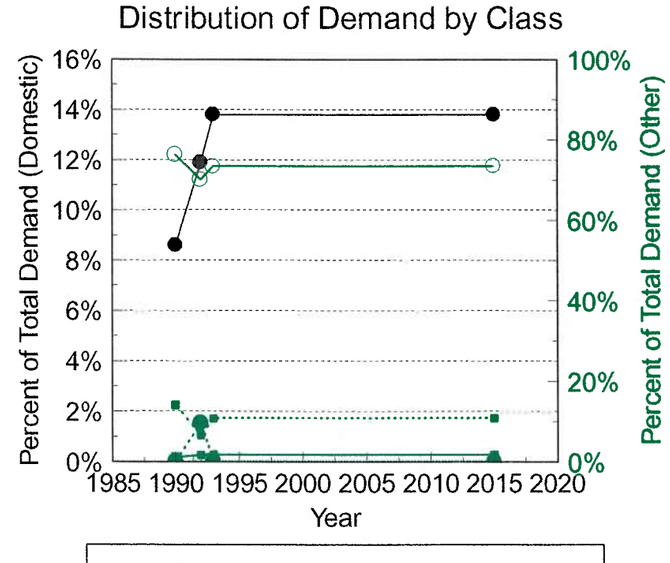
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)		0.837		0.627	0.617	0.627
Maximum Day Total Water Use (mgd)		1.304		1.334	0.934	1.087
Average Daily Water Use by Customer Class (mgd)						
Domestic		0.072		0.075	0.085	0.086
Commercial		0.010		0.011	0.011	0.011
Industrial		0.638		0.439	0.453	0.461
Institutional		0.000		0.061	0.001	0.001
Bulk Sales to Suppliers		0.000		0.000	0.000	0.000
Unaccounted for and other		0.117		0.042	0.067	0.068
Average Daily Water Use (gpd/customer)		1120		920	862	861
Average Daily Water Use by Customer Class (% of total)						
Domestic		8.6%		11.9%	13.8%	13.8%
Commercial		1.2%		1.7%	1.8%	1.8%
Industrial		76.2%		70.0%	73.4%	73.5%
Institutional		0.0%		9.7%	0.1%	0.1%
Bulk Sales to Suppliers		0.0%		0.0%	0.0%	0.0%
Unaccounted for and other		14.0%		6.7%	10.8%	10.8%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers		643		636	638	650
Number of Customers by Class						
Domestic		511		515	515	524
Commercial		38		42	42	43
Industrial		94		79	79	80
Institutional		0		0	2	2
Bulk Sales to Suppliers		0		0	0	0
Estimated Service Population	1,273	1,273	1,273	1,273	1,273	1,296
Number of Customers by Class (% of total)						
Domestic		79.5%		81.0%	80.7%	80.7%
Commercial		5.9%		6.6%	6.6%	6.6%
Industrial		14.6%		12.4%	12.4%	12.4%
Institutional		0.0%		0.0%	0.3%	0.3%
Bulk Sales to Suppliers		0.0%		0.0%	0.0%	0.0%









Neville Township

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	
Dollars per 1,000 gallons sold	
Other Revenues	
TOTAL OPERATING REVENUES	
Dollars per 1,000 gallons sold	
Expenses	
Operating Expenses	
Total dollars per year	
Dollars per 1,000 gallons sold	
Debt Service	
Total dollars per year	
Dollars per customer served	
Other Expenses	
TOTAL EXPENSES	
Dollars per 1,000 gallons sold	
Net Revenues (dollars)	
Ratio of revenues to expenses	
Average Annual Residential Bill	
Dollars per year per customer	$265.75
% of Median Household Income	1.14%
Retained Earnings	
Retained Earnings ($/customer)	

Revenue and expense data unavailable

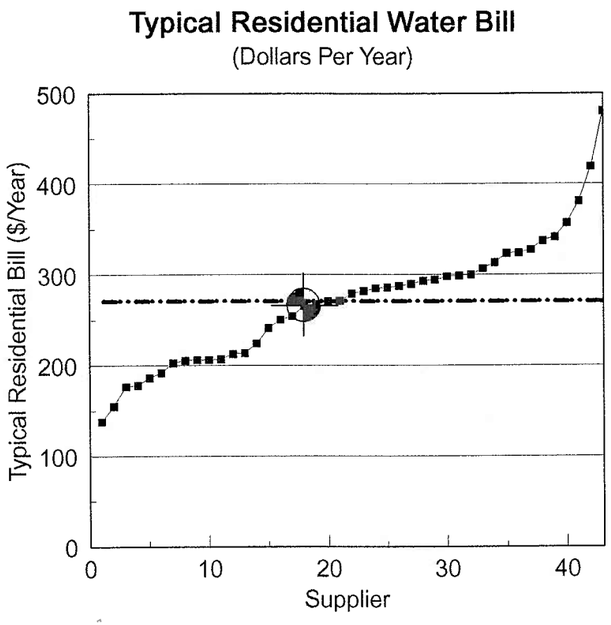
Legend

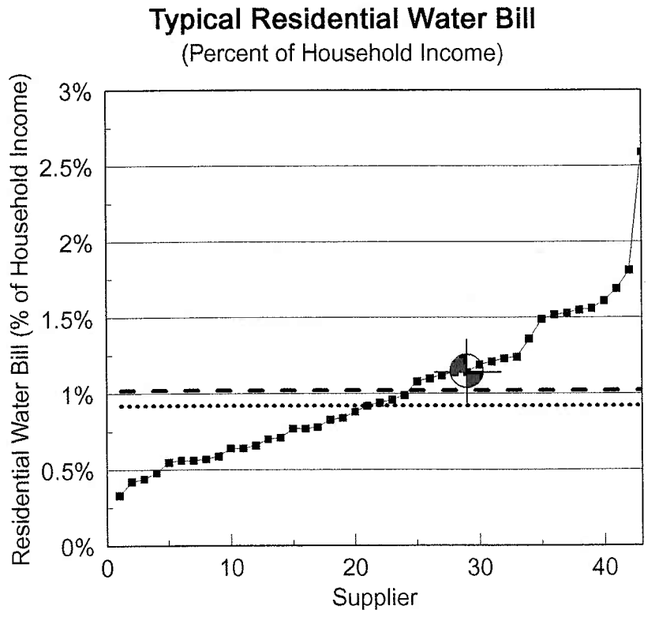
Value for this supplier

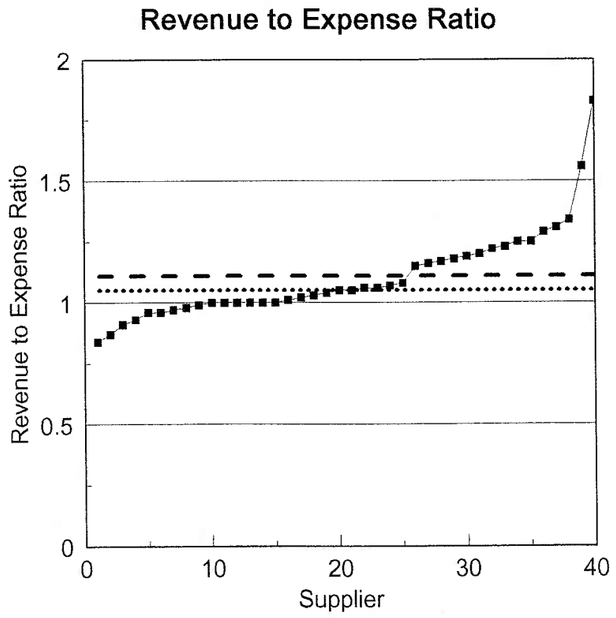
Mean value for all suppliers reporting data

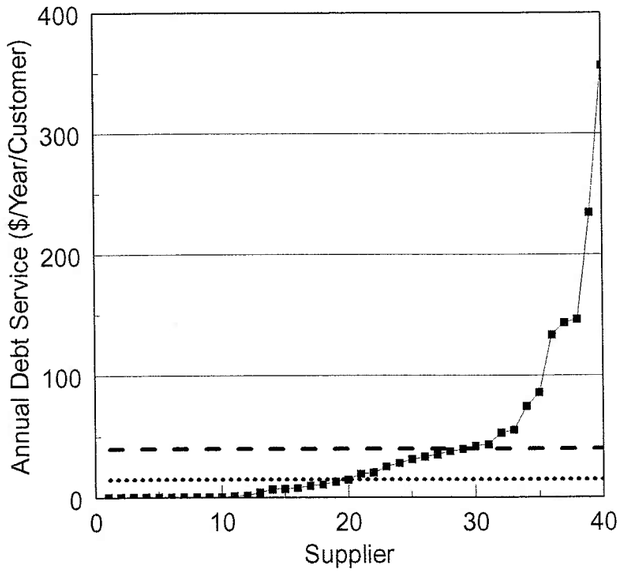
Median value for all suppliers reporting data

Individual supplier data









North Versailles Township Authority

The North Versailles Township Authority serves approximately 4,287 customers in the following municipalities:

East McKeesport Borough
North Versailles Township

More than 99 percent of the Authority's customers are located in North Versailles Township. The North Versailles Township Authority was established in 1941. The authority board is composed of five members who are appointed by the North Versailles Township supervisors.

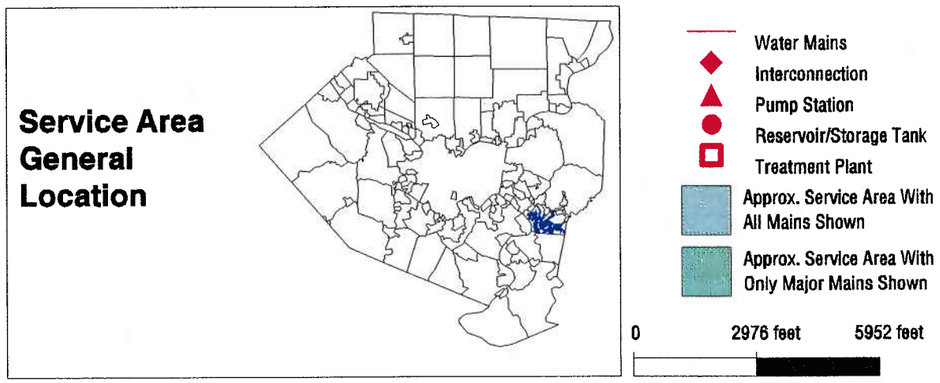
The Authority purchases its water supply in bulk from the following suppliers:

Westmoreland County Municipal Authority
Wilkinsburg-Penn Joint Water Authority

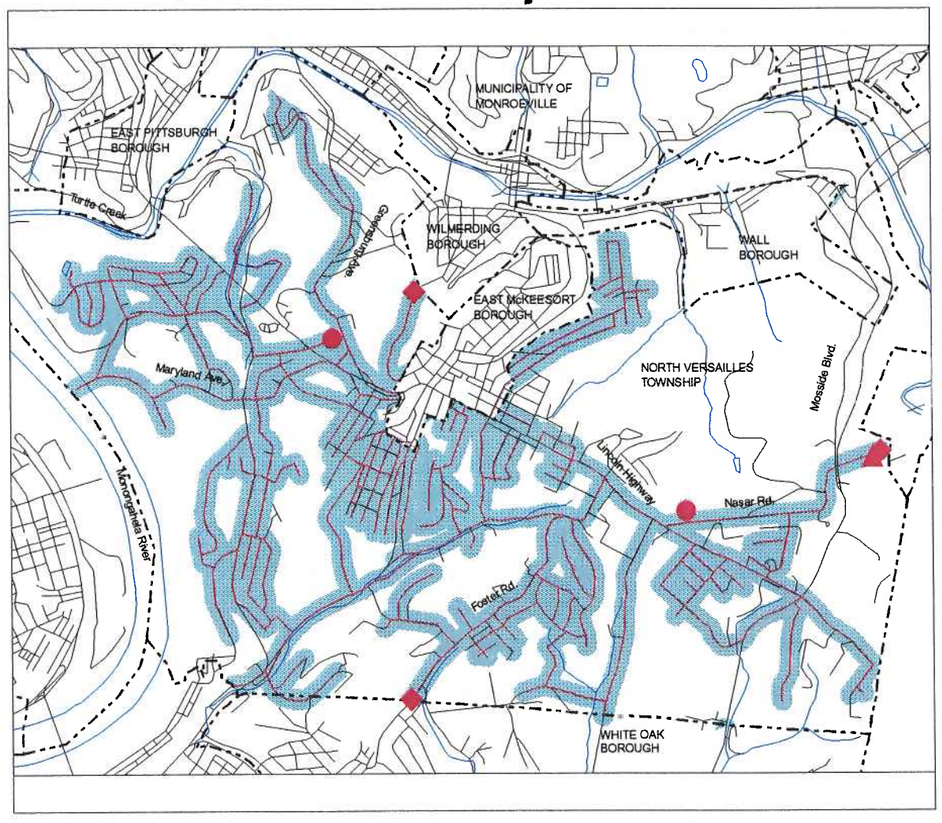
The Authority operates no treatment facilities, three distribution system storage facilities, and two booster pumping stations.

During the past five years, the Authority has experienced a 0.9 percent rise in the total number of customers served. Total daily water use in 1993 averaged 1.254 million gallons per day (mgd).

The total service population is projected to increase from approximately 11,424 persons in 1993 to approximately 13,781 by the year 2015. Average daily water demands are projected to increase from 1.254 mgd (0.1.622 mgd maximum day) in 1993 to 1.459 mgd (estimated 1.758 mgd maximum day) in the year 2015. These demands are within the current combined capacity of the Authority's sources of supply. The distribution system water storage are expected to provide in excess of a 1-day storage volume through the year 2015. There are presently no emergency interconnections to the North Versailles system, although the fact that the Authority purchases water from two separate suppliers improves reliability. The available data indicates that less than a 3-day emergency supply is not available if the supply from the largest supplier, the Westmoreland County Municipal Authority, is interrupted. However, both the Westmoreland County and Wilkinsburg-Penn systems have approximately a 3-day emergency supply throughout the design period. Therefore, the North Versailles system satisfies the 3-day emergency supply target.



Service Area and Major Facilities



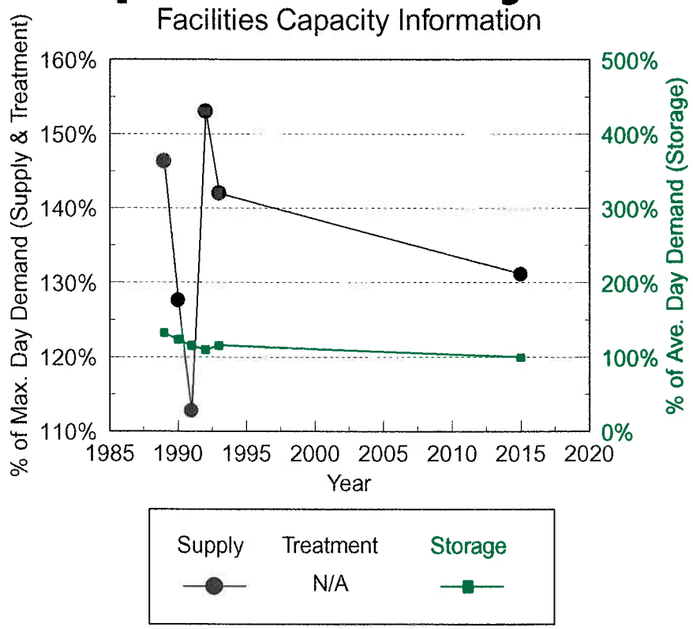
North Versailles Township Authority

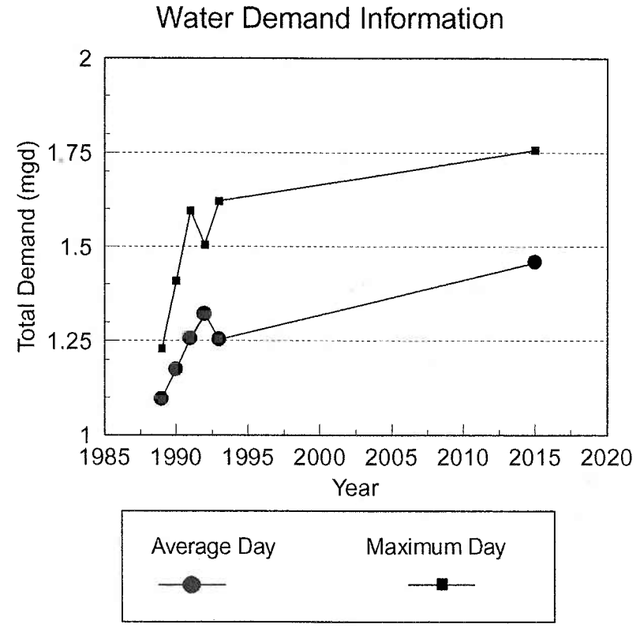
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.80	1.80	1.80	2.30	2.30	2.30
Municipal Authority of Westmoreland County	1.80	1.80	1.80	1.80	1.80	1.80
Wilkinsburg Penn Joint Water Authority				0.50	0.50	0.50
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	1.46	1.46	1.46	1.46	1.46	1.46
Total Supply Source(s) Capacity (% of max. day)	146.3%	127.6%	112.8%	153.0%	142.0%	131.1%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	133.0%	124.2%	116.1%	110.5%	116.4%	100.0%

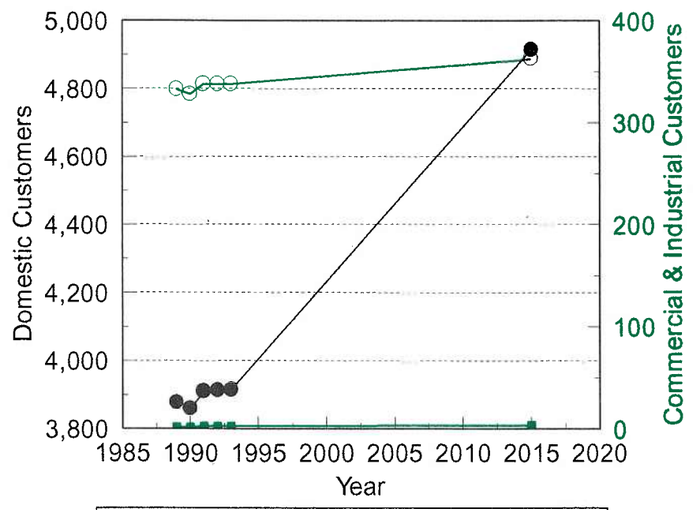
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	92%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	83%	

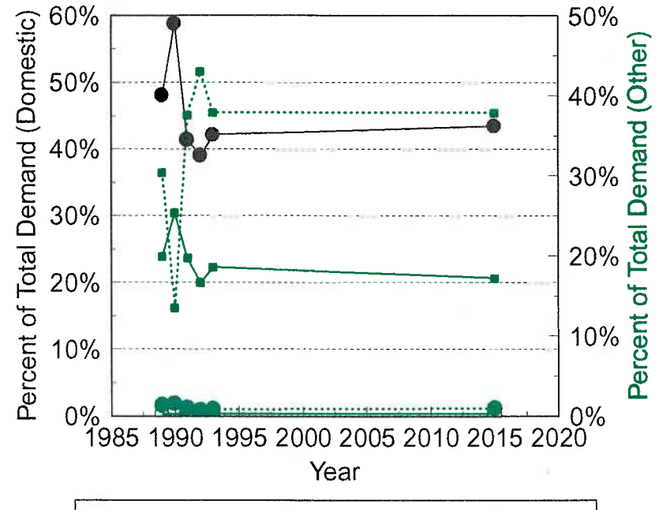
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.097	1.175	1.257	1.321	1.254	1.459
Maximum Day Total Water Use (mgd)	1.230	1.410	1.596	1.506	1.622	1.758
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.527	0.692	0.521	0.516	0.528	0.635
Commercial	0.218	0.299	0.247	0.220	0.233	0.250
Industrial	0.003	0.004	0.004	0.007	0.005	0.006
Institutional	0.015	0.019	0.013	0.011	0.012	0.014
Bulk Sales to Suppliers	0.000	0.003	0.000	0.000	0.000	0.000
Unaccounted for and other	0.333	0.158	0.472	0.568	0.476	0.554
Average Daily Water Use (gpd/customer)	180	241	183	176	182	170
Average Daily Water Use by Customer Class (% of total)						
Domestic	48.0%	58.8%	41.4%	39.0%	42.1%	43.5%
Commercial	19.9%	25.4%	19.7%	16.7%	18.6%	17.2%
Industrial	0.3%	0.3%	0.3%	0.5%	0.4%	0.4%
Institutional	1.4%	1.6%	1.0%	0.8%	0.9%	1.0%
Bulk Sales to Suppliers	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	30.4%	13.5%	37.6%	43.0%	37.9%	37.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	4,243	4,220	4,282	4,286	4,287	5,318
Number of Customers by Class						
Domestic	3,878	3,860	3,910	3,913	3,914	4,914
Commercial	333	328	338	338	338	363
Industrial	2	2	3	3	3	4
Institutional	29	29	30	31	31	37
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	11,319	11,266	11,412	11,421	11,424	13,781
Number of Customers by Class (% of total)						
Domestic	91.4%	91.5%	91.3%	91.3%	91.3%	92.4%
Commercial	7.8%	7.8%	7.9%	7.9%	7.9%	6.8%
Industrial	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
Institutional	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









North Versailles Township Authority

Financial Data	
Revenues	
Sales	
Total dollars per year	$1,394,917
Dollars per 1,000 gallons sold	$4.91
Other Revenues	$20,062
TOTAL OPERATING REVENUES	$1,414,979
Dollars per 1,000 gallons sold	$4.98
Expenses	
Operating Expenses	
Total dollars per year	$1,201,409
Dollars per 1,000 gallons sold	$4.23
Debt Service	$0
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$116,555
TOTAL EXPENSES	$1,317,964
Dollars per 1,000 gallons sold	$4.64
Net Revenues (dollars)	$97,015
Ratio of revenues to expenses	1.07
Average Annual Residential Bill	
Dollars per year per customer	$341.48
% of Median Household Income	1.36%
Retained Earnings	$1,135,002
Retained Earnings ($/customer)	$264.75

Legend

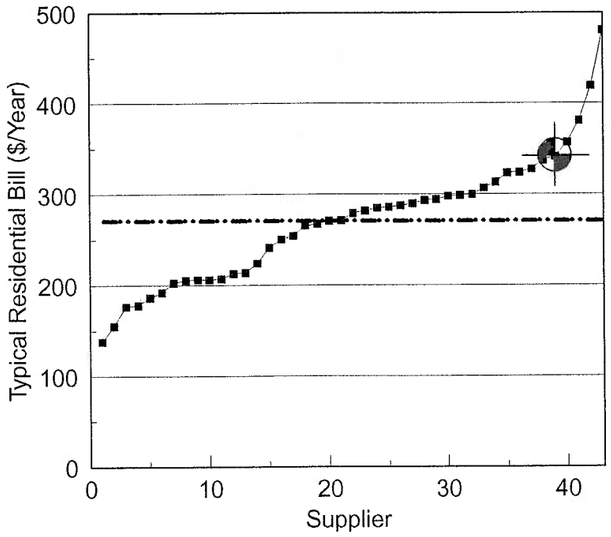
Value for this supplier

Mean value for all suppliers reporting data

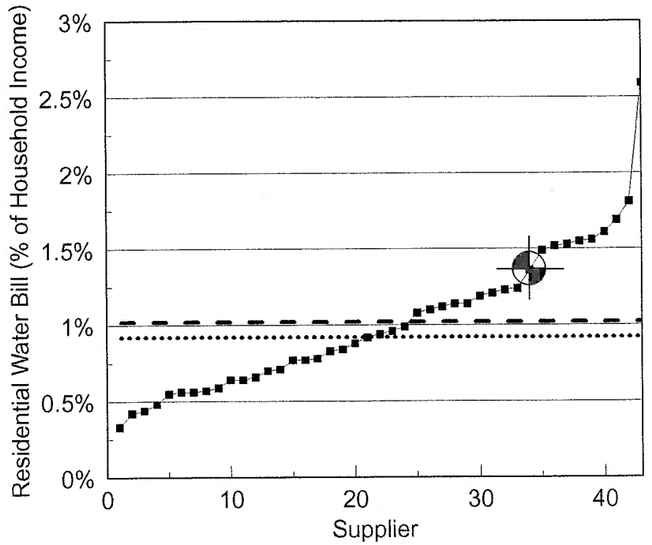
Median value for all suppliers reporting data

Individual supplier data

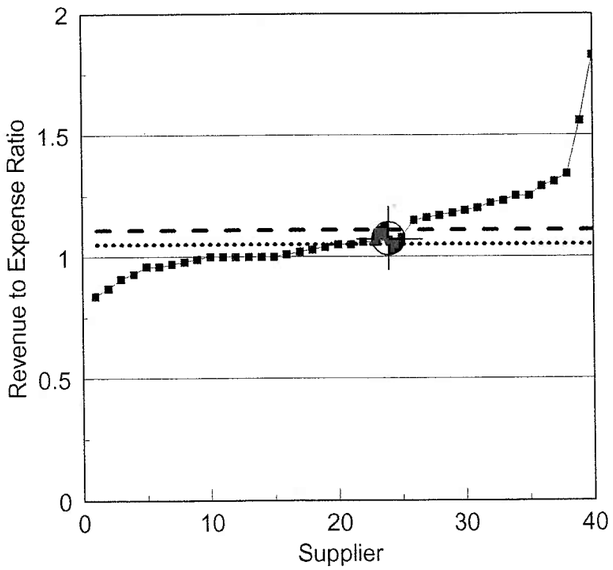
Typical Residential Water Bill
(Dollars Per Year)



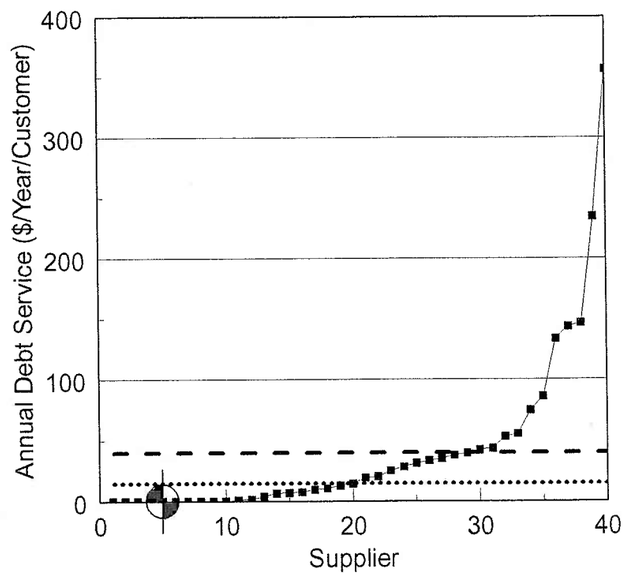
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Oakdale Borough

Oakdale Borough serves approximately 676 customers in the following municipalities:

North Fayette Township
Oakdale Borough
South Fayette Township

More than 98 percent of the customers served by Oakdale Borough are situated in the Borough.

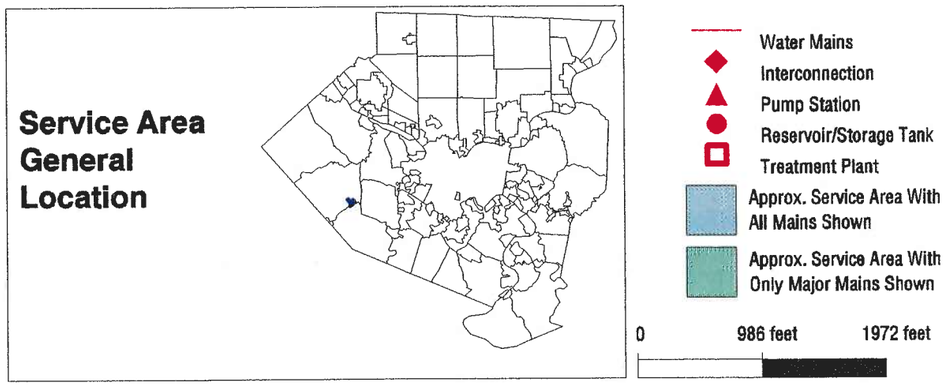
The water system is owned and operated by Oakdale Borough.

The Borough purchases its water supply in bulk from the Pennsylvania American Water Company.

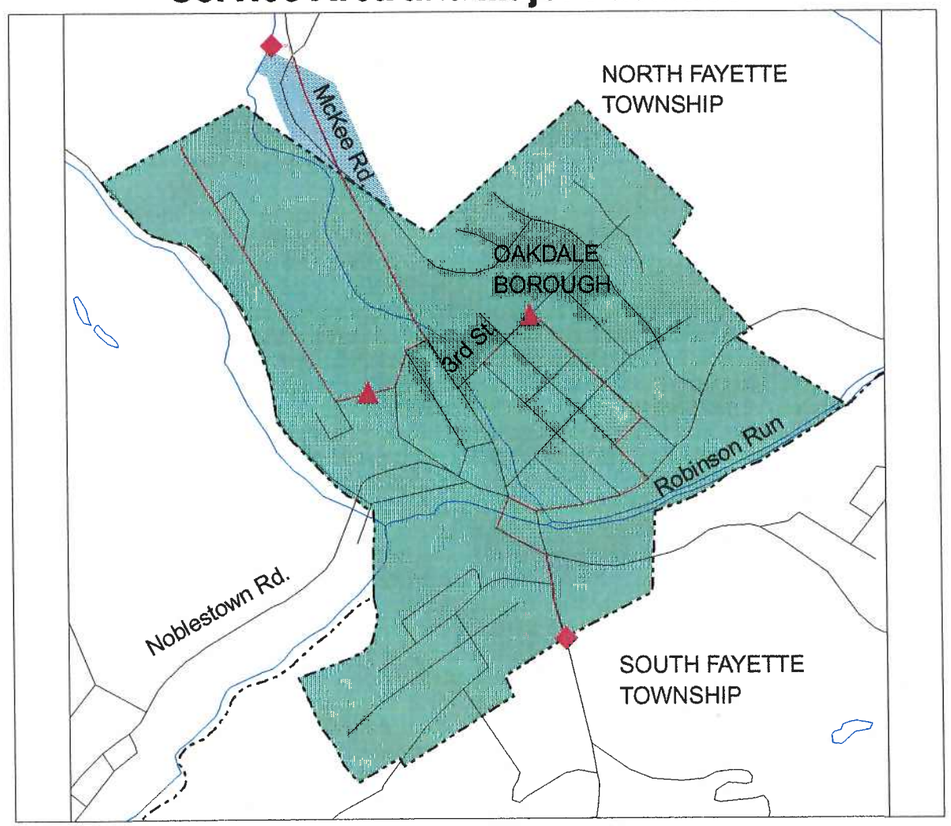
The Borough operates no treatment facilities, no distribution storage facilities, and two booster pumping stations.

During the past five years, the number of customers served by the Borough has remained relatively stable at approximately 680 customers. Total daily water use in 1993 averaged 0.132 million gallons per day (mgd).

The total service population is projected to increase from approximately 1,776 persons in 1993 to approximately 1,904 by the year 2015. Average daily water demands are projected to increase from 0.132 mgd (0.189 mgd maximum day) in 1993 to 0.141 mgd (0.202 mgd maximum day) in the year 2015. The water supply commitment from the Borough's supplier is sufficient to meet the current and projected demands. The Borough operates no distribution system storage facilities. Instead, it relies upon distribution storage maintained by the Pennsylvania American Water Company, its water supplier. Due to the small size of the Oakdale system, unless local distribution system requirements necessitate the construction of a storage facility in Oakdale proper, there is no particular need for a storage facility to be located within the Oakdale system. Oakdale Borough has an emergency connection with the Western Allegheny County Municipal Authority. This connection is reported to have a capacity sufficient to provide more than a 3-day emergency supply to the Borough.



Service Area and Major Facilities



Oakdale Borough

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.50	0.50	0.50	0.50	0.50	0.50
Pennsylvania American Water Company	0.50	0.50	0.50	0.50	0.50	0.50
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	195.3%	188.3%	262.2%	256.4%	265.0%	247.9%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

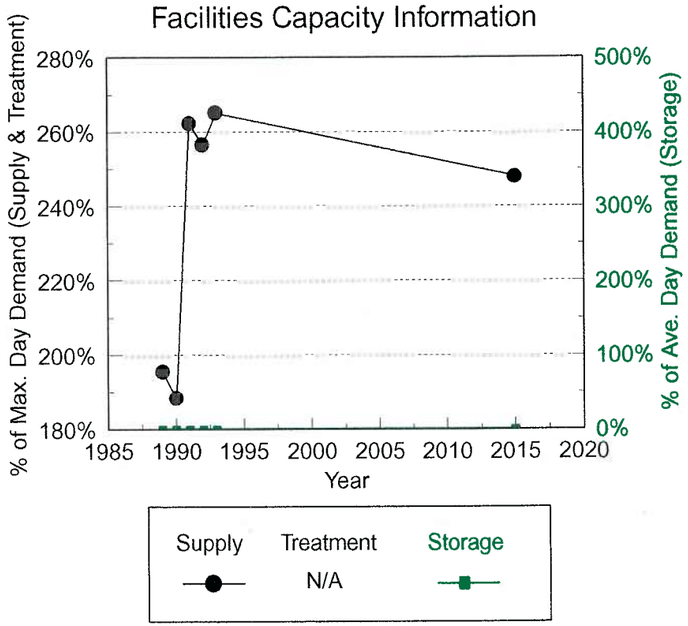
Note: No maximum day supply limit established. Indicated value shown as indicator of sufficient supply

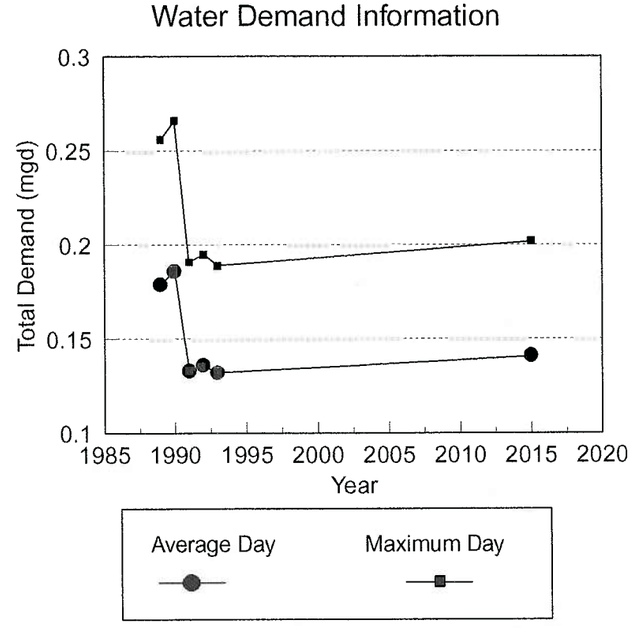
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	92%	100%	92%	

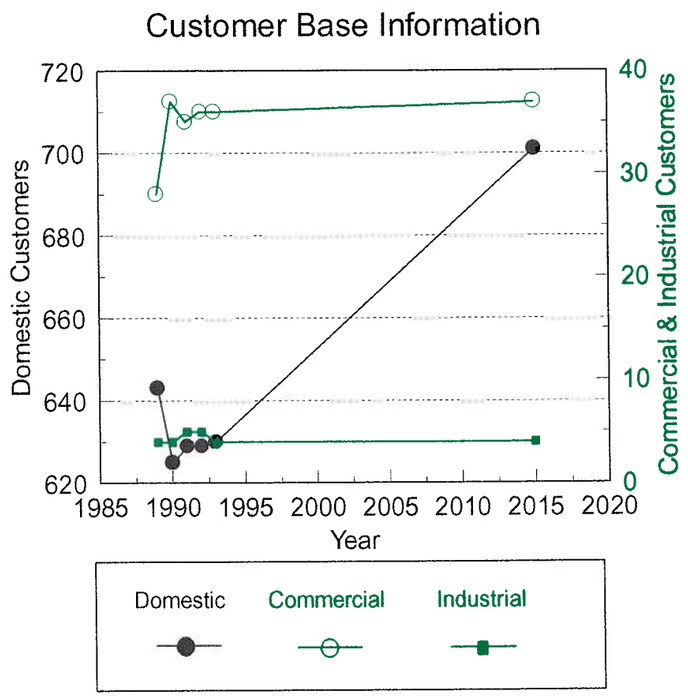
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.179	0.186	0.133	0.136	0.132	0.141
Maximum Day Total Water Use (mgd)	0.256	0.266	0.191	0.195	0.189	0.202
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.106	0.108	0.091	0.092	0.095	0.102
Commercial	0.006	0.003	0.008	0.006	0.008	0.008
Industrial	0.012	0.003	0.009	0.008	0.008	0.008
Institutional	0.001	0.003	0.002	0.001	0.002	0.002
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.055	0.069	0.022	0.030	0.019	0.020
Average Daily Water Use (gpd/customer)	182	173	164	157	167	161
Average Daily Water Use by Customer Class (% of total)						
Domestic	58.9%	58.4%	68.2%	67.2%	72.1%	72.3%
Commercial	3.2%	1.4%	6.3%	4.4%	6.1%	5.8%
Industrial	6.7%	1.7%	7.1%	5.6%	5.9%	5.9%
Institutional	0.4%	1.5%	1.8%	0.6%	1.6%	1.6%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	30.8%	37.1%	16.6%	22.3%	14.4%	14.4%

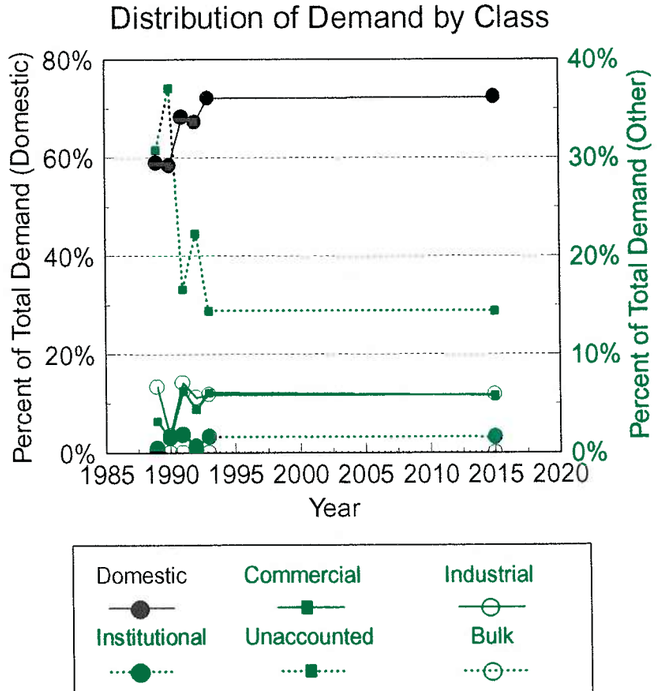
Note: No maximum day demand data reported. Values estimated based upon average demands and county average peaking factor.

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	680	675	678	676	676	749
Number of Customers by Class						
Domestic	643	625	629	629	630	701
Commercial	28	37	35	36	36	37
Industrial	4	4	5	5	4	4
Institutional	5	9	9	6	6	6
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	1,776	1,776	1,776	1,776	1,776	1,904
Number of Customers by Class (% of total)						
Domestic	94.6%	92.6%	92.8%	93.0%	93.2%	93.6%
Commercial	4.1%	5.5%	5.2%	5.3%	5.3%	4.9%
Industrial	0.6%	0.6%	0.7%	0.7%	0.6%	0.6%
Institutional	0.7%	1.3%	1.3%	0.9%	0.9%	0.9%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Oakdale Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$214,449
Dollars per 1,000 gallons sold	$5.20
Other Revenues	$4,358
TOTAL OPERATING REVENUES	$218,807
Dollars per 1,000 gallons sold	$5.31
Expenses	
Operating Expenses	
Total dollars per year	$176,827
Dollars per 1,000 gallons sold	$4.29
Debt Service	
Total dollars per year	$9,689
Dollars per customer served	$14.33
Other Expenses	$0
TOTAL EXPENSES	$186,516
Dollars per 1,000 gallons sold	$4.52
Net Revenues (dollars)	$32,291
Ratio of revenues to expenses	1.17
Average Annual Residential Bill	
Dollars per year per customer	$381.26
% of Median Household Income	1.19%
Retained Earnings	$164,581
Retained Earnings ($/customer)	$243.46

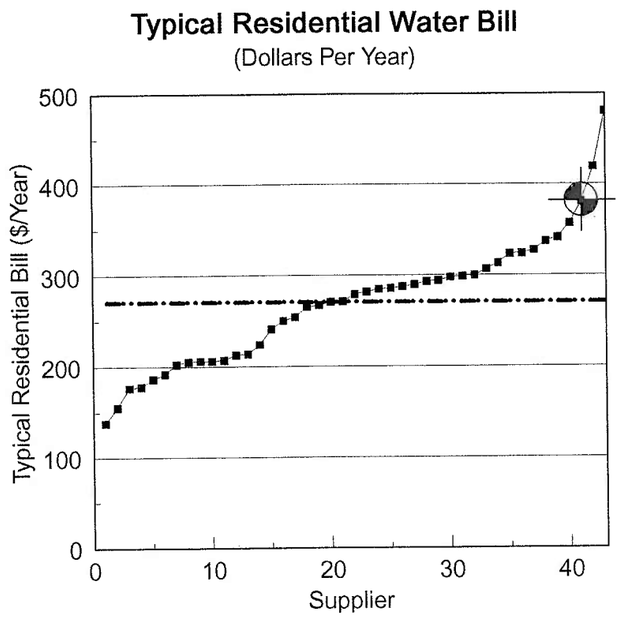
Legend

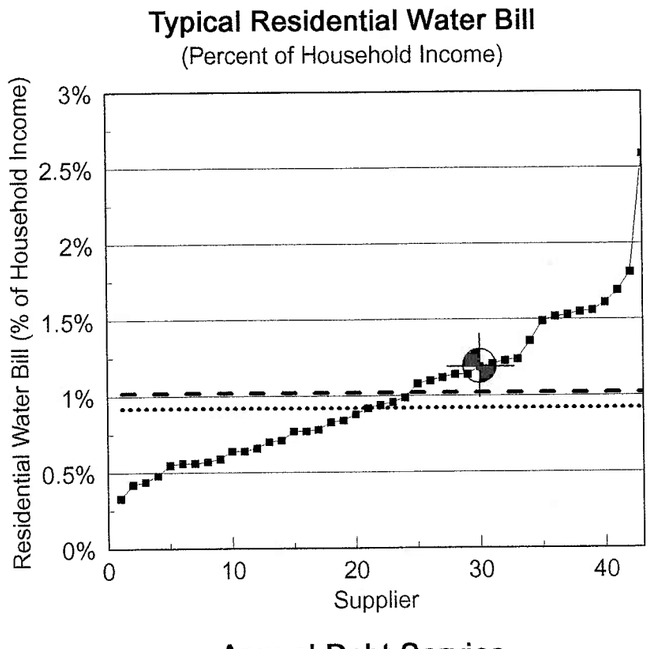
Value for this supplier

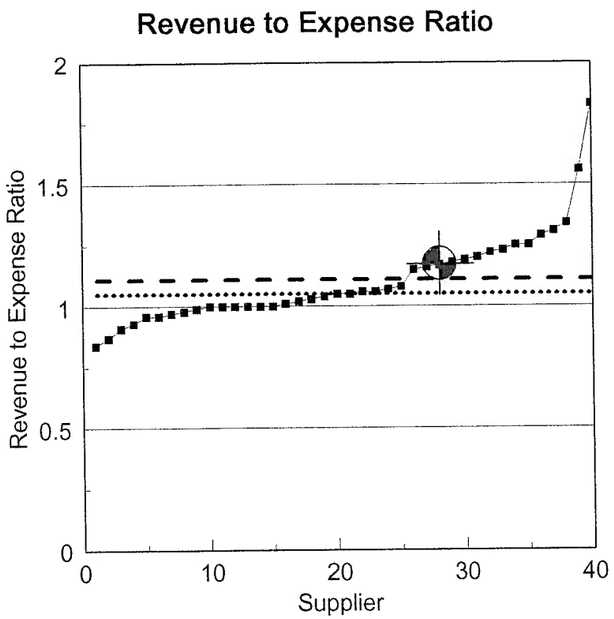
Mean value for all suppliers reporting data

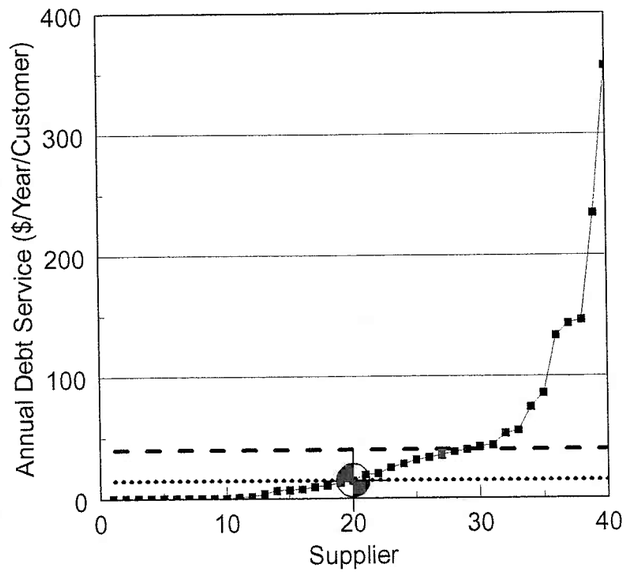
Median value for all suppliers reporting data

Individual supplier data









Borough of Oakmont Municipal Authority

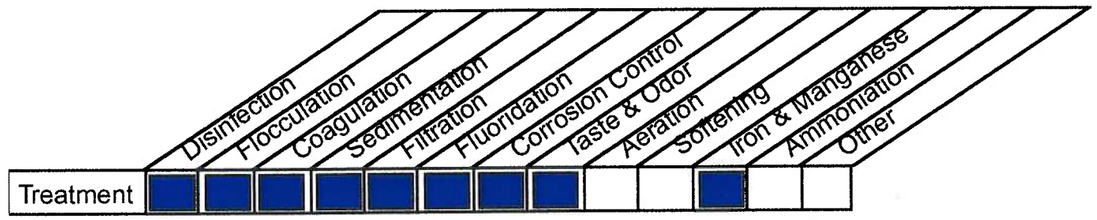
The Municipal Authority of the Borough of Oakmont serves approximately 15,657 customers in the following municipalities:

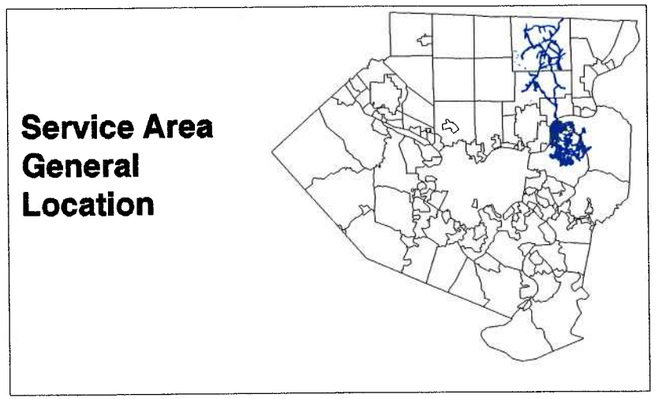
Harmar Township	Plum Borough
Indiana Township	Verona Borough
Oakmont Borough	West Deer Township
Penn Hills Municipality	Middlesex Township (Butler County)

The Authority was established in 1943. The Authority board consists of five members who are appointed by Oakmont Borough council. The Authority obtains its water supply from an intake on the Allegheny River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates fifteen distribution system water storage facilities and eleven booster pumping stations.

During the past five years, the Authority has experienced a 2.7 percent increase in the total number of customers served. Total daily water use in 1993 averaged 5.626 million gallons per day (mgd).

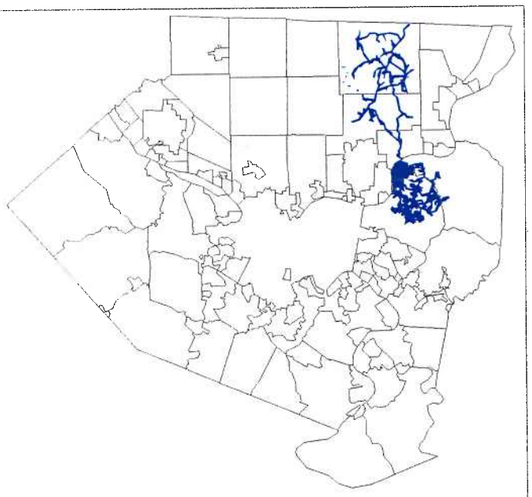
The total service population is projected to increase from approximately 42,264 persons in 1993 to approximately 58,402 by the year 2015. Average daily water demands are projected to increase from 5.626 mgd (7.724 mgd maximum day) in 1993 to 7.616 mgd (10.460 mgd maximum day) in the year 2015. These demands are within the capacity of the Authority's treatment facility; however, the year 2015 maximum day demand exceeds the current surface water allocation. This situation will require that the Authority secure an increase in its allocation by the end of the planning period. The Authority's distribution storage facilities provide more than a 1-day storage volume throughout the planning period. The Authority has an emergency supply connection from the Plum Borough Municipal Authority. However, the capacity of this connection and the available storage is not sufficient to provide a 3-day emergency supply. It is recommended that , if possible, emergency connections be constructed with neighboring water suppliers. If an additional 0.36 mgd of emergency supply capacity can be obtained, the 3-day target can be met through the design year. In the worst case, if additional emergency connections cannot be made, the 3-day target can be met through the construction of an additional 10.0 million gallons of system storage. The cost of providing this additional storage, assuming the construction of two 5.0 million gallon per day ground level reservoirs is estimated to approximate $4,300,000.





SYSTEM MAP LOCATED ON FOLLOWING PAGE

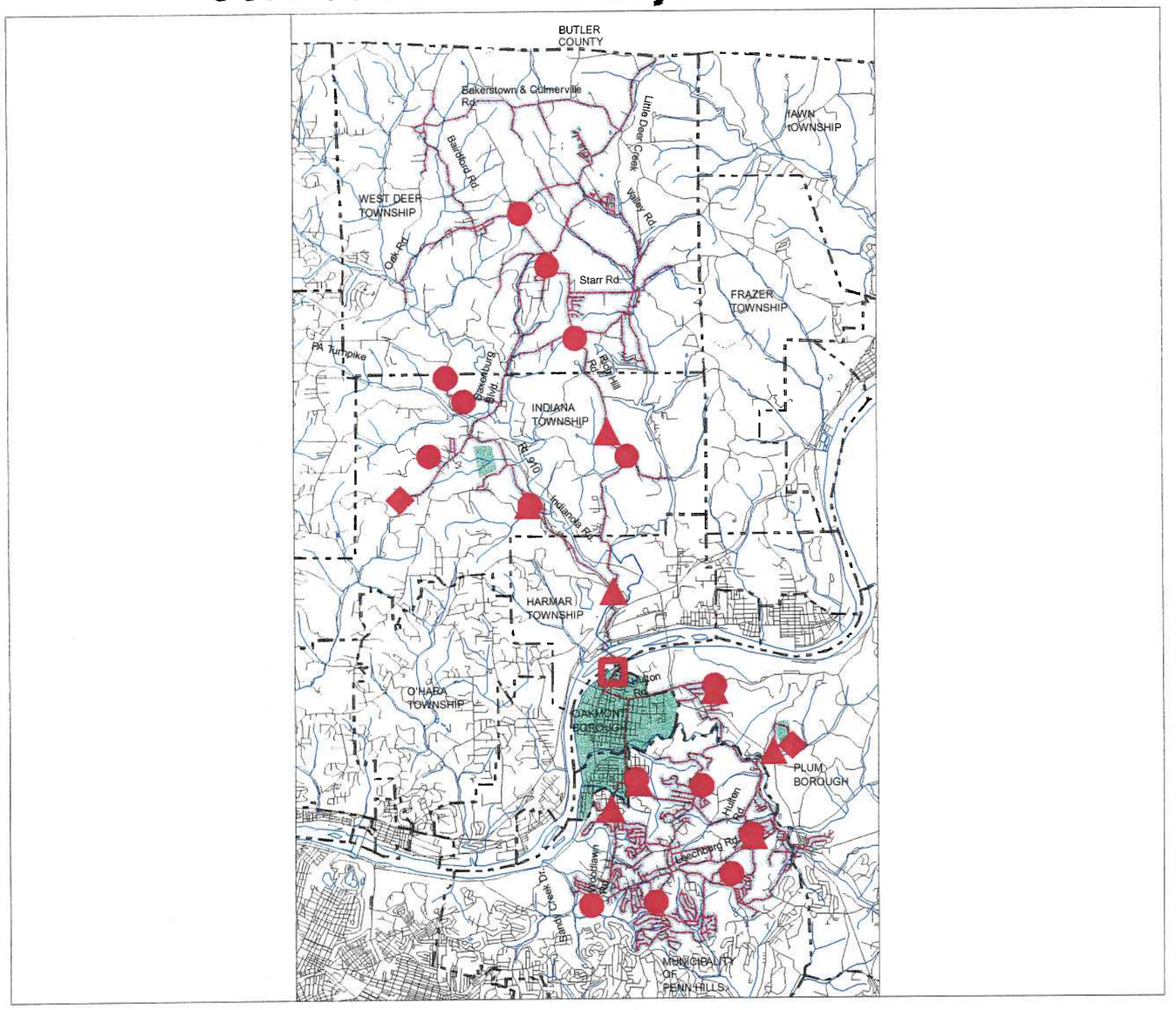
Service Area General Location



Water Mains
Interconnection
Pump Station
Reservoir/Storage Tank
Treatment Plant
Approx. Service Area With All Mains Shown
Approx. Service Area With Only Major Mains Shown

0 12696 feet 25392 feet

Service Area and Major Facilities



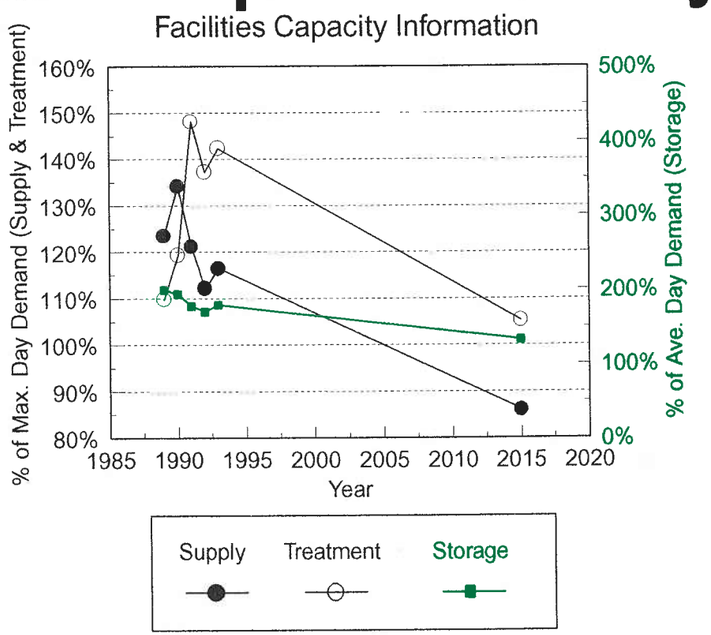
Borough of Oakmont Municipal Authority

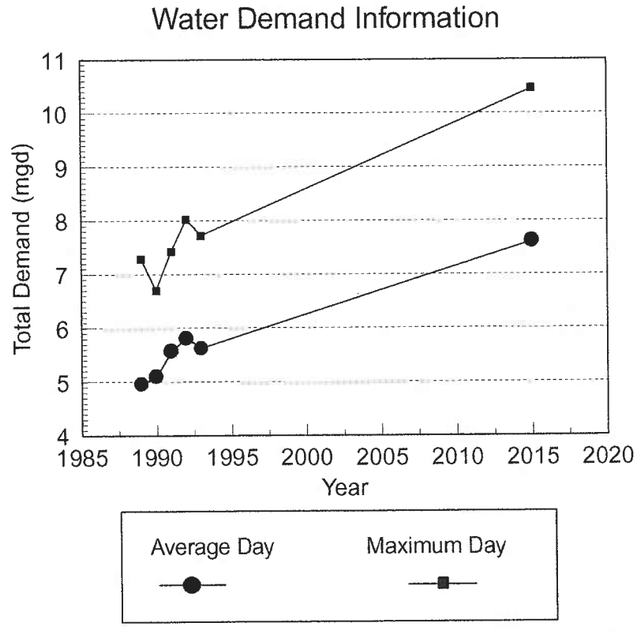
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	9.00	9.00	9.00	9.00	9.00	9.00
Allegheny River	9.00	9.00	9.00	9.00	9.00	9.00
Treatment / Pumping Facility Capacity (mgd)	8.00	8.00	11.00	11.00	11.00	11.00
Total Treated Water Storage (million gallons)	9.90	9.90	9.90	9.90	10.09	10.09
Total Supply Source(s) Capacity (% of max. day)	123.5%	134.2%	121.2%	112.2%	116.5%	86.0%
Treatment / Pumping Facility Capacity (% of max. day)	109.8%	119.3%	148.1%	137.2%	142.4%	105.2%
Total Treated Water Storage (% of ave. day))	199.5%	194.0%	177.6%	170.3%	179.3%	132.4%

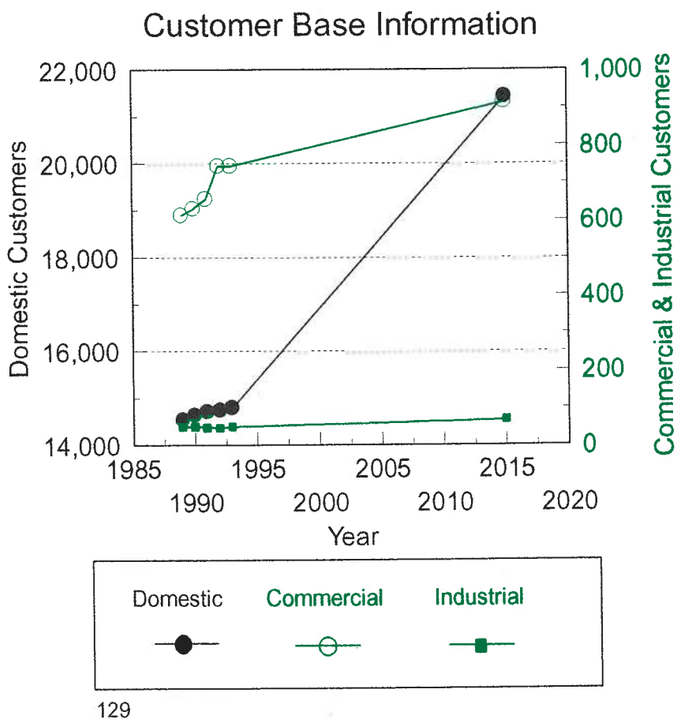
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	92%	100%	100%	

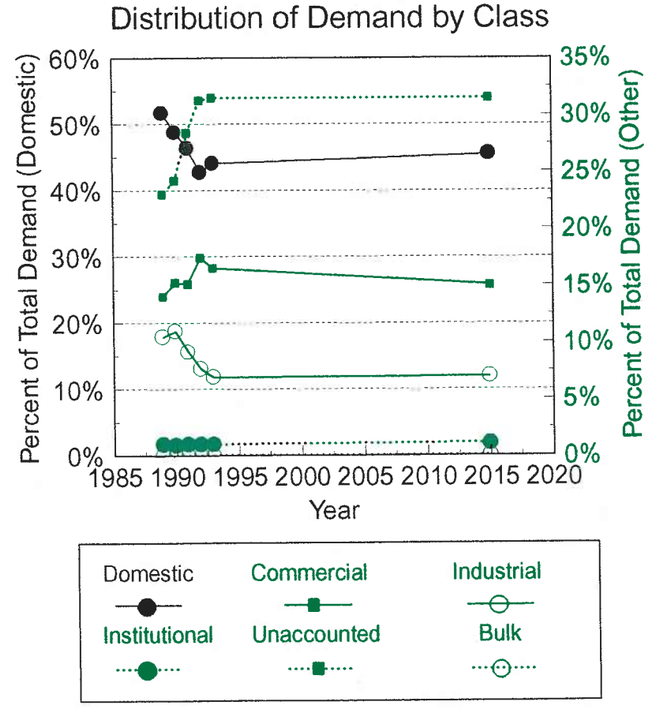
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	4.962	5.102	5.575	5.812	5.626	7.616
Maximum Day Total Water Use (mgd)	7.287	6.704	7.425	8.020	7.724	10.460
Average Daily Water Use by Customer Class (mgd)						
Domestic	2.567	2.488	2.589	2.482	2.482	3.462
Commercial	0.693	0.776	0.840	1.011	0.927	1.141
Industrial	0.514	0.557	0.508	0.439	0.388	0.537
Institutional	0.049	0.048	0.056	0.061	0.059	0.081
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	1.139	1.233	1.583	1.820	1.769	2.396
Average Daily Water Use (gpd/customer)	251	252	258	258	246	232
Average Daily Water Use by Customer Class (% of total)						
Domestic	51.7%	48.8%	46.4%	42.7%	44.1%	45.5%
Commercial	14.0%	15.2%	15.1%	17.4%	16.5%	15.0%
Industrial	10.4%	10.9%	9.1%	7.6%	6.9%	7.0%
Institutional	1.0%	0.9%	1.0%	1.0%	1.0%	1.1%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	23.0%	24.2%	28.4%	31.3%	31.5%	31.5%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	15,244	15,364	15,474	15,596	15,657	22,505
Number of Customers by Class						
Domestic	14,538	14,634	14,713	14,747	14,800	21,433
Commercial	612	630	656	744	744	916
Industrial	49	49	47	46	49	68
Institutional	45	51	58	59	64	88
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	41,516	41,790	42,016	42,113	42,264	58,402
Number of Customers by Class (% of total)						
Domestic	95.4%	95.2%	95.1%	94.6%	94.5%	95.2%
Commercial	4.0%	4.1%	4.2%	4.8%	4.8%	4.1%
Industrial	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Institutional	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Borough of Oakmont Municipal Authority

Financial Data	
Revenues	
Sales	
Total dollars per year	$3,872,484
Dollars per 1,000 gallons sold	$2.75
Other Revenues	$32,790
TOTAL OPERATING REVENUES	$3,905,274
Dollars per 1,000 gallons sold	$2.77
Expenses	
Operating Expenses	
Total dollars per year	$3,622,123
Dollars per 1,000 gallons sold	$2.57
Debt Service	
Total dollars per year	$59,997
Dollars per customer served	$3.83
Other Expenses	$0
TOTAL EXPENSES	$3,682,120
Dollars per 1,000 gallons sold	$2.62
Net Revenues (dollars)	$223,154
Ratio of revenues to expenses	1.06
Average Annual Residential Bill	
Dollars per year per customer	$202.90
% of Median Household Income	0.64%
Retained Earnings	$17,162,832
Retained Earnings ($/customer)	$1,096.18

Legend

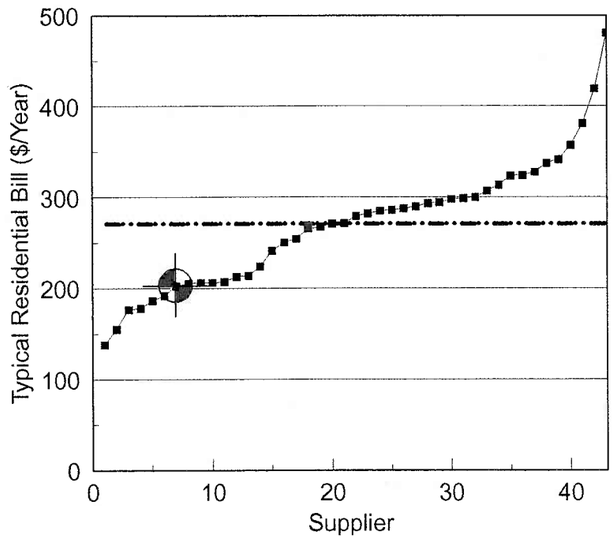
Value for this supplier

Mean value for all suppliers reporting data

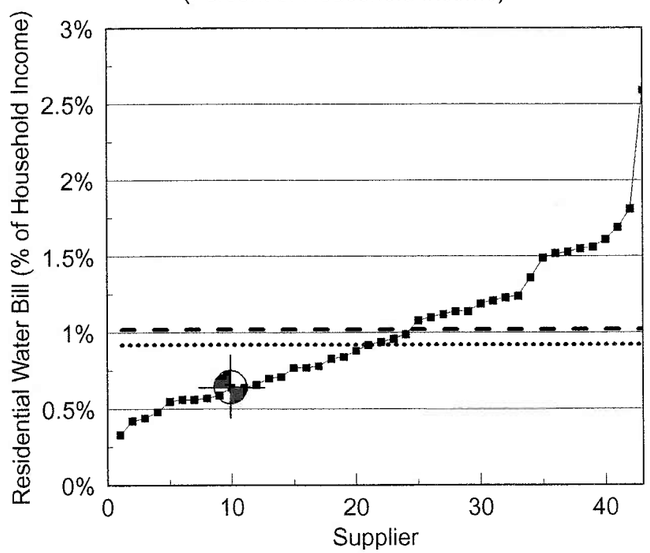
Median value for all suppliers reporting data

Individual supplier data

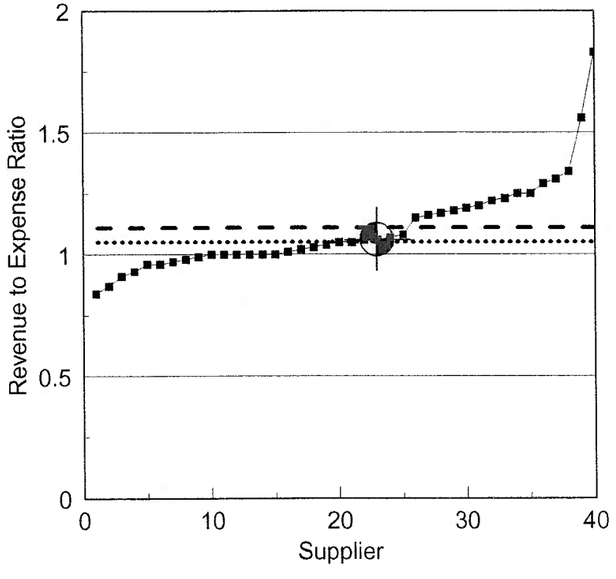
Typical Residential Water Bill
(Dollars Per Year)



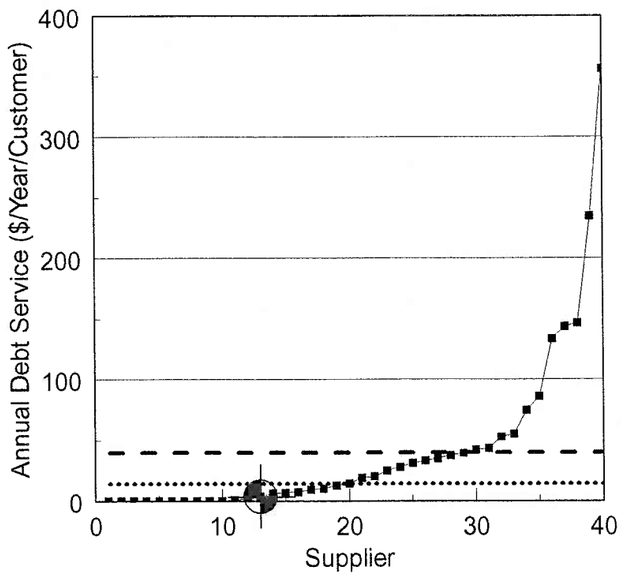
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Pennsylvania American Water Company

The Pennsylvania American Water Company serves approximately 188,450 customers in the following municipalities:

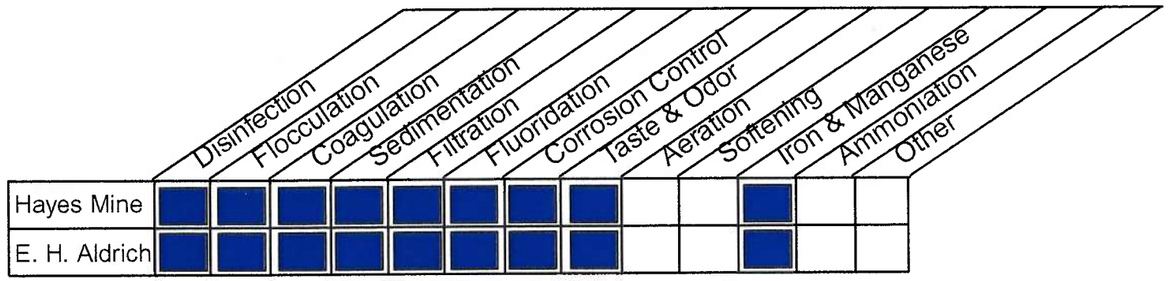
Baldwin Boro.	Collier Twp.	Greentree Boro.	Mt. Oliver Boro.	Upper St. Clair Twp.
Baldwin Twp.	Crafton Boro.	Heidelburg Boro.	Munhall Boro.	West Elizabeth Boro.
Bethel Park Boro.	Dormont Boro.	Ingram Boro.	Pittsburgh City	West Homestead Boro.
Brentwood Boro.	Dravosburg Boro.	Jefferson Boro.	Pleasant Hills Boro.	West Mifflin Boro.
Bridgeville Boro.	Elizabeth Boro.	Liberty Boro.	Rosslyn Farms Boro.	Whitaker Boro.
Carnegie Boro.	Elizabeth Twp.	Lincoln Boro.	Scott Twp.	Whitehall Boro.
Castle Shannon Boro.	Forward Twp.	McDonald Boro.	South Fayette Twp.	27 Washington County
Clairton City	Glassport Boro.	Mt. Lebanon Mun.	Thornburg Boro.	Municipalities

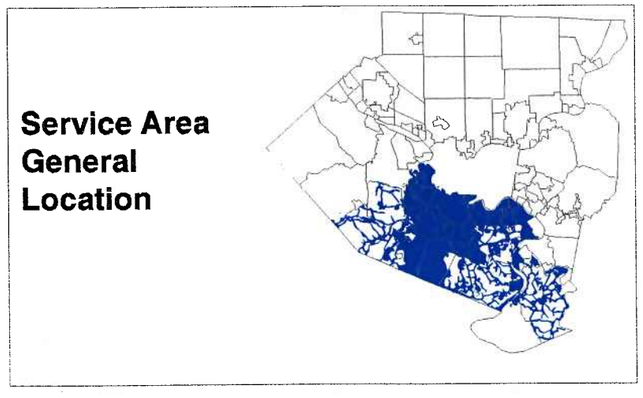
In addition, the water company sells water in bulk to the following water suppliers for resale:

Oakdale Boro.	Robinson Twp. Municipal Auth.	Westmoreland Co. Municipal Auth.	Western Allegheny Co. Municipal Auth.

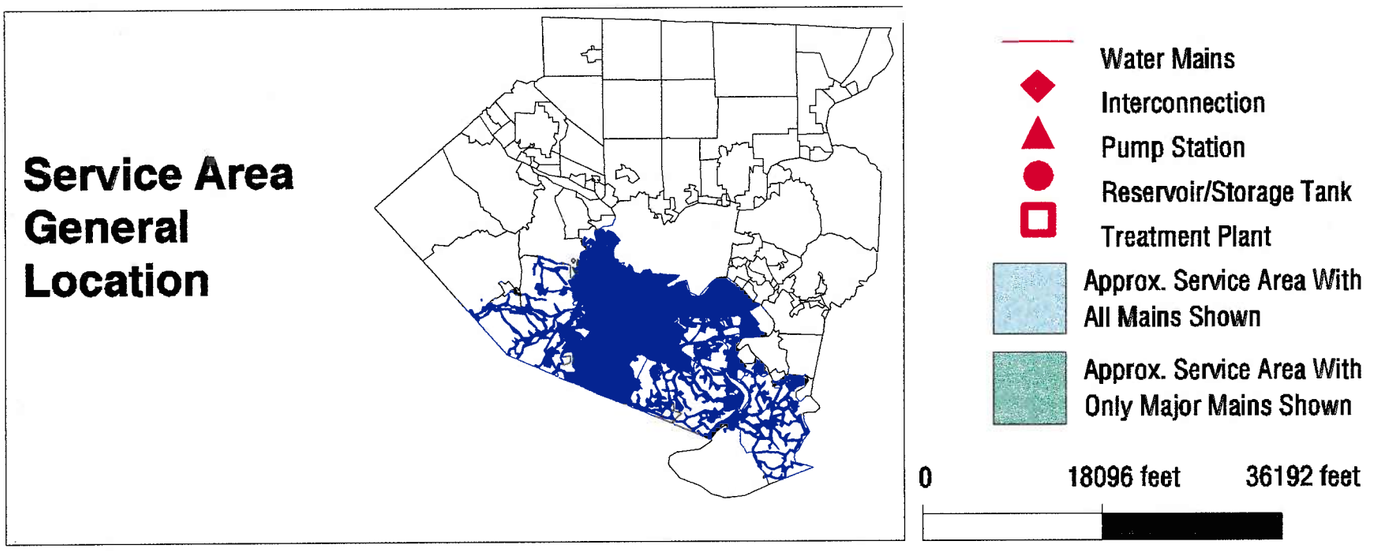
The water system is owned by the Pennsylvania American Water Company, an investor owned utility. The water company obtains its water supply from intakes at two locations on the Monongahela River. The company also purchases water in bulk for resale from the Pittsburgh Water and Sewer Authority. It operates two treatment facilities providing the treatment processes illustrated below. In addition to the treatment plants, the company operates 34 distribution system water storage facilities, and 7 booster pumping stations in Allegheny County. During the past five years, the company has experienced a 42.7 percent increase in the total number of customers served. Total daily water use in 1993 averaged 69.753 million gallons per day. The total service population is projected to increase from approximately 533,050 persons in 1993 to approximately 644,813 by the year 2015. Average daily water demands are projected to increase from 69.753 mgd (85.160 mgd maximum day) in 1993 to 81.785 mgd (103.169 mgd maximum day) in the year 2015. These demands are within the capacity of the company's sources of supply. The year 2015 maximum day demand is projected to exceed the company's treatment capacity. However, treatment capacity is adequate throughout the planning period when purchases from the Pittsburgh Water and Sewer Authority are considered.

The distribution system storage volume is equivalent to approximately one half of the average daily demand. Approximately 40 mgd of storage volume is required to meet the 1-day goal under year 2015 conditions. As indicated above, the system is supplied by two water treatment plants. Assuming that one of the two plants is out of service, the remaining plant, plus existing system storage and emergency supplies available from connections with the Pittsburgh Water & Sewer Authority and Westmoreland County Municipal Authority systems provide in excess of a 15-day emergency supply capacity currently and nearly a 3-day emergency supply capacity under projected year 2015 conditions. It is recommended that approximately 40 mgd of distribution system storage be provided by the end of the planning period so that the 1-day system storage volume target will be reached. The cost of providing these facilities will depend upon a number of factors, including the type of storage facilities provided, the sizes of the individual facilities, and local site conditions. For the purposes of this plan, the cost of providing additional storage has been estimated based upon the construction of eight 5.0 million gallon capacity concrete ground storage tanks. The total estimated cost of these facilities is $17,200,000.

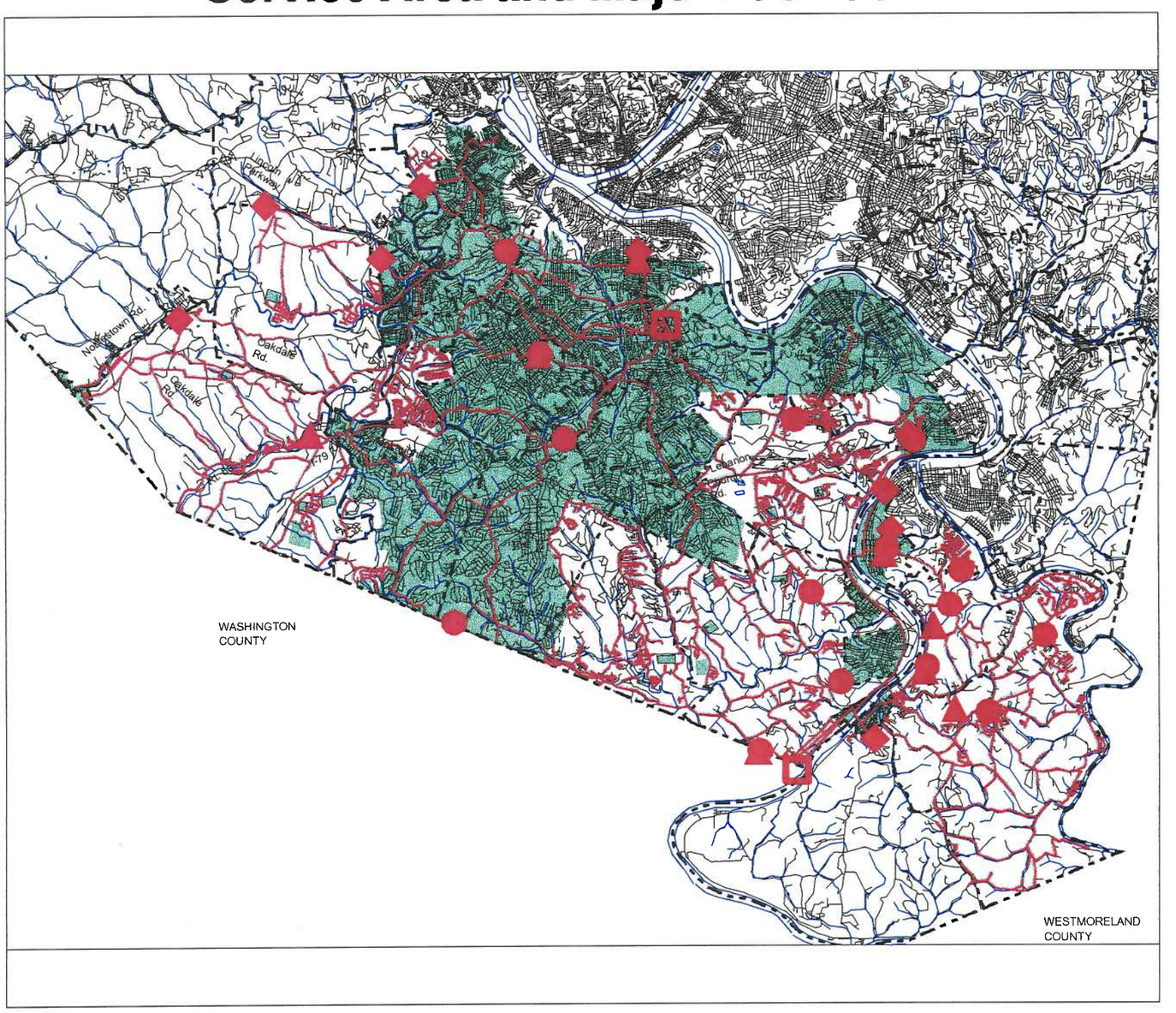




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



Pennsylvania American Water Company

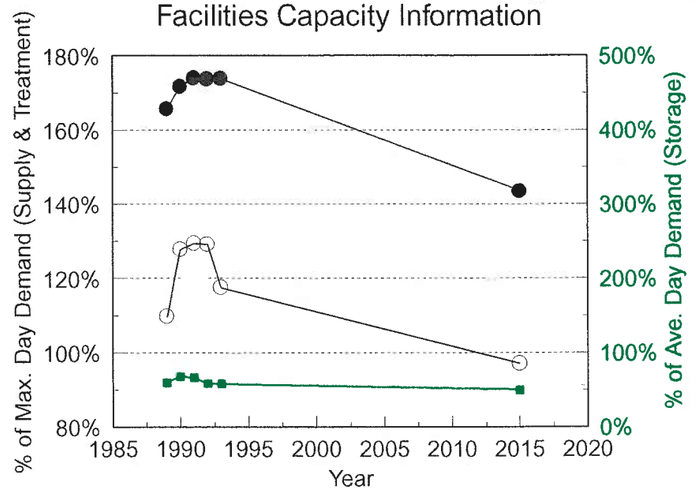
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	148.00	148.00	148.00	148.00	148.00	148.00
Monongahela River	130.00	130.00	130.00	130.00	130.00	130.00
Washington District	6.00	6.00	6.00	6.00	6.00	6.00
Pittsburgh Water and Sewer Authority	12.00	12.00	12.00	12.00	12.00	12.00
Treatment / Pumping Facility Capacity (mgd)	98.00	110.10	110.10	110.10	100.10	100.10
Total Treated Water Storage (million gallons)	40.90	45.70	45.50	40.70	40.70	40.70
Total Supply Source(s) Capacity (% of max. day)	165.6%	171.6%	173.9%	173.7%	173.8%	143.5%
Treatment / Pumping Facility Capacity (% of max. day)	109.7%	127.7%	129.4%	129.2%	117.5%	97.0%
Total Treated Water Storage (% of ave. day))	60.0%	68.2%	66.9%	58.8%	58.3%	49.8%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	92%	100%	

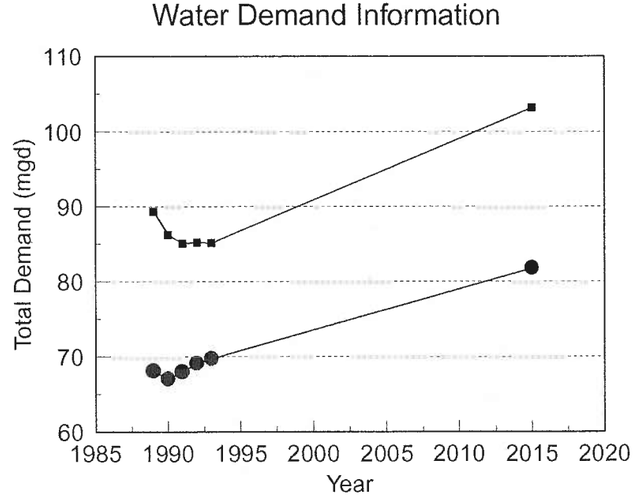
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	68.113	67.014	67.978	69.165	69.753	81.780
Maximum Day Total Water Use (mgd)	89.360	86.240	85.100	85.209	85.160	103.169
Average Daily Water Use by Customer Class (mgd)						
Domestic	21.571	23.778	25.107	22.851	29.434	35.851
Commercial	8.470	9.126	9.609	8.462	11.592	12.035
Industrial	3.042	3.106	2.779	0.955	3.809	4.607
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	16.937	8.813	9.183	18.286	0.233	0.341
Unaccounted for and other	18.093	22.191	21.300	18.590	24.685	28.945
Average Daily Water Use (gpd/customer)	379	293	303	378	239	234
Average Daily Water Use by Customer Class (% of total)						
Domestic	31.7%	35.5%	36.9%	33.0%	42.2%	43.8%
Commercial	12.4%	13.6%	14.1%	12.3%	16.6%	14.7%
Industrial	4.5%	4.6%	4.1%	1.4%	5.5%	5.6%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	24.9%	13.2%	13.5%	26.4%	0.3%	0.4%
Unaccounted for and other	26.6%	33.1%	31.3%	26.9%	35.4%	35.4%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	132,024	153,223	153,953	133,666	188,450	225,984
Number of Customers by Class						
Domestic	123,070	142,758	143,593	124,928	175,946	212,974
Commercial	8854	10292	10188	8633	12330	12801
Industrial	94	166	165	98	188	203
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	6	7	7	7	6	6
Estimated Service Population	533,050	533,050	533,050	533,050	533,050	644,813
Number of Customers by Class (% of total)						
Domestic	93.2%	93.2%	93.3%	93.5%	93.4%	94.2%
Commercial	6.7%	6.7%	6.6%	6.5%	6.5%	5.7%
Industrial	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

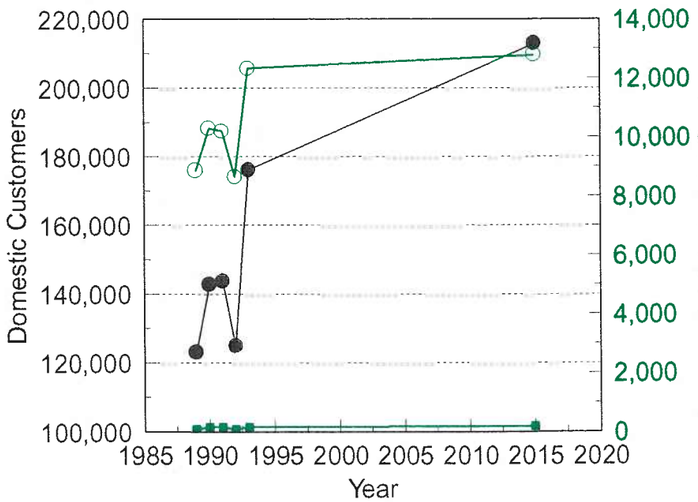
Facilities Capacity Information



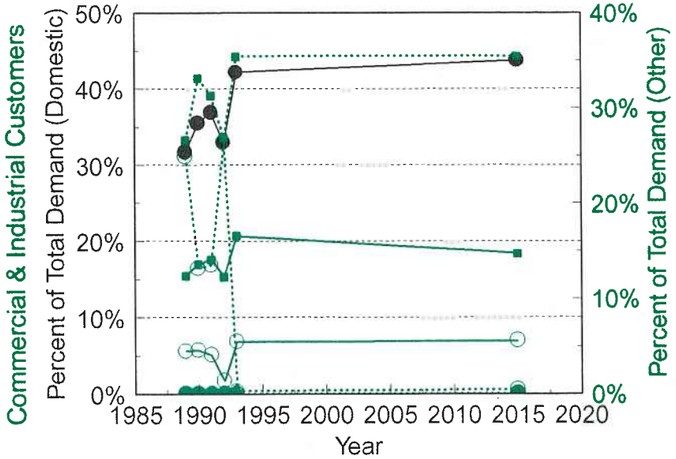
Water Demand Information



Customer Base Information



Distribution of Demand by Class



Pennsylvania American Water Company

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$163,734,022
Dollars per 1,000 gallons sold	$4.69
Other Revenues	$3,028,850
TOTAL OPERATING REVENUES	$166,762,872
Dollars per 1,000 gallons sold	$4.78
Expenses	
Operating Expenses	
Total dollars per year	$103,387,924
Dollars per 1,000 gallon produced	$4.06
Debt Service	
Total dollars per year	$25,199,890
Dollars per customer served	$133.72
Other Expenses	$662,713
TOTAL EXPENSES	$129,250,527
Dollars per 1,000 gallon produced	$5.08
Net Revenues (dollars)	$37,512,345
Ratio of revenues to expenses	1.29
Average Annual Residential Bill	
Dollars per year per customer	$356.80
% of Median Household Income	1.12%
Retained Earnings	$83,843,038
Retained Earnings ($/customer)	$444.91

Legend

Value for this supplier

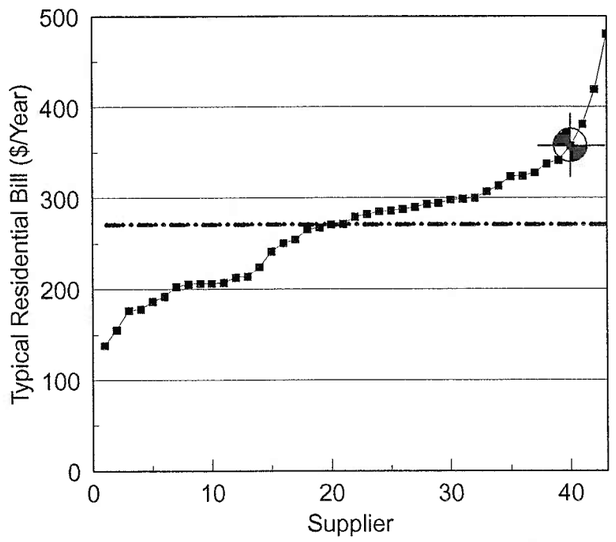
Mean value for all suppliers reporting data

Median value for all suppliers reporting data

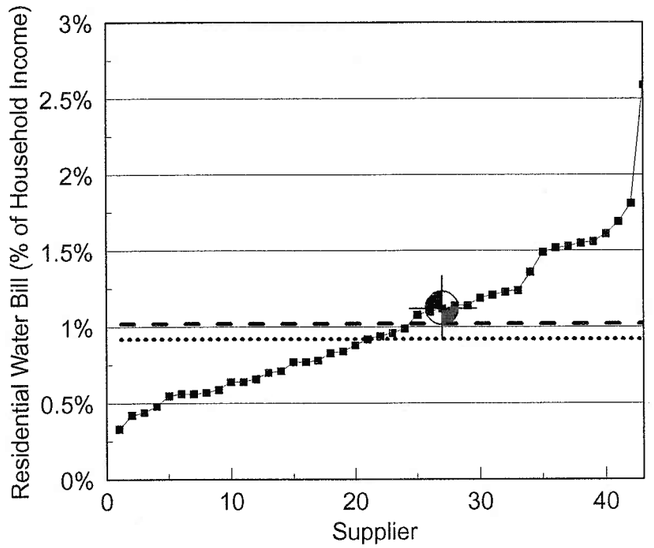
Individual supplier data

Note: Revenues and expenses reflect statewide operations. Residential bill estimates based upon Allegheny County area operations.

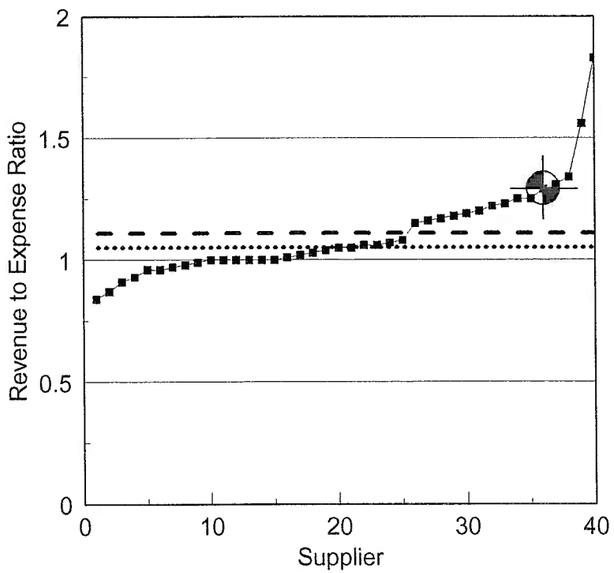
Typical Residential Water Bill
(Dollars Per Year)



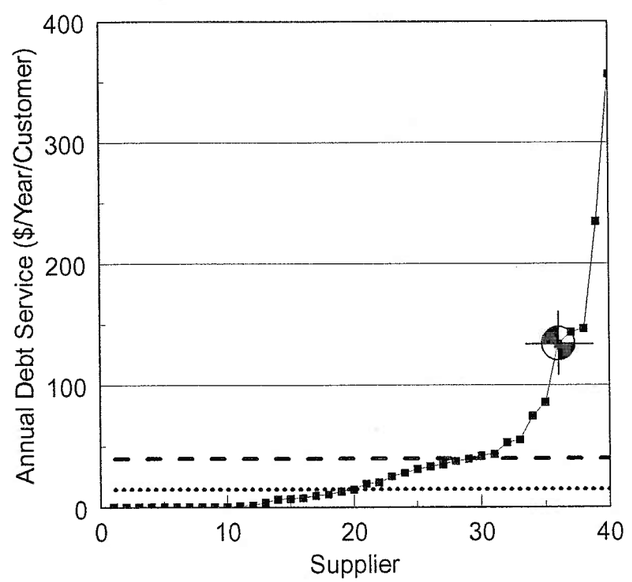
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Pittsburgh Water & Sewer Authority

The Pittsburgh Water and Sewer Authority serves approximately 83,976 customers in the City of Pittsburgh. The Authority also sells water in bulk to the following suppliers for subsequent resale:

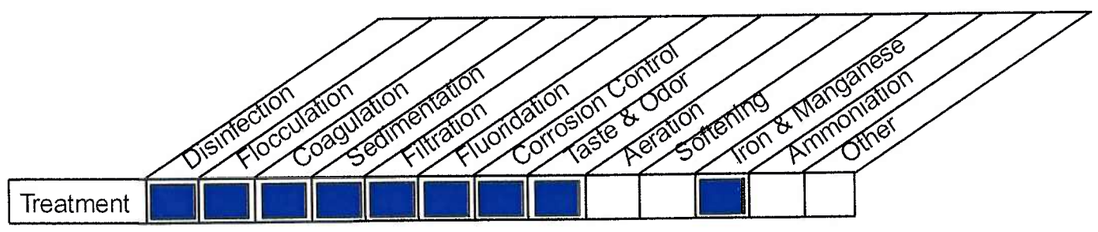
- Blawnox Borough
- Fox Chapel Authority
- Hampton Township Municipal Authority
- Millvale Borough
- Pennsylvania American Water Company
- Reserve Township
- Shaler Township

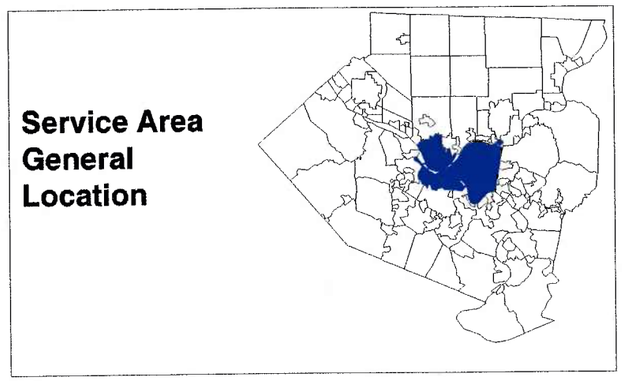
The Authority was formed in 1984. The authority board consists of seven members appointed by the mayor of the City.

The Authority obtains its water supply from the Allegheny River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates 13 distribution system water storage facilities, and 8 booster pumping stations.

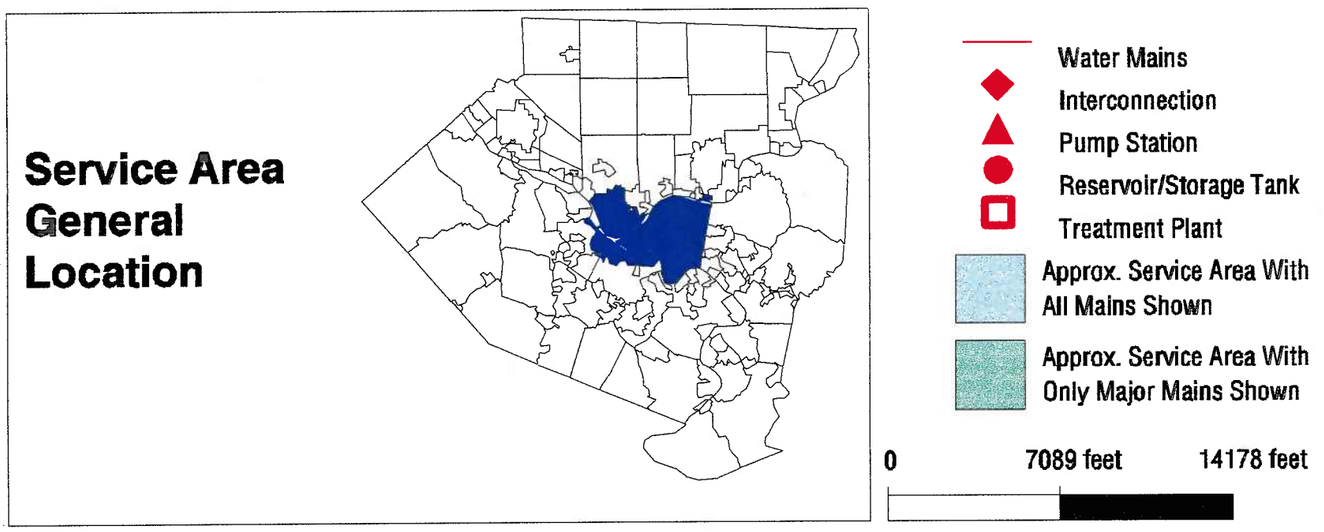
During the past five years, the Authority has experienced a 1.8 percent increase in the total number of customers served. Total daily water use in 1993 averaged 65.395 million gallons per day.

The total service population is projected to increase from approximately 250,484 persons in 1993 to approximately 273,889 by the year 2015. The Authority has recently negotiated an agreement with the Fox Chapel Authority under which Fox Chapel will purchase its supply from the Pittsburgh system. These sales are expected to begin in mid-1996 and are reflected in the water demand projections. Average daily water demands are projected to increase from 65.395 mgd (79.708 mgd maximum day) in 1993 to 73.731 mgd (102.021 mgd maximum day) in the year 2015. These demands are within the capacity of the Authority's source of supply and treatment facility. The distribution system storage facilities provide well in excess of a 3-day storage volume throughout the planning period.

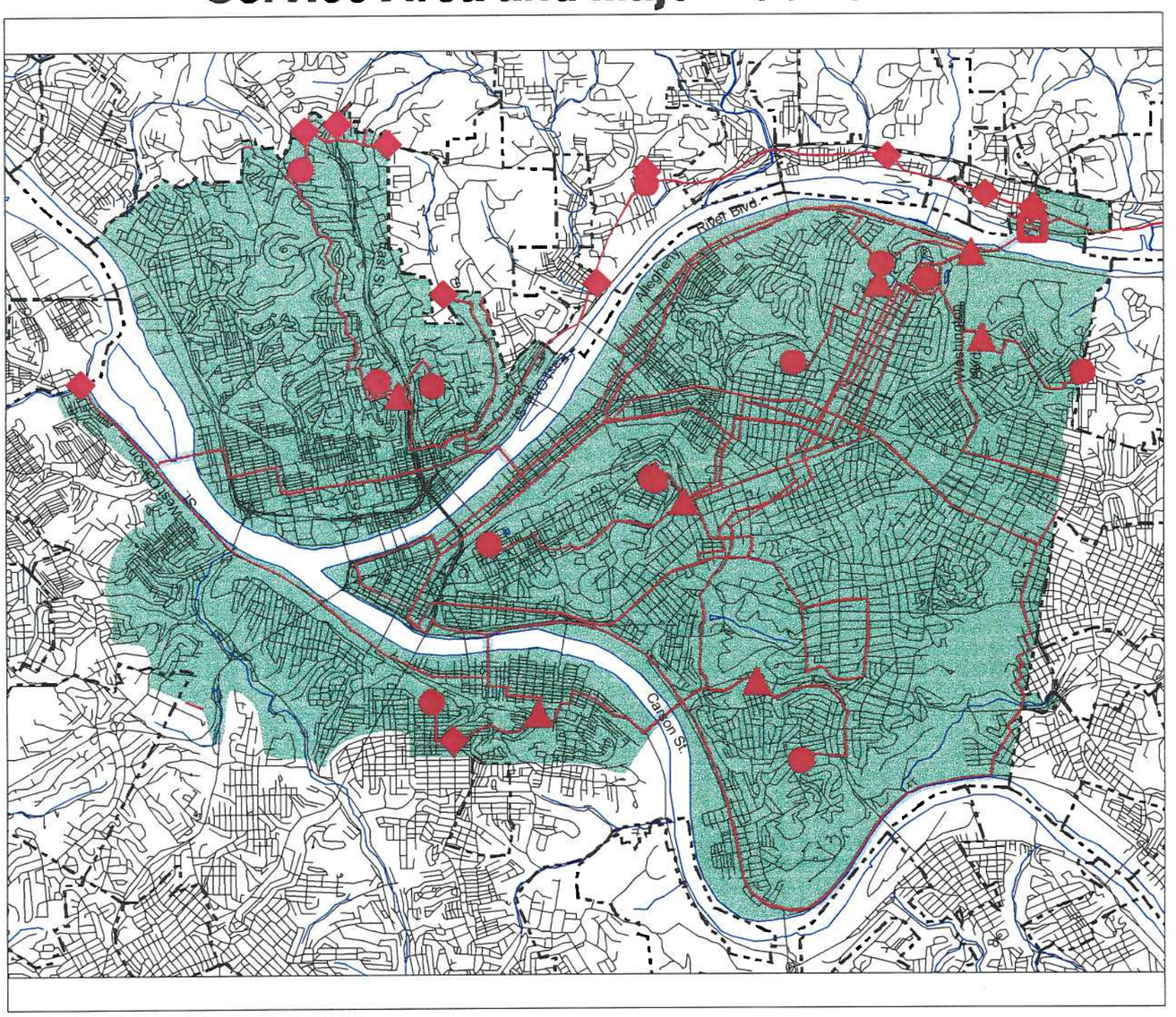




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



Pittsburgh Water and Sewer Authority

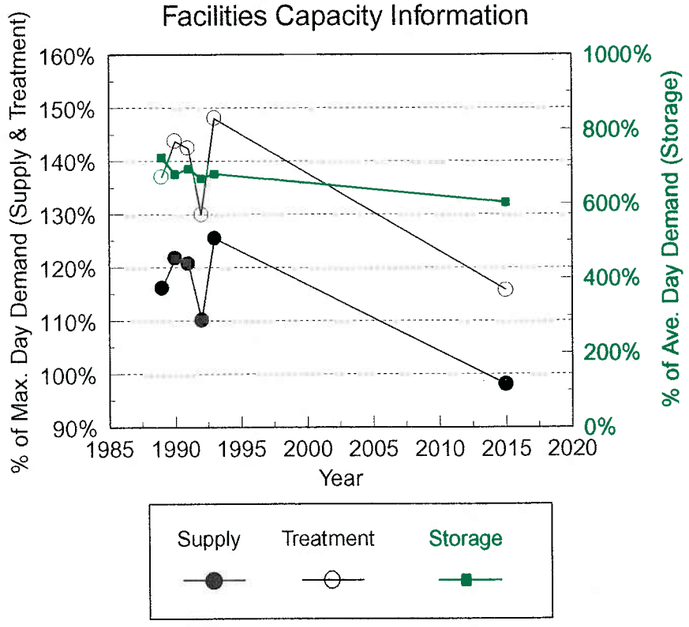
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	100.00	100.00	100.00	100.00	100.00	100.00
Allegheny River	100.00	100.00	100.00	100.00	100.00	100.00
Treatment / Pumping Facility Capacity (mgd)	118.00	118.00	118.00	118.00	118.00	118.00
Total Treated Water Storage (million gallons)	442.34	442.34	445.34	444.64	444.64	444.64
Total Supply Source(s) Capacity (% of max. day)	116.1%	121.8%	120.7%	110.1%	125.5%	98.0%
Treatment / Pumping Facility Capacity (% of max. day)	137.0%	143.7%	142.4%	129.9%	148.0%	115.7%
Total Treated Water Storage (% of ave. day))	724.5%	679.6%	694.2%	668.3%	679.9%	603.1%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	92%	100%	

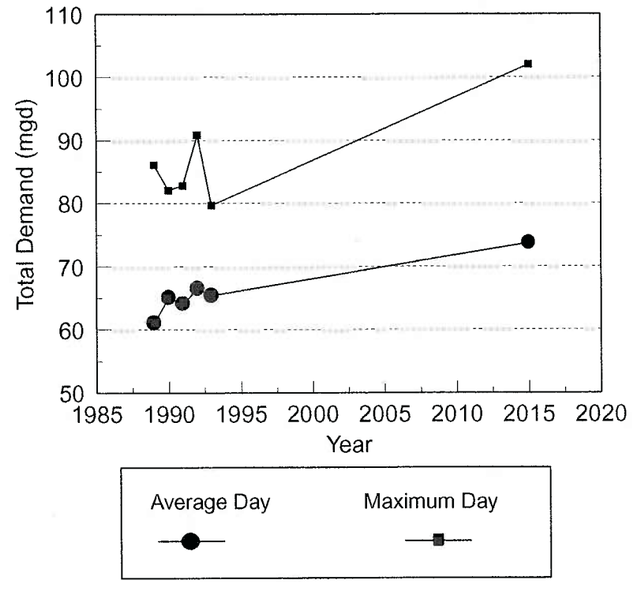
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	61.057	65.088	64.150	66.535	65.395	73.732
Maximum Day Total Water Use (mgd)	86.151	82.104	82.875	90.855	79.708	102.021
Average Daily Water Use by Customer Class (mgd)						
Domestic	31.880	13.955	14.330	14.159	17.385	19.008
Commercial	4.571	27.751	25.857	25.540	11.613	12.698
Industrial	4.830	1.129	1.541	1.580	3.740	4.089
Institutional	1.420	4.315	3.757	4.020	6.225	6.806
Bulk Sales to Suppliers	4.974	4.944	4.891	4.968	4.958	7.991
Unaccounted for and other	13.382	12.994	13.775	16.288	21.474	23.139
Average Daily Water Use (gpd/customer)	578	627	606	599	523	551
Average Daily Water Use by Customer Class (% of total)						
Domestic	52.2%	21.4%	22.3%	21.3%	26.6%	25.8%
Commercial	7.5%	42.6%	40.3%	38.4%	17.8%	17.2%
Industrial	7.9%	1.7%	2.4%	2.3%	5.7%	5.5%
Institutional	2.3%	6.6%	5.9%	6.0%	9.5%	9.2%
Bulk Sales to Suppliers	8.1%	7.6%	7.6%	7.5%	7.6%	10.8%
Unaccounted for and other	21.9%	20.0%	21.5%	24.5%	32.8%	31.4%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	82,451	83,048	83,117	83,946	83,976	91,789
Number of Customers by Class						
Domestic	77,582	76,862	76,945	75,864	75,894	82,953
Commercial	4540	5167	5153	7061	7061	7721
Industrial	188	206	206	208	208	227
Institutional	132	804	804	804	804	879
Bulk Sales to Suppliers	9	9	9	9	9	9
Estimated Service Population	250,484	250,484	250,484	250,484	250,484	273,889
Number of Customers by Class (% of total)						
Domestic	94.1%	92.6%	92.6%	90.4%	90.4%	90.4%
Commercial	5.5%	6.2%	6.2%	8.4%	8.4%	8.4%
Industrial	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Institutional	0.2%	1.0%	1.0%	1.0%	1.0%	1.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

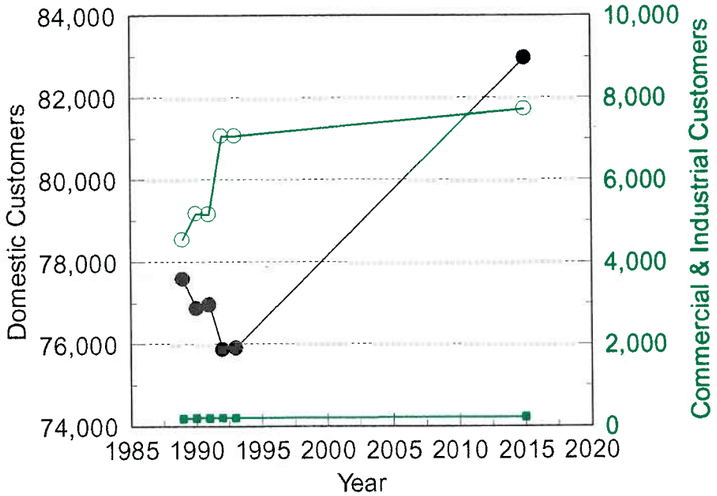
Facilities Capacity Information



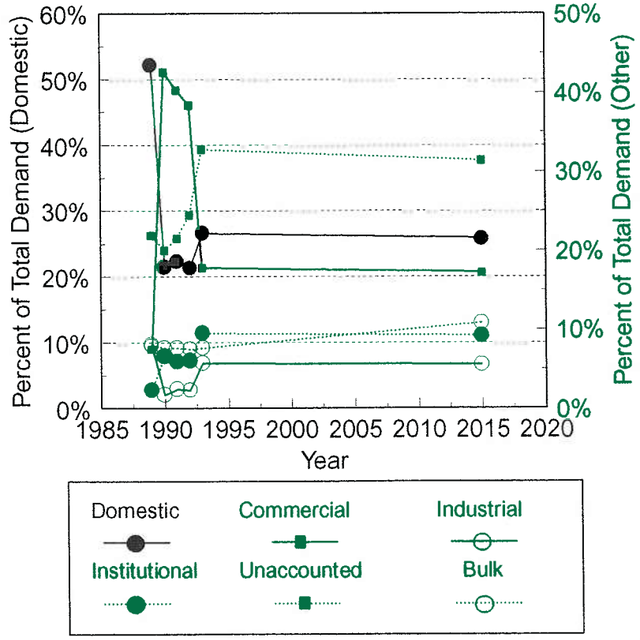
Water Demand Information



Customer Base Information



Distribution of Demand by Class



Pittsburgh Water and Sewer Authority

Financial Data	
Revenues	
Sales	
Total dollars per year	$50,199,000
Dollars per 1,000 gallons sold	$3.13
Other Revenues	$1,980,000
TOTAL OPERATING REVENUES	$52,179,000
Dollars per 1,000 gallons sold	$3.25
Expenses	
Operating Expenses	
Total dollars per year	$37,990,000
Dollars per 1,000 gallons sold	$2.37
Debt Service	
Total dollars per year	$12,324,000
Dollars per customer served	$146.76
Other Expenses	$198,000
TOTAL EXPENSES	$50,512,000
Dollars per 1,000 gallons sold	$3.15
Net Revenues (dollars)	$1,667,000
Ratio of revenues to expenses	1.03
Average Annual Residential Bill	
Dollars per year per customer	$250.43
% of Median Household Income	1.21%
Retained Earnings	($21,156,000)
Retained Earnings ($/customer)	($251.93)

Legend

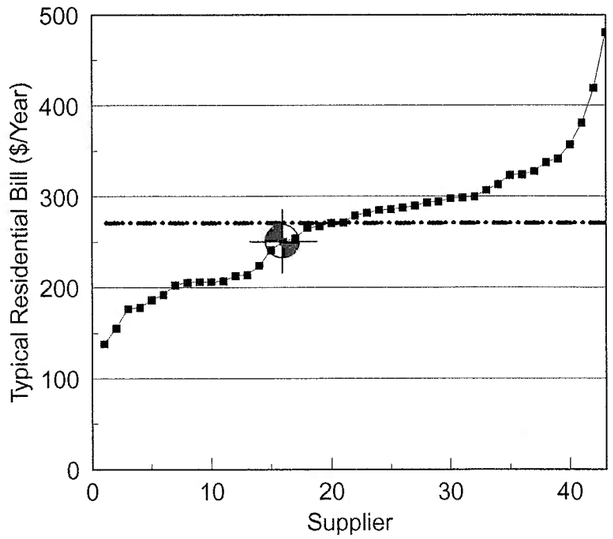
Value for this supplier

Mean value for all suppliers reporting data

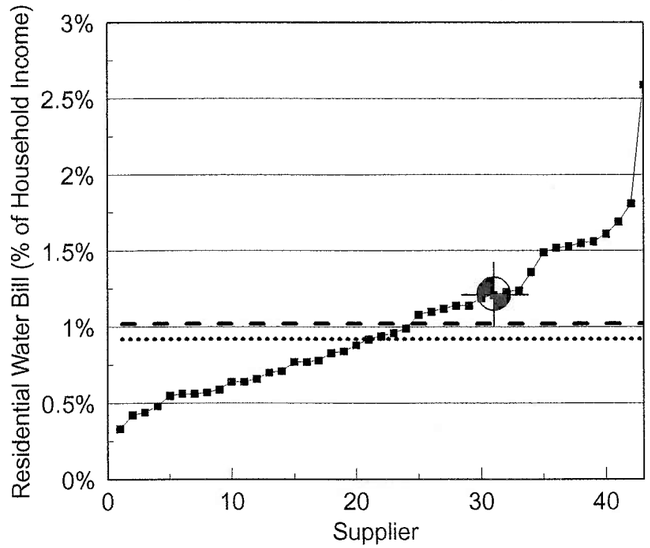
Median value for all suppliers reporting data

Individual supplier data

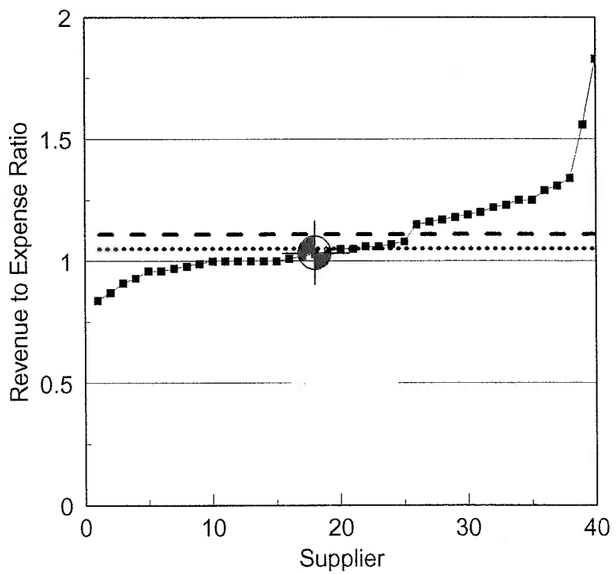
Typical Residential Water Bill
(Dollars Per Year)



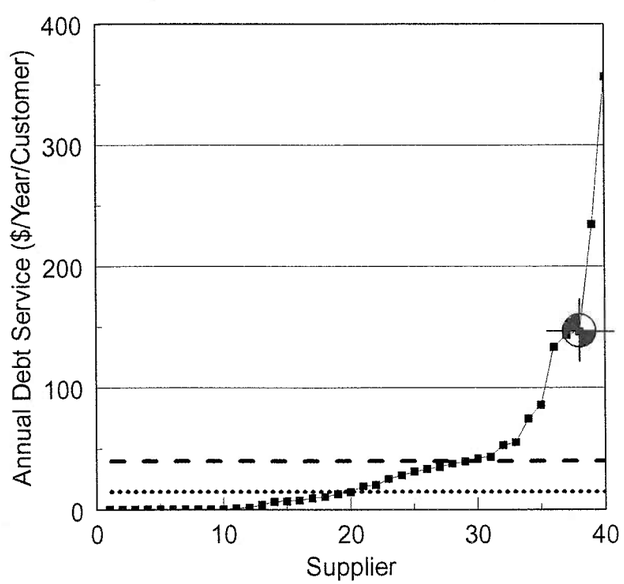
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Plum Borough Municipal Authority

The Plum Borough Municipal Authority serves approximately 8,379 customers in Plum Borough. The Authority also sells water in bulk to the Westmoreland County Municipal Authority for subsequent resale.

The Authority was established in 1956. The authority board is composed of nine members who are appointed by the Plum Borough council.

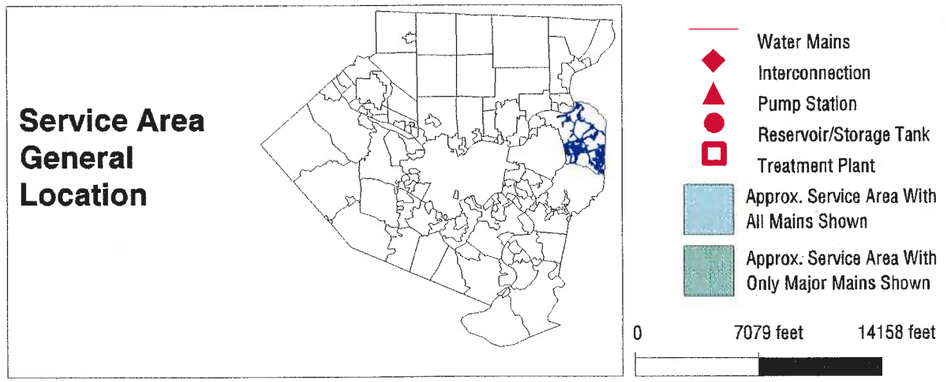
The Authority purchases its water supply in bulk from the following suppliers:

Monroeville Water Authority
Wilkinsburg-Penn Joint Water Authority
City of New Kensington

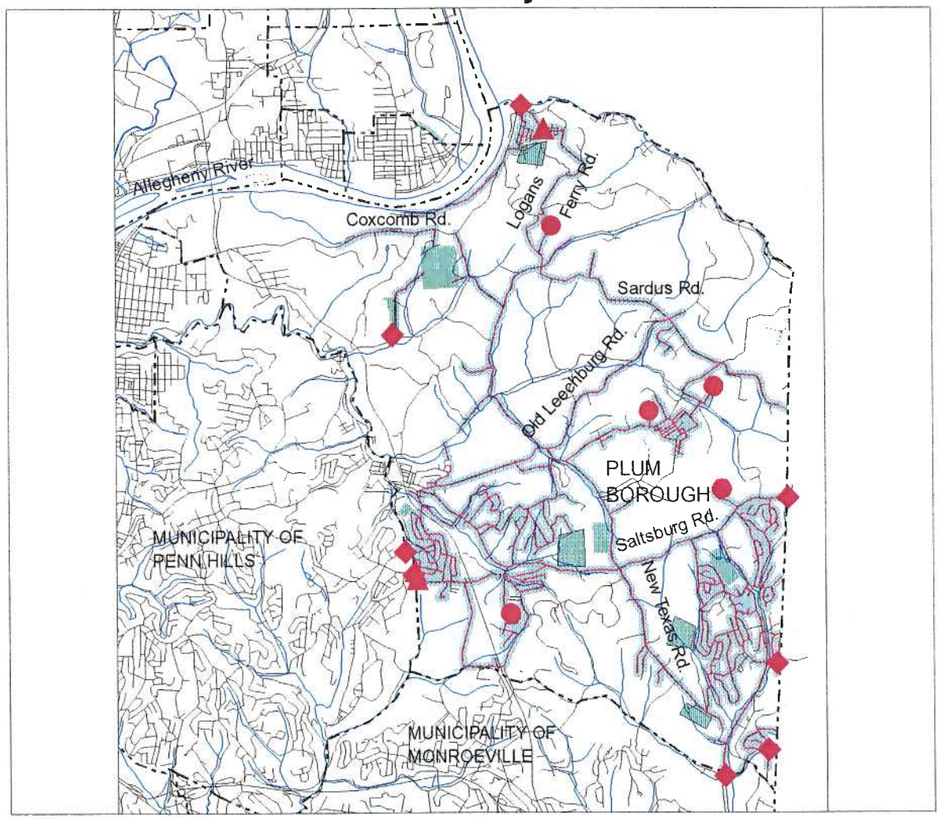
The Authority operates no treatment facilities, six distribution storage facilities, and four booster pumping stations.

Between 1989 and 1992, the Authority experienced a 3.8 percent rise in the total number of customers served. Total daily water use in 199 averaged 1.877 million gallons per day.

The total service population is projected to increase from approximately 23,273 persons in 1992 to approximately 34,616 by the year 2015. Average daily water demands are projected to increase from 1.877 mgd (2.273 mgd maximum day) in 1992 to 2.828 mgd (3.536 mgd maximum day) in the year 2015. Current water supply commitments from the Authority's suppliers are sufficient to meet the current and projected demands. The distribution system storage facilities provide in excess of a 1-day storage volume throughout the planning period. As indicated above, the Authority obtains its water supply from three sources. Connections from any two of the suppliers can provide in excess of a 3-day emergency supply in the event that supplies from the third supplier system are interrupted. Therefore, the Authority's system is capable of complying with the 3-day emergency supply target.



Service Area and Major Facilities



Plum Borough Municipal Authority

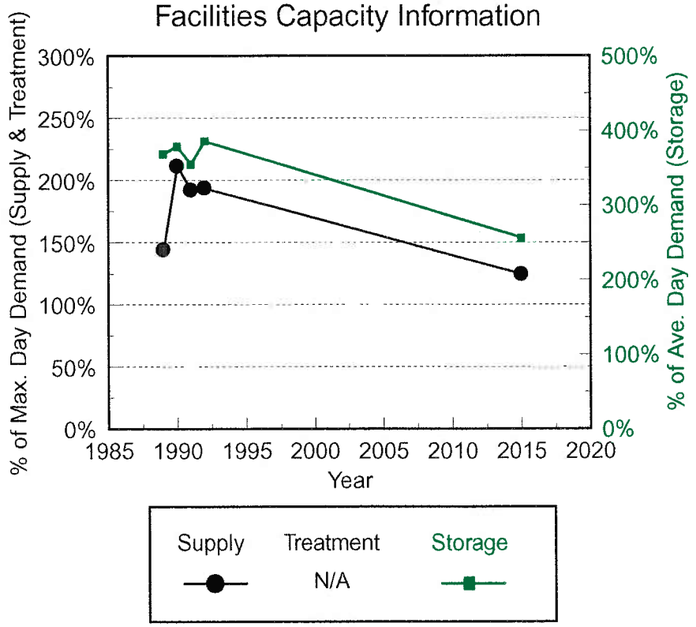
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	4.10	4.40	4.40	4.40		4.40
Wilkinsburg-Penn Joint Water Authority	2.20	2.50	2.50	2.50		2.50
Monroeville Water Authority	0.50	0.50	0.50	0.50		0.50
City of New Kensington	1.40	1.40	1.40	1.40		1.40
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	7.00	7.00	7.00	7.25		7.25
Total Supply Source(s) Capacity (% of max. day)	144.0%	211.1%	191.9%	193.6%		124.4%
Treatment / Pumping Facility Capacity (% of max. day)	0.0%	0.0%	0.0%	0.0%		0.0%
Total Treated Water Storage (% of ave. day))	368.8%	378.9%	355.2%	386.3%		256.4%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	100%	

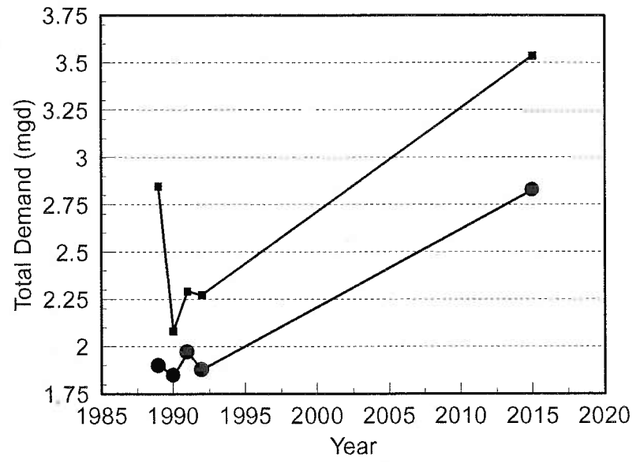
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	1.898	1.847	1.971	1.877		2.828
Maximum Day Total Water Use (mgd)	2.847	2.084	2.293	2.273		3.536
Average Daily Water Use by Customer Class (mgd)						
Domestic	1.637	1.306	1.350	1.318		1.960
Commercial	0.173	0.221	0.121	0.226		0.336
Industrial	0.000	0.000	0.005	0.002		0.003
Institutional	0.020	0.022	0.016	0.015		0.023
Bulk Sales to Suppliers	0.067	0.091	0.111	0.109		0.194
Unaccounted for and other	0.002	0.207	0.369	0.207		0.312
Average Daily Water Use (gpd/customer)	235	203	194	199		202
Average Daily Water Use by Customer Class (% of total)						
Domestic	86.2%	70.7%	68.5%	70.2%		69.3%
Commercial	9.1%	11.9%	6.1%	12.0%		11.9%
Industrial	0.0%	0.0%	0.2%	0.1%		0.1%
Institutional	1.1%	1.2%	0.8%	0.8%		0.8%
Bulk Sales to Suppliers	3.5%	4.9%	5.6%	5.8%		6.9%
Unaccounted for and other	0.1%	11.2%	18.7%	11.0%		11.0%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	8,070	8,089	8,260	8,379		12,461
Number of Customers by Class						
Domestic	7,939	7,956	8,132	8,240		12,256
Commercial	122	123	111	127		189
Industrial	0	0	6	1		1
Institutional	7	7	8	8		12
Bulk Sales to Suppliers	2	3	3	3		3
Estimated Service Population	22,423	22,471	22,968	23,273		34,616
Number of Customers by Class (% of total)						
Domestic	98.4%	98.4%	98.5%	98.3%		98.4%
Commercial	1.5%	1.5%	1.3%	1.5%		1.5%
Industrial	0.0%	0.0%	0.1%	0.0%		0.0%
Institutional	0.1%	0.1%	0.1%	0.1%		0.1%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%		0.0%

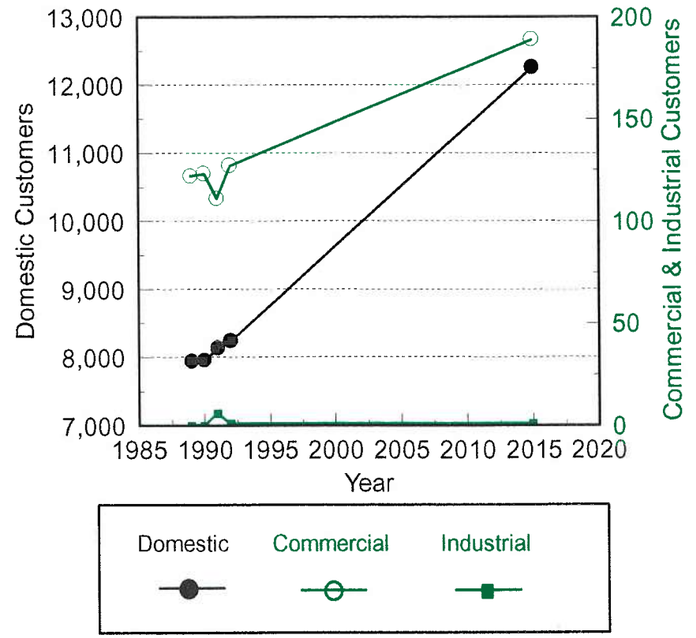
Facilities Capacity Information



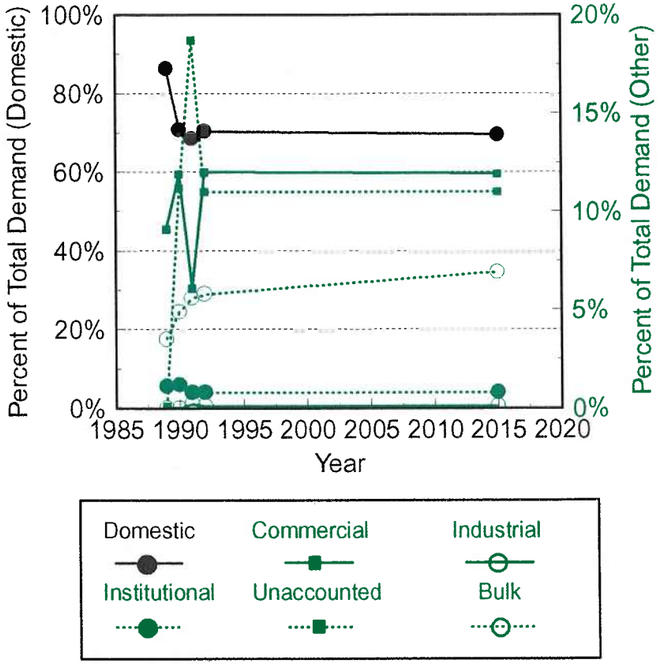
Water Demand Information



Customer Base Information

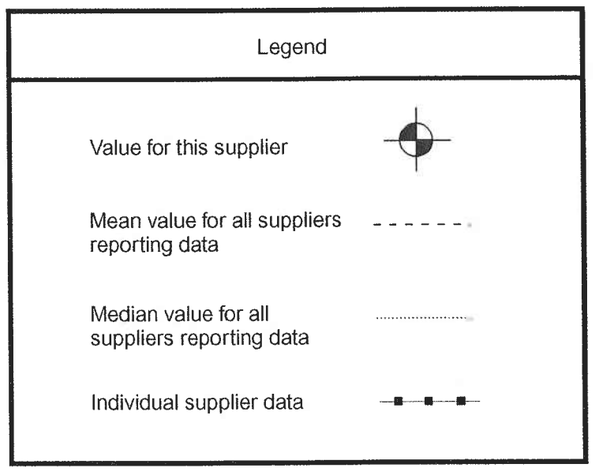


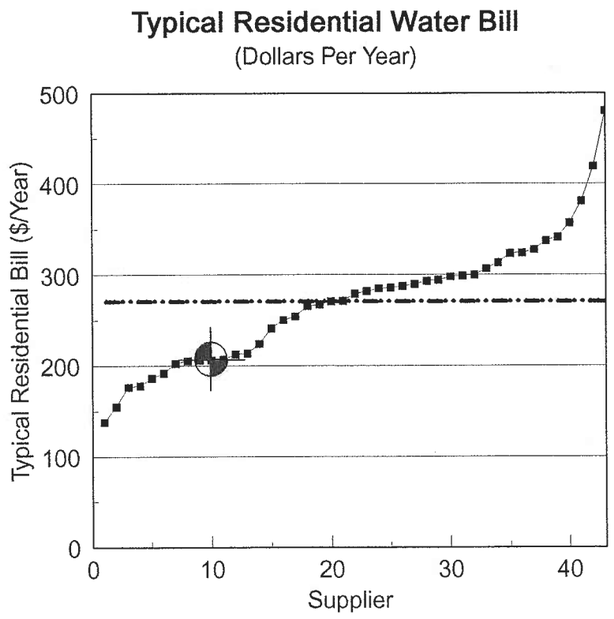
Distribution of Demand by Class

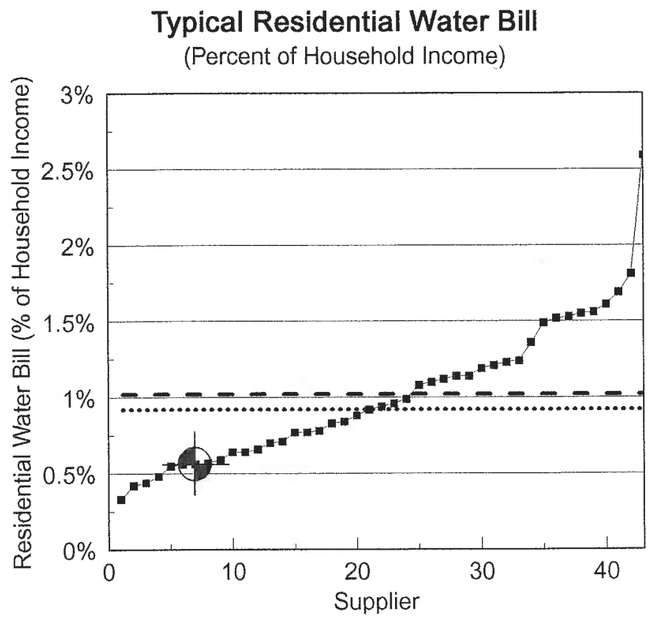


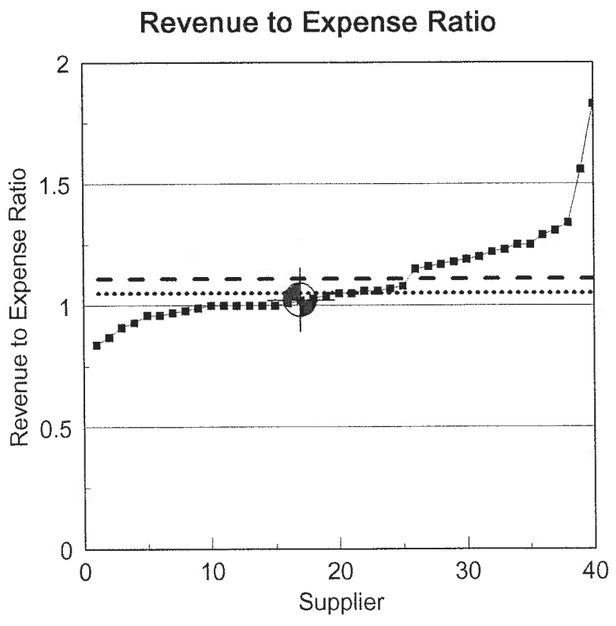
Plum Borough Municipal Authority

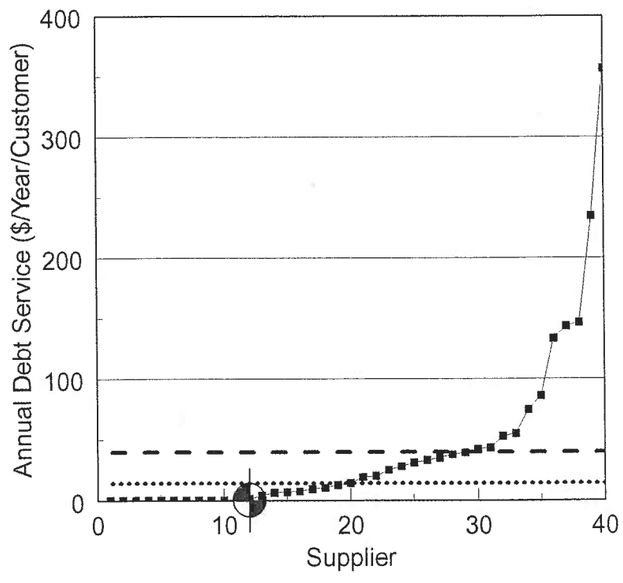
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,448,451
Dollars per 1,000 gallons sold	$2.38
Other Revenues	$128,173
TOTAL OPERATING REVENUES	$1,576,624
Dollars per 1,000 gallons sold	$2.59
Expenses	
Operating Expenses	
Total dollars per year	$1,539,679
Dollars per 1,000 gallons sold	$2.53
Debt Service	
Total dollars per year	$8,783
Dollars per customer served	$1.05
Other Expenses	$0
TOTAL EXPENSES	$1,548,462
Dollars per 1,000 gallons sold	$2.54
Net Revenues (dollars)	$28,162
Ratio of revenues to expenses	1.02
Average Annual Residential Bill	
Dollars per year per customer	$206.35
% of Median Household Income	0.56%
Retained Earnings	$6,944,619
Retained Earnings ($/customer)	$828.81











Rankin Borough

Rankin Borough serves approximately 689 customers in the Borough of Rankin.

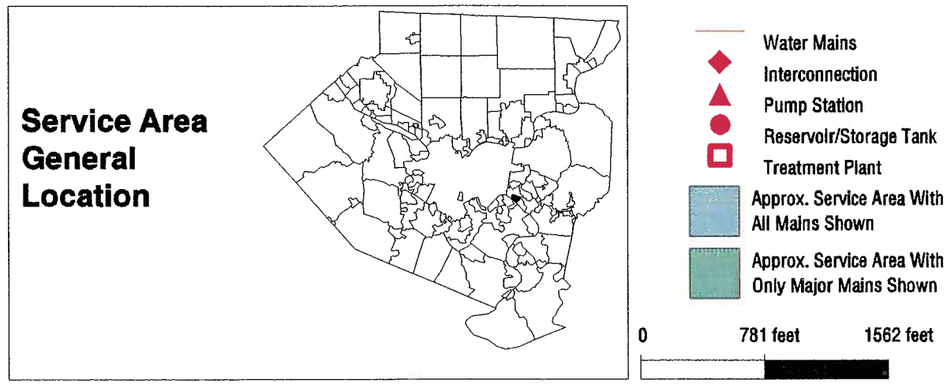
The water system is owned and operated by the Borough of Rankin.

The Borough purchases its water supply in bulk from the Wilkinsburg-Penn Joint Water Authority.

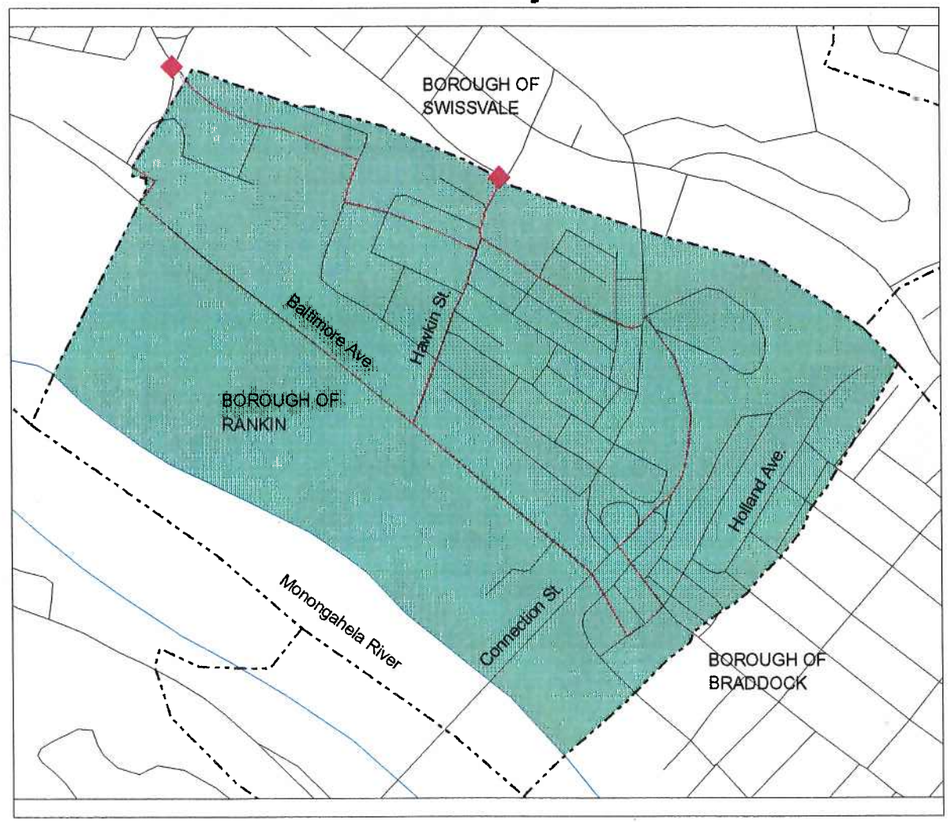
The Borough operates no treatment facilities, no distribution storage facilities, and no booster pumping stations.

During the past five years, the Borough has experienced a 6.7 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.349 million gallons per day.

The total service population is projected to increase modestly from approximately 2,478 persons in 1993 to approximately 2,493 by the year 2015. Average daily water demands are projected to remain essentially static at 0.349 mgd (0.451 mgd maximum day) through the year 2015. Current water supply commitments from the Borough's supplier are sufficient to meet the current and projected demands. The Borough operates no distribution system storage facilities, instead it relies upon storage provided by its water supplier. The system storage provided by the Wilkinsburg-Penn Joint Water Authority is expected to remain adequate to provide in excess of a 1-day supply through the planning period. The Rankin system has no emergency water supply connections, however, it is fed from the Wilkinsburg-Penn system from two points of connection and the Wilkinsburg-Penn system has an emergency supply capacity of in excess of the 3-day target. In view of this situation and the relatively small size of the Rankin system, the storage available to it and its emergency supply capabilities can be considered to be adequate.



Service Area and Major Facilities



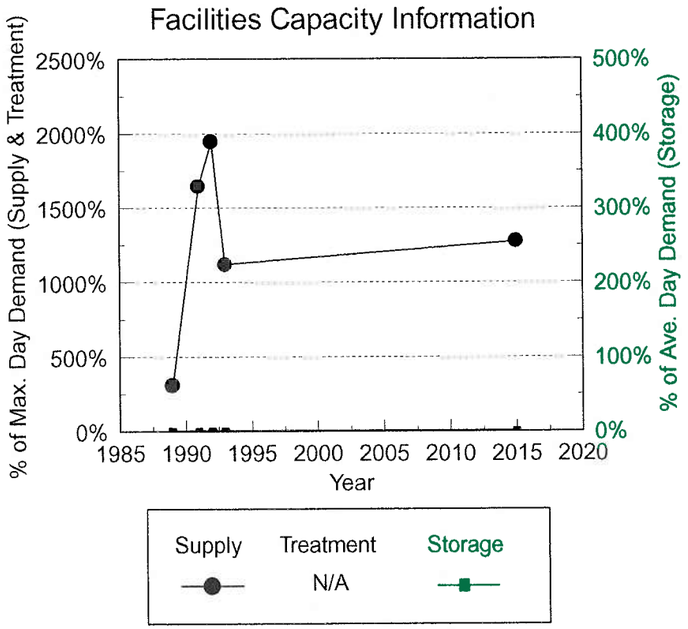
Rankin Borough

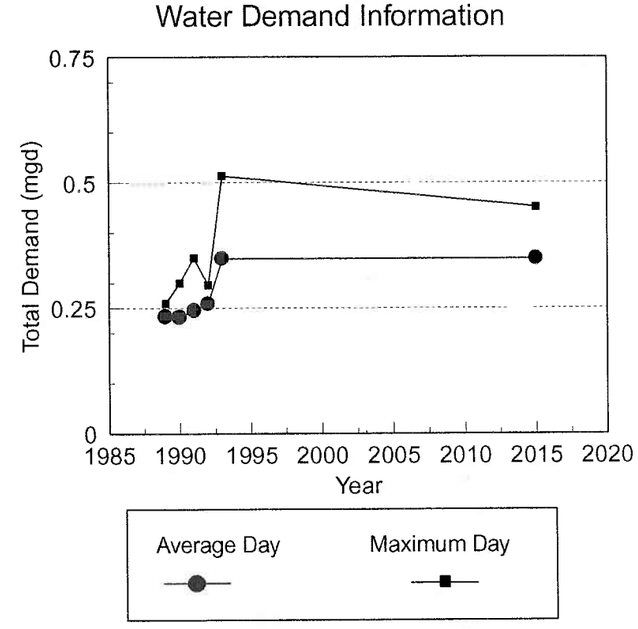
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.80	0.00	5.76	5.76	5.76	5.76
Wilkinsburg-Penn Joint Water Authority	0.80		5.76	5.76	5.76	5.76
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	308%		1646%	1946%	1120%	1278%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	0.0%		0.0%	0.0%	0.0%	0.0%

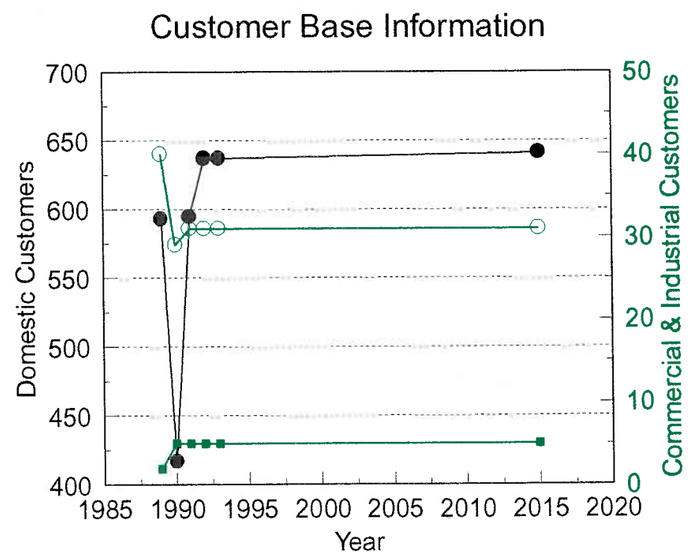
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	92%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

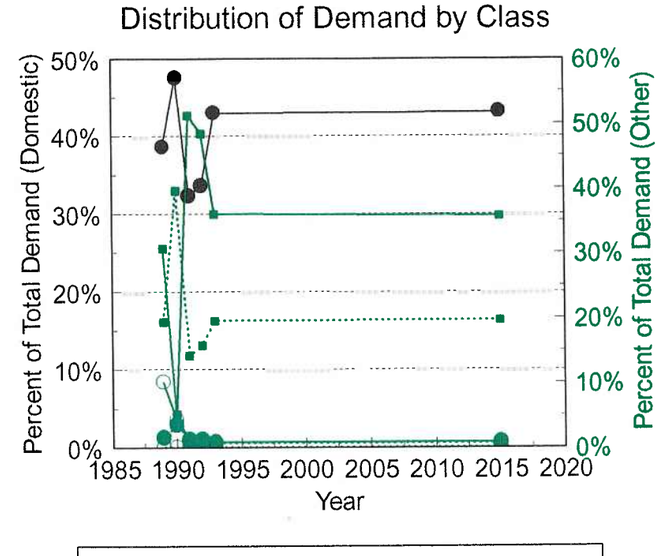
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.233	0.232	0.245	0.259	0.349	0.349
Maximum Day Total Water Use (mgd)	0.260	0.300	0.350	0.296	0.514	0.451
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.090	0.110	0.079	0.087	0.150	0.151
Commercial	0.071	0.012	0.126	0.126	0.126	0.125
Industrial	0.024	0.010	0.003	0.003	0.003	0.003
Institutional	0.003	0.008	0.003	0.003	0.002	0.002
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.045	0.092	0.034	0.041	0.068	0.068
Average Daily Water Use (gpd/customer)	292	306	324	317	408	405
Average Daily Water Use by Customer Class (% of total)						
Domestic	38.6%	47.5%	32.3%	33.6%	43.0%	43.2%
Commercial	30.6%	5.2%	51.2%	48.4%	36.0%	35.7%
Industrial	10.1%	4.3%	1.2%	1.2%	0.9%	0.9%
Institutional	1.5%	3.5%	1.2%	1.2%	0.7%	0.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	19.3%	39.6%	14.1%	15.7%	19.5%	19.6%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	646	457	649	689	689	693
Number of Customers by Class						
Domestic	593	417	595	637	637	641
Commercial	40	29	31	31	31	31
Industrial	2	5	5	5	5	5
Institutional	11	6	18	16	16	16
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	2,307	1,622	2,315	2,478	2,478	2,493
Number of Customers by Class (% of total)						
Domestic	91.8%	91.2%	91.7%	92.5%	92.5%	92.5%
Commercial	6.2%	6.3%	4.8%	4.5%	4.5%	4.4%
Industrial	0.3%	1.1%	0.8%	0.7%	0.7%	0.7%
Institutional	1.7%	1.3%	2.8%	2.3%	2.3%	2.3%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



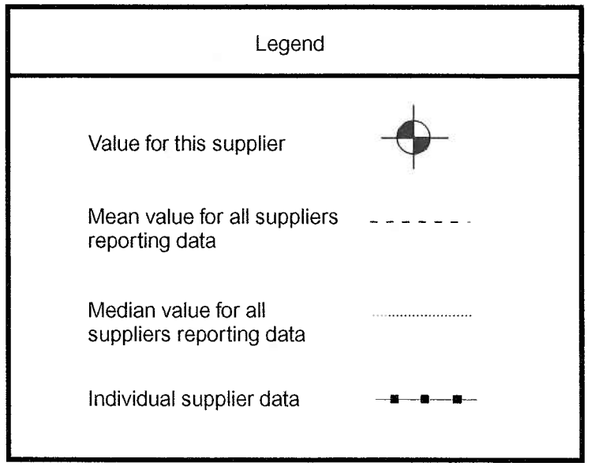


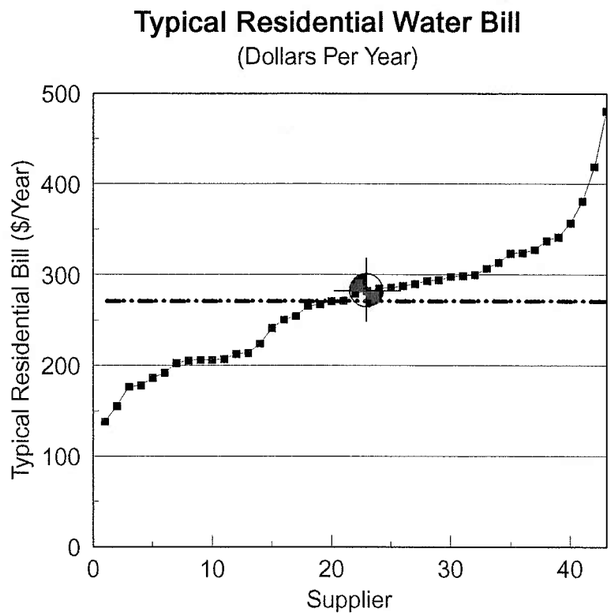


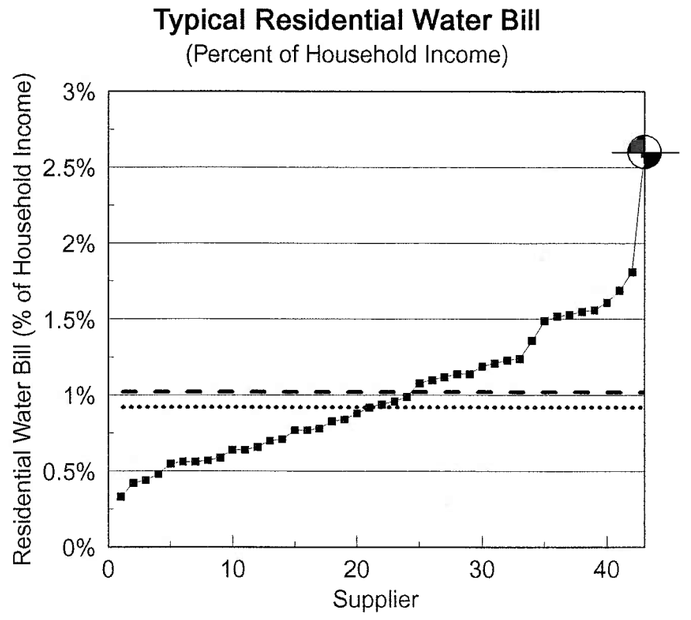


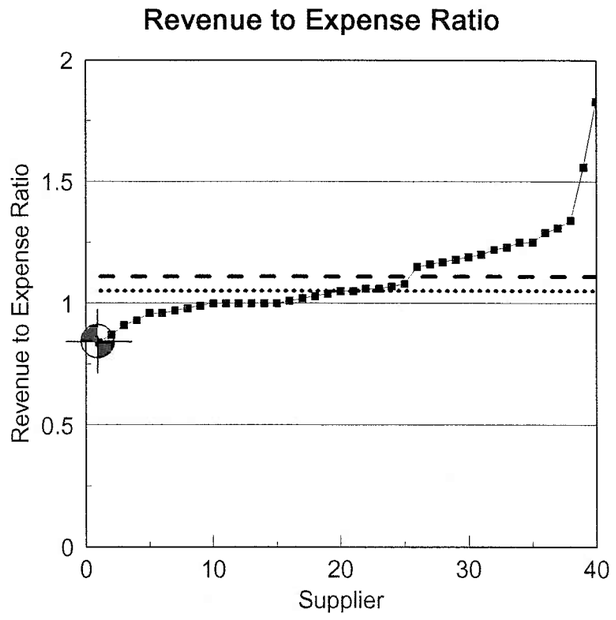
Rankin Borough

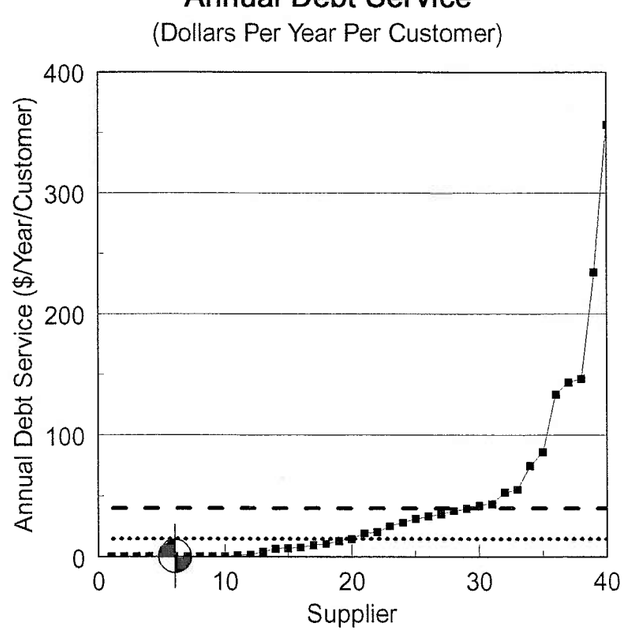
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$276,768
Dollars per 1,000 gallons sold	$2.70
Other Revenues	$9,466
TOTAL OPERATING REVENUES	$286,234
Dollars per 1,000 gallons sold	$2.79
Expenses	
Operating Expenses	
Total dollars per year	$230,733
Dollars per 1,000 gallons sold	$2.25
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$110,664
TOTAL EXPENSES	$341,397
Dollars per 1,000 gallons sold	$3.33
Net Revenues (dollars)	($55,163)
Ratio of revenues to expenses	0.84
Average Annual Residential Bill	
Dollars per year per customer	$281.94
% of Median Household Income	2.59%
Retained Earnings	$22,485
Retained Earnings ($/customer)	$32.63











Reserve Township

Reserve Township serves approximately 1,461 customers in Reserve Township and sells a small amount of water to the Borough of Millvale in bulk for resale.

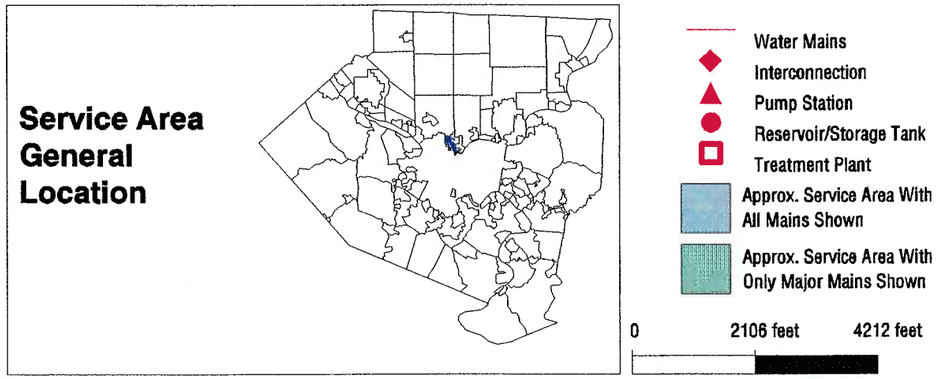
The water system is owned and operated by Reserve Township.

The Township purchases its water supply in bulk from the Pittsburgh Water and Sewer Authority.

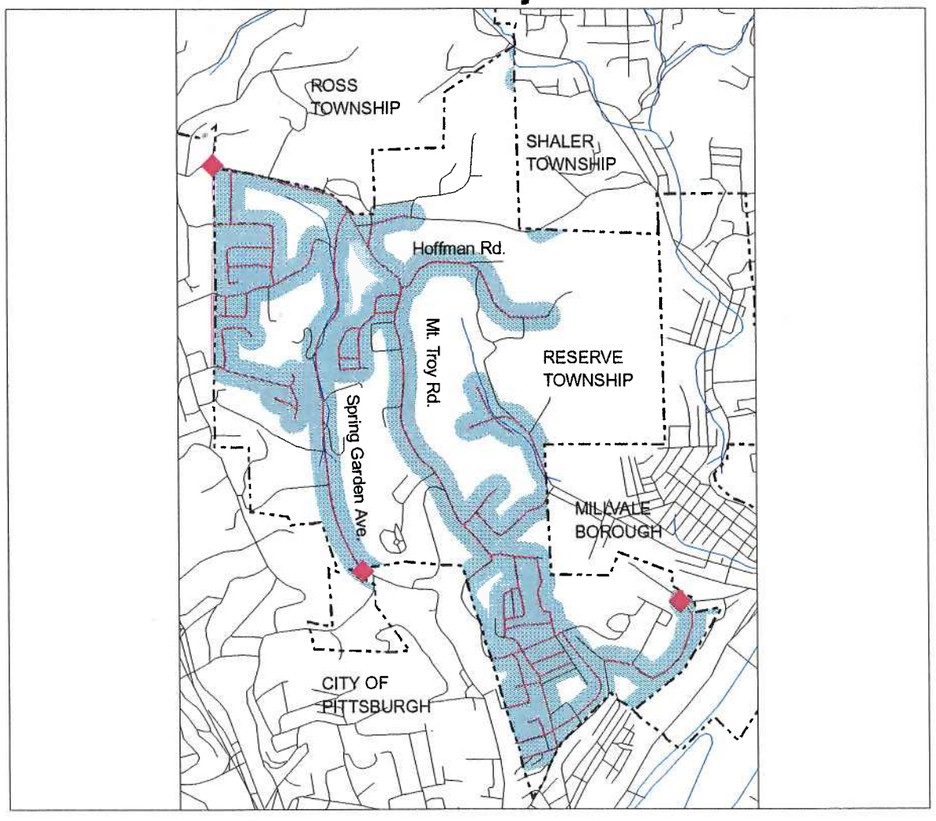
The Township operates no treatment facilities, no distribution storage facilities, and no booster pumping stations.

During the past five years, the Township has experienced a 3.2 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.275 million gallons per day.

The total service population is projected to increase from approximately 3,742 persons in 1993 to approximately 4,596 by the year 2015. Average daily water demands are projected to increase from 0.275 mgd (0.305 mgd maximum day) in 1993 to 0.336 mgd (0.374 mgd maximum day) in the year 2015. Current water supply commitments from the Township's supplier are sufficient to meet the current and projected demands. The Township does not operate any distribution system storage facilities, relying instead upon the storage provided by its water supplier. The Pittsburgh Water and Sewer Authority's distribution system storage facilities provide in excess of a 3-day storage volume throughout the planning period. The Reserve Township has no emergency connections with other systems. However, it obtains water from two separate points of connection with the Pittsburgh system. Given this situation and the relatively small size of the Reserve Township system, the storage available to it and the emergency supply capabilities of the system can be considered to be adequate.



Service Area and Major Facilities



Reserve Township

FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.50	0.50	0.50	0.50	0.50	0.50
City of Pittsburgh	0.50	0.50	0.50	0.50	0.50	0.50
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	162.3%	162.3%	159.9%	164.0%	163.7%	133.7%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

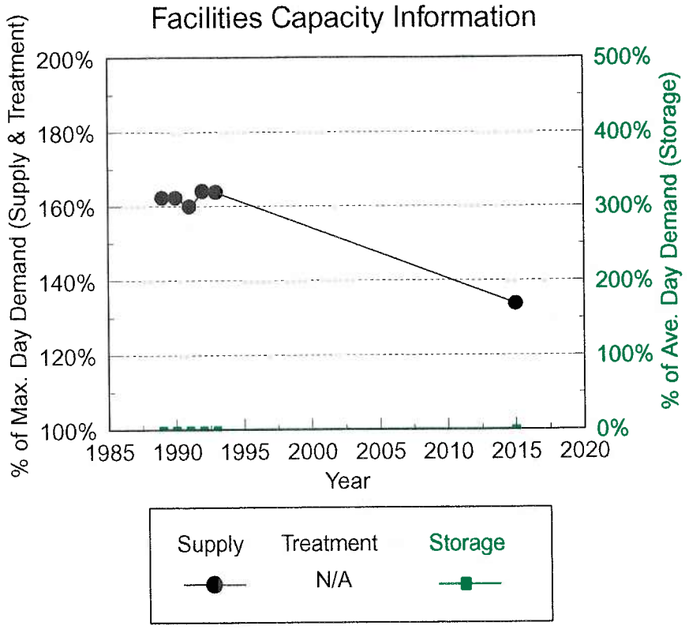
Note: No maximum day supply limit established. Indicated value shown as indicator of sufficient capacity.

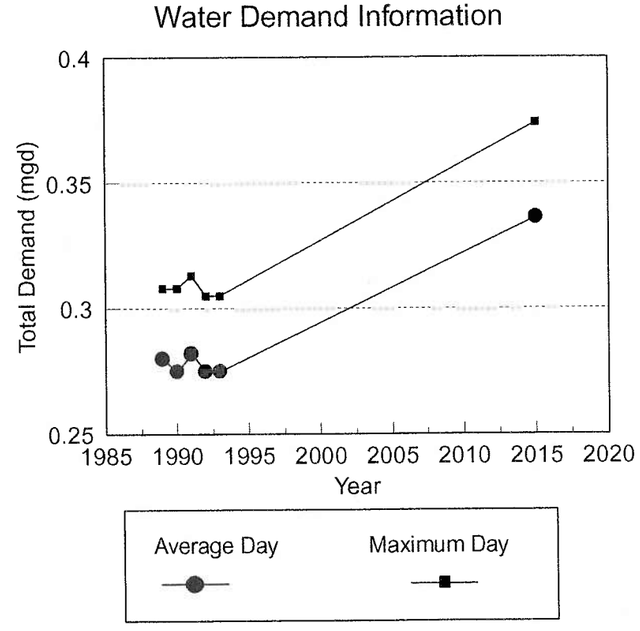
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	92%	100%	100%	91%	

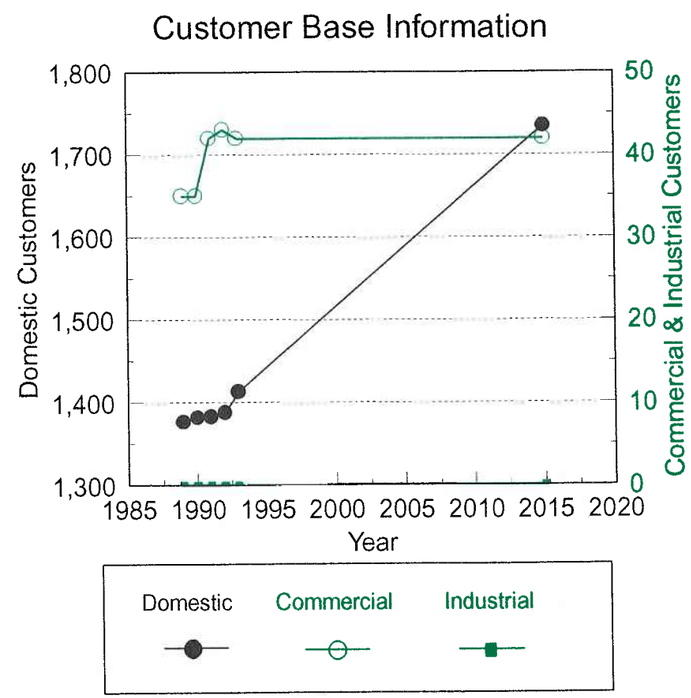
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.280	0.275	0.282	0.275	0.275	0.336
Maximum Day Total Water Use (mgd)	0.308	0.308	0.313	0.305	0.305	0.374
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.247	0.243	0.232	0.224	0.236	0.290
Commercial	0.011	0.011	0.015	0.015	0.015	0.017
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.003	0.003	0.003	0.005	0.003	0.003
Bulk Sales to Suppliers	0.002	0.002	0.001	0.001	0.001	0.001
Unaccounted for and other	0.016	0.015	0.031	0.030	0.021	0.026
Average Daily Water Use (gpd/customer)	186	183	175	170	174	174
Average Daily Water Use by Customer Class (% of total)						
Domestic	88.3%	88.5%	82.4%	81.6%	85.6%	86.3%
Commercial	4.0%	4.1%	5.2%	5.4%	5.3%	5.1%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	1.1%	1.1%	1.0%	1.7%	1.0%	1.0%
Bulk Sales to Suppliers	0.8%	0.8%	0.4%	0.4%	0.4%	0.3%
Unaccounted for and other	5.8%	5.5%	11.0%	10.9%	7.7%	7.6%

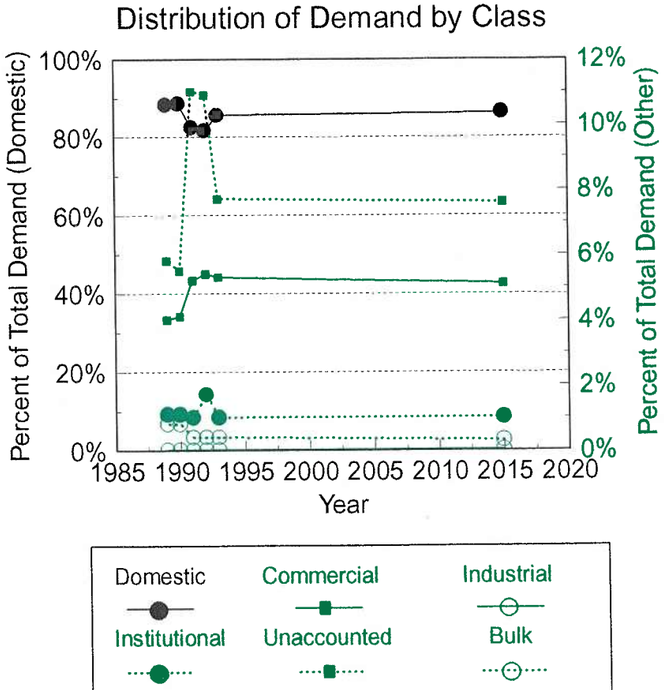
Note: 1991 - 1993 maximum day not reported. Estimated based upon average day and 1989 - 1990 peaking factor.

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,416	1,421	1,431	1,437	1,461	1,783
Number of Customers by Class						
Domestic	1,377	1,382	1,383	1,388	1,413	1,735
Commercial	35	35	42	43	42	42
Industrial	0	0	0	0	0	0
Institutional	3	3	5	5	5	5
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	3,647	3,660	3,663	3,676	3,742	4,596
Number of Customers by Class (% of total)						
Domestic	97.2%	97.3%	96.6%	96.6%	96.7%	97.3%
Commercial	2.5%	2.5%	2.9%	3.0%	2.9%	2.4%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%
Bulk Sales to Suppliers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%









Reserve Township

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$380,310
Dollars per 1,000 gallons sold	$4.09
Other Revenues	$29,449
TOTAL OPERATING REVENUES	$409,759
Dollars per 1,000 gallons sold	$4.40
Expenses	
Operating Expenses	
Total dollars per year	$352,203
Dollars per 1,000 gallons sold	$3.78
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$58,834
TOTAL EXPENSES	$411,037
Dollars per 1,000 gallons sold	$4.42
Net Revenues (dollars)	($1,278)
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$294.29
% of Median Household Income	0.94%
Retained Earnings	$1,605
Retained Earnings ($/customer)	$1.10

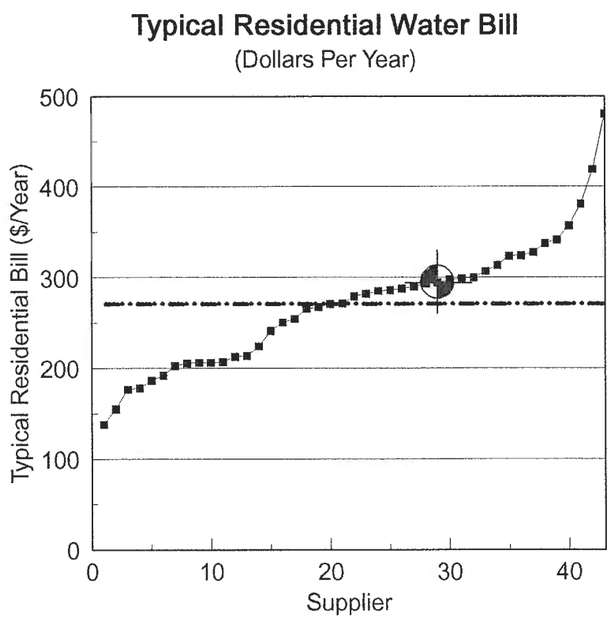
Legend

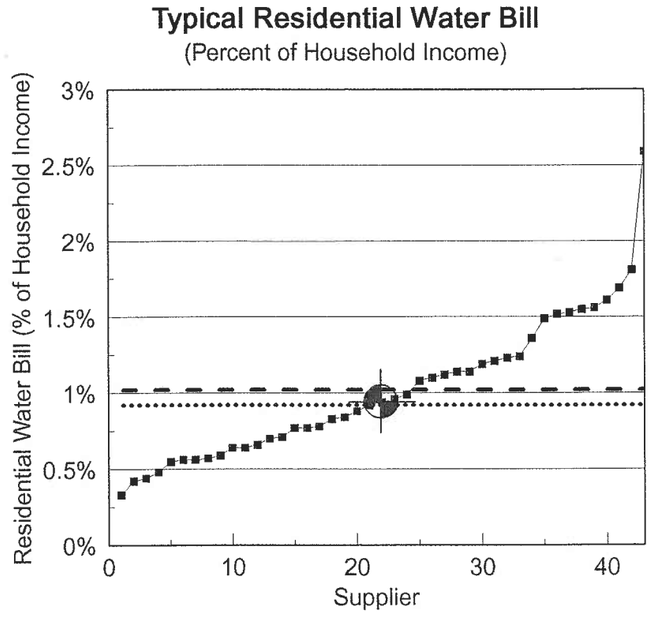
Value for this supplier

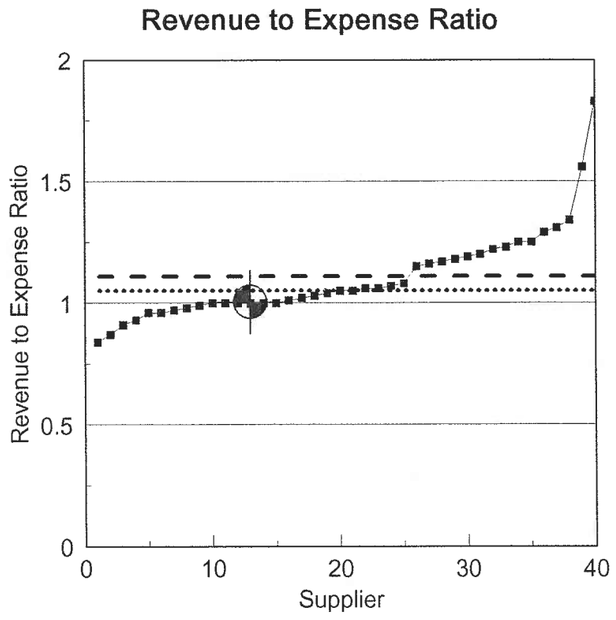
Mean value for all suppliers reporting data

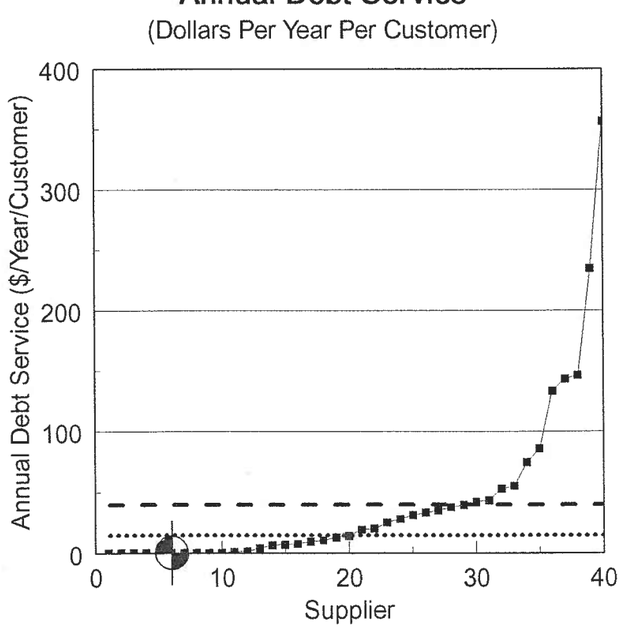
Median value for all suppliers reporting data

Individual supplier data









Richland Township M. A.

The Richland Township Municipal Authority serves approximately 2,008 customers in the following municipalities:

Richland Township
Valencia Borough

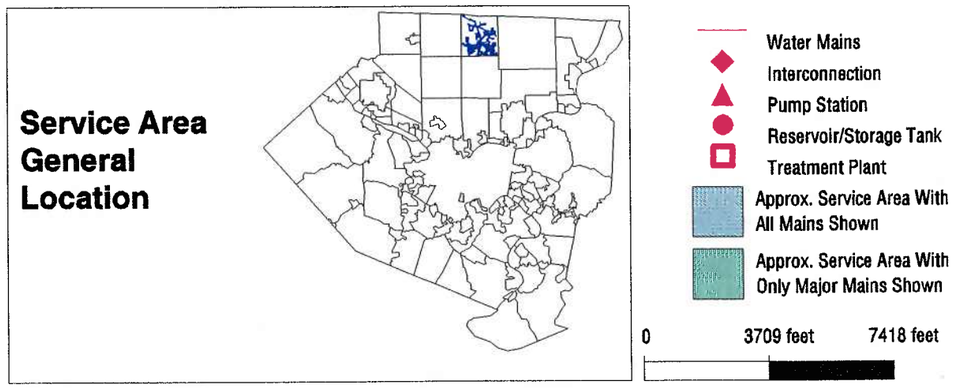
The Authority was established in 1954. The authority board is composed of five members who are appointed by the Richland Township supervisors.

The Authority purchases its water supply in bulk from the Borough of West View Municipal Authority.

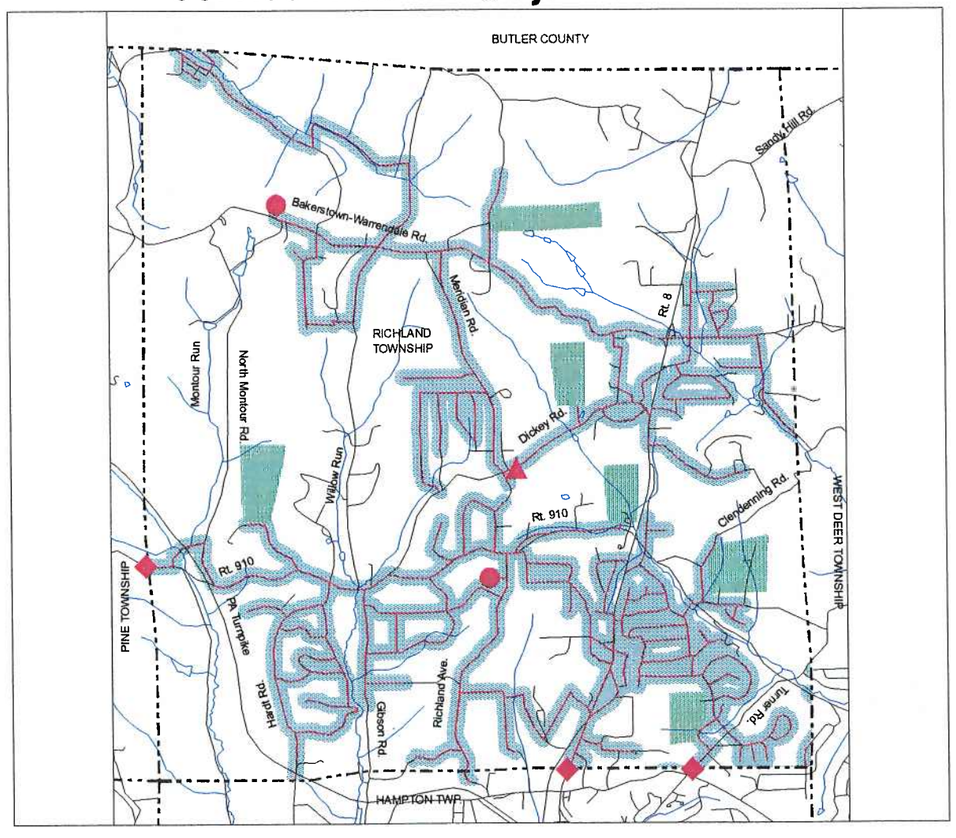
The Authority operates no treatment facilities, two distribution storage facilities, and one booster pumping station.

During the past five years, the Authority has experienced a 21.3 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.575 million gallons per day.

The total service population is projected to more than double from approximately 5,564 persons in 1993 to approximately 11,541 by the year 2015. Average daily water demands are projected to increase from 0.575 mgd (0.773 mgd maximum day) in 1993 to 1.157 mgd (1.678 mgd maximum day) in the year 2015. The supply capacity is adequate under current conditions. However, while there is no established limit on the supply available from the Authority's supplier, the maximum transfer capacity of the connection is reported to be less than the projected year 2015 maximum day capacity. Therefore, under future conditions, the capacity of this interconnection may have to be increased or supplemented with additional points of connection. Distribution water storage volumes are currently less than the target 1-day demand volume under both current and future demand conditions. There are two emergency connections between the Richland Township and Hampton Township Municipal Authority systems. However, while the capacity of these connections and the Authority's storage is adequate to provide the targeted 3-day emergency supply capacity under current demand conditions, this target will not be attained by the year 2015. It is recommended that the Richland Township Municipal Authority construct a minimum of 1.0 million gallons of additional distribution storage. The resulting total storage volume and existing emergency connection capacity will satisfy the 1-day storage and 3-day emergency supply targets. Assuming the construction of one 1.0 million gallon elevated storage tank, the cost of providing the recommended distribution system storage improvements is estimated to approximate $1,300,000.



Service Area and Major Facilities



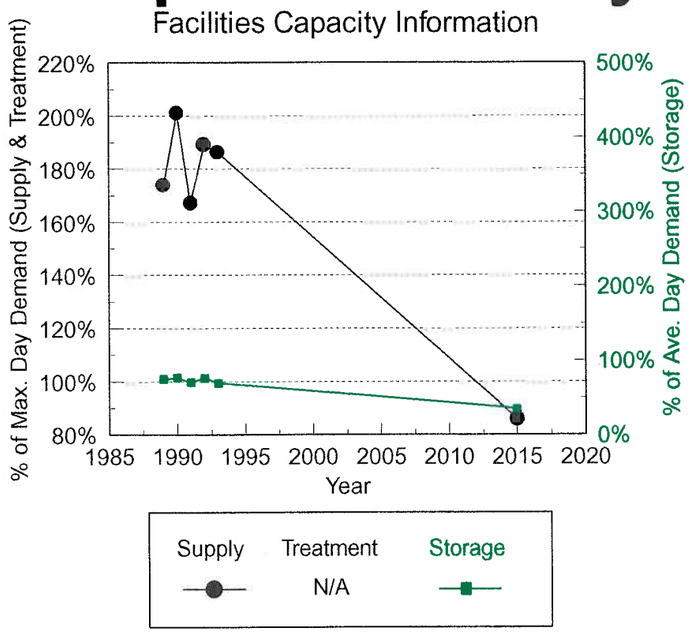
Richland Township Municipal Authority

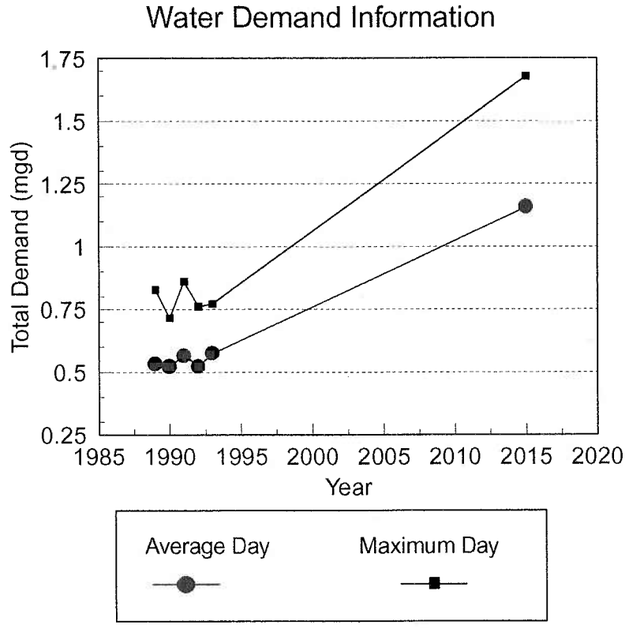
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.44	1.44	1.44	1.44	1.44	1.44
West View Borough Municipal Authority	1.44	1.44	1.44	1.44	1.44	1.44
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.40	0.40	0.40	0.40	0.40	0.40
Total Supply Source(s) Capacity (% of max. day)	173.9%	201.1%	167.1%	189.2%	186.3%	86.8%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	75.0%	76.8%	70.8%	76.5%	69.6%	34.6%

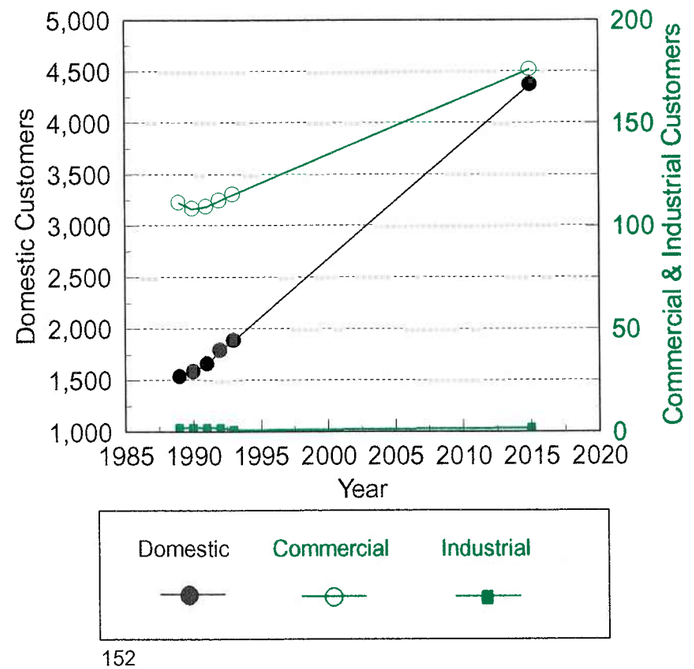
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	92%	

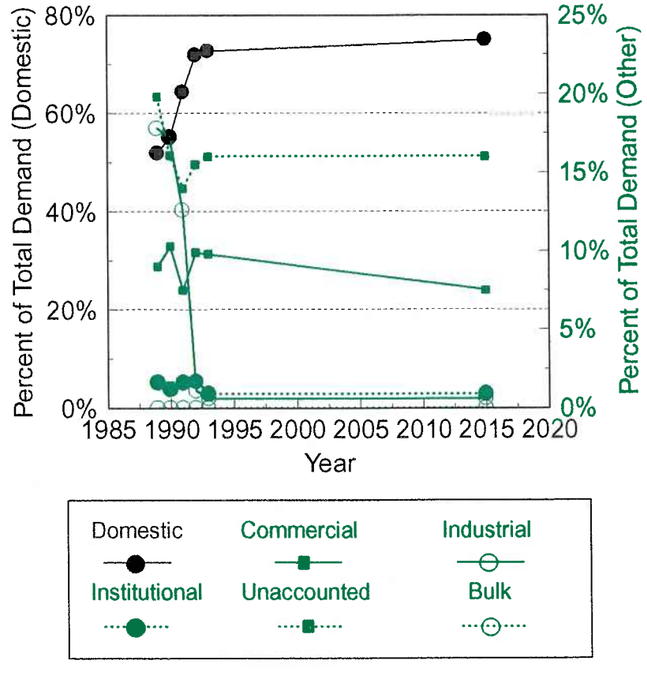
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.533	0.521	0.565	0.523	0.575	1.157
Maximum Day Total Water Use (mgd)	0.828	0.716	0.862	0.761	0.773	1.678
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.277	0.288	0.363	0.376	0.418	0.868
Commercial	0.048	0.054	0.043	0.052	0.056	0.086
Industrial	0.095	0.089	0.071	0.006	0.004	0.007
Institutional	0.009	0.008	0.009	0.009	0.005	0.011
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.105	0.084	0.079	0.081	0.092	0.185
Average Daily Water Use (gpd/customer)	259	257	273	231	241	213
Average Daily Water Use by Customer Class (% of total)						
Domestic	51.9%	55.2%	64.3%	71.8%	72.7%	75.0%
Commercial	9.0%	10.3%	7.5%	9.9%	9.8%	7.5%
Industrial	17.8%	17.2%	12.6%	1.1%	0.6%	0.6%
Institutional	1.6%	1.2%	1.6%	1.7%	0.9%	0.9%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	19.8%	16.1%	14.0%	15.5%	16.0%	16.0%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,655	1,703	1,778	1,914	2,008	4,570
Number of Customers by Class						
Domestic	1,531	1,581	1,656	1,789	1,881	4,369
Commercial	111	108	109	112	115	176
Industrial	2	2	2	2	1	2
Institutional	11	12	11	11	11	23
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	4,529	4,677	4,898	5,292	5,564	11,541
Number of Customers by Class (% of total)						
Domestic	92.5%	92.8%	93.1%	93.5%	93.7%	95.6%
Commercial	6.7%	6.3%	6.1%	5.9%	5.7%	3.9%
Industrial	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
Institutional	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



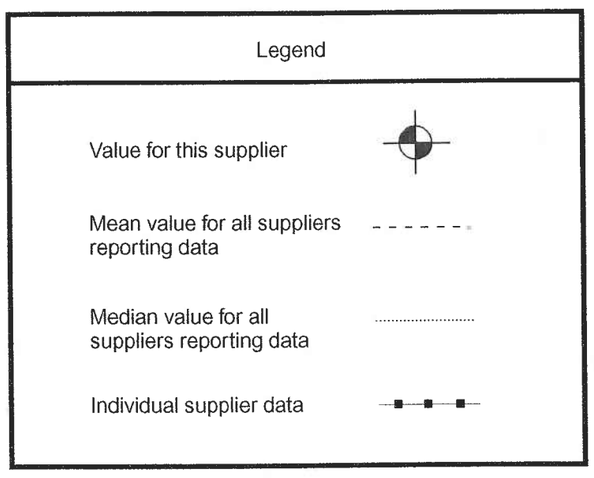


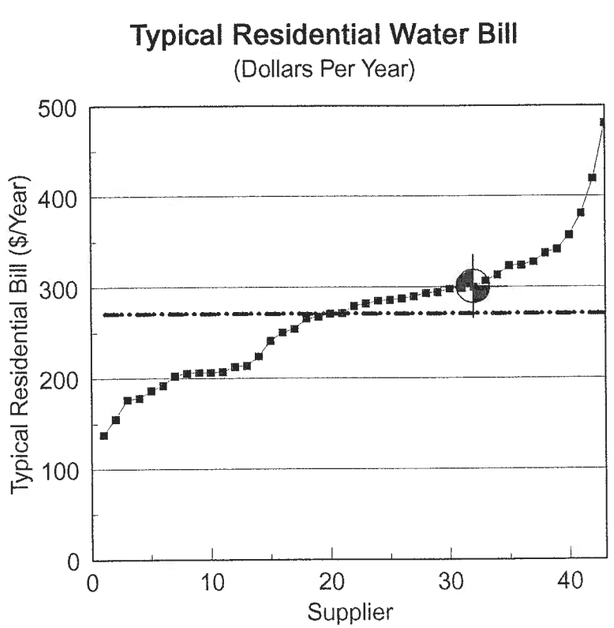


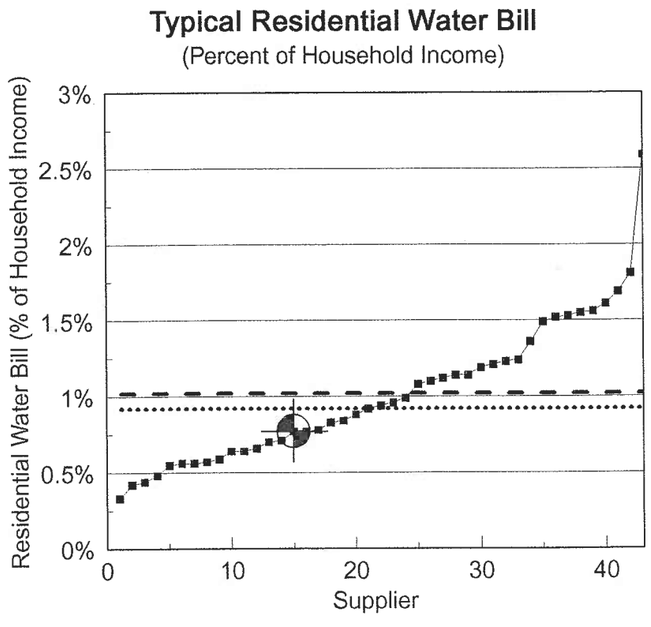


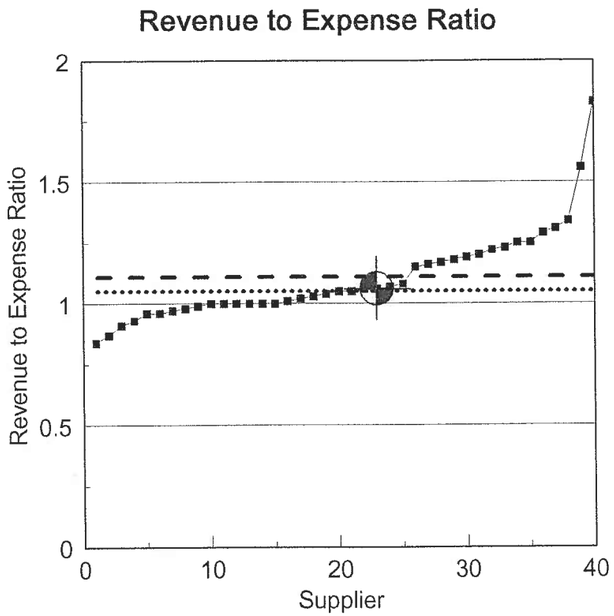
Richland Township Municipal Authority

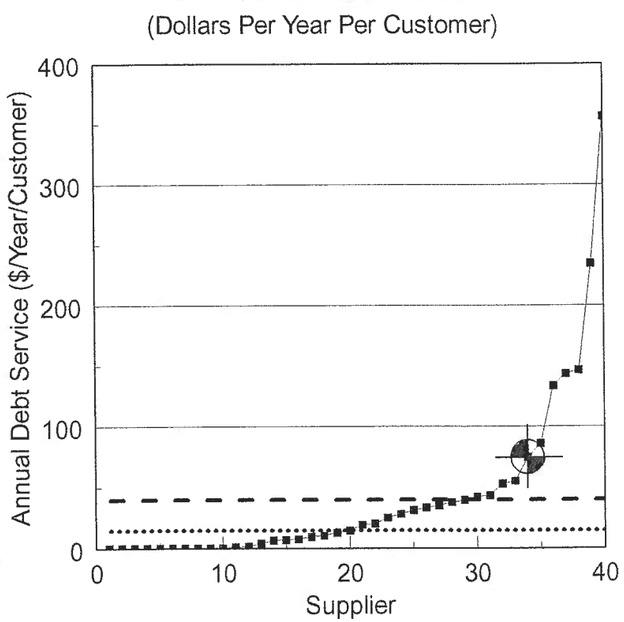
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$798,697
Dollars per 1,000 gallons sold	$4.53
Other Revenues	$45,987
TOTAL OPERATING REVENUES	$844,684
Dollars per 1,000 gallons sold	$4.79
Expenses	
Operating Expenses	
Total dollars per year	$641,180
Dollars per 1,000 gallons sold	$3.64
Debt Service	
Total dollars per year	$150,467
Dollars per customer served	$74.93
Other Expenses	$3,119
TOTAL EXPENSES	$794,766
Dollars per 1,000 gallons sold	$4.51
Net Revenues (dollars)	$49,918
Ratio of revenues to expenses	1.06
Average Annual Residential Bill	
Dollars per year per customer	$299.97
% of Median Household Income	0.77%
Retained Earnings	$3,491,377
Retained Earnings ($/customer)	$1,738.73











Robinson Township M.A.

The Robinson Township Municipal Authority serves approximately 3,529 customers in Robinson Township.

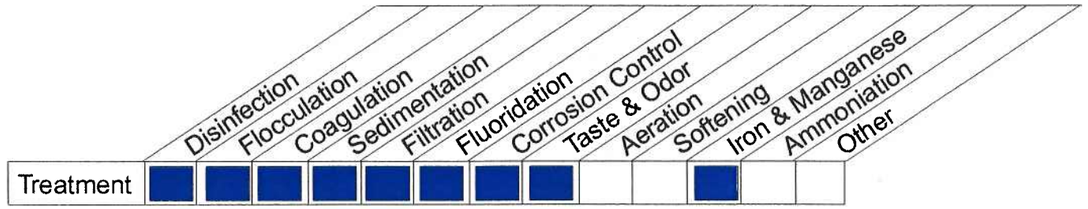
The Authority also sells water in bulk for subsequent resale to the following water suppliers:

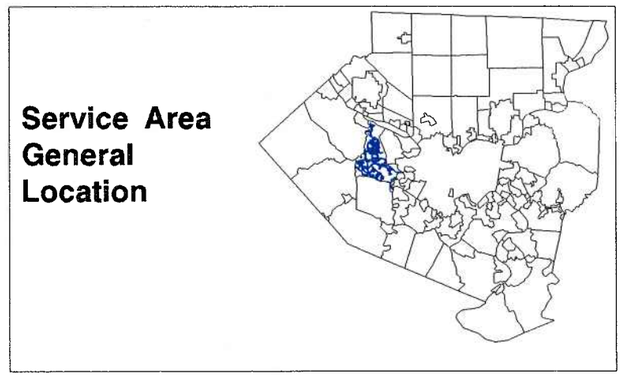
Moon Township Municipal Authority
Findlay Township
Western Allegheny County Municipal Authority

Findlay Township has committed to purchasing 85% of its supply from the Robinson Township Municipal Authority by 1996. The resulting increase in demand is reflected in the demand projections. The Authority was established in 1940. The Authority board consists of seven members appointed by the Robinson Township supervisors.

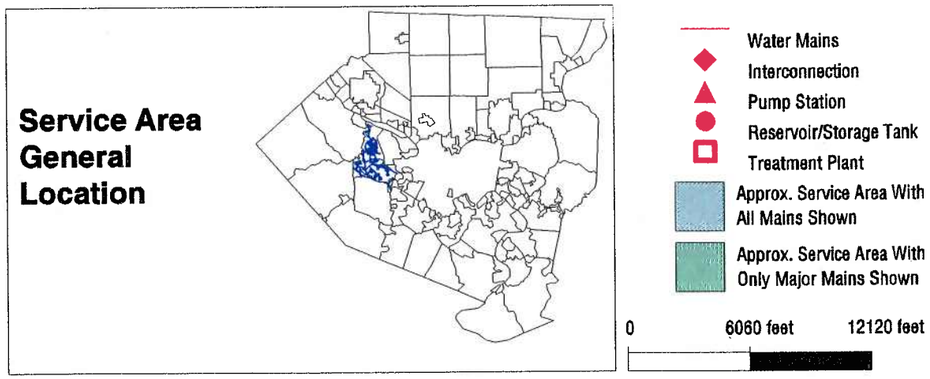
The Authority obtains its primary water supply from the Ohio River. The processes employed by the Authority's water treatment plant are illustrated below. The Authority also purchases water in bulk from the Pennsylvania American Water Company. In addition to the treatment plant, the Authority operates four distribution system water storage facilities, and four booster pumping stations. The Authority is currently expanding the capacity of its water treatment plant to a capacity of 6.0 mgd.

During the past five years, the Authority has experienced a 7.6 percent increase in the total number of customers served. Total daily water use in 1993 averaged 2.551 million gallons per day. The total service population is projected to increase from approximately 10,518 persons in 1993 to approximately 18,509 by the year 2015. Average daily water demands are projected to increase from 2.551 mgd (3.398 mgd maximum day) in 1993 to 5.381 mgd (7.571 mgd maximum day) in the year 2015. The total demands are within the capacity of the Authority's source of supply. However, the maximum day demands exceed the current treatment capacity and, by the year 2015, are projected to exceed the expanded capacity currently being provided through a construction project that is in progress at the time of this writing. This deficiency may be offset, in whole or part, by purchases of finished water from the Pennsylvania American Water Company. The Authority's distribution storage volume currently is less that the desired amount. It is recommended that an additional 2.0 million gallons of storage capacity be provided. The resulting total storage volume will approximate a 1-day storage volume under projected year 2015 demands. The Authority currently has emergency interconnections established with the Moon Township Municipal Authority, Pennsylvania American Water Company, and the Borough of Coraopolis. If the recommended additional 2.0 million gallons of storage is provided, these interconnections, storage in the Robinson Township system, and emergency supplies available to the Authority's bulk sales customers will be sufficient to achieve the target 3-day emergency supply capacity throughout the planning period. The cost of providing the recommended storage facilities, assuming the construction of two 1.0 million gallon elevated storage tanks is estimated to be $2,600,000.

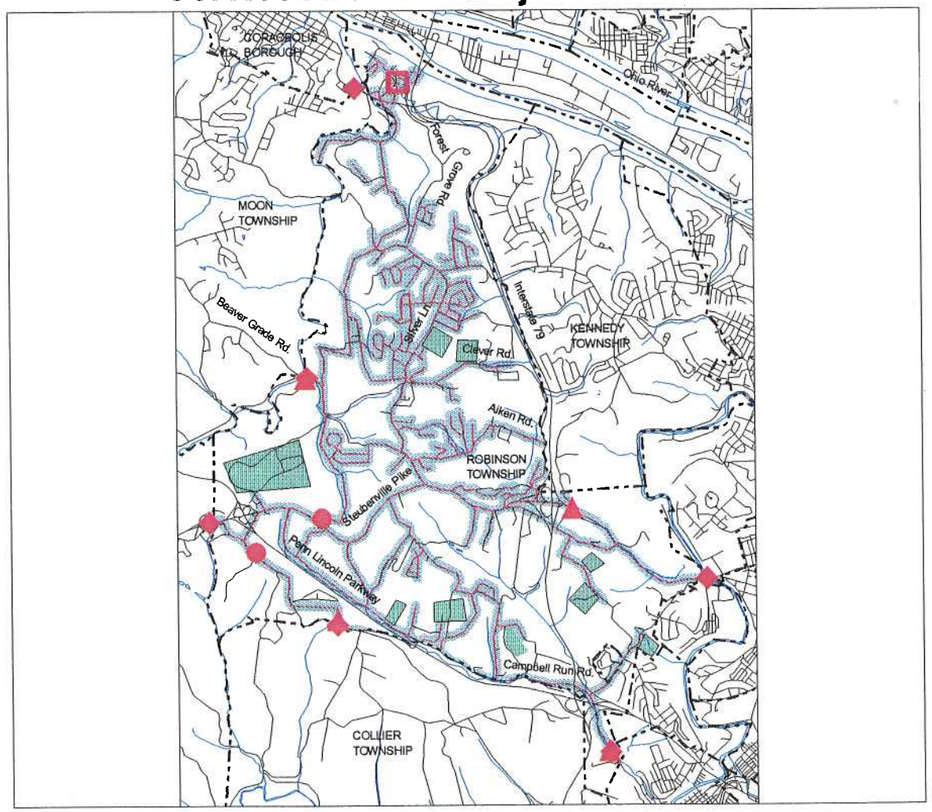




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



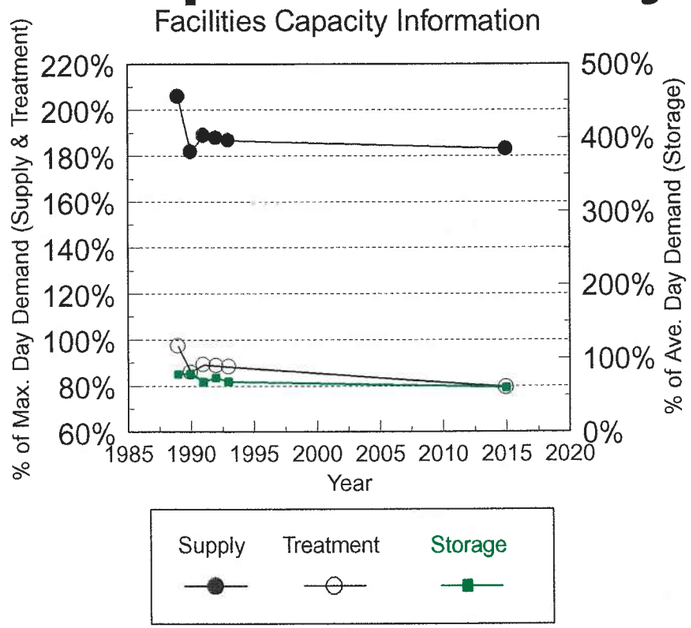
Robinson Township Municipal Authority

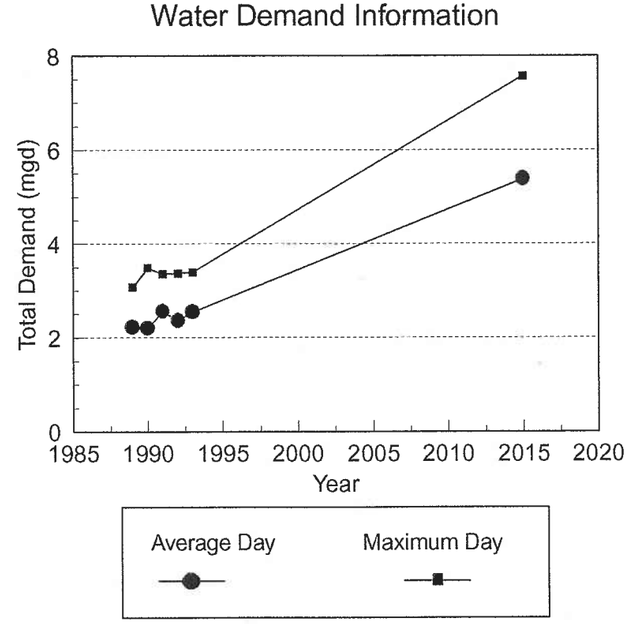
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	6.34	6.34	6.34	6.34	6.34	13.84
Ohio River	4.50	4.50	4.50	4.50	4.50	12.00
Pennsylvania American Water Company	1.84	1.84	1.84	1.84	1.84	1.84
Treatment / Pumping Facility Capacity (mgd)	3.00	3.00	3.00	3.00	3.00	6.00
Total Treated Water Storage (million gallons)	1.75	1.75	1.75	1.75	1.75	3.25
Total Supply Source(s) Capacity (% of max. day)	205.9%	181.8%	188.8%	187.8%	186.7%	182.8%
Treatment / Pumping Facility Capacity (% of max. day)	97.4%	86.0%	89.3%	88.8%	88.3%	79.2%
Total Treated Water Storage (% of ave. day))	78.7%	79.2%	88.3%	74.0%	88.6%	80.4%

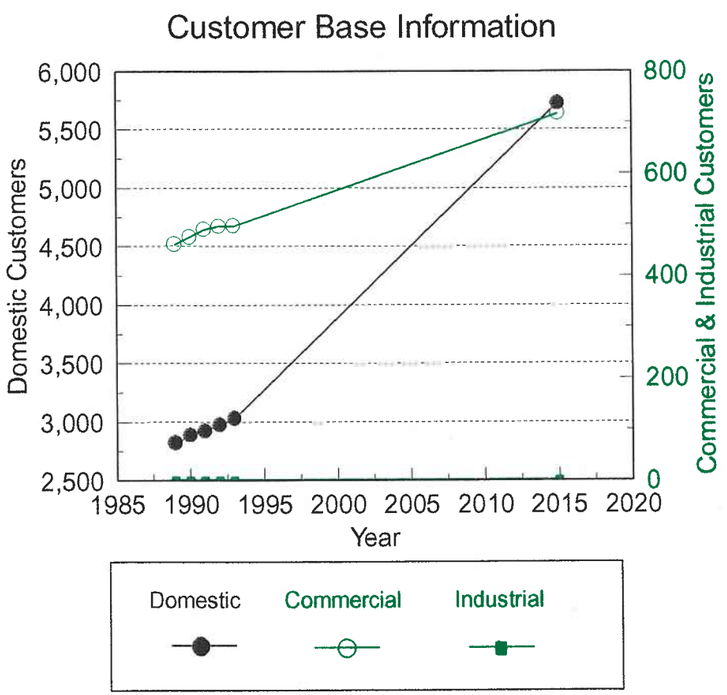
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	50%	92%	100%	92%	100%	

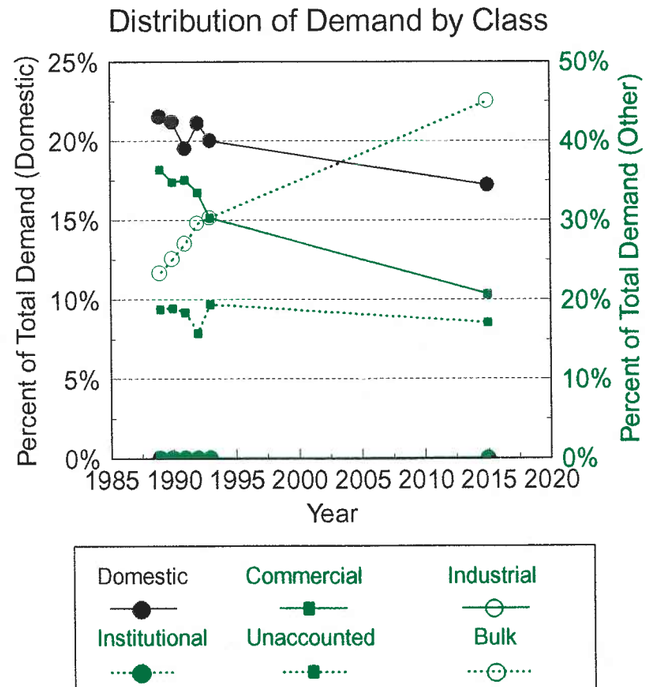
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	2.223	2.210	2.564	2.366	2.551	5.382
Maximum Day Total Water Use (mgd)	3.080	3.490	3.360	3.378	3.398	7.571
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.478	0.469	0.501	0.499	0.510	0.928
Commercial	0.810	0.769	0.900	0.794	0.772	1.113
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.517	0.554	0.692	0.699	0.772	2.422
Unaccounted for and other	0.418	0.417	0.472	0.373	0.496	0.919
Average Daily Water Use (gpd/customer)	550	533	613	574	582	693
Average Daily Water Use by Customer Class (% of total)						
Domestic	21.5%	21.2%	19.5%	21.1%	20.0%	17.2%
Commercial	36.4%	34.8%	35.1%	33.5%	30.3%	20.7%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	23.3%	25.1%	27.0%	29.6%	30.3%	45.0%
Unaccounted for and other	18.8%	18.9%	18.4%	15.8%	19.4%	17.1%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	3,280	3,361	3,414	3,471	3,529	8,443
Number of Customers by Class						
Domestic	2,818	2,885	2,922	2,973	3,029	5,723
Commercial	461	475	490	496	497	717
Industrial	0	0	0	0	0	0
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	1	1	2	2	3	3
Estimated Service Population	9,785	10,018	10,146	10,324	10,518	18,509
Number of Customers by Class (% of total)						
Domestic	85.9%	85.8%	85.6%	85.7%	85.8%	88.8%
Commercial	14.1%	14.1%	14.4%	14.3%	14.1%	11.1%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%



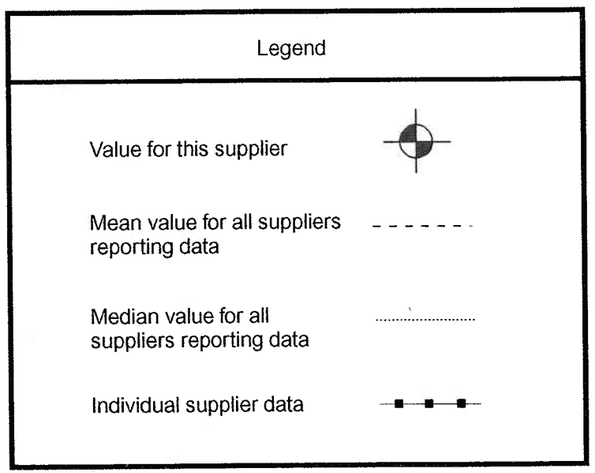


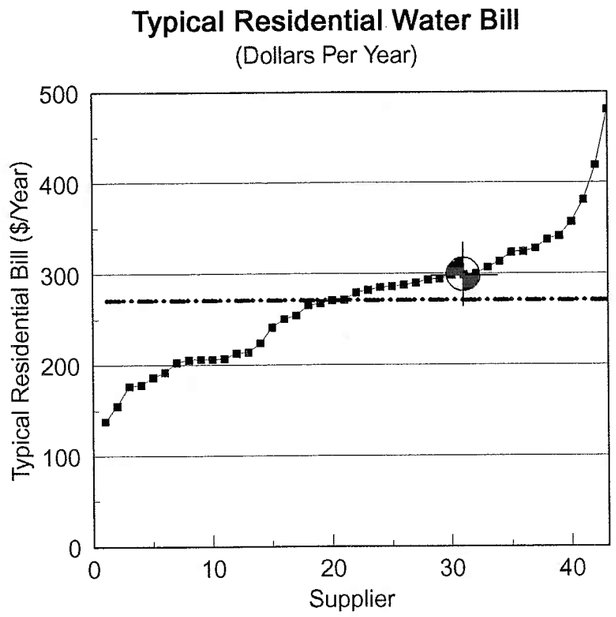


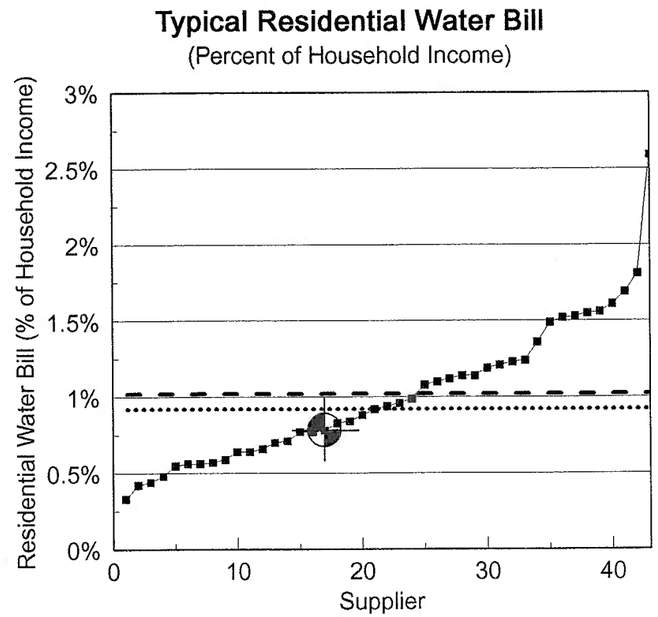


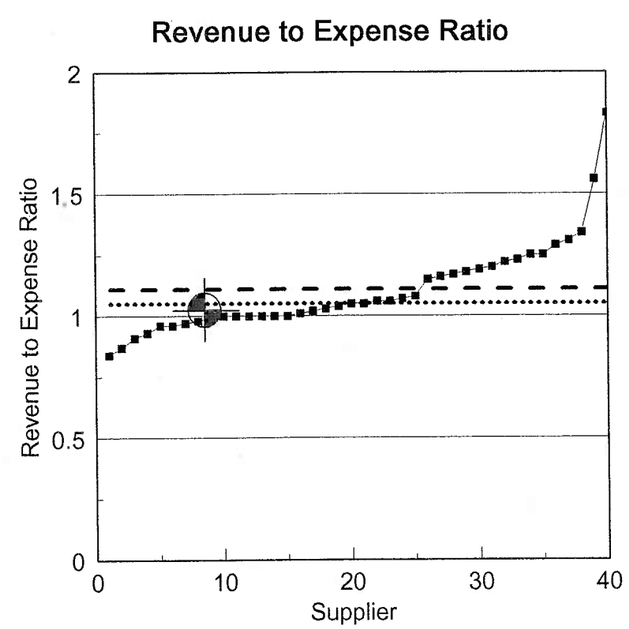
Robinson Township Municipal Authority

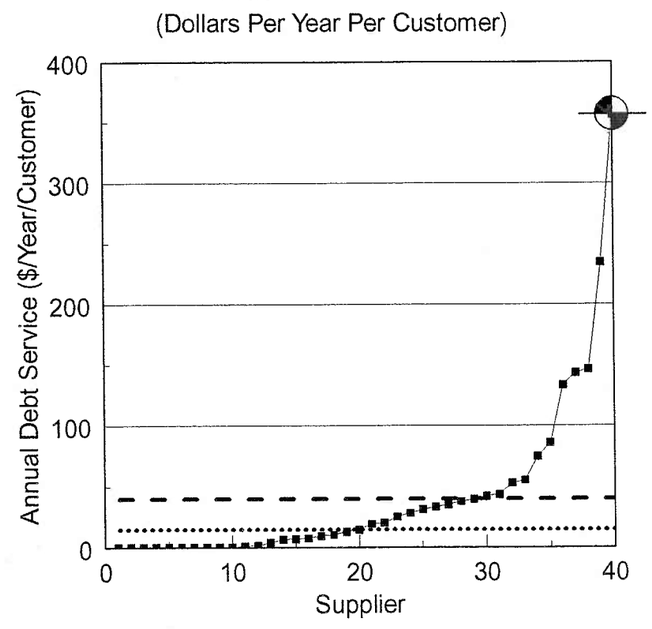
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,921,012
Dollars per 1,000 gallons sold	$2.56
Other Revenues	$688,253
TOTAL OPERATING REVENUES	$2,609,265
Dollars per 1,000 gallons sold	$3.48
Expenses	
Operating Expenses	
Total dollars per year	$1,443,328
Dollars per 1,000 gallons sold	$1.93
Debt Service	
Total dollars per year	$1,257,741
Dollars per customer served	$356.40
Other Expenses	$0
TOTAL EXPENSES	$2,701,069
Dollars per 1,000 gallons sold	$3.60
Net Revenues (dollars)	($91,804)
Ratio of revenues to expenses	0.97
Average Annual Residential Bill	
Dollars per year per customer	$298.16
% of Median Household Income	0.78%
Retained Earnings	$11,468,047
Retained Earnings ($/customer)	$3,249.66











Sewickley Borough Water Authority

The Sewickley Borough Water Authority serves approximately 2,148 customers in the following municipalities:

Edgeworth Borough	Sewickley Borough
Haysville Borough	Sewickley Heights Borough
Osborne Borough	

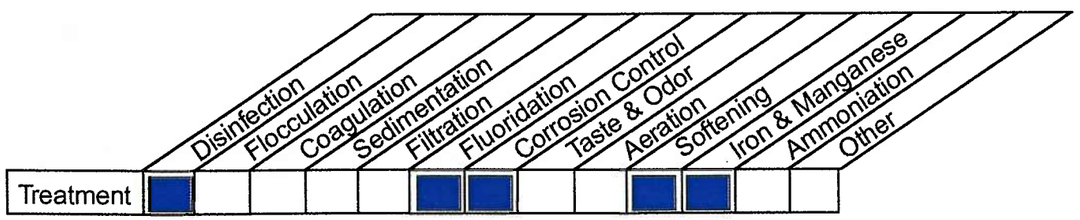
The Authority also sells water in bulk to the Aleppo Township Water Authority for resale.

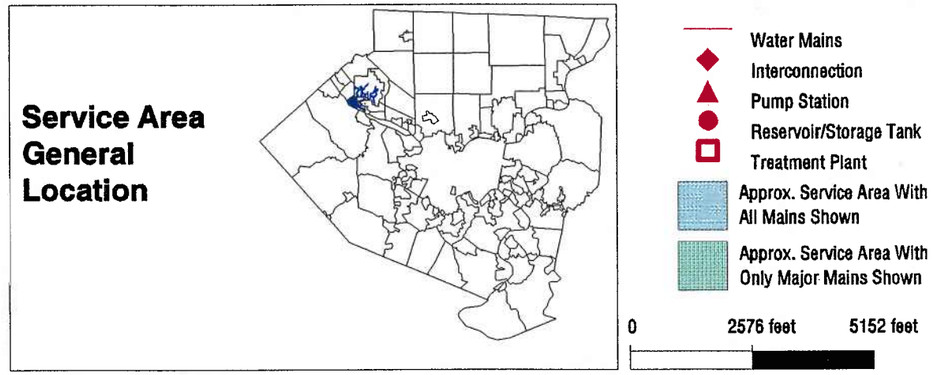
The Sewickley Borough Water Authority was established in 1980. The Authority board is comprised of seven members who are appointed by the Sewickley Borough council.

The Authority obtains its water supply from a ground water crib intake and wells that are located on the banks of the Ohio River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates five distribution system water storage facilities, and three booster pumping stations.

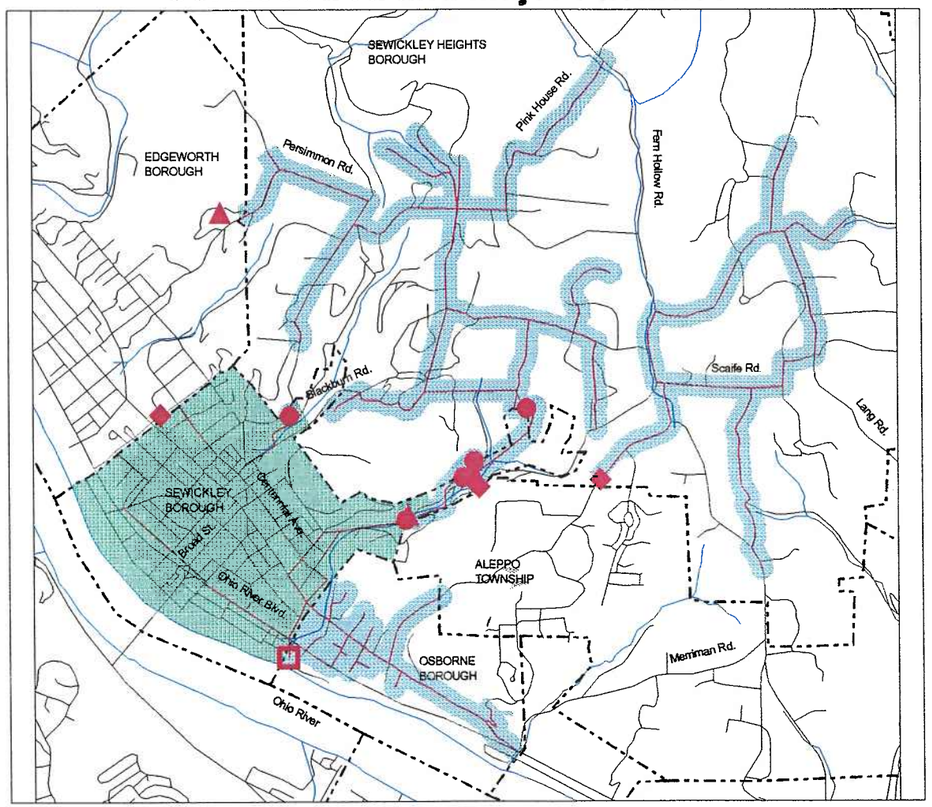
During the past five years, the Authority has experienced a 1.6 percent increase in the total number of customers served. Total daily water use in 1993 averaged 0.977 million gallons per day.

The total service population is projected to increase from approximately 5,639 persons in 1993 to approximately 5,826 by the year 2015. Average daily water demands are projected to increase from 0.977 mgd (1.700 mgd maximum day) in 1993 to 1.041 mgd (1.829 mgd maximum day) in the year 2015. These demands are within the capacity of the Authority's source of supply. The existing and projected future maximum day demands marginally exceed the treatment plant capacity. However, the Authority operates a very large volume of distribution system storage (approximately an 8-day supply under current and projected conditions). Because of this large treated water supply, the maximum day demands can be accommodated without the need for plant expansion. The 1-day distribution system storage volume and the 3-day emergency supply capacity targets will be satisfied throughout the planning period. In addition, the system's emergency supply capacity is supplemented by an emergency connection with the Municipal Authority of the Borough of Edgeworth system.





Service Area and Major Facilities



Sewickley Borough Water Authority

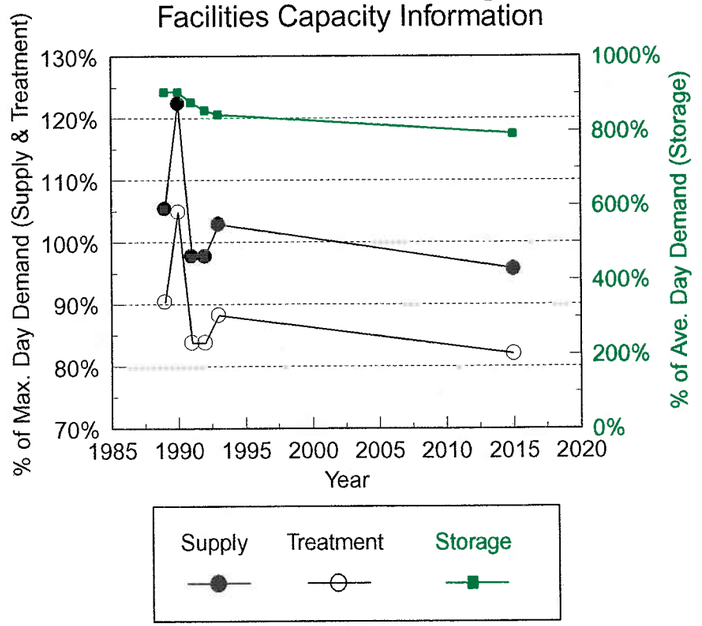
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.75	1.75	1.75	1.75	1.75	1.75
Groundwater	1.75	1.75	1.75	1.75	1.75	1.75
Treatment / Pumping Facility Capacity (mgd)	1.50	1.50	1.50	1.50	1.50	1.50
Total Treated Water Storage (million gallons)	8.25	8.25	8.25	8.25	8.25	8.25
Total Supply Source(s) Capacity (% of max. day)	105.4%	122.4%	97.8%	97.8%	102.9%	95.7%
Treatment / Pumping Facility Capacity (% of max. day)	90.4%	104.9%	83.8%	83.8%	88.2%	82.0%
Total Treated Water Storage (% of ave. day))	903.9%	905.1%	876.5%	855.8%	844.0%	792.2%

SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2013
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	100%	

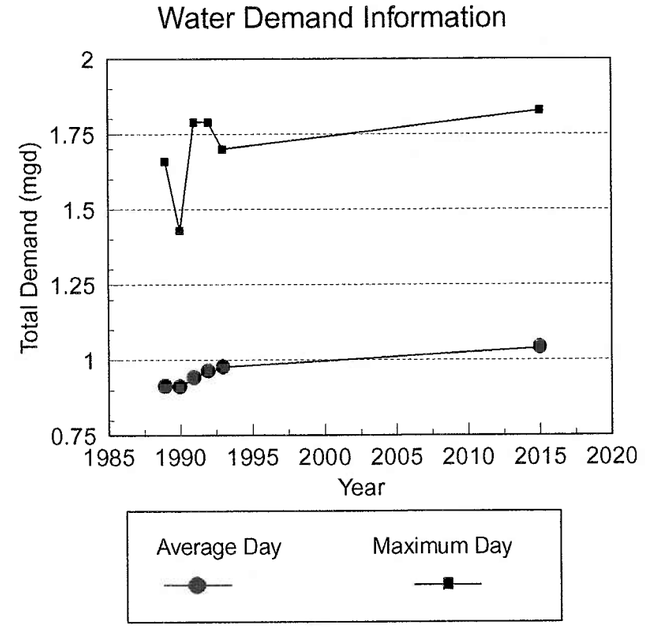
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.913	0.911	0.941	0.964	0.977	1.041
Maximum Day Total Water Use (mgd)	1.660	1.430	1.790	1.790	1.700	1.829
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.405	0.485	0.470	0.426	0.552	0.570
Commercial	0.109	0.114	0.142	0.146	0.122	0.126
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.186	0.179	0.197	0.175	0.142	0.147
Bulk Sales to Suppliers	0.076	0.078	0.097	0.101	0.094	0.127
Unaccounted for and other	0.137	0.054	0.035	0.116	0.067	0.072
Average Daily Water Use (gpd/customer)	367	401	423	395	424	437
Average Daily Water Use by Customer Class (% of total)						
Domestic	44.4%	53.3%	50.0%	44.2%	56.5%	54.7%
Commercial	11.9%	12.5%	15.1%	15.1%	12.5%	12.1%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	20.4%	19.7%	21.0%	18.2%	14.5%	14.1%
Bulk Sales to Suppliers	8.3%	8.6%	10.3%	10.5%	9.6%	12.2%
Unaccounted for and other	15.0%	6.0%	3.7%	12.0%	6.9%	6.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	2,115	2,136	2,141	2,147	2,148	2,219
Number of Customers by Class						
Domestic	1,964	1,982	1,986	1,992	1,993	2,059
Commercial	115	118	118	118	118	122
Industrial	0	0	0	0	0	0
Institutional	35	35	36	36	36	37
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	5,557	5,608	5,619	5,636	5,639	5,826
Number of Customers by Class (% of total)						
Domestic	92.9%	92.8%	92.8%	92.8%	92.8%	92.8%
Commercial	5.4%	5.5%	5.5%	5.5%	5.5%	5.5%
Industrial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Institutional	1.7%	1.6%	1.7%	1.7%	1.7%	1.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

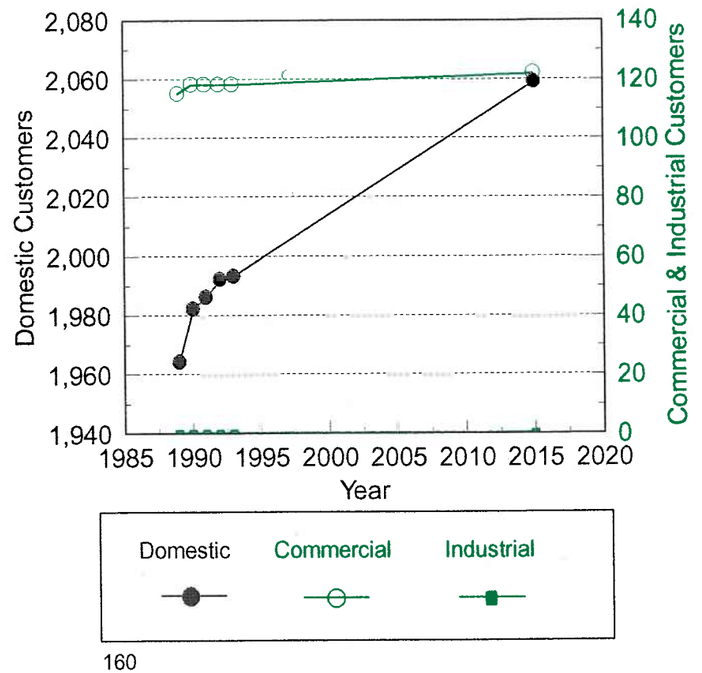
Facilities Capacity Information



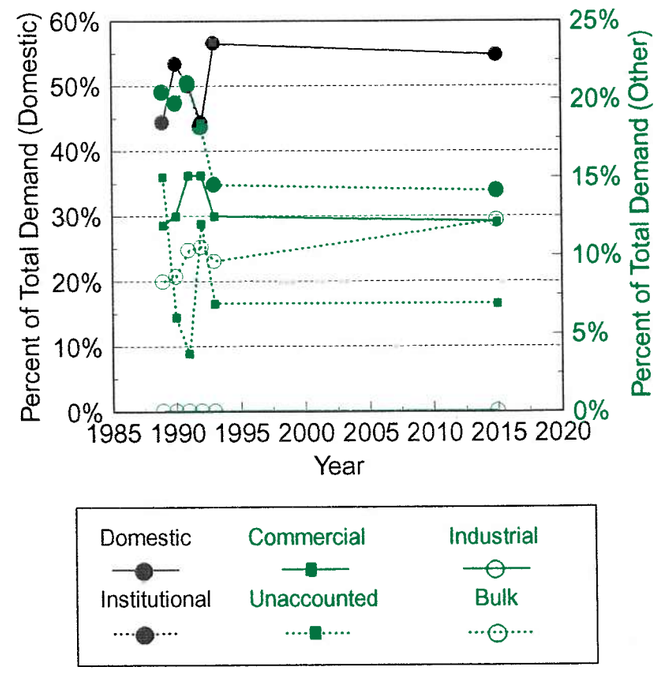
Water Demand Information



Customer Base Information



Distribution of Demand by Class



Sewickley Borough Water Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$755,486
Dollars per 1,000 gallons sold	$2.13
Other Revenues	$173,481
TOTAL OPERATING REVENUES	$928,967
Dollars per 1,000 gallons sold	$2.62
Expenses	
Operating Expenses	
Total dollars per year	$744,309
Dollars per 1,000 gallons sold	$2.10
Debt Service	
Total dollars per year	$0
Dollars per customer served	$0.00
Other Expenses	$0
TOTAL EXPENSES	$744,309
Dollars per 1,000 gallons sold	$2.10
Net Revenues (dollars)	$184,658
Ratio of revenues to expenses	1.25
Average Annual Residential Bill	
Dollars per year per customer	$176.58
% of Median Household Income	0.44%
Retained Earnings	$2,630,228
Retained Earnings ($/customer)	$1,224.50

Legend

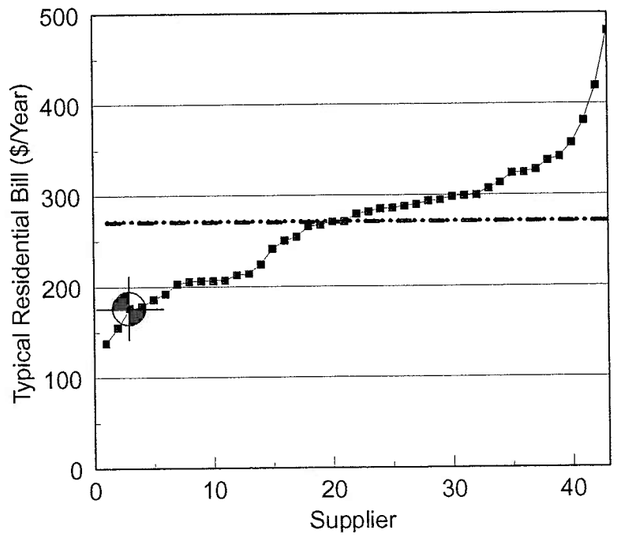
Value for this supplier

Mean value for all suppliers reporting data

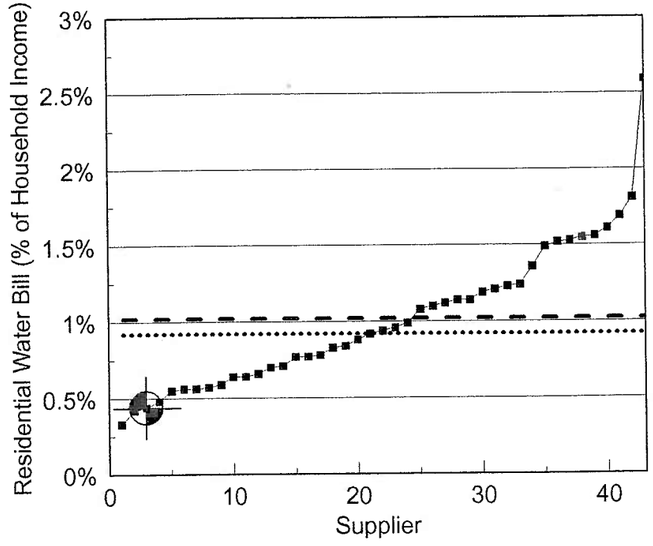
Median value for all suppliers reporting data

Individual supplier data

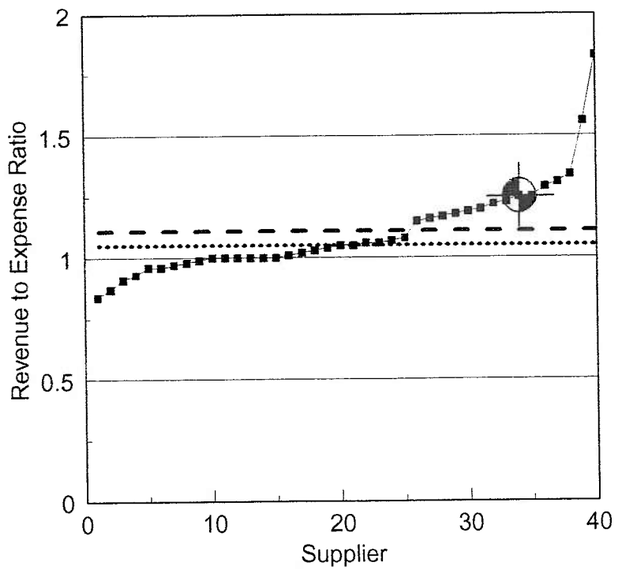
Typical Residential Water Bill
(Dollars Per Year)



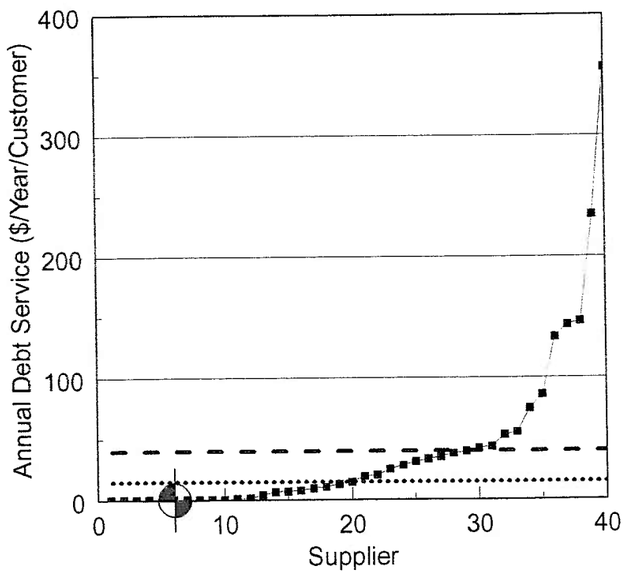
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Shaler Township

Shaler Township serves approximately 11,762 customers in the following municipalities:

Etna Borough	O'Hara Township
Hampton Township	Ross Township
Indiana Township	Shaler Township
Millvale Borough	

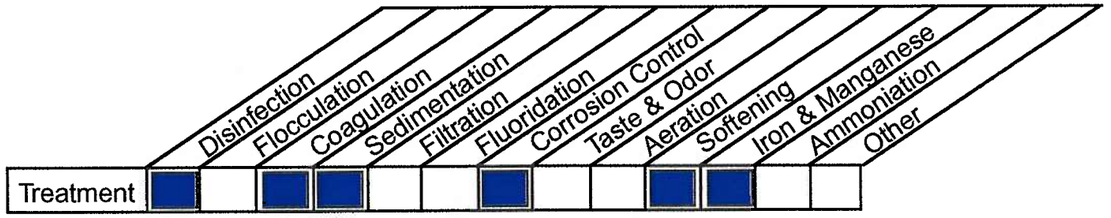
More than 99 percent of the Township's customers are located in the Township. The Township also sells water in bulk to the following water suppliers for subsequent resale:

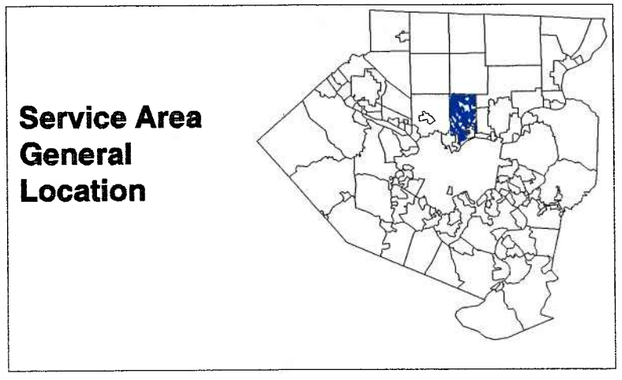
Etna Borough
Hampton Township
Millvale Borough

The water system is owned by Shaler and is operated as a department of the Township.

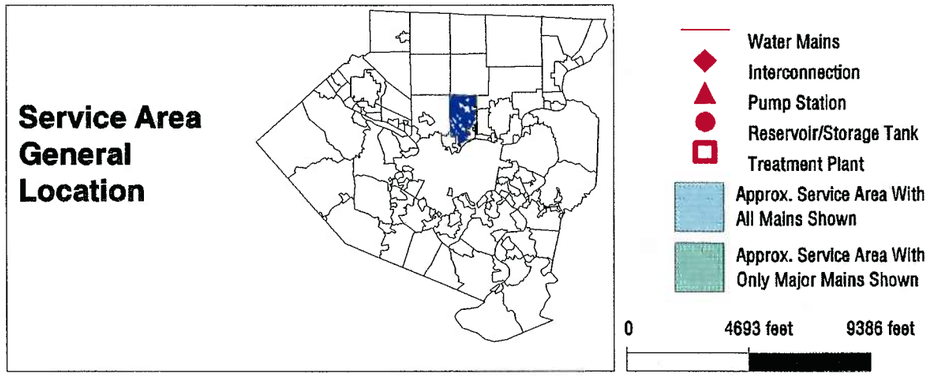
The Township obtains its water supply from wells that are adjacent to the Allegheny River. It also purchase raw well water from the Borough of Etna. The processes employed by the Township's water treatment plant are illustrated below. In addition to the treatment plant, the Township operates seven distribution system water storage facilities, and two booster pumping stations.

During the past five years, the Township has experienced a 2.6 percent increase in the total number of customers served. Total daily water use in 1993 averaged 4.673 million gallons per day. The total service population is projected to increase from approximately 30,576 persons in 1993 to approximately 37,497 by the year 2015. Average daily water demands are projected to increase from 4.673 mgd (5.550 mgd maximum day) in 1993 to 6.268 mgd (7.990 mgd maximum day) in the year 2015. These demands are within the capacity of the Township's treatment facility. However, the projected maximum day demands are projected to exceed the water supply capacities. The Shaler system has recently completed improvements to their system that will permit the purchase of as much as 9.0 mgd of finished water from the Pittsburgh Water and Sewer Authority. Although an agreement for such purchases is not finalized at this time, it would alleviate the indicated supply deficiencies. The finalization and implementation of this agreement is recommended. The Township's distribution storage facilities currently do not provide the desired 1-day volume and will not do so under future conditions. It is, therefore, recommended that an additional 2.0 million gallons of storage be provided. The cost of providing this storage is estimated to be approximately $2,600,000 assuming the erection of two 1.0 million gallon elevated tanks. The Shaler system currently has emergency connections established with the City of Pittsburgh (two locations) and Hampton Township. These connections, the recommended storage volumes in Shaler Township, storage in the Hampton, Millvale and Etna systems, and emergency supplies available to Hampton Township will provide sufficient emergency supply capabilities to meet the 3-day target.

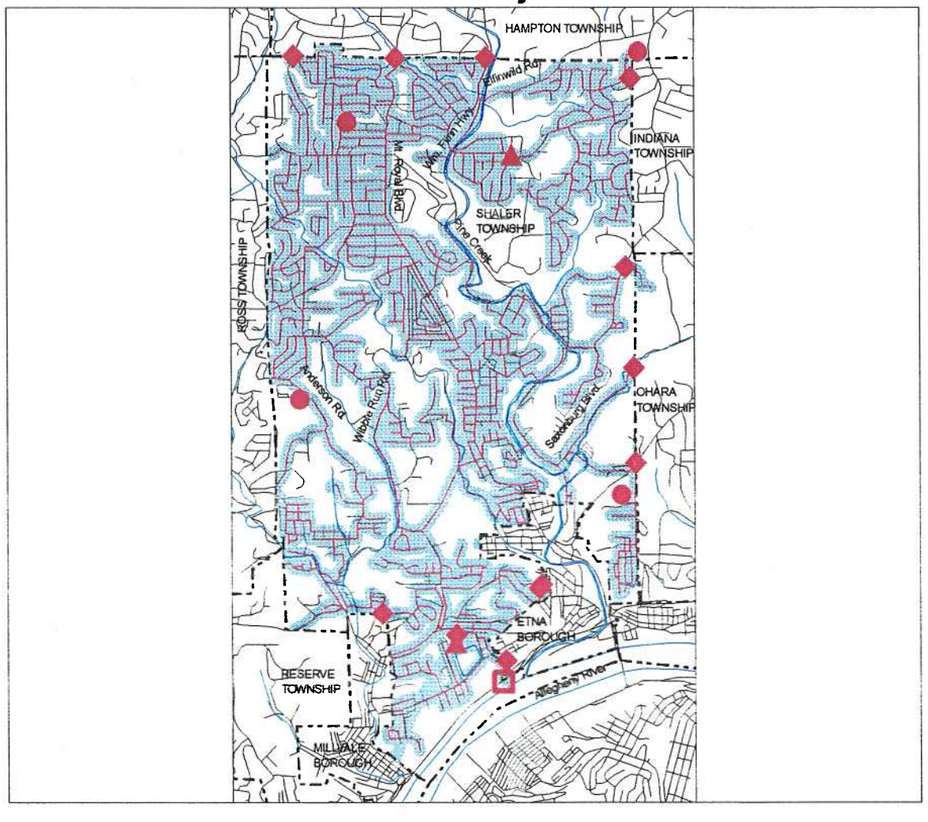




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



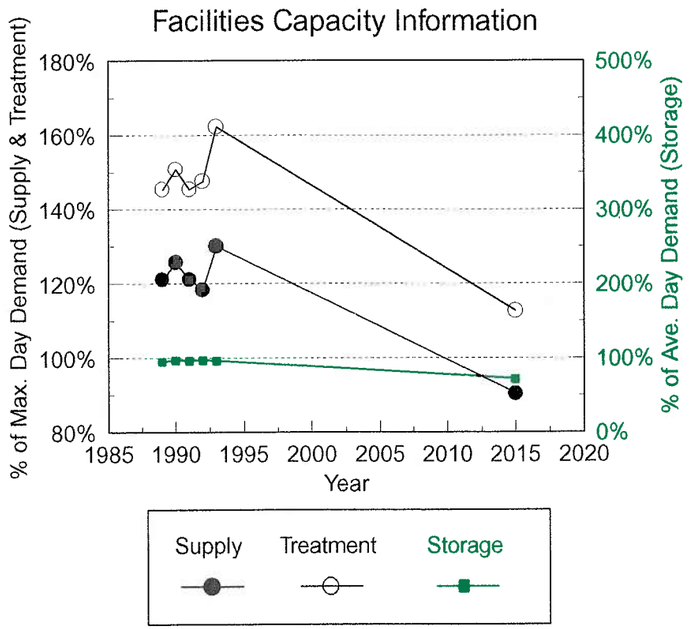
Shaler Township

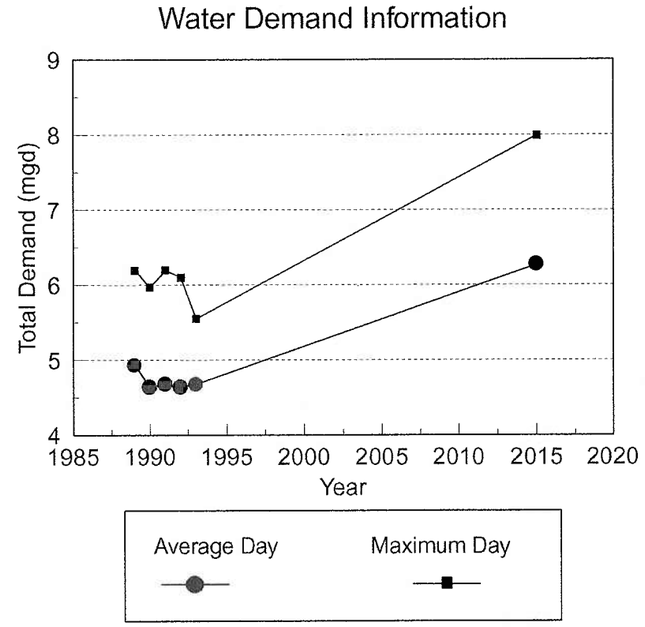
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	7.51	7.51	7.51	7.22	7.22	7.22
Wells	5.50	5.50	5.50	5.67	5.67	5.67
City of Pittsburgh	1.00	1.00	1.00	1.00	1.00	1.00
Hampton Township and Etna Borough	1.01	1.01	1.01	0.55	0.55	0.55
Treatment / Pumping Facility Capacity (mgd)	9.00	9.00	9.00	9.00	9.00	9.00
Total Treated Water Storage (million gallons)	4.70	4.50	4.50	4.50	4.50	4.50
Total Supply Source(s) Capacity (% of max. day)	121.1%	125.7%	121.1%	118.4%	130.1%	90.4%
Treatment / Pumping Facility Capacity (% of max. day)	145.3%	150.8%	145.3%	147.5%	162.2%	112.6%
Total Treated Water Storage (% of ave. day))	96.3%	97.1%	96.2%	97.1%	96.3%	71.8%

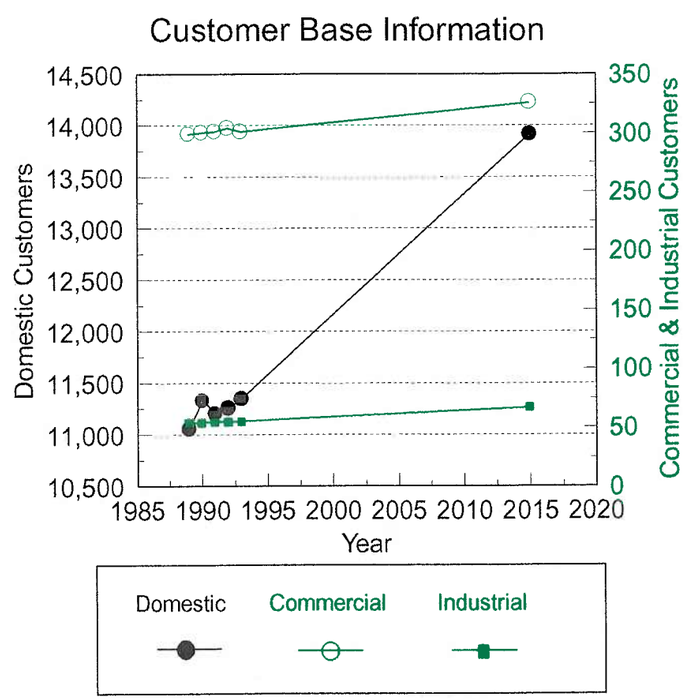
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	100%	

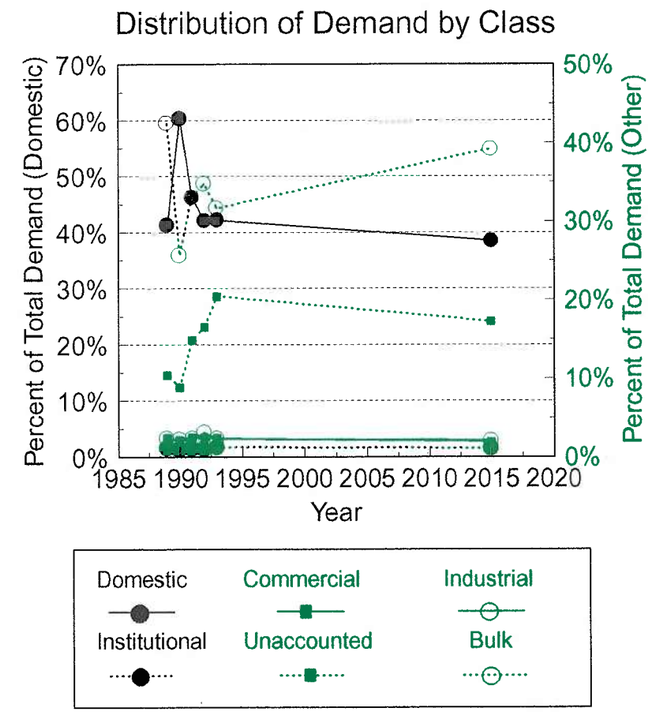
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	4.931	4.636	4.676	4.634	4.673	6.268
Maximum Day Total Water Use (mgd)	6.195	5.970	6.196	6.100	5.550	7.990
Average Daily Water Use by Customer Class (mgd)						
Domestic	2.035	2.796	2.162	1.950	1.970	2.416
Commercial	0.120	0.101	0.119	0.117	0.110	0.119
Industrial	0.114	0.100	0.109	0.144	0.106	0.130
Institutional	0.056	0.041	0.049	0.048	0.055	0.067
Bulk Sales to Suppliers	2.095	1.188	1.544	1.612	1.480	2.458
Unaccounted for and other	0.512	0.410	0.693	0.763	0.951	1.077
Average Daily Water Use (gpd/customer)	386	360	343	332	316	361
Average Daily Water Use by Customer Class (% of total)						
Domestic	41.3%	60.3%	46.2%	42.1%	42.2%	38.5%
Commercial	2.4%	2.2%	2.5%	2.5%	2.4%	1.9%
Industrial	2.3%	2.2%	2.3%	3.1%	2.3%	2.1%
Institutional	1.1%	0.9%	1.0%	1.0%	1.2%	1.1%
Bulk Sales to Suppliers	42.5%	25.6%	33.0%	34.8%	31.7%	39.2%
Unaccounted for and other	10.4%	8.8%	14.8%	16.5%	20.4%	17.2%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	11,459	11,735	11,612	11,669	11,762	14,381
Number of Customers by Class						
Domestic	11,055	11,330	11,205	11,257	11,346	13,914
Commercial	299	300	301	304	301	326
Industrial	54	54	55	55	55	67
Institutional	47	47	47	49	57	70
Bulk Sales to Suppliers	4	4	4	4	3	3
Estimated Service Population	29,792	30,533	30,198	30,336	30,576	37,497
Number of Customers by Class (% of total)						
Domestic	96.5%	96.5%	96.5%	96.5%	96.5%	96.8%
Commercial	2.6%	2.6%	2.6%	2.6%	2.6%	2.3%
Industrial	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Institutional	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Shaler Township

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$2,438,763
Dollars per 1,000 gallons sold	$1.80
Other Revenues	$143,642
TOTAL OPERATING REVENUES	$2,582,405
Dollars per 1,000 gallons sold	$1.90
Expenses	
Operating Expenses	
Total dollars per year	$1,983,311
Dollars per 1,000 gallons sold	$1.46
Debt Service	
Total dollars per year	$413,877
Dollars per customer served	$35.19
Other Expenses	$388,538
TOTAL EXPENSES	$2,785,726
Dollars per 1,000 gallons sold	$2.05
Net Revenues (dollars)	($203,321)
Ratio of revenues to expenses	0.93
Average Annual Residential Bill	
	$155.22
	0.42%
Retained Earnings	$409,067
Retained Earnings ($/customer)	$34.78

Legend

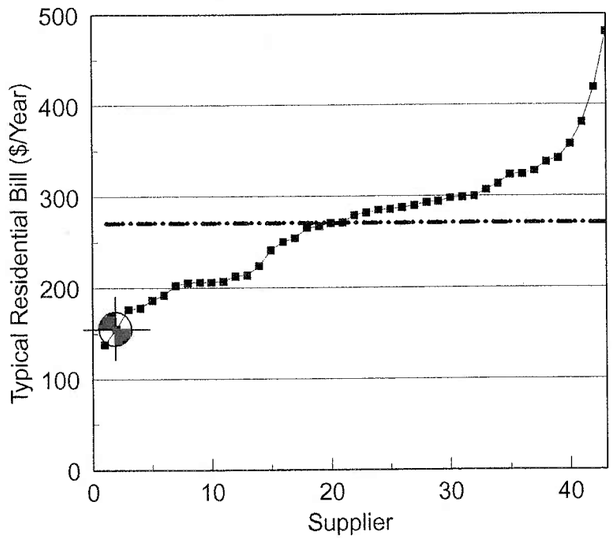
Value for this supplier

Mean value for all suppliers reporting data

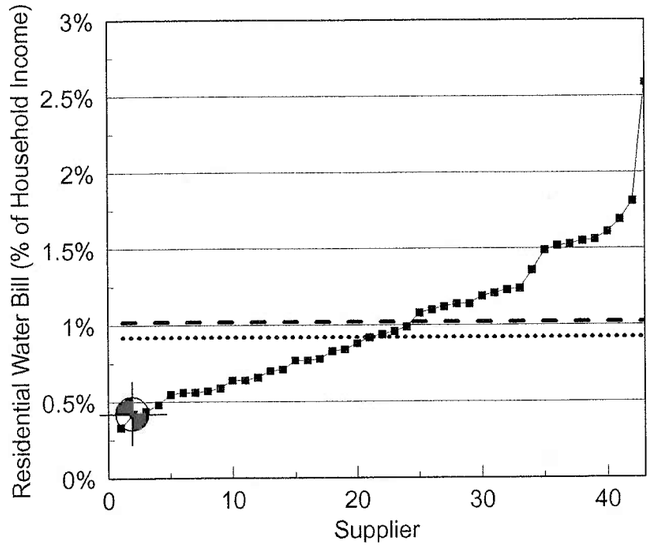
Median value for all suppliers reporting data

Individual supplier data

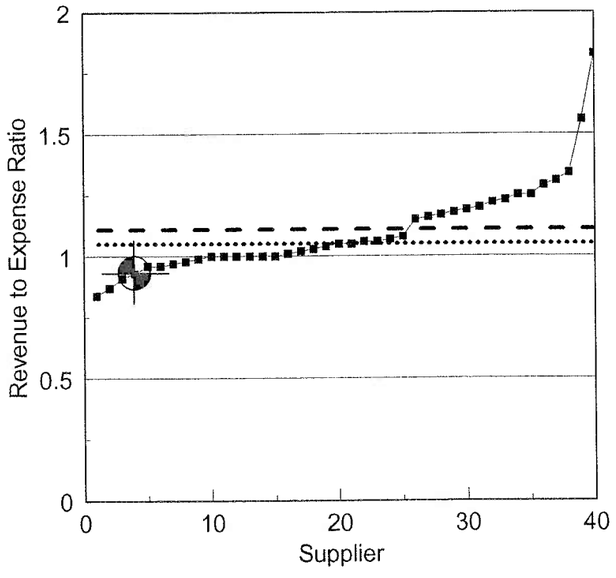
Typical Residential Water Bill
(Dollars Per Year)



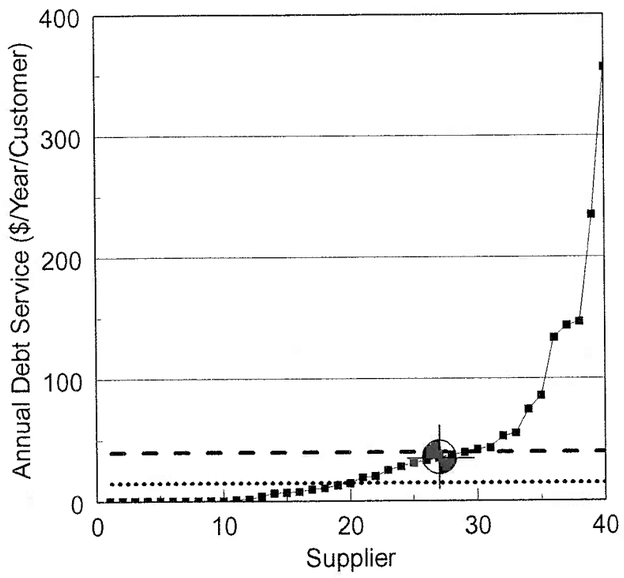
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Sharpsburg Borough

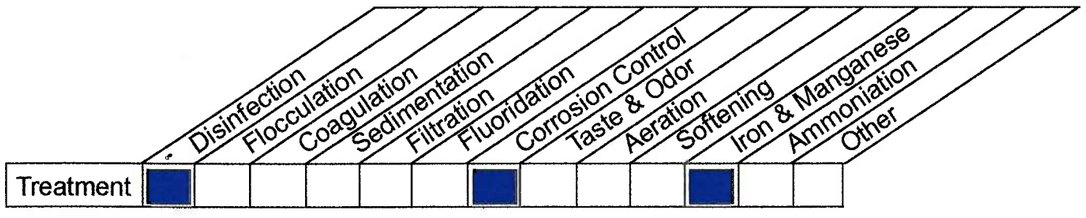
The Borough of Sharpsburg serves approximately 1,499 customers in Sharpsburg Borough.

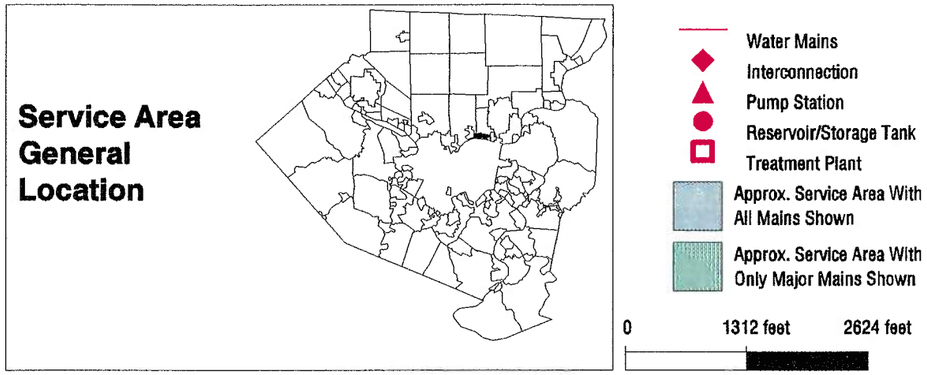
The water system is owned by the Borough of Sharpsburg and is operated as a department under the borough council.

The Borough obtains its water supply from wells that are adjacent to the Allegheny River. The processes employed by the Borough's water treatment plant are illustrated below. In addition to the treatment plant, the Borough operates one distribution system water storage facility, and no booster pumping stations.

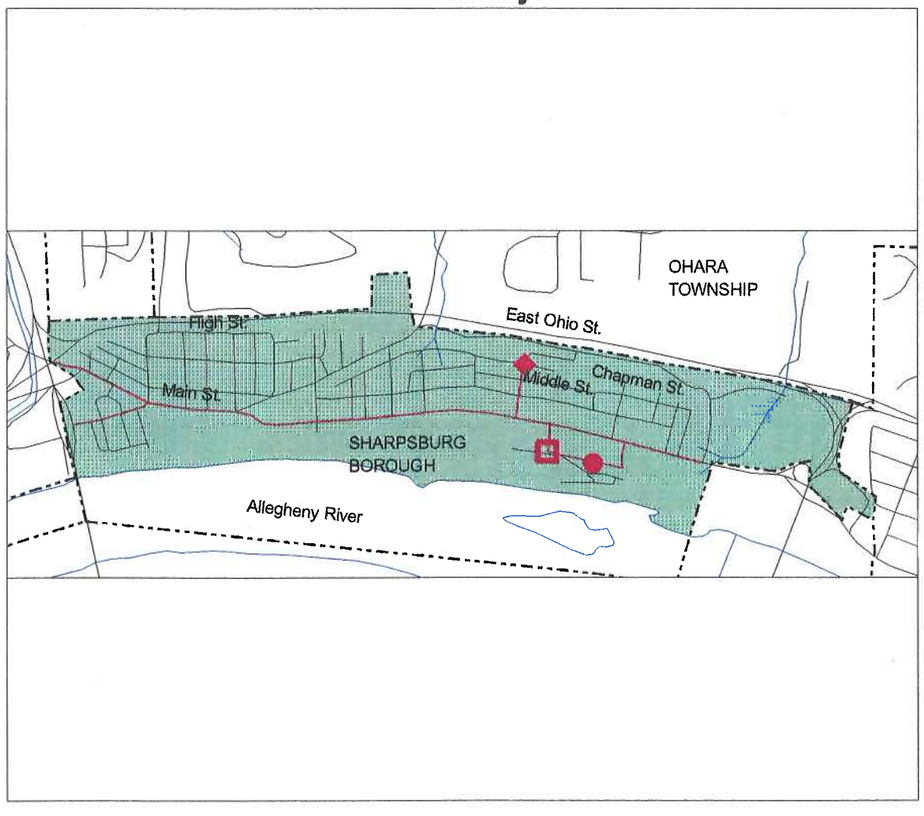
During the past five years, the Borough has experienced a 3.4 percent increase in the total number of customers served. Total daily water use in 1993 averaged 0.479 million gallons per day.

The total service population is projected to increase from approximately 3,773 persons in 1993 to approximately 3,843 by the year 2015. Average daily water demands are projected to increase from 0.479 mgd (0.615 mgd maximum day) in 1993 to 0.526 mgd (estimated 0.872 mgd maximum day) in the year 2015. These demands are within the capacity of the Borough's source of supply and treatment facility. The Borough's distribution storage facilities do not provide the desired 1-day volume. Therefore, an additional 250,000 gallons of storage is recommended. The cost of providing this storage, based upon the construction of an elevated storage tank, is estimated to be $460,000. The system has an emergency connection with the Pittsburgh Water and Sewer Authority system. The capacity of this connection is sufficient to meet the 3-day emergency supply volume target.





Service Area and Major Facilities



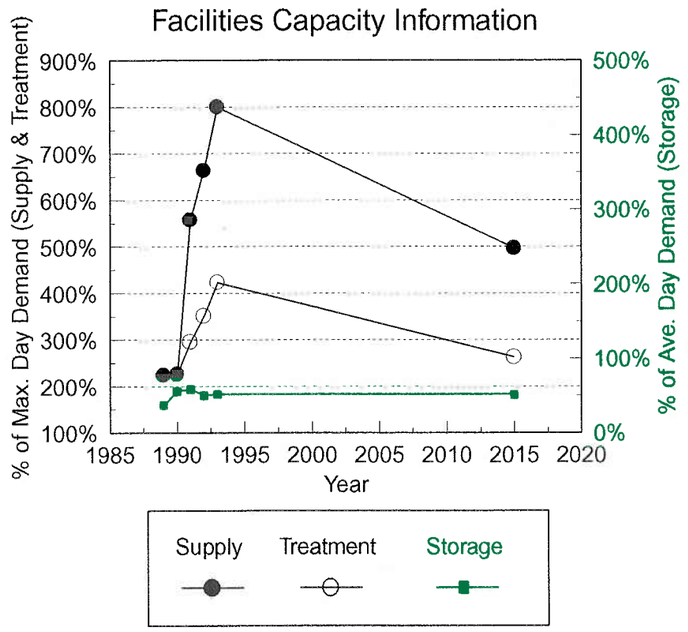
Sharpsburg Borough

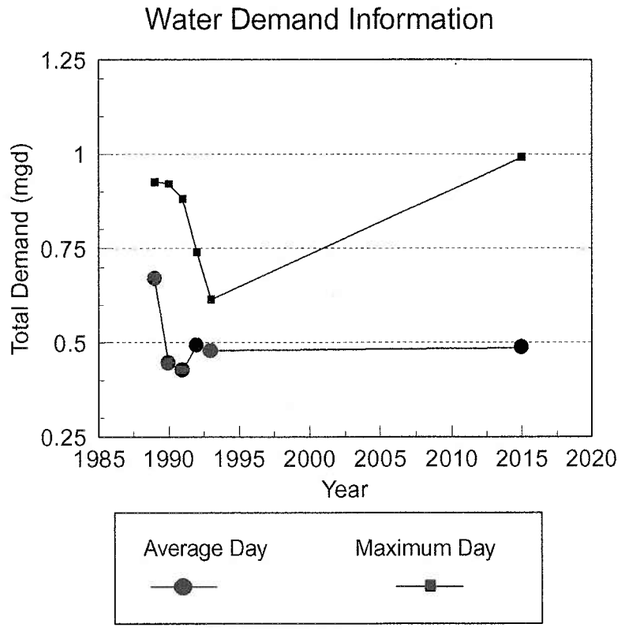
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	2.08	2.08	4.92	4.92	4.92	4.92
Wells	2.08	2.08	4.92	4.92	4.92	4.92
Treatment / Pumping Facility Capacity (mgd)	2.08	2.08	2.60	2.60	2.60	2.60
Total Treated Water Storage (million gallons)	0.25	0.25	0.25	0.25	0.25	0.25
Total Supply Source(s) Capacity (% of max. day)	224.2%	225.4%	557.8%	664.0%	800.0%	496.0%
Treatment / Pumping Facility Capacity (% of max. day)	224.4%	225.7%	294.8%	350.9%	422.8%	262.1%
Total Treated Water Storage (% of ave. day))	37.3%	56.1%	58.6%	50.6%	52.2%	51.2%

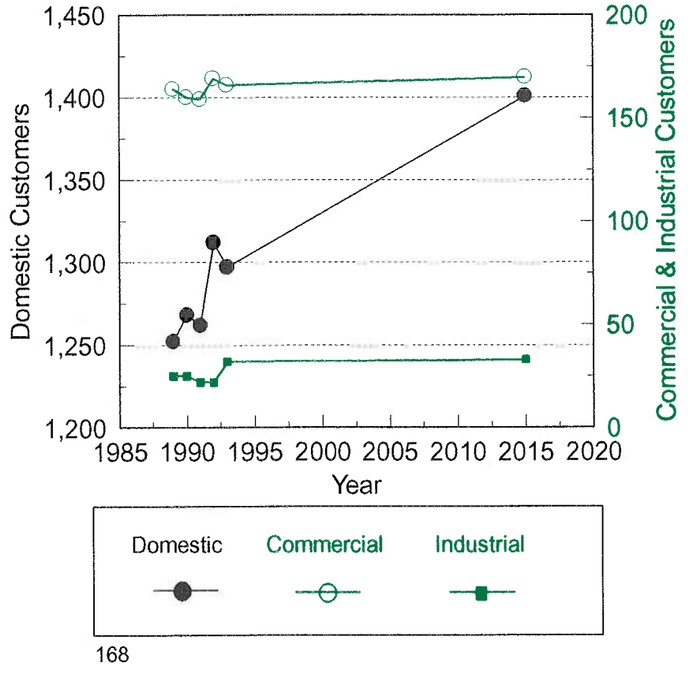
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

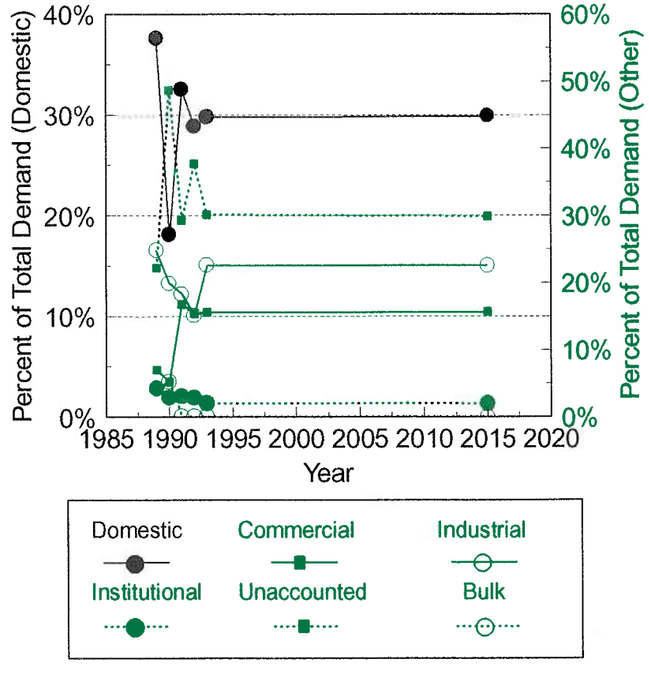
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.670	0.446	0.427	0.494	0.479	0.488
Maximum Day Total Water Use (mgd)	0.927	0.922	0.882	0.741	0.615	0.992
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.252	0.081	0.139	0.143	0.143	0.146
Commercial	0.047	0.023	0.072	0.076	0.075	0.076
Industrial	0.166	0.089	0.078	0.075	0.108	0.110
Institutional	0.028	0.013	0.013	0.014	0.009	0.010
Bulk Sales to Suppliers	0.028	0.023	0.000	0.000	0.000	0.000
Unaccounted for and other	0.148	0.217	0.125	0.187	0.144	0.146
Average Daily Water Use (gpd/customer)	359	157	208	204	223	213
Average Daily Water Use by Customer Class (% of total)						
Domestic	37.6%	18.1%	32.5%	28.9%	29.8%	29.9%
Commercial	7.0%	5.2%	16.8%	15.4%	15.6%	15.7%
Industrial	24.8%	19.9%	18.3%	15.1%	22.6%	22.5%
Institutional	4.2%	2.9%	3.1%	2.9%	2.0%	2.0%
Bulk Sales to Suppliers	4.2%	5.2%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	22.2%	48.7%	29.3%	37.7%	30.1%	29.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,450	1,460	1,449	1,509	1,499	1,608
Number of Customers by Class						
Domestic	1,252	1,268	1,262	1,312	1,297	1,401
Commercial	164	160	159	169	166	170
Industrial	25	25	22	22	32	33
Institutional	8	6	6	6	4	4
Bulk Sales to Suppliers	1	1	0	0	0	0
Estimated Service Population	3,773	3,773	3,773	3,773	3,773	3,843
Number of Customers by Class (% of total)						
Domestic	86.3%	86.8%	87.1%	86.9%	86.5%	87.1%
Commercial	11.3%	11.0%	11.0%	11.2%	11.1%	10.6%
Industrial	1.7%	1.7%	1.5%	1.5%	2.1%	2.0%
Institutional	0.6%	0.4%	0.4%	0.4%	0.3%	0.3%
Bulk Sales to Suppliers	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%









Sharpsburg Borough

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	
Dollars per 1,000 gallons sold	
Other Revenues	
TOTAL OPERATING REVENUES	
Dollars per 1,000 gallons sold	
Expenses	
Operating Expenses	
Total dollars per year	
Dollars per 1,000 gallons sold	
Debt Service	
Total dollars per year	
Dollars per customer served	
Other Expenses	
TOTAL EXPENSES	
Dollars per 1,000 gallons sold	
Net Revenues (dollars)	
Ratio of revenues to expenses	
Average Annual Residential Bill	
Dollars per year per customer	$186.26
% of Median Household Income	0.99%
Retained Earnings	
Retained Earnings ($/customer)	

Revenue and expense data unavailable.

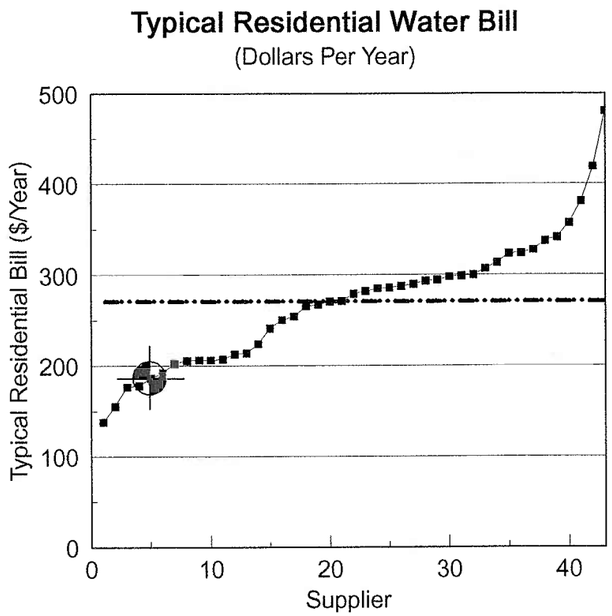
Legend

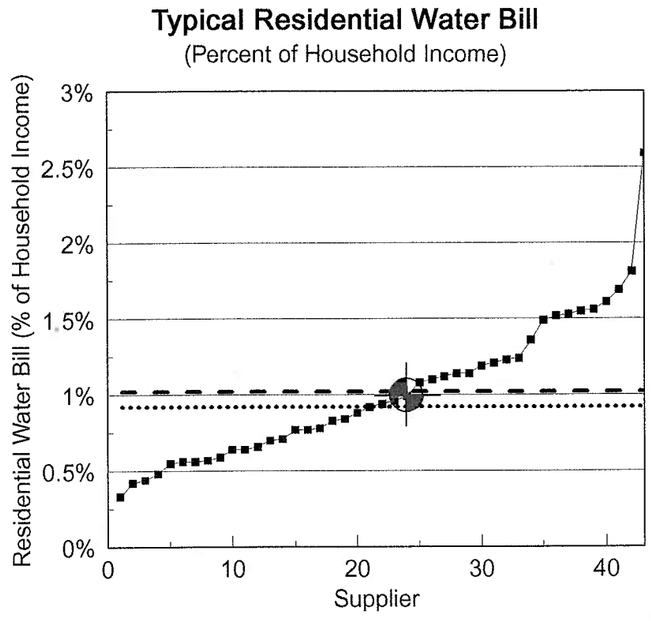
Value for this supplier

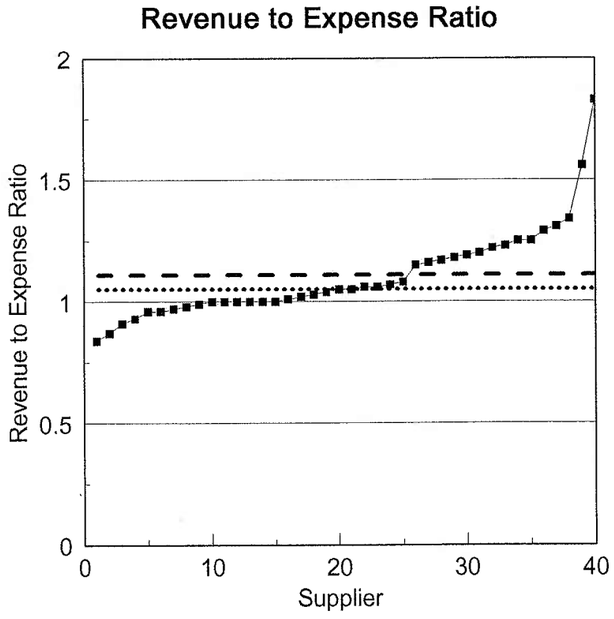
Mean value for all suppliers reporting data

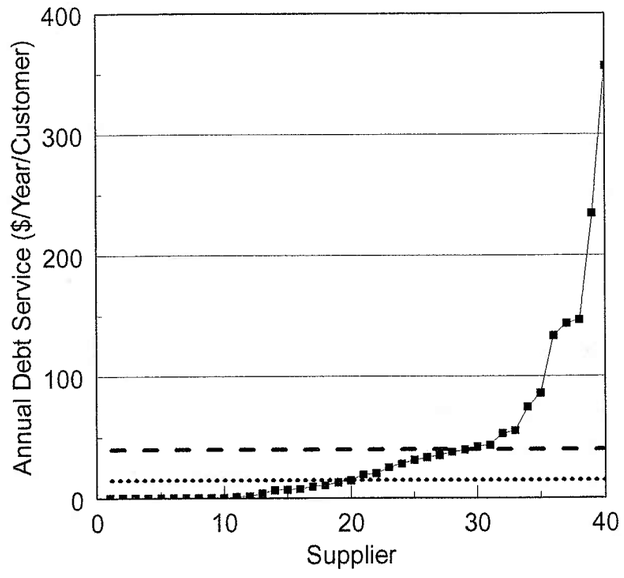
Median value for all suppliers reporting data

Individual supplier data









Springdale Borough

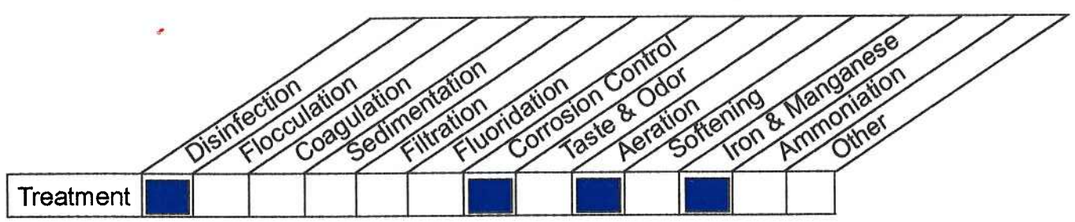
The Borough of Springdale serves approximately 1,758 customers in the Springdale Borough.

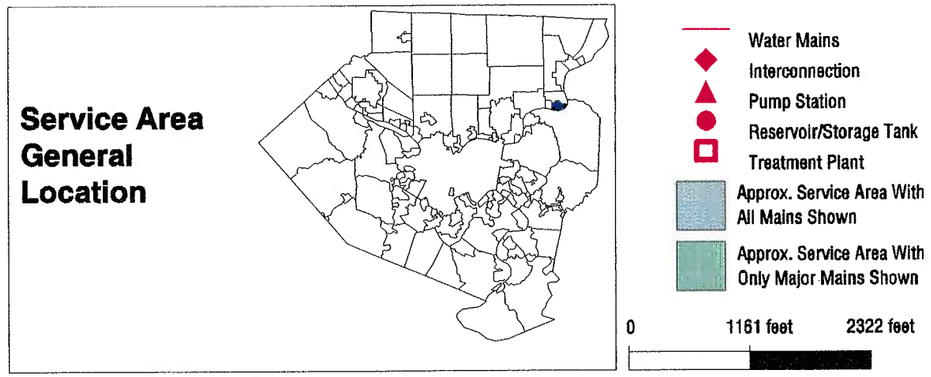
The Borough also sells water in bulk to Springdale Township for subsequent resale.

The water system is owned by the Borough of Springdale and is operated as a department under the borough council.

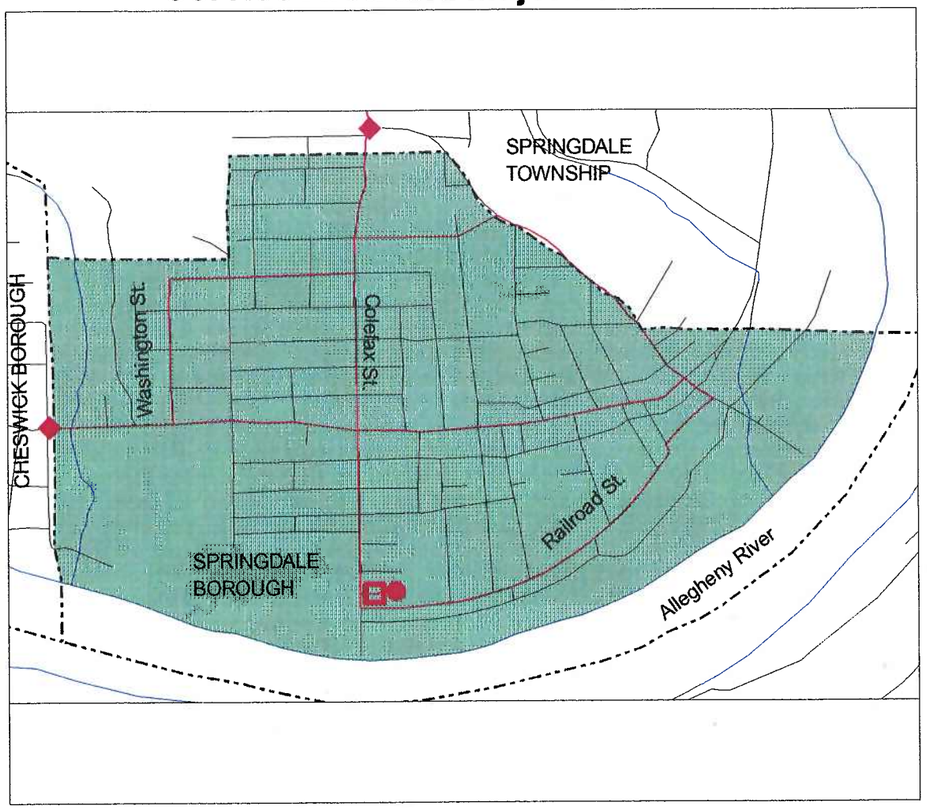
The Borough obtains its water supply from wells that are adjacent to the Allegheny River. The processes employed by the Borough's water treatment plant are illustrated below. In addition to the treatment plant, the Borough operates two distribution system water storage facilities, and no booster pumping stations.

During the past five years, the Borough has experienced a 7.5 percent increase in the total number of customers served. Total daily water use in 1993 averaged 0.493 million gallons per day. The total service population is projected to remain essentially constant through the year 2015. Average daily water demands are projected to remain essentially constant at approximately 0.495 mgd (0.993 mgd maximum day) through the year 2015. These demands are within the capacity of the Borough's source of supply and treatment facility. The Borough's distribution system storage is adequate to provide approximately a 1-day storage volume. The Allegheny County Water Supply Plan reports that an emergency connection from the Fawn-Frazer system exists. However, the capacity of the connection is not established. It is recommended that the capacity of this connection be established. It is also recommended that the feasibility of establishing emergency supply connections with the neighboring Cheswick Borough and Springdale Township systems. Emergency connections from Springdale Borough to these systems are in place. However, they are reported to be one-way connections flowing away from Springdale Borough. If emergency connections to the Borough are feasible and significant, they should be completed and supplemented with additional system storage as necessary to achieve the 3-day emergency supply capacity target. Depending upon the capacity of established emergency connections, the required additional storage volume could range from zero to 900,000 gallons. In the worst case where no significant emergency supply connections are obtained, an additional 900,000 gallons of storage will be required. The cost of providing this volume of storage in an elevated tank is estimated to approximate $1,200,000.





Service Area and Major Facilities



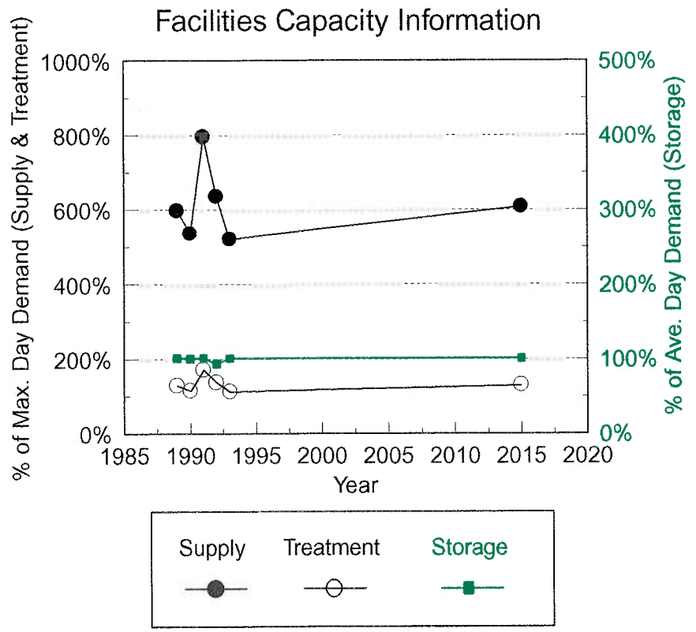
Springdale Borough

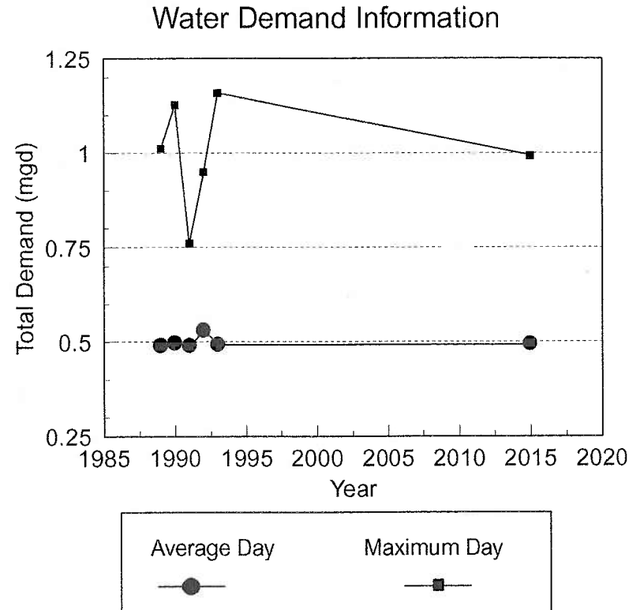
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	6.05	6.05	6.05	6.05	6.05	6.05
Wells	6.05	6.05	6.05	6.05	6.05	6.05
Treatment / Pumping Facility Capacity (mgd)	1.30	1.30	1.30	1.30	1.30	1.30
Total Treated Water Storage (million gallons)	0.50	0.50	0.50	0.50	0.50	0.50
Total Supply Source(s) Capacity (% of max. day)	597.6%	536.6%	795.8%	636.6%	521.8%	609.3%
Treatment / Pumping Facility Capacity (% of max. day)	128.5%	115.4%	171.1%	136.8%	112.2%	131.0%
Total Treated Water Storage (% of ave. day))	102.0%	100.7%	102.0%	94.2%	101.4%	101.0%

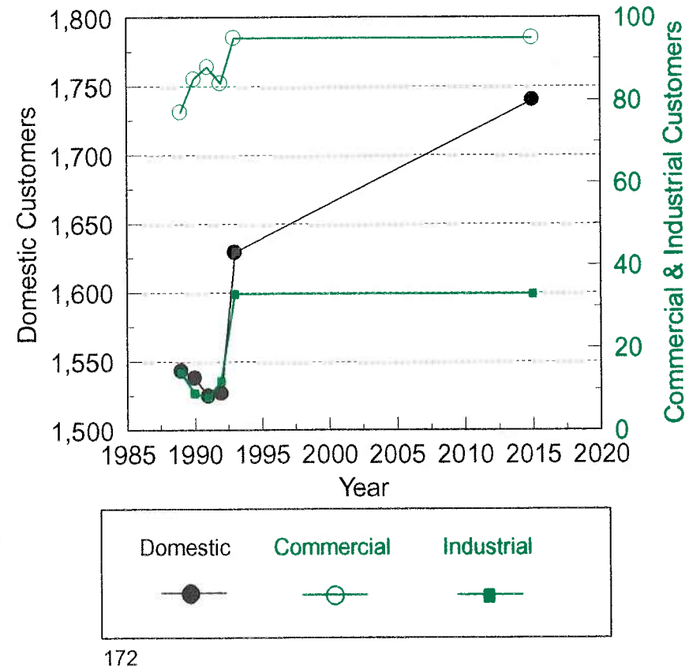
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	92%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	92%	67%	67%	92%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	100%	100%	100%	100%	

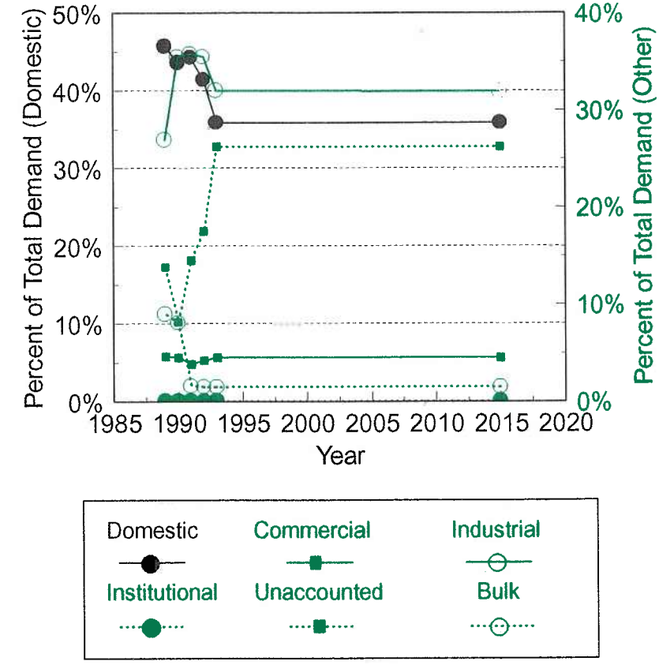
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.490	0.497	0.490	0.531	0.493	0.495
Maximum Day Total Water Use (mgd)	1.012	1.127	0.760	0.950	1.159	0.993
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.224	0.216	0.217	0.220	0.177	0.178
Commercial	0.023	0.023	0.018	0.022	0.022	0.022
Industrial	0.132	0.176	0.175	0.188	0.158	0.158
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.044	0.040	0.008	0.008	0.007	0.007
Unaccounted for and other	0.068	0.041	0.071	0.093	0.129	0.130
Average Daily Water Use (gpd/customer)	258	279	258	270	207	195
Average Daily Water Use by Customer Class (% of total)						
Domestic	45.7%	43.6%	44.3%	41.4%	35.9%	35.9%
Commercial	4.6%	4.5%	3.8%	4.2%	4.5%	4.5%
Industrial	26.9%	35.5%	35.8%	35.5%	32.0%	31.9%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	9.0%	8.1%	1.6%	1.5%	1.5%	1.5%
Unaccounted for and other	13.8%	8.2%	14.5%	17.5%	26.2%	26.2%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	1,635	1,633	1,622	1,624	1,758	1,869
Number of Customers by Class						
Domestic	1,543	1,538	1,525	1,527	1,629	1,740
Commercial	77	85	88	84	95	95
Industrial	14	9	8	12	33	33
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	1	1	1	1	1	1
Estimated Service Population	3,767	3,755	3,723	3,728	3,977	3,991
Number of Customers by Class (% of total)						
Domestic	94.4%	94.2%	94.0%	94.0%	92.7%	93.1%
Commercial	4.7%	5.2%	5.4%	5.2%	5.4%	5.1%
Industrial	0.9%	0.6%	0.5%	0.7%	1.9%	1.8%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%



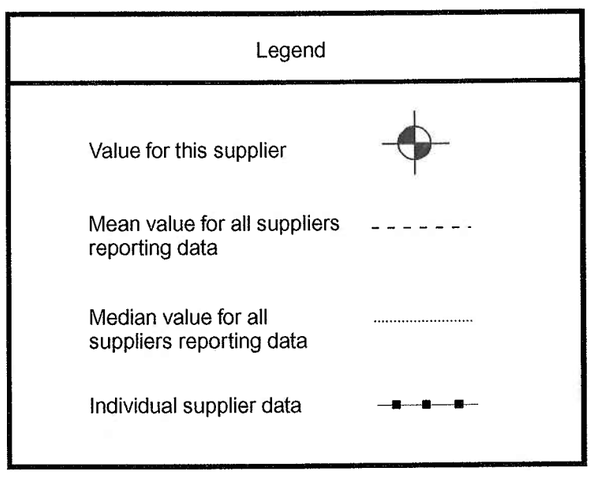


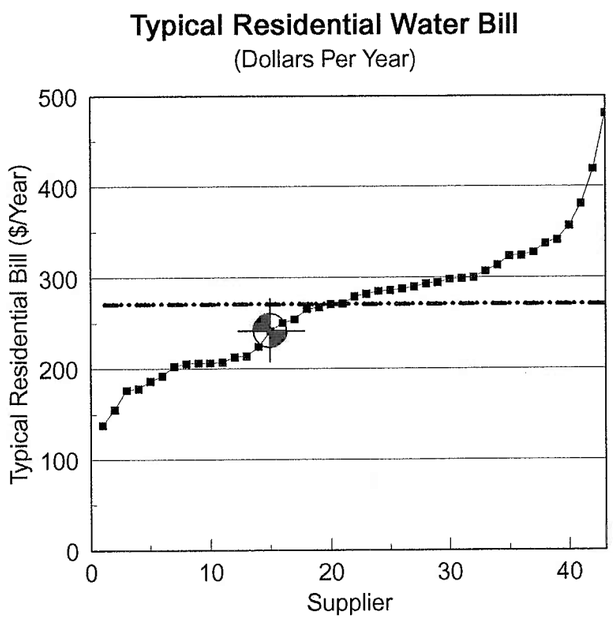


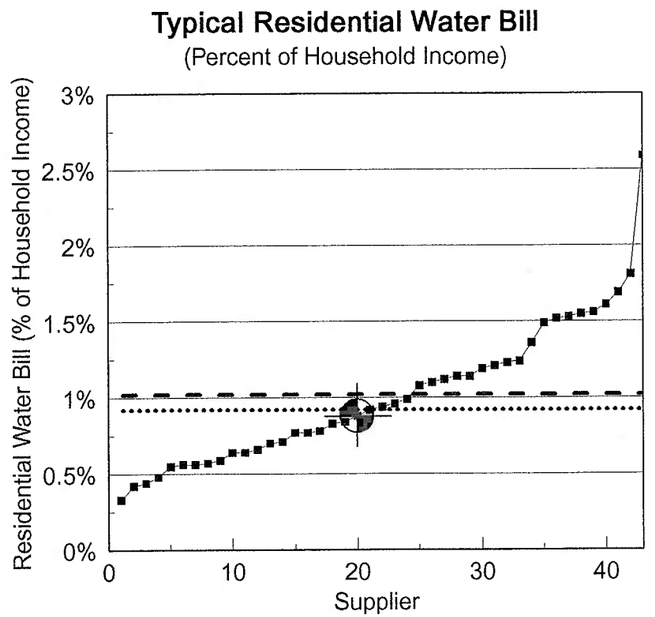


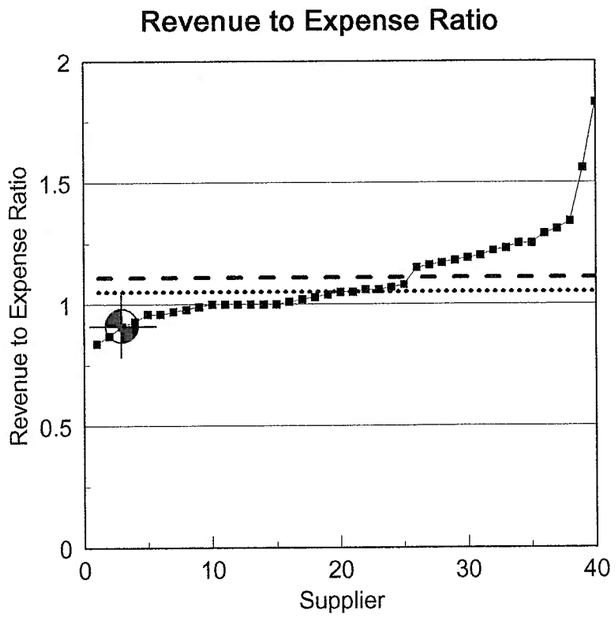
Springdale Borough

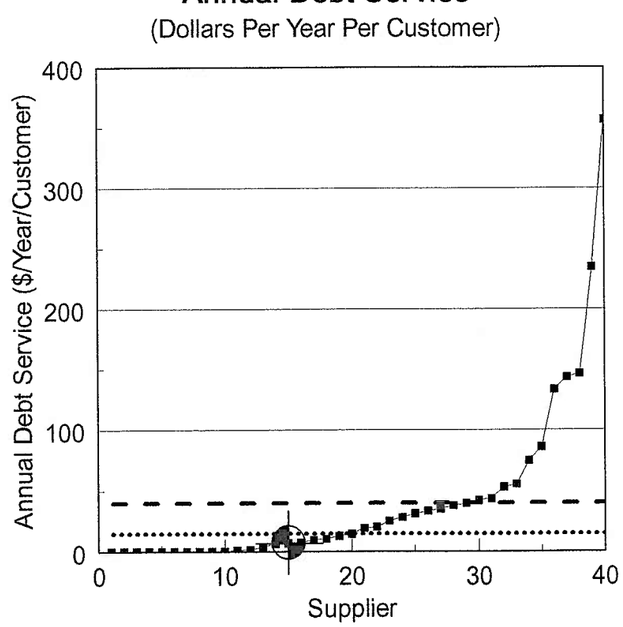
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$439,666
Dollars per 1,000 gallons sold	$3.31
Other Revenues	$35,009
TOTAL OPERATING REVENUES	$474,675
Dollars per 1,000 gallons sold	$3.57
Expenses	
Operating Expenses	
Total dollars per year	$306,678
Dollars per 1,000 gallons sold	$2.31
Debt Service	
Total dollars per year	$5,016
Dollars per customer served	$7.06
Other Expenses	$209,182
TOTAL EXPENSES	$520,876
Dollars per 1,000 gallons sold	$3.92
Net Revenues (dollars)	($46,201)
Ratio of revenues to expenses	0.91
Average Annual Residential Bill	
Dollars per year per customer	$241.45
% of Median Household Income	0.88%
Retained Earnings	$543,853
Retained Earnings ($/customer)	$765.99











Springdale Township

Springdale Township serves approximately 710 customers in Springdale Township.

The water system is owned and operated by Springdale Township.

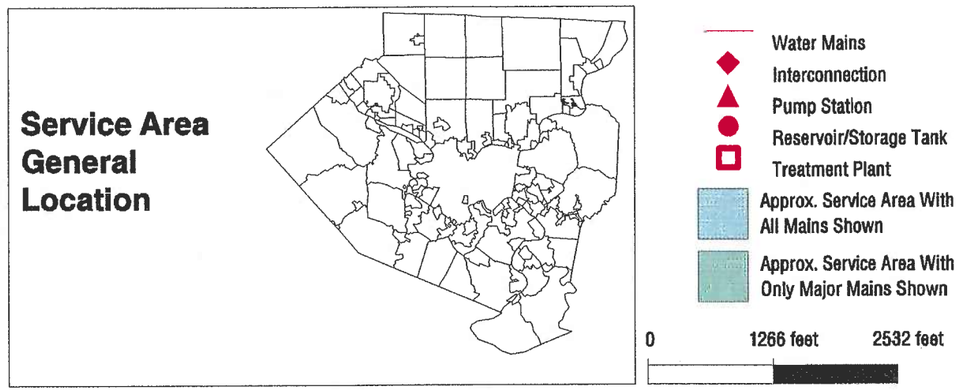
The Township purchases its water supply in bulk from the following suppliers:

Cheswick Borough
Harmar Township Municipal Authority
Springdale Borough

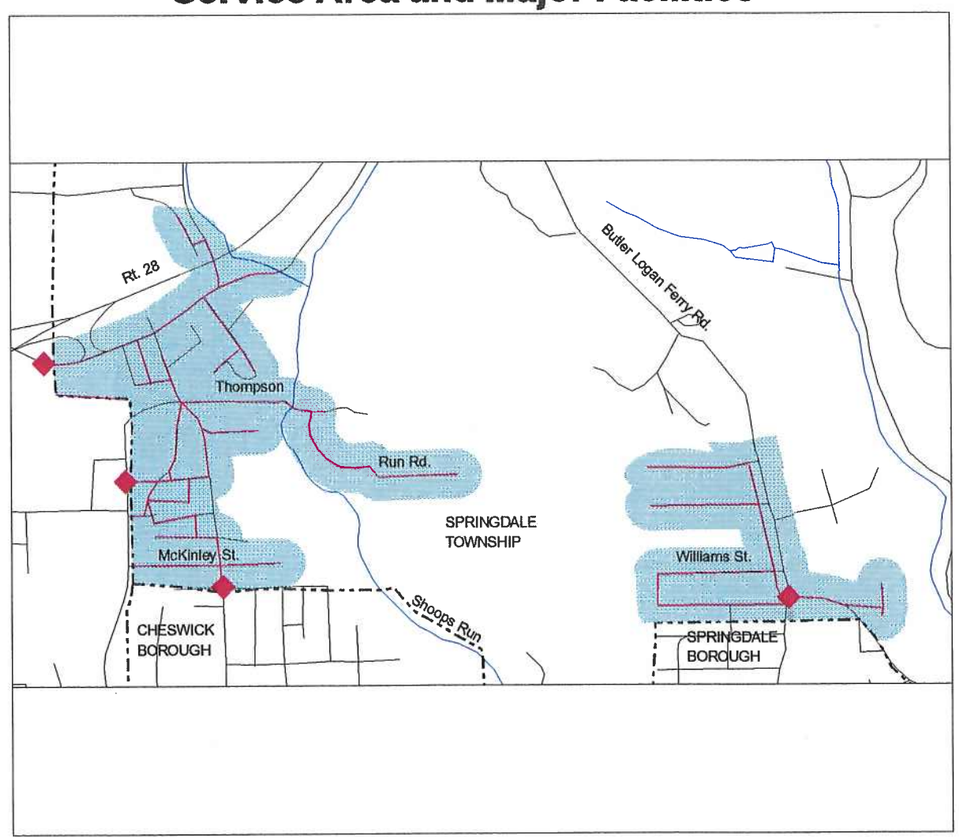
The Township operates no treatment facilities, no distribution storage facilities, and no booster pumping stations.

During the past five years, the Township has experienced a 5.0 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.133 million gallons per day.

The total service population is projected to increase from approximately 1,757 persons in 1993 to approximately 2,746 by the year 2015. Average daily water demands are projected to increase from 0.133 mgd (0190 mgd maximum day) in 1993 to 0.208 mgd (0.297 mgd maximum day) in the year 2015. Current water supply commitments from the Township's suppliers are sufficient to meet the current and projected demands. The Township does not operate any distribution system storage facilities, relying instead upon system storage maintained by its water suppliers. Its primary suppliers have in excess of a 1-day storage volume and, given the size and layout of the Springdale Township system, can be relied upon to satisfy the 1-day goal for Springdale Township. As was indicated above, the Springdale system obtains water from three suppliers at three separate points of connection. In addition, there is a second, emergency connection with Harmar Township. These sources of have sufficient capacity to provide at least a 3-day emergency supply to Springdale Township should any one of the sources be interrupted.



Service Area and Major Facilities



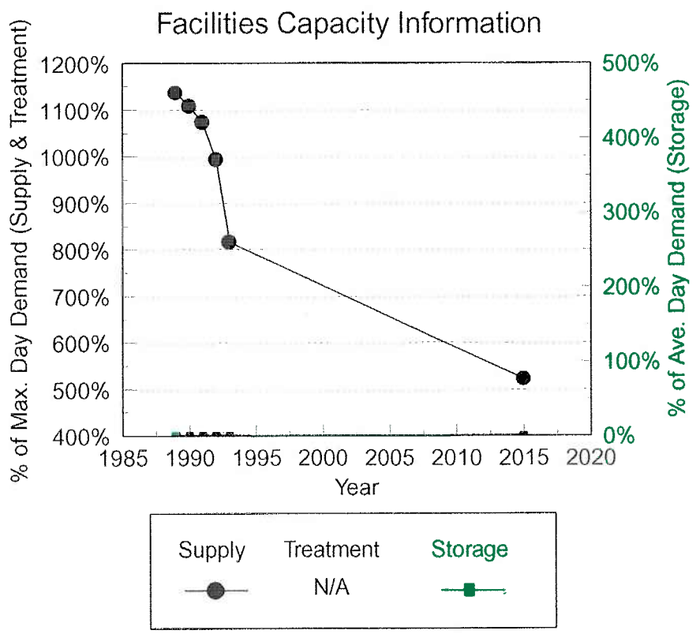
Springdale Township

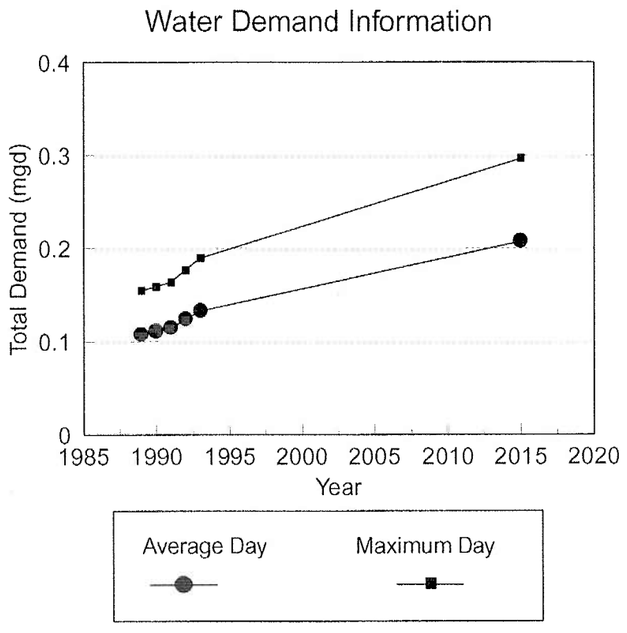
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	1.76	1.76	1.76	1.76	1.55	1.55
Cheswick Borough	0.30	0.30	0.30	0.30	0.30	0.30
Harmar Township	0.96	0.96	0.96	0.96	0.75	0.75
Springdale Borough	0.50	0.50	0.50	0.50	0.50	0.50
Treatment / Pumping Facility Capacity (mgd)						
Total Treated Water Storage (million gallons)	0.00	0.00	0.00	0.00	0.00	0.00
Total Supply Source(s) Capacity (% of max. day)	1137%	1108%	1073%	993%	816%	522%
Treatment / Pumping Facility Capacity (% of max. day)						
Total Treated Water Storage (% of ave. day))	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

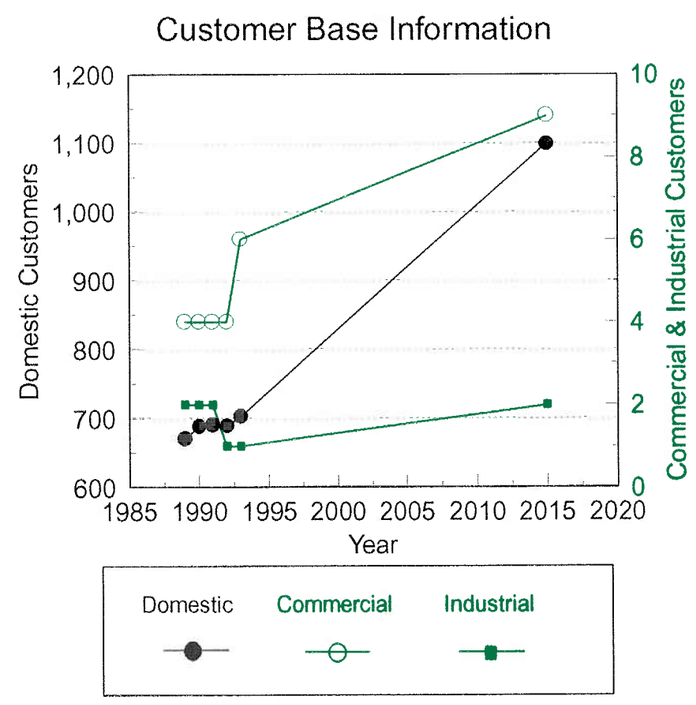
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	92%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	83%	100%	100%	

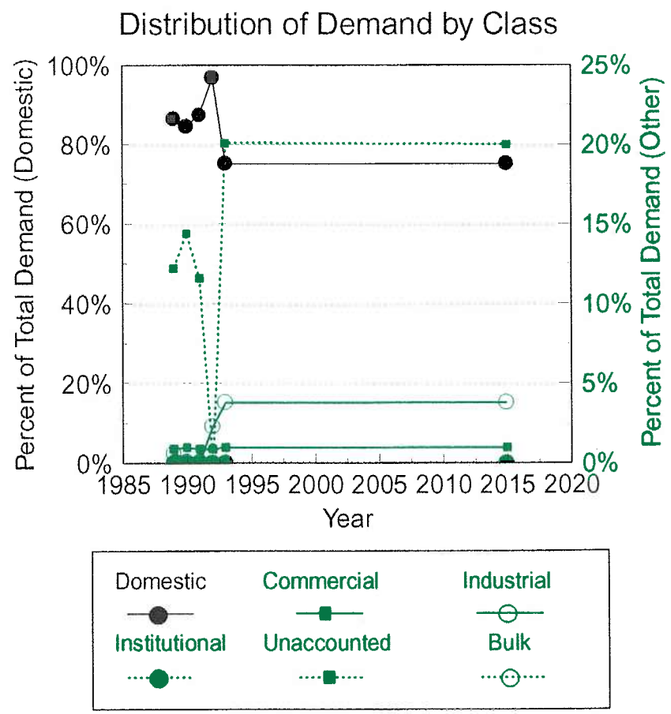
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.108	0.111	0.115	0.124	0.133	0.208
Maximum Day Total Water Use (mgd)	0.155	0.159	0.164	0.177	0.190	0.297
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.093	0.094	0.100	0.120	0.100	0.156
Commercial	0.001	0.001	0.001	0.001	0.001	0.002
Industrial	0.001	0.000	0.000	0.003	0.005	0.008
Institutional	0.000	0.000	0.000	0.000	0.000	0.000
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted for and other	0.013	0.016	0.013	0.000	0.027	0.042
Average Daily Water Use (gpd/customer)	141	137	146	179	150	150
Average Daily Water Use by Customer Class (% of total)						
Domestic	86.4%	84.5%	87.4%	96.8%	75.1%	75.1%
Commercial	0.9%	1.0%	0.9%	0.9%	1.0%	1.0%
Industrial	0.6%	0.1%	0.1%	2.3%	3.8%	3.8%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unaccounted for and other	12.2%	14.4%	11.6%	0.0%	20.1%	20.0%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	676	694	696	694	710	1,110
Number of Customers by Class						
Domestic	670	688	690	689	703	1,099
Commercial	4	4	4	4	6	9
Industrial	2	2	2	1	1	2
Institutional	0	0	0	0	0	0
Bulk Sales to Suppliers	0	0	0	0	0	0
Estimated Service Population	1,675	1,720	1,725	1,722	1,757	2,746
Number of Customers by Class (% of total)						
Domestic	99.1%	99.1%	99.1%	99.3%	99.0%	99.0%
Commercial	0.6%	0.6%	0.6%	0.6%	0.8%	0.8%
Industrial	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%
Institutional	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



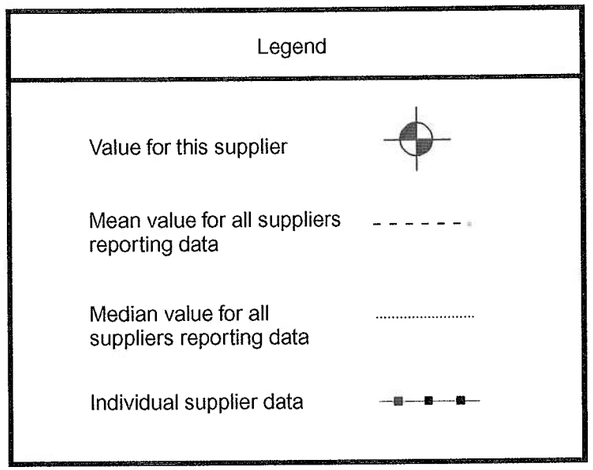


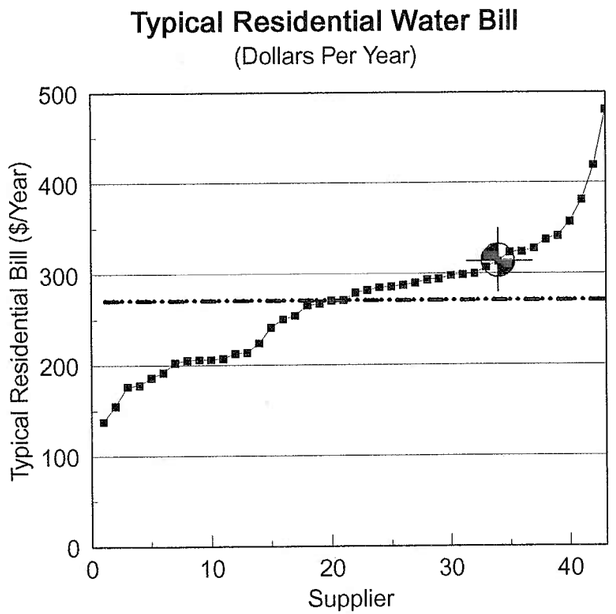


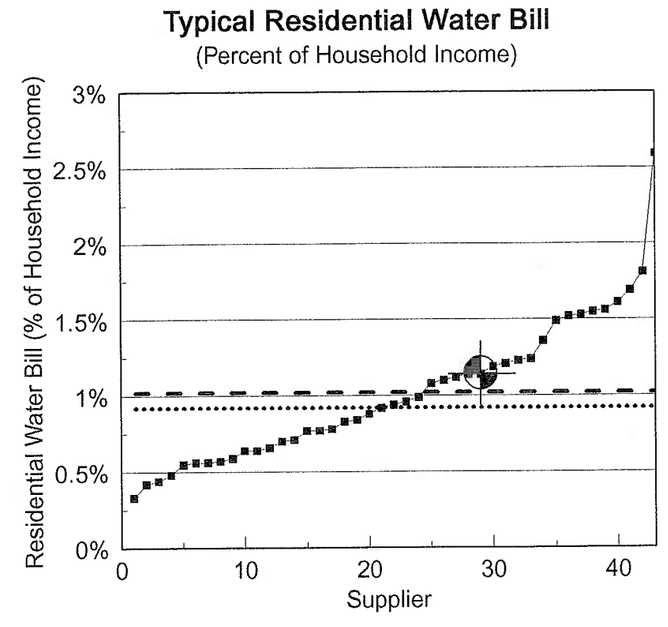


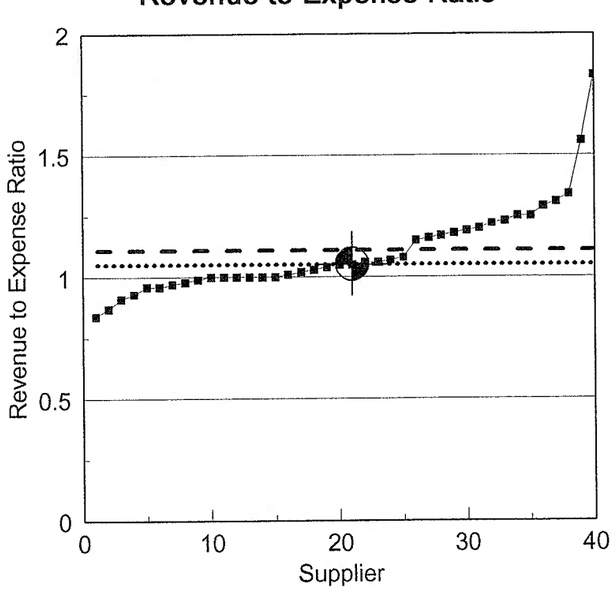
Springdale Township

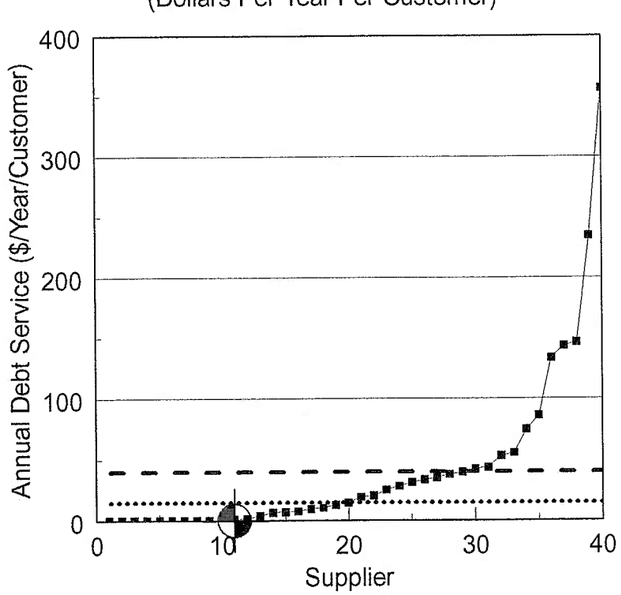
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$159,048
Dollars per 1,000 gallons sold	$4.11
Other Revenues	$15,641
TOTAL OPERATING REVENUES	$174,689
Dollars per 1,000 gallons sold	$4.52
Expenses	
Operating Expenses	
Total dollars per year	$160,524
Dollars per 1,000 gallons sold	$4.15
Debt Service	
Total dollars per year	$1,069
Dollars per customer served	$1.51
Other Expenses	$5,500
TOTAL EXPENSES	$167,093
Dollars per 1,000 gallons sold	$4.32
Net Revenues (dollars)	$7,596
Ratio of revenues to expenses	1.05
Average Annual Residential Bill	
Dollars per year per customer	$313.45
% of Median Household Income	1.14%
Retained Earnings	($4,928)
Retained Earnings ($/customer)	($6.94)











Tarentum Borough

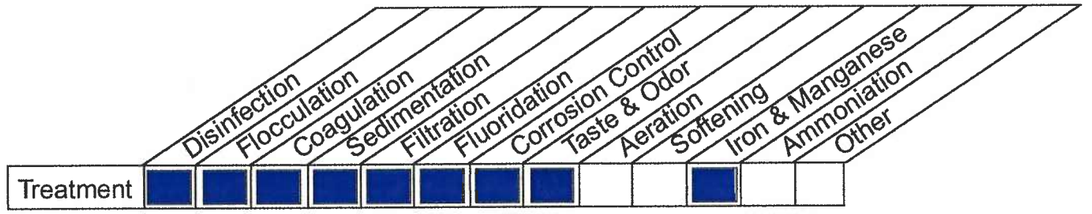
The Borough of Tarentum serves approximately 2,171 customers in Tarentum Borough. The Borough also sells water in bulk to East Deer Township for subsequent resale.

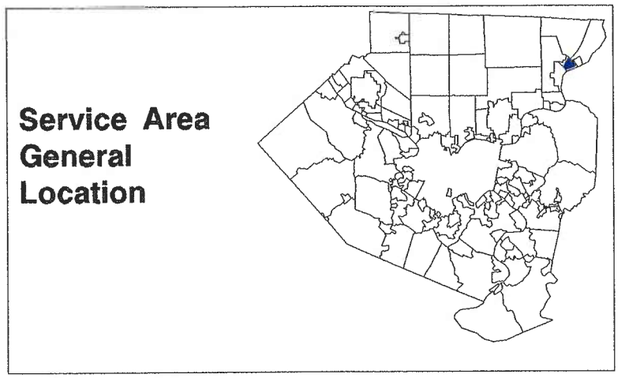
The water system is owned by the Borough of Tarentum and is operated as a department under the borough council.

The Borough obtains its water supply from the Allegheny River. The processes employed by the Borough's water treatment plant are illustrated below. In addition to the treatment plant, the Borough operates three distribution system water storage facilities, and no booster pumping stations.

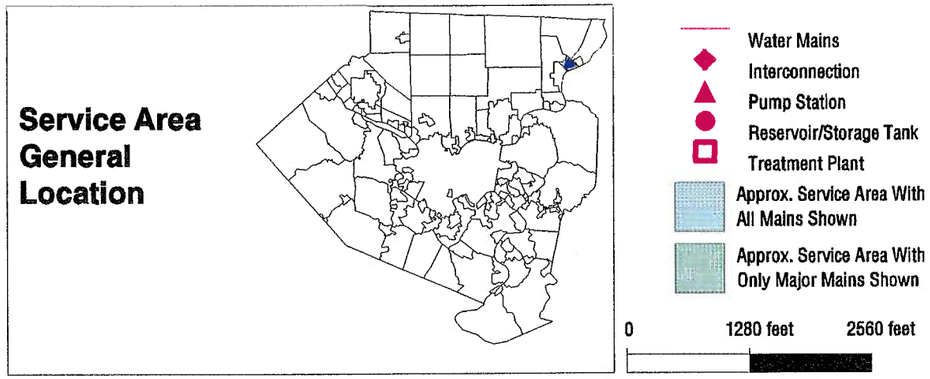
During the past five years, the Borough has experienced a 0.5 percent increase in the total number of customers served. Total daily water use in 1993 averaged 1.053 million gallons per day.

The total service population is projected to increase from approximately 5,505 persons in 1993 to approximately 5,833 by the year 2015. Average daily water demands are projected to increase from 1.053 mgd (1.700 mgd maximum day) in 1993 to 1.373 mgd (2.308 mgd maximum day) in the year 2015. These demands are projected to exceed the Borough's source of supply allocation and treatment plant capacity by the year 2015 and require a 0.300 mgd increase in the water supply allocation and an approximately 0.600 mgd expansion of plant capacity. A plant improvement project has recently been completed; however, this project did not increase plant capacity. The development of an estimate of the cost of increasing the plant capacity requires the completion of a detailed feasibility study that is beyond the scope of this plan. The existing distribution facilities currently provide a 1-day storage volume, but will fall slightly short of this goal by the year 2015. Two emergency connections exist between the Tarentum and the Brackenridge systems. The transfer capacity of these connections to Tarentum is reported to be 0.5 mgd. This is sufficient to meet the 3-day emergency supply capacity goal when coupled with storage volumes in East Deer Township. It is not sufficient to meet the 3-day target by the year 2015. The potential for increasing the emergency supply available from Brackenridge should be investigated. Also, this plan recommends that the East Deer Township system increase its emergency supply capability by establishing an emergency connection with the Fawn-Frazer Joint Water Authority system and/or the construction of additional storage. Once this is accomplished, the combined emergency supply capacity available to the Borough of Tarentum and the systems served by the Borough will be sufficient to provide a 3-day emergency supply throughout the planning period.

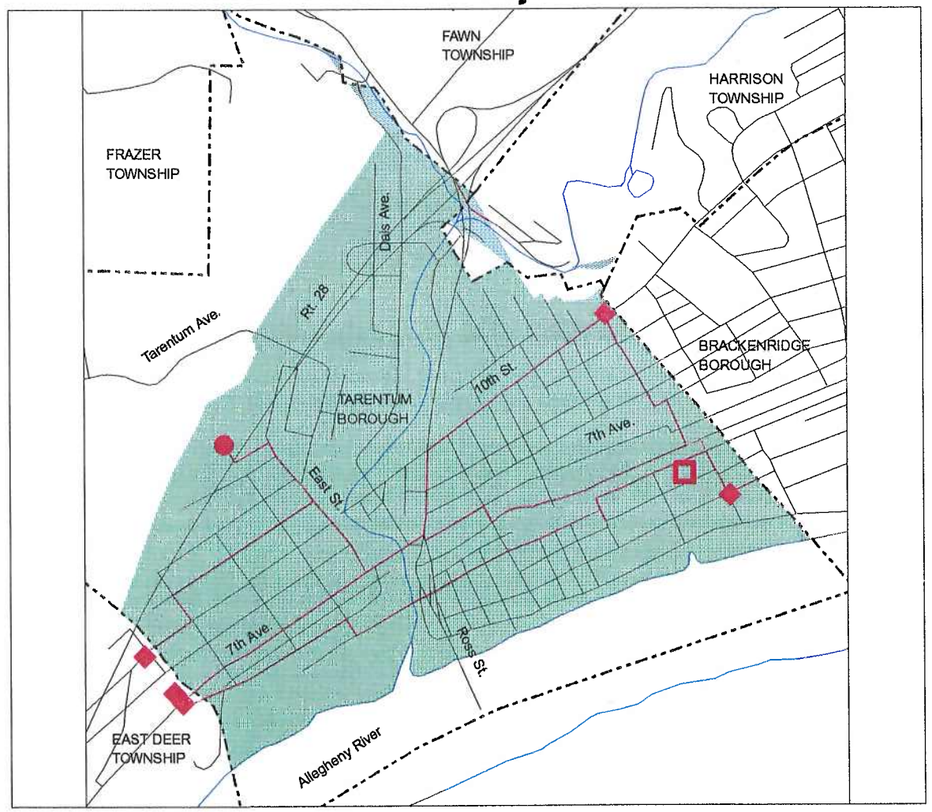




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



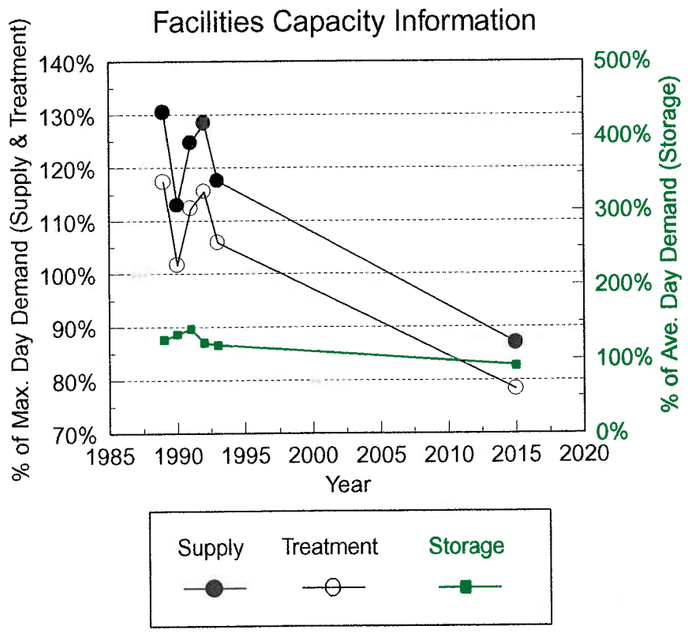
Tarentum Borough

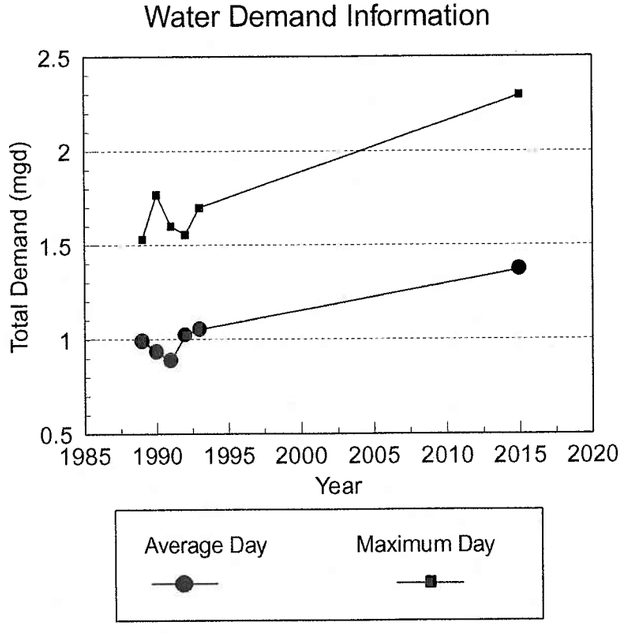
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	2.00	2.00	2.00	2.00	2.00	2.00
Allegheny River	2.00	2.00	2.00	2.00	2.00	2.00
Treatment / Pumping Facility Capacity (mgd)	1.80	1.80	1.80	1.80	1.80	1.80
Total Treated Water Storage (million gallons)	1.25	1.25	1.25	1.25	1.25	1.25
Total Supply Source(s) Capacity (% of max. day)	130.5%	113.0%	124.8%	128.5%	117.6%	87.0%
Treatment / Pumping Facility Capacity (% of max. day)	117.4%	101.7%	112.4%	115.6%	105.9%	78.3%
Total Treated Water Storage (% of ave. day))	126.2%	133.5%	140.6%	121.9%	118.7%	91.1%

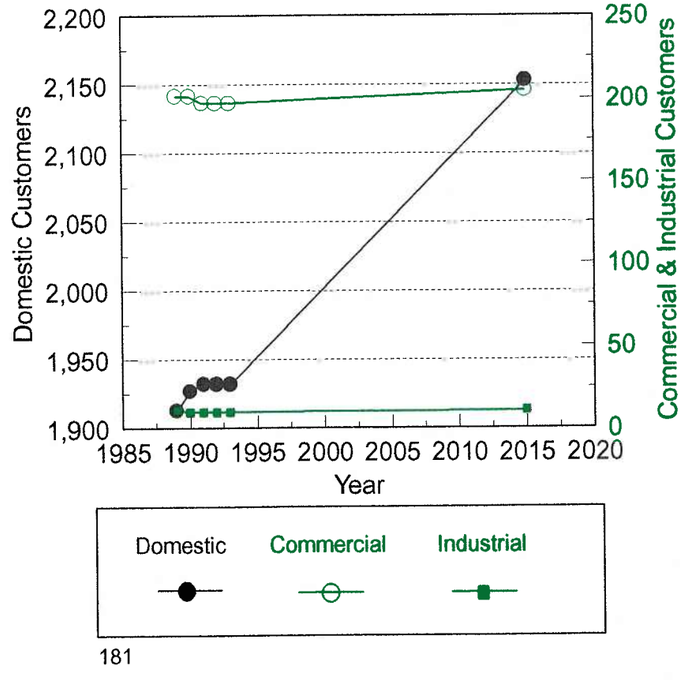
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	92%	100%	100%	100%	

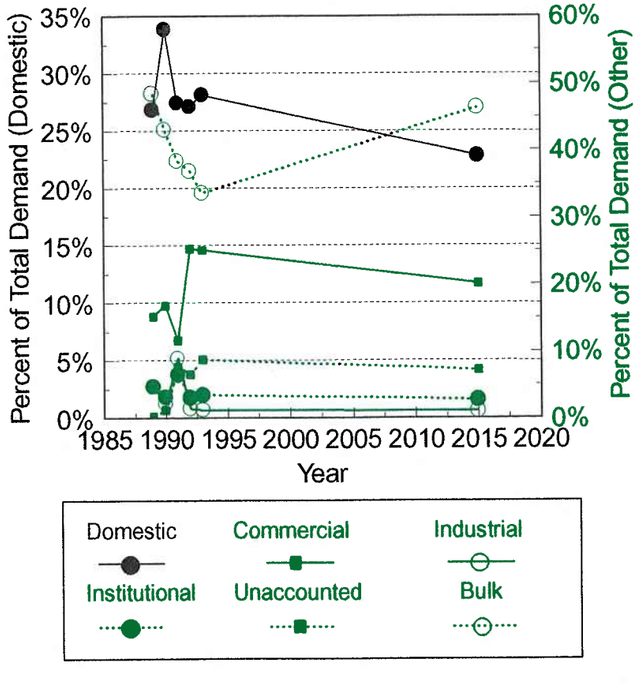
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.991	0.936	0.889	1.026	1.053	1.372
Maximum Day Total Water Use (mgd)	1.533	1.770	1.602	1.557	1.700	2.298
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.286	0.317	0.243	0.278	0.296	0.314
Commercial	0.150	0.156	0.102	0.259	0.264	0.275
Industrial	0.047	0.020	0.079	0.015	0.012	0.013
Institutional	0.047	0.029	0.057	0.031	0.036	0.038
Bulk Sales to Suppliers	0.479	0.403	0.340	0.377	0.353	0.635
Unaccounted for and other	0.002	0.012	0.067	0.066	0.092	0.098
Average Daily Water Use (gpd/customer)	458	426	378	442	443	530
Average Daily Water Use by Customer Class (% of total)						
Domestic	28.8%	33.8%	27.4%	27.1%	28.1%	22.8%
Commercial	15.1%	16.7%	11.5%	25.2%	25.0%	20.0%
Industrial	4.7%	2.1%	8.9%	1.4%	1.2%	1.0%
Institutional	4.7%	3.1%	6.4%	3.0%	3.4%	2.7%
Bulk Sales to Suppliers	48.4%	43.0%	38.3%	36.8%	33.5%	46.3%
Unaccounted for and other	0.2%	1.2%	7.6%	6.5%	8.7%	7.1%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	2,159	2,171	2,171	2,171	2,171	2,403
Number of Customers by Class						
Domestic	1,913	1,927	1,932	1,932	1,932	2,153
Commercial	201	201	197	197	197	205
Industrial	11	10	10	10	10	11
Institutional	29	29	29	29	29	31
Bulk Sales to Suppliers	5	4	3	3	3	3
Estimated Service Population	5,451	5,491	5,505	5,505	5,505	5,833
Number of Customers by Class (% of total)						
Domestic	88.6%	88.8%	89.0%	89.0%	89.0%	89.6%
Commercial	9.3%	9.3%	9.1%	9.1%	9.1%	8.6%
Industrial	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%
Institutional	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Bulk Sales to Suppliers	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%



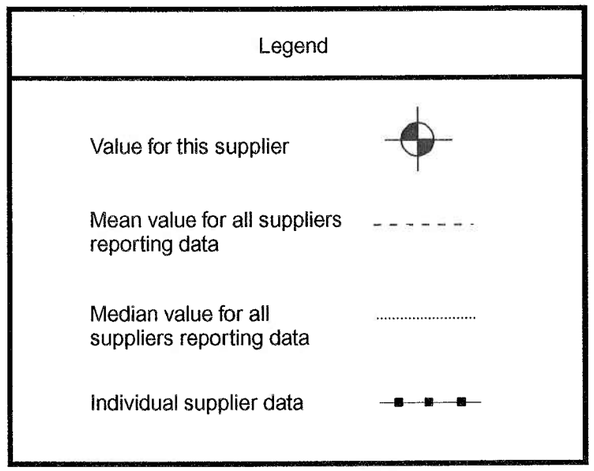


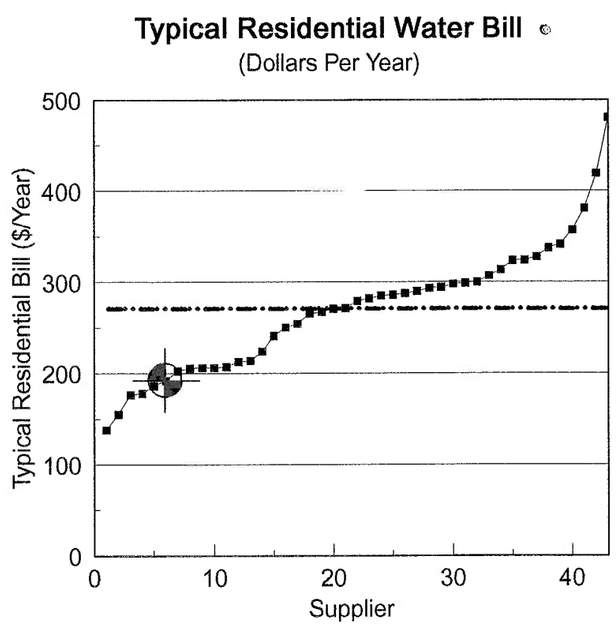


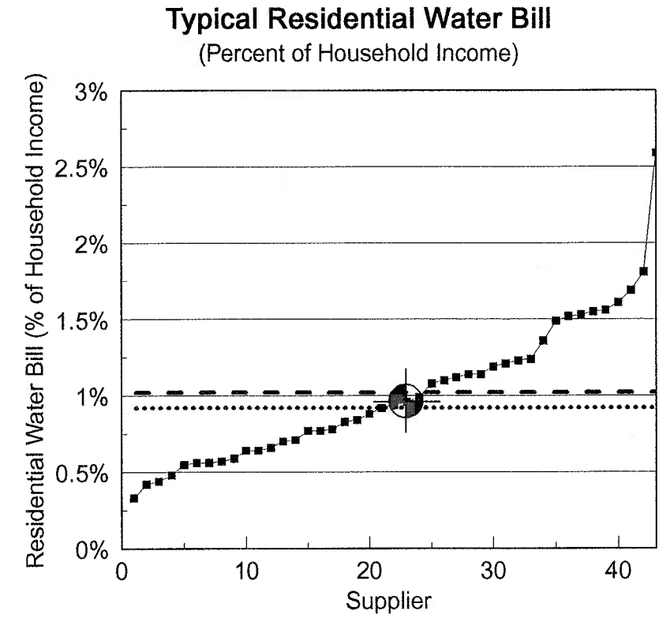


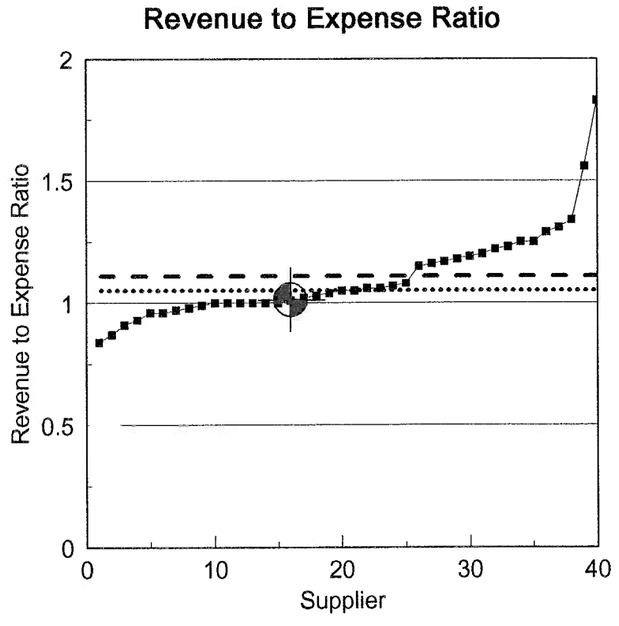
Tarentum Borough

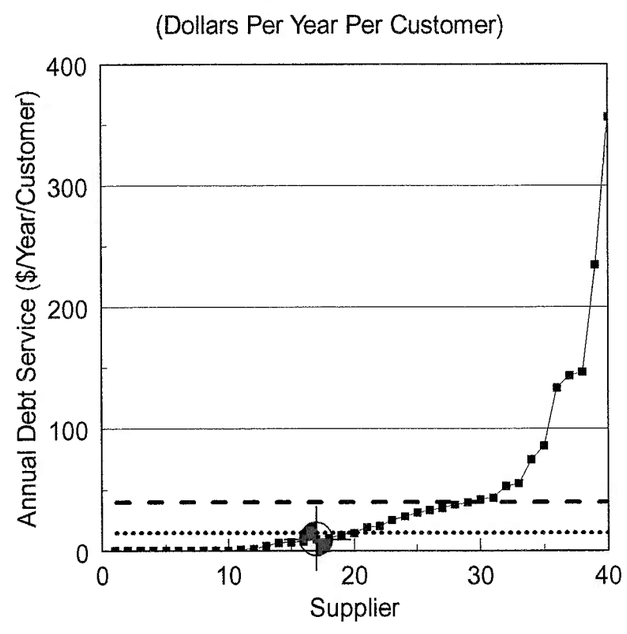
Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$586,894
Dollars per 1,000 gallons sold	$1.67
Other Revenues	$7,915
TOTAL OPERATING REVENUES	$594,809
Dollars per 1,000 gallons sold	$1.70
Expenses	
Operating Expenses	
Total dollars per year	$467,665
Dollars per 1,000 gallons sold	$1.33
Debt Service	
Total dollars per year	$20,531
Dollars per customer served	$9.46
Other Expenses	$101,057
TOTAL EXPENSES	$589,253
Dollars per 1,000 gallons sold	$1.68
Net Revenues (dollars)	$5,556
Ratio of revenues to expenses	1.01
Average Annual Residential Bill	
	$192.11
	0.96%
Retained Earnings	$587,540
Retained Earnings ($/customer)	$270.63











Western Allegheny County Municipal Authority

The Western Allegheny County Municipal Authority serves approximately 3,988 customers in the following municipalities:

North Fayette Township
Findlay Township

Approximately 98 percent of the Authority's customers are located in North Fayette Township.

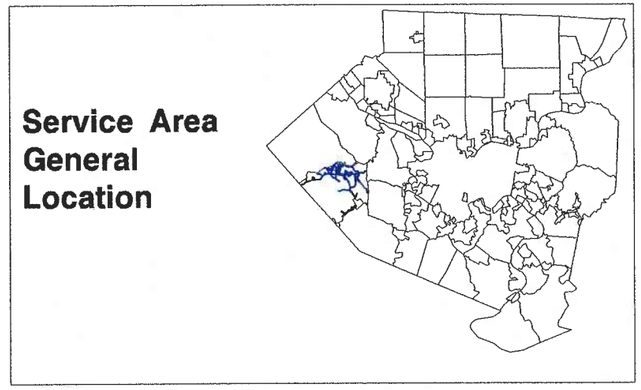
The Authority was established in 1953. The board of the Authority is comprised of five members who are appointed by the North Fayette Township supervisors.

The Authority purchases its water supply in bulk from the following suppliers:

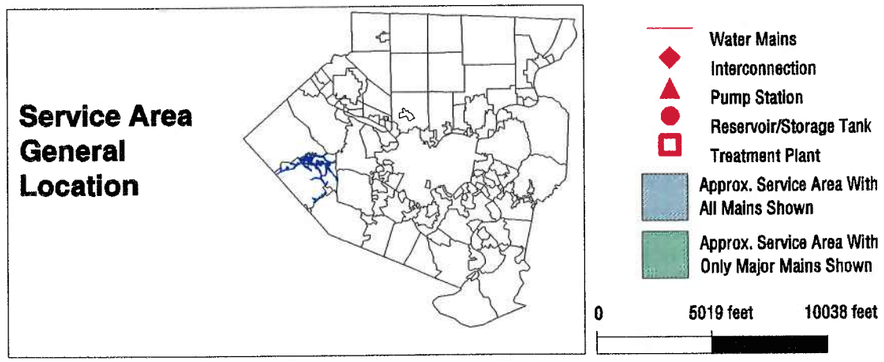
Robinson Township Municipal Authority
Pennsylvania American Water Company

The Authority operates no treatment facilities, three distribution storage facilities, and one booster pumping station. During the past five years, the Authority has experienced a 16.7 percent rise in the total number of customers served. Total daily water use in 1993 averaged 0.780 million gallons per day.

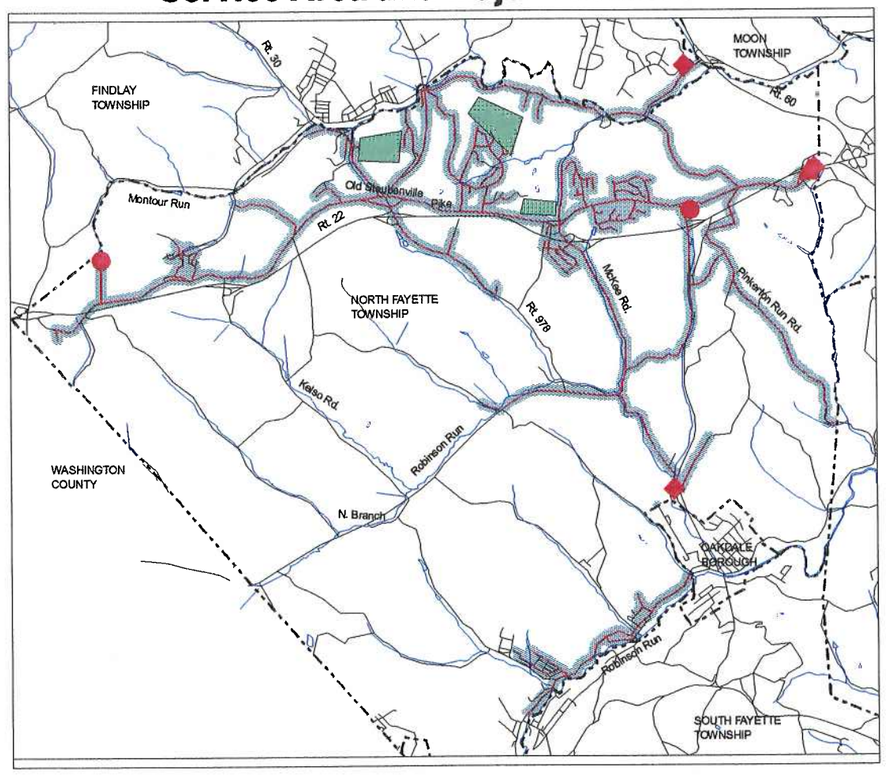
The total service population is projected to more than double from approximately 9,204 persons in 1993 to approximately 19,562 by the year 2015. Average daily water demands are projected to increase from 0.780 mgd (estimated 0.934 mgd maximum day) in 1993 to 1.664 mgd (estimated 2.224 mgd maximum day) in the year 2015. These demands exceed the supply capacities currently provided to the Authority by its two bulk suppliers. Therefore, future water demands will require that the Authority negotiate additional water supply commitments from the current water suppliers or additional water suppliers or otherwise augment its sources of supply. Distribution water storage facilities provide more than a 1-day volume under current demands and will be within 10% of a 1-day volume by the end of the planning period. The Authority operates one permanent connection each with the Municipal Authority of the Township of Robinson and the Pennsylvania American Water Company and one emergency supply connection from the Findlay Township Water Authority. The reported maximum water transfer capacities of these three connections, coupled with system storage, is marginally adequate to meet provide for a 3-day emergency water supply under current demand conditions (2.6-days). However, the emergency supply capacity will be inadequate under projected year 2015 conditions. Therefore, it is recommended that steps be taken to increase the capacity of the existing connections and supplement them with additional connections. Otherwise, an additional 3.0 million gallons of storage volume will be required to achieve the 3-day emergency supply target. The cost of providing this additional storage, assuming the construction of two 1.5 million gallon elevated tanks is estimated to approximate $3,800,000.



SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



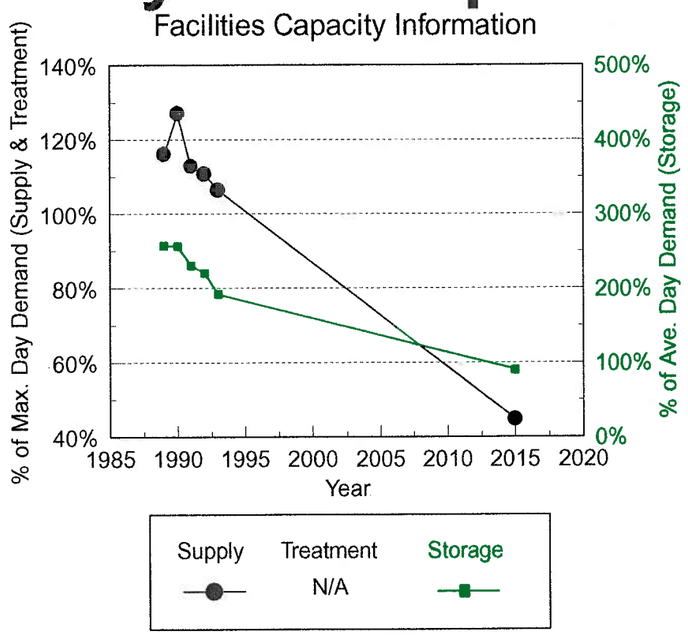
Western Allegheny County Municipal Authority

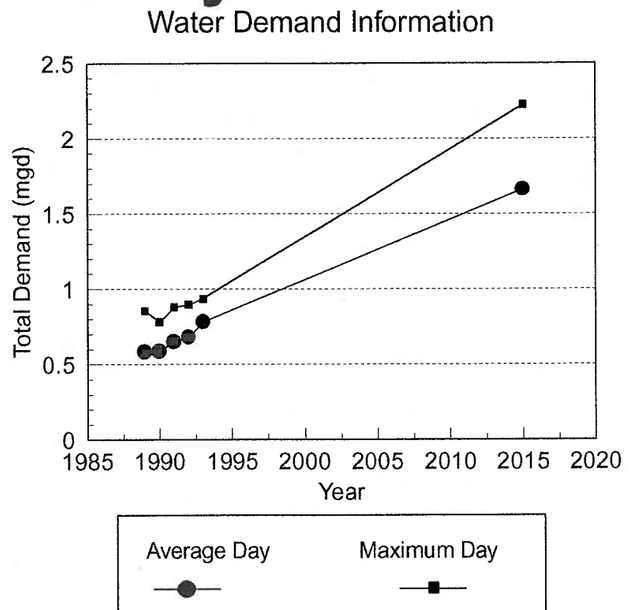
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	0.99	0.99	0.99	0.99	0.99	0.99
Robinson Township Municipal Authority	0.89	0.89	0.89	0.89	0.89	0.89
Pennsylvania American Water Company	0.10	0.10	0.10	0.10	0.10	0.10
Treatment / Pumping Facility Capacity (mgd) -- N/A						
Total Treated Water Storage (million gallons)	1.50	1.50	1.50	1.50	1.50	1.50
Total Supply Source(s) Capacity (% of max. day)	116.0%	127.0%	112.8%	110.7%	106.3%	44.7%
Treatment / Pumping Facility Capacity - N/A						
Total Treated Water Storage (% of ave. day))	257.6%	256.5%	231.0%	220.7%	192.4%	90.1%

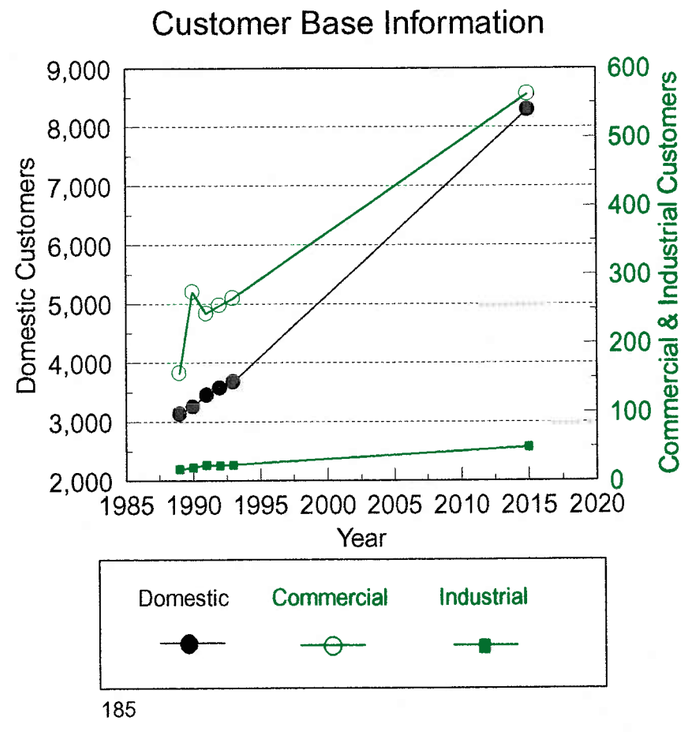
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	75%	92%	92%	

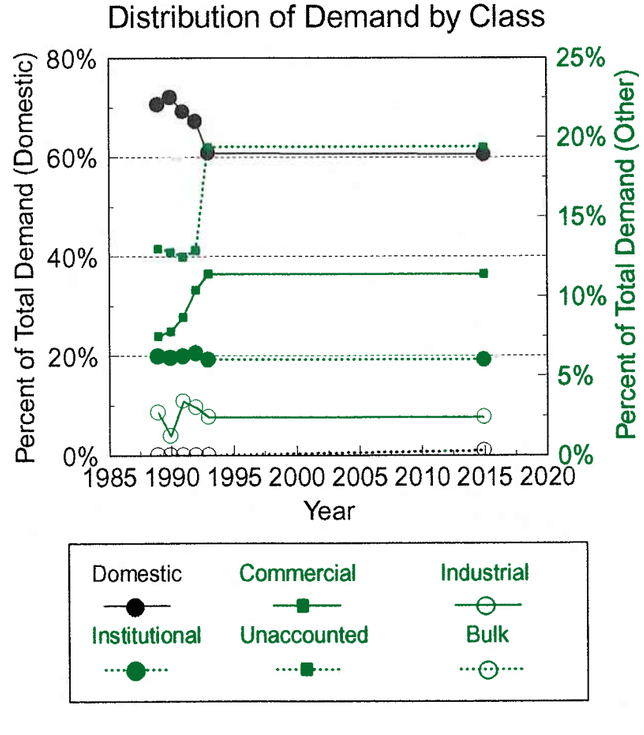
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	0.582	0.585	0.649	0.680	0.780	1.664
Maximum Day Total Water Use (mgd)	0.856	0.782	0.880	0.897	0.934	2.224
Average Daily Water Use by Customer Class (mgd)						
Domestic	0.411	0.421	0.449	0.457	0.474	1.008
Commercial	0.044	0.046	0.057	0.071	0.089	0.189
Industrial	0.018	0.007	0.022	0.021	0.019	0.040
Institutional	0.036	0.036	0.040	0.043	0.047	0.099
Bulk Sales to Suppliers	0.000	0.000	0.000	0.000	0.000	0.006
Unaccounted for and other	0.076	0.075	0.081	0.088	0.151	0.323
Average Daily Water Use (gpd/customer)	152	143	152	153	158	150
Average Daily Water Use by Customer Class (% of total)						
Domestic	70.6%	72.0%	69.2%	67.2%	60.8%	60.5%
Commercial	7.5%	7.8%	8.7%	10.4%	11.4%	11.4%
Industrial	2.7%	1.2%	3.4%	3.0%	2.4%	2.4%
Institutional	6.2%	6.1%	6.2%	6.4%	6.0%	6.0%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Unaccounted for and other	13.0%	12.8%	12.5%	12.9%	19.4%	19.4%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	3,325	3,575	3,739	3,878	3,988	8,964
Number of Customers by Class						
Domestic	3,126	3,255	3,446	3,574	3,670	8,290
Commercial	156	274	243	255	265	562
Industrial	17	19	23	22	23	49
Institutional	26	27	27	27	29	62
Bulk Sales to Suppliers	0	0	0	0	1	1
Estimated Service Population	7,840	8,183	8,642	8,963	9,204	19,562
Number of Customers by Class (% of total)						
Domestic	94.0%	91.0%	92.2%	92.2%	92.0%	92.5%
Commercial	4.7%	7.7%	6.5%	6.6%	6.6%	6.3%
Industrial	0.5%	0.5%	0.6%	0.6%	0.6%	0.5%
Institutional	0.8%	0.8%	0.7%	0.7%	0.7%	0.7%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Western Allegheny County Municipal Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$1,014,224
Dollars per 1,000 gallons sold	$4.42
Other Revenues	$24,600
TOTAL OPERATING REVENUES	$1,038,824
Dollars per 1,000 gallons sold	$4.52
Expenses	
Operating Expenses	
Total dollars per year	$820,254
Dollars per 1,000 gallons sold	$3.57
Debt Service	
Total dollars per year	$41,582
Dollars per customer served	$10.43
Other Expenses	$2,916
TOTAL EXPENSES	$864,752
Dollars per 1,000 gallons sold	$3.77
Net Revenues (dollars)	$174,072
Ratio of revenues to expenses	1.20
Average Annual Residential Bill	
Dollars per year per customer	$289.75
% of Median Household Income	0.84%
Retained Earnings	$3,866,210
Retained Earnings ($/customer)	$969.70

Legend

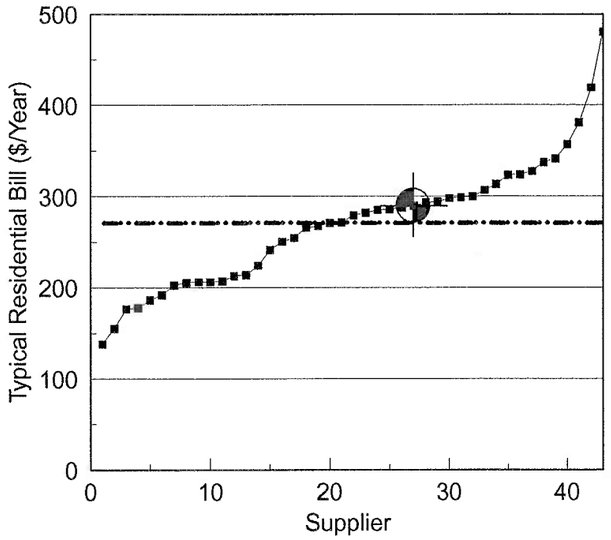
Value for this supplier

Mean value for all suppliers reporting data

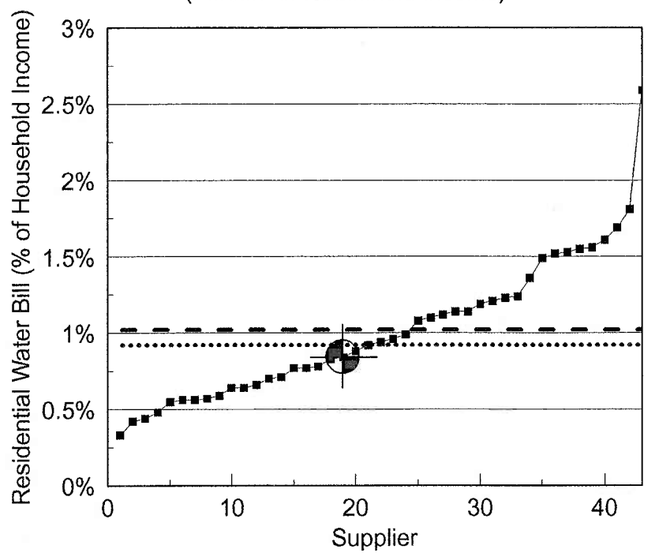
Median value for all suppliers reporting data

Individual supplier data

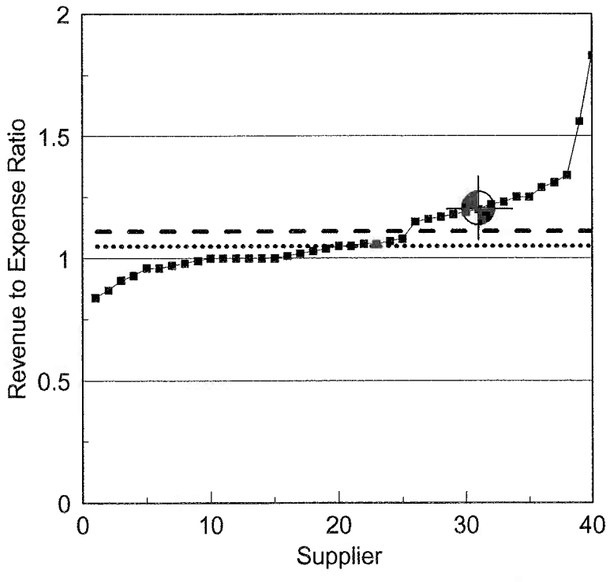
Typical Residential Water Bill
(Dollars Per Year)



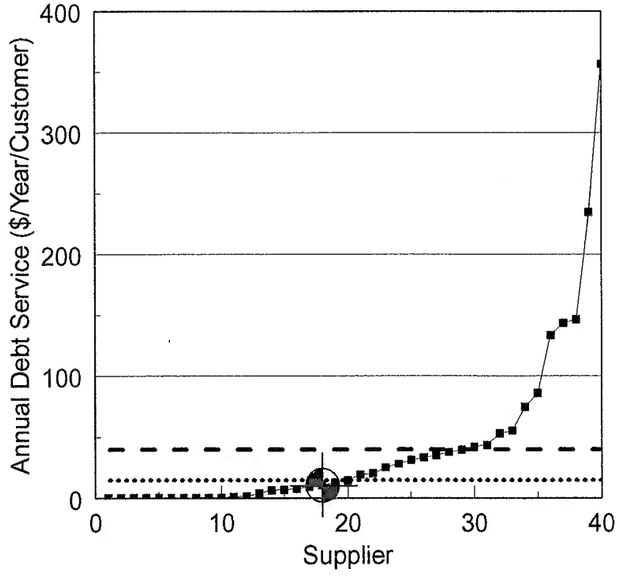
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Westmoreland County Municipal Authority

The Municipal Authority of Westmoreland County serves approximately 97,918 customers in the following municipalities:

Forward Township	Port Vue Borough	6 municipalities in Armstrong County
McKeesport City	Versailles Borough	5 municipalities in Fayette County
Monroeville Municipality	Wall Borough	43 municipalities in Westmoreland County
North Versailles Township	White Oak Borough	

The Authority also sells water in bulk to the following water suppliers for subsequent resale:

Monroeville Water Authority	Plum Borough Municipal Authority
North Versailles Township Authority	4 water suppliers outside of Allegheny County
Pennsylvania American Water Company	

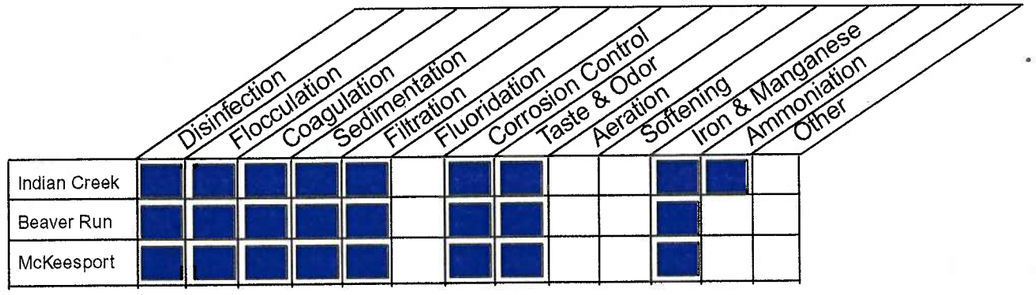
The Authority has entered into an agreement with the City of Duquesne to begin supplying the City with finished water beginning in the spring of 1996. The demand projections include these additional bulk water sales.

The Municipal Authority of Westmoreland County was established in 1942. The Authority board consists of five members who are appointed by the Westmoreland County commissioners.

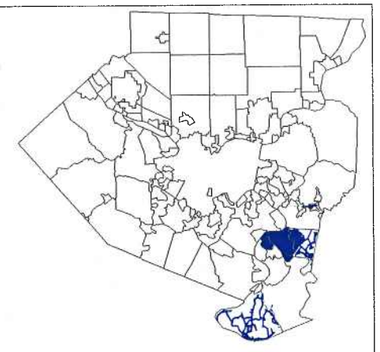
The Authority obtains its water supply from three surface water locations, the Youghiogheny River, Indian Creek, and Beaver Run. The Authority also buys small quantities of water in bulk from the Pennsylvania American Water Company and the Plum Borough Municipal Authority. The Authority operates three treatment plants providing the processes illustrated below. In addition to the treatment plants, the Authority operates 45 distribution system water storage facilities and three booster pumping stations located in Allegheny County. At the time of this writing a new treatment plant is under construction at Beaver Run. It is scheduled for completion in the summer of 1996 and will increase the total treatment plant capacity by 4.0 mgd.

During the past five years, the Authority has experienced a 21.0 percent increase in the total number of customers served. Total daily water use in 1993 averaged 56.913 million gallons per day.

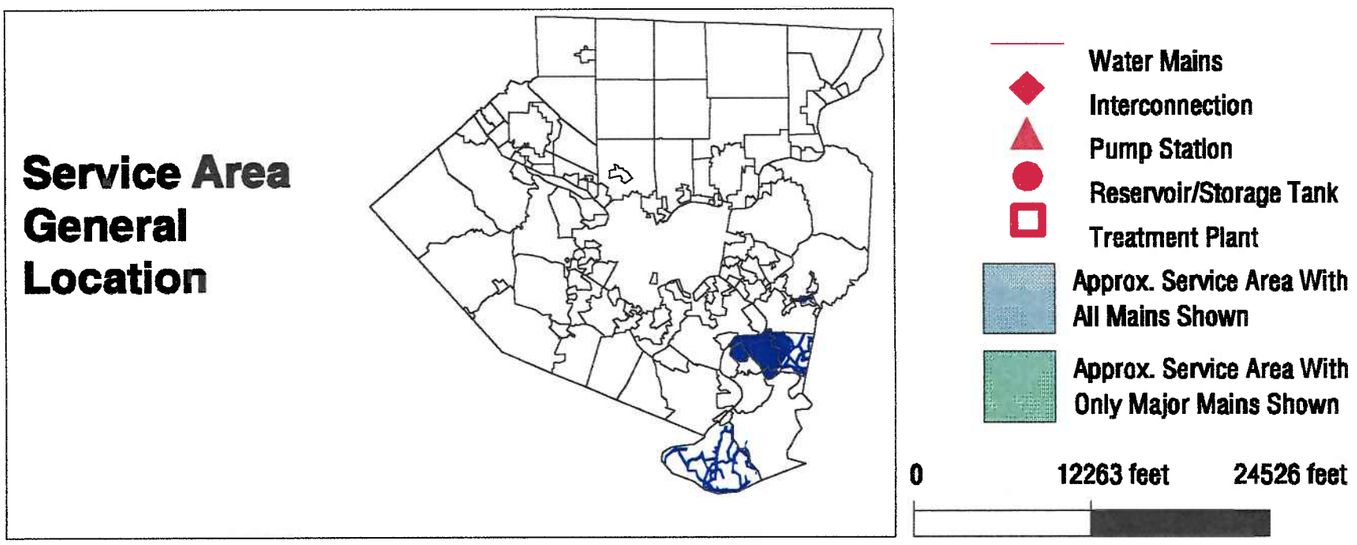
The total service population is projected to increase from approximately 283,879 persons in 1993 to approximately 394,551 by the year 2015. Average daily water demands are projected to increase from 56.913 mgd (68.114 mgd maximum day) in 1993 to 75.897 mgd (87.937 mgd maximum day) in the year 2015. The current demands are within the capacity of the Authority's source of supply and treatment facility and the total treatment capacity is expected to be marginally adequate to meet maximum day demands by the year 2015 (96% of maximum day demand). Distribution storage facilities are expected to provide in excess of a 1-day storage volume throughout the planning period. System storage in the Westmoreland County Municipal Authority system, combined with storage and emergency supply sources available to the other systems to which it supplies water is sufficient to provide a 3-day emergency supply throughout the planning period.



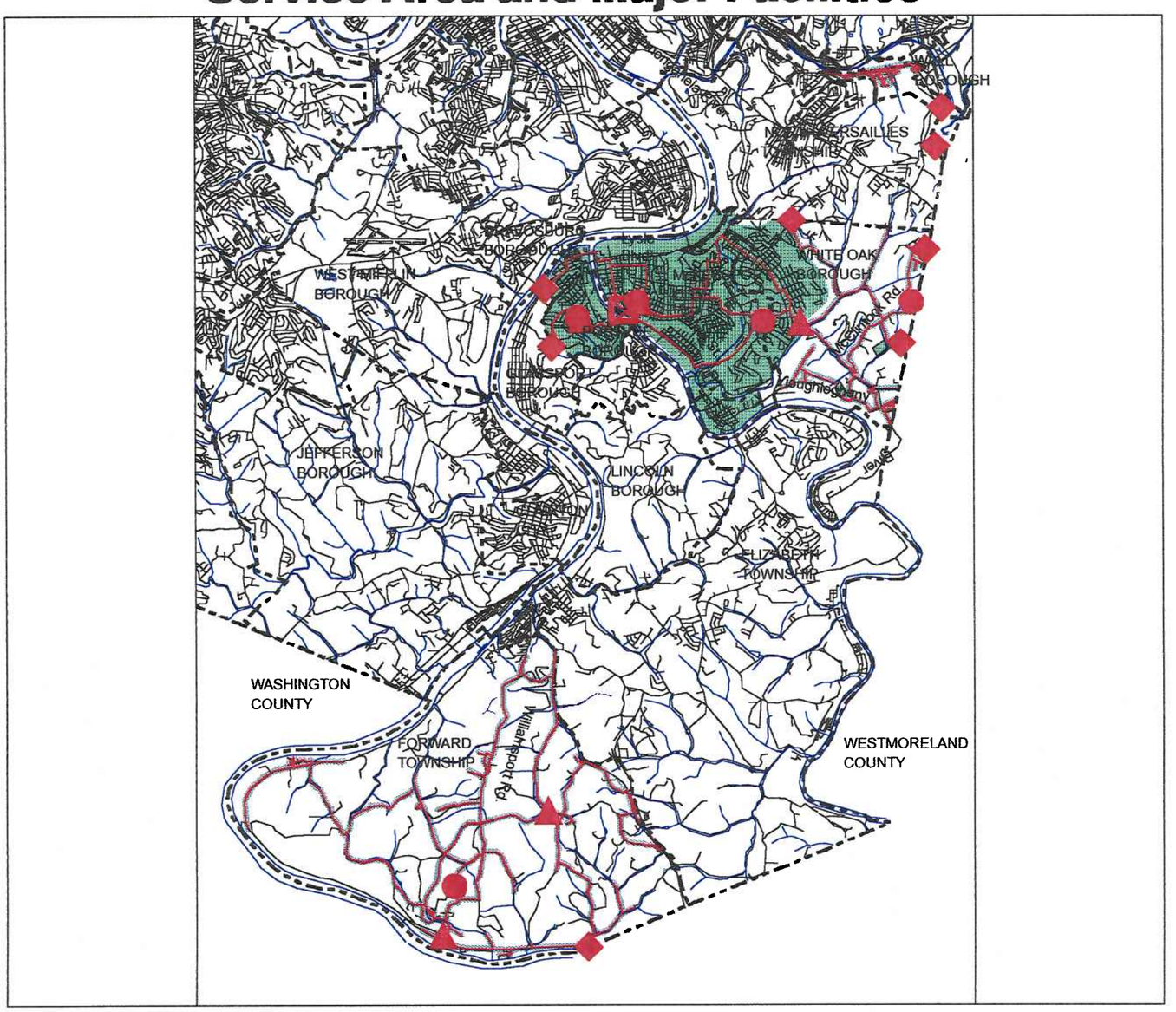
Service Area General Location



SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



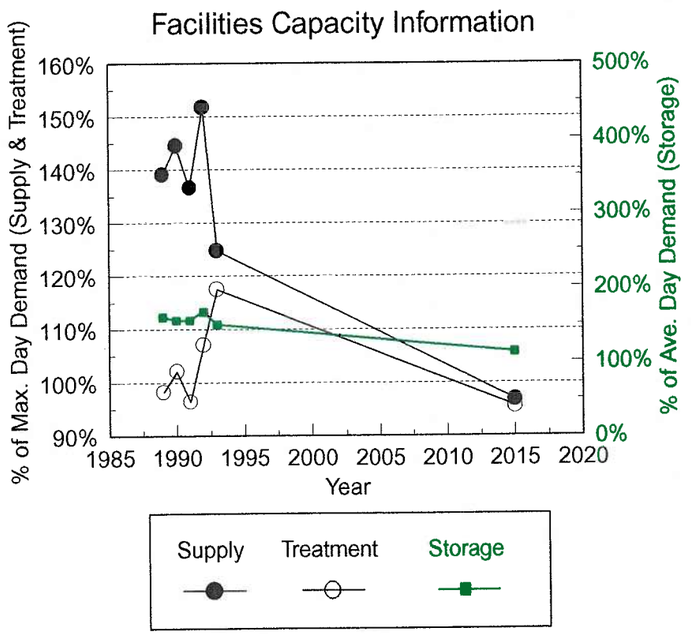
Municipal Authority of Westmoreland County

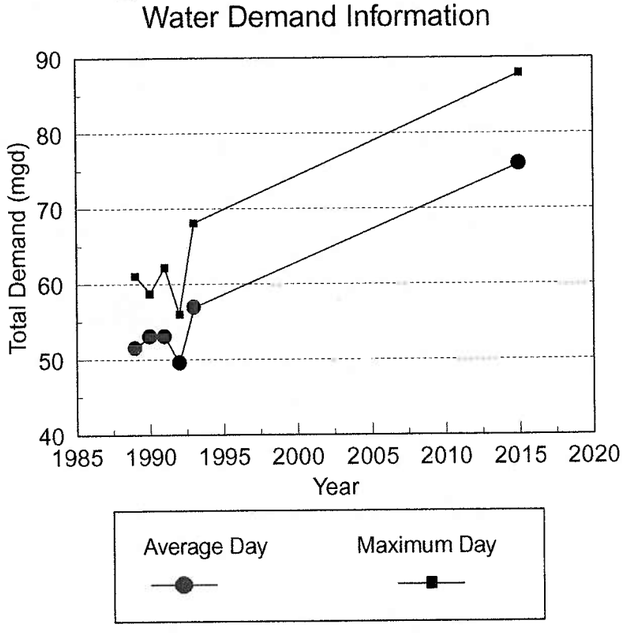
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	85.00	85.00	85.00	85.00	85.00	85.00
Beaver Run	35.00	35.00	35.00	35.00	35.00	35.00
Indian Creek	5.00	5.00	5.00	5.00	5.00	5.00
Youghiogheny River	45.00	45.00	45.00	45.00	45.00	45.00
Treatment / Pumping Facility Capacity (mgd)	60.00	60.00	60.00	60.00	80.00	84.00
Total Treated Water Storage (million gallons)	82.45	82.45	82.45	82.45	85.21	85.21
Total Supply Source(s) Capacity (% of max. day)	139.1%	144.6%	136.6%	151.7%	124.8%	96.7%
Treatment / Pumping Facility Capacity (% of max. day)	98.2%	102.1%	96.4%	107 1%	117.5%	95.5%
Total Treated Water Storage (% of ave. day))	160.0%	155.3%	155.3%	166.5%	149.7%	112.3%

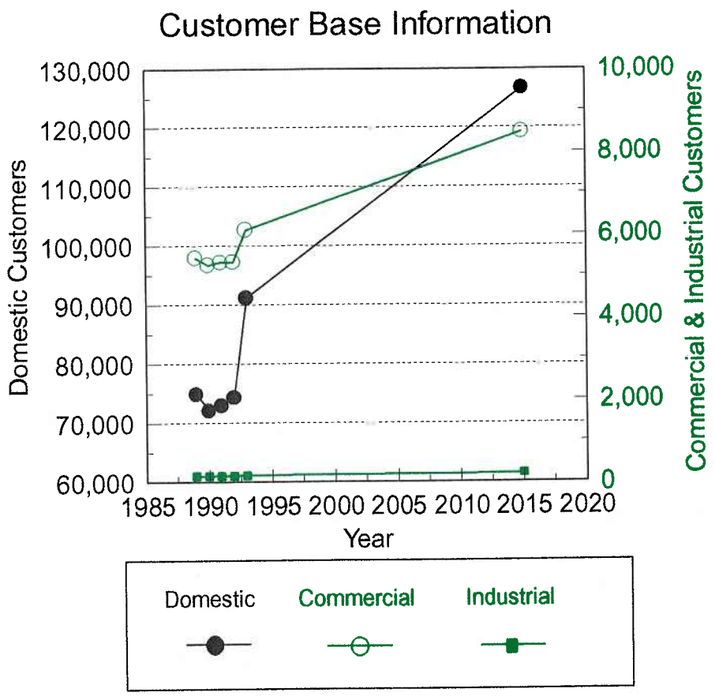
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	83%	100%	92%	

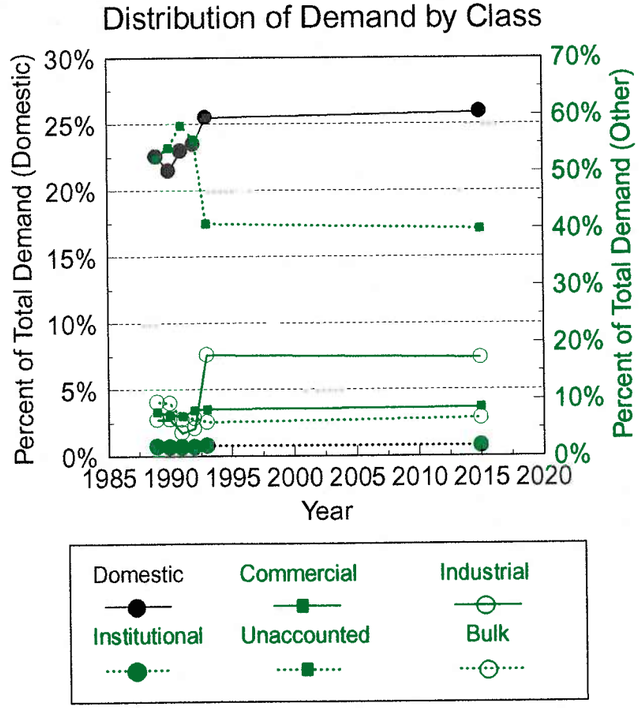
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	51.529	53.080	53.087	49.506	56.913	75.899
Maximum Day Total Water Use (mgd)	61.090	58.767	62.210	56.030	68.114	87.937
Average Daily Water Use by Customer Class (mgd)						
Domestic	11.622	11.390	12.187	11.633	14.538	19.649
Commercial	3.982	3.839	3.717	3.959	4.695	6.525
Industrial	3.289	3.381	2.142	2.358	10.100	13.039
Institutional	0.809	0.803	0.786	0.750	1.000	1.390
Bulk Sales to Suppliers	4.845	4.900	3.393	3.264	3.380	5.026
Unaccounted for and other	26.982	28.767	30.862	27.542	23.200	30.270
Average Daily Water Use (gpd/customer)	303	312	282	274	344	335
Average Daily Water Use by Customer Class (% of total)						
Domestic	22.6%	21.5%	23.0%	23.5%	25.5%	25.9%
Commercial	7.7%	7.2%	7.0%	8.0%	8.2%	8.6%
Industrial	6.4%	6.4%	4.0%	4.8%	17.7%	17.2%
Institutional	1.6%	1.5%	1.5%	1.5%	1.8%	1.8%
Bulk Sales to Suppliers	9.4%	9.2%	6.4%	6.6%	5.9%	6.6%
Unaccounted for and other	52.4%	54.2%	58.1%	55.6%	40.8%	39.9%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	80,888	77,967	78,892	80,281	97,918	136,069
Number of Customers by Class						
Domestic	74,819	72,113	72,988	74,350	91,131	128,859
Commercial	5423	5250	5316	5329	6098	8475
Industrial	145	146	150	149	166	214
Institutional	474	438	432	436	505	702
Bulk Sales to Suppliers	27	20	28	17	18	18
Estimated Service Population	233,066	224,637	227,300	231,605	283,879	394,551
Number of Customers by Class (% of total)						
Domestic	92.5%	92.5%	92.5%	92.6%	93.1%	93.1%
Commercial	6.7%	6.7%	6.7%	6.6%	6.2%	6.2%
Industrial	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Institutional	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



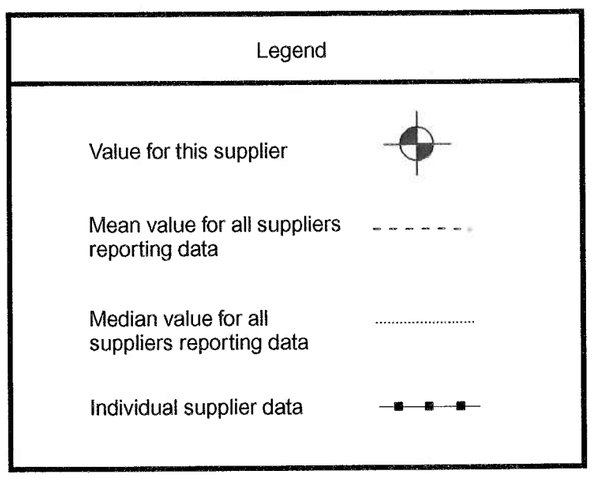




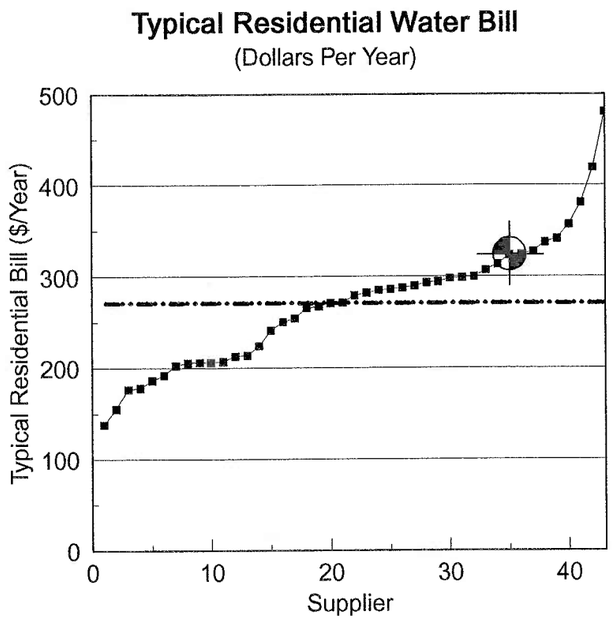


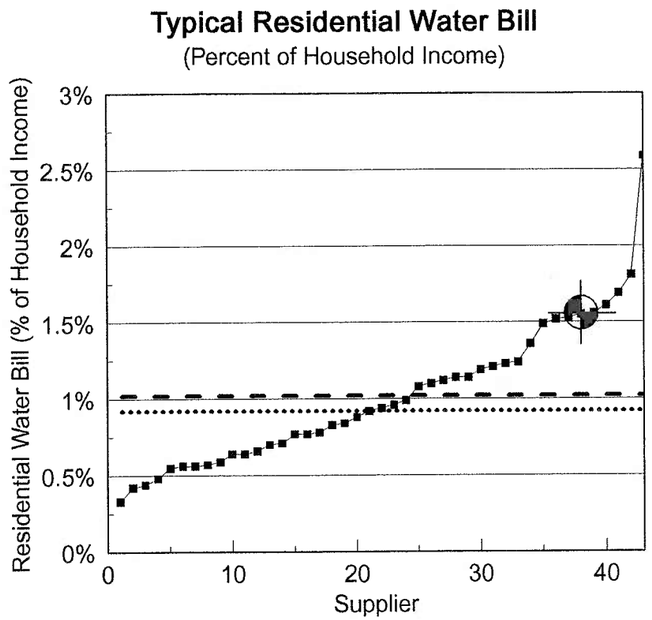
Municipal Authority of Westmoreland County

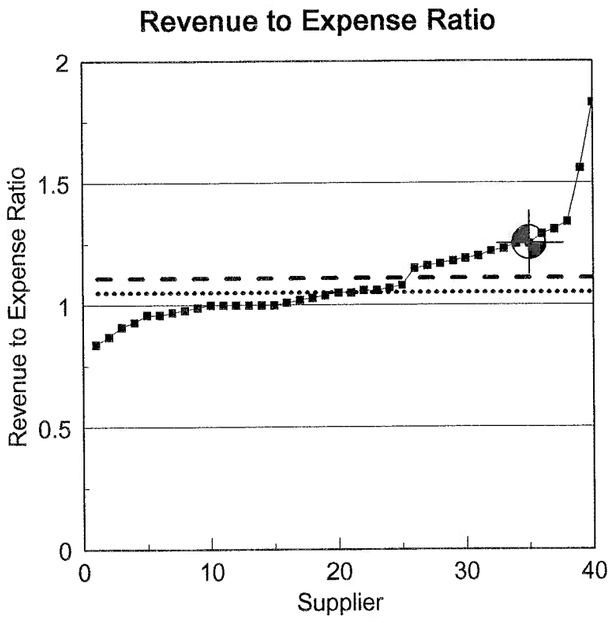
Financial Data	
Revenues	
Sales	
Total dollars per year	$30,145,748
Dollars per 1,000 gallons sold	$2.45
Other Revenues	$10,003,951
TOTAL OPERATING REVENUES	$40,149,699
Dollars per 1,000 gallons sold	$3.26
Expenses	
Operating Expenses	
Total dollars per year	$18,113,296
Dollars per 1,000 gallons sold	$1.47
Debt Service	
Total dollars per year	$14,067,437
Dollars per customer served	$143.67
Other Expenses	$0
TOTAL EXPENSES	$32,180,733
Dollars per 1,000 gallons sold	$2.62
Net Revenues (dollars)	$7,968,966
Ratio of revenues to expenses	1.25
Average Annual Residential Bill	
Dollars per year per customer	$323.45
% of Median Household Income	1.55%
Retained Earnings	$75,028,753
Retained Earnings ($/customer)	$766.24

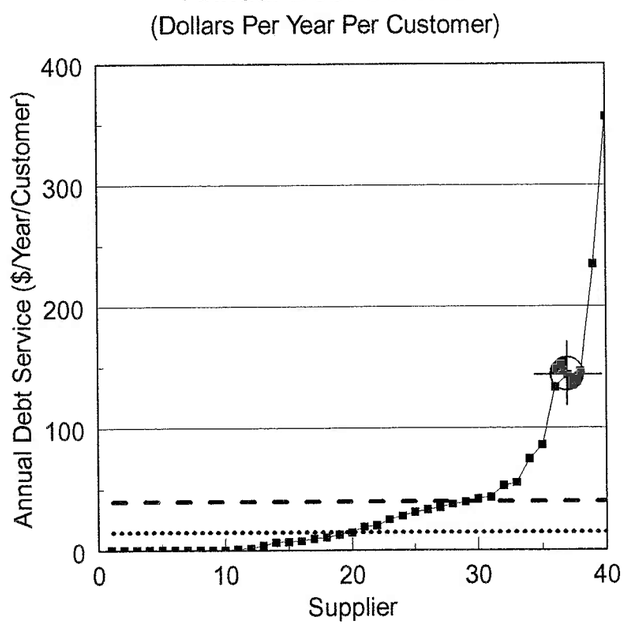


Note: Typica" residential billings represents average for McKeesport and Greensburg districts.









Borough of West View Municipal Authority

The Borough of West View Municipal Authority serves approximately 47,209 customers in the following municipalities:

Aleppo Township	Bradford Woods Boro.	Kilbuck Township	Pine Township	Shaler Township
Avalon Boro.	Cranberry Township	Marshall Township	Reserve Township	Stowe Township
Bellevue Borough	Emsworth Borough	McCandless, Town of	Robinson Township	West View Boro.
Ben Avon Borough	Franklin Park Boro.	McKees Rocks Boro.	Ross Township	Pittsburgh, City of
Ben Avon Heights Boro.	Kennedy Township	Ohio Township	Sewickley Hills Boro.	

The Authority also sells water in bulk for resale to the following water suppliers:

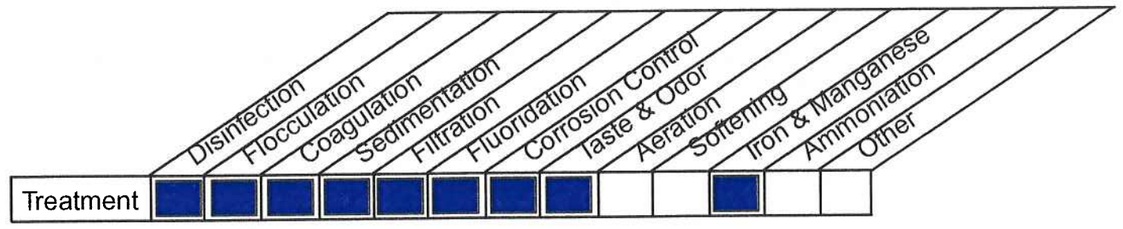
Aleppo Twp. Auth.	Hampton Twp. M.A.	Neville Township
Cranberry Township	Richland Twp. M.A.	Seven Fields Borough

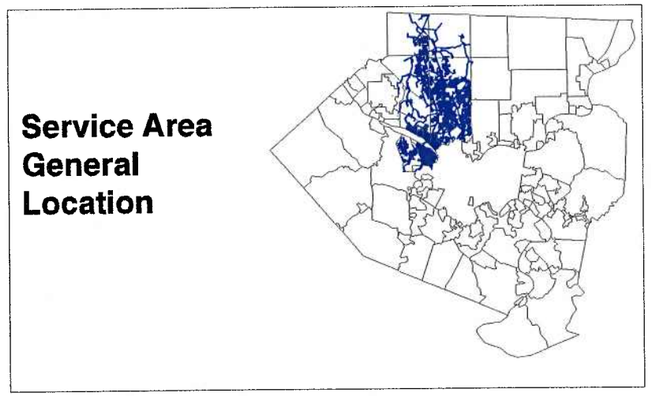
The water system is owned and operated by the Borough of West View Municipal Authority. The Authority was established in 1942. The Authority board is composed of five members who are appointed by the Borough of West View.

The Authority produces water obtained from the Ohio River and ground water wells. The treatment process employed at the Authority's treatment plant are illustrated below. The Authority presently operates 10 distribution system water storage facilities and 5 booster pumping stations.

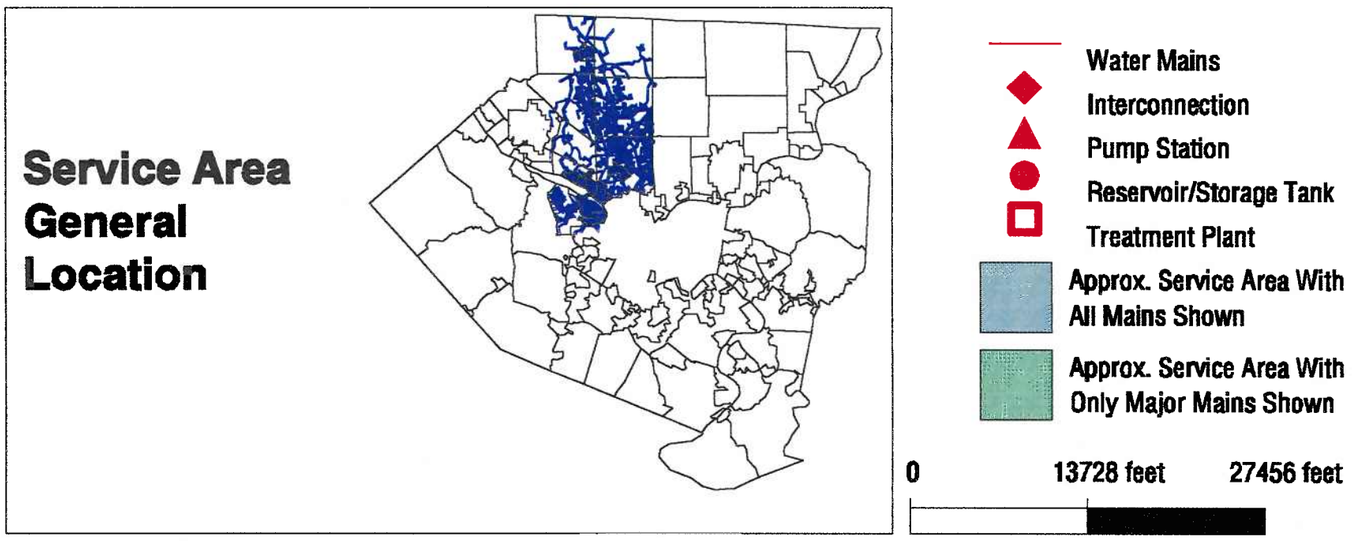
During the past five years, the Authority has experienced an 6.0 percent rise in the total number of customers served. Total daily water use in 1993 averaged 18.4 million gallons per day.

The total service population is projected to increase from approximately 129,054 persons in 1993 to approximately 198,667 by the year 2015. Average daily water demands are projected to increase from 18.4 mgd (31.4 mgd maximum day) in 1993 to 24.4 mgd (38.6 mgd maximum day) in the year 2015. These demands are within the current capacity of the Authority's sources of supply and treatment facilities. The Authority's distribution facilities provide in excess of a 1-day storage volume throughout the planning period. There are three emergency supply points of connection with the Pittsburgh Water and Sewer Authority system. The reported maximum supply capacity of these connections is 5.5 mgd. The total emergency supply capacity, including system storage within the West View system, system storage in systems to which it sells water in bulk, and emergency water supply connections to the West View system and to systems to which it sells water, does not meet the 3-day supply goal under current or projected future conditions. It is recommended that emergency supply capacities available through interconnections with adjacent systems be maximized to the extent feasible. In the worst case, lacking additional emergency supply connections, an additional 25 million gallons of storage will be required by the year 2015 to meet the 3-day emergency supply goal. The cost of this storage, assuming the construction of five 5.0 million gallon concrete reservoirs is estimated to be $10,730,000.

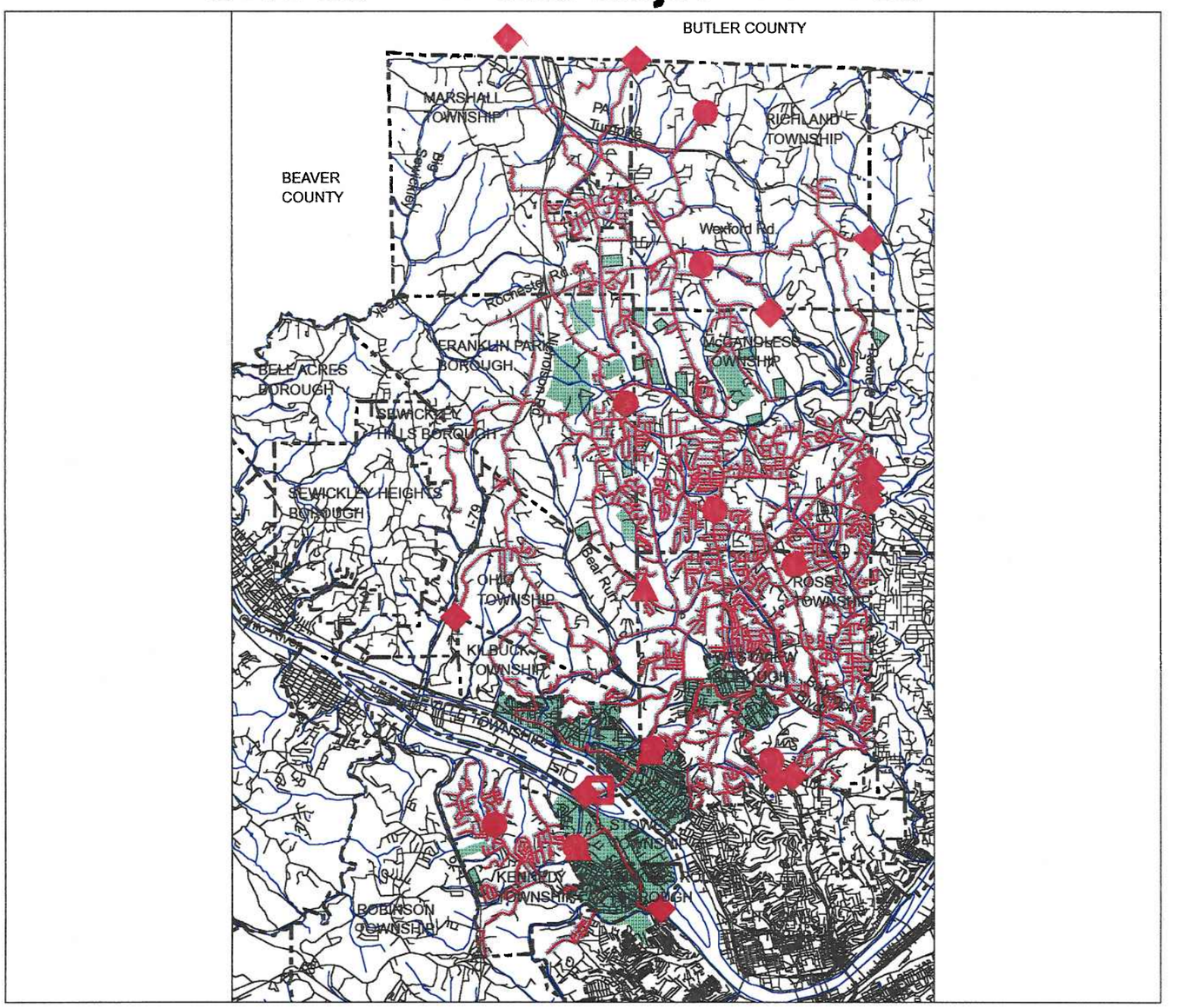




SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



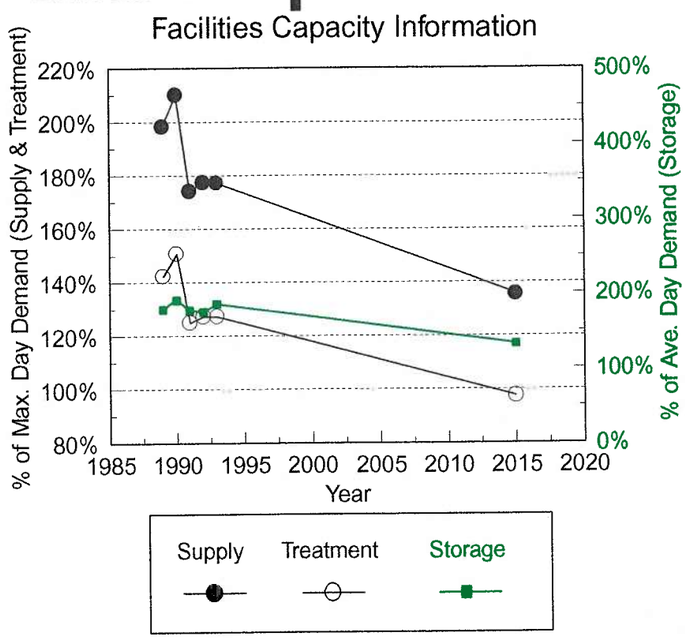
Borough of West View Municipal Authority

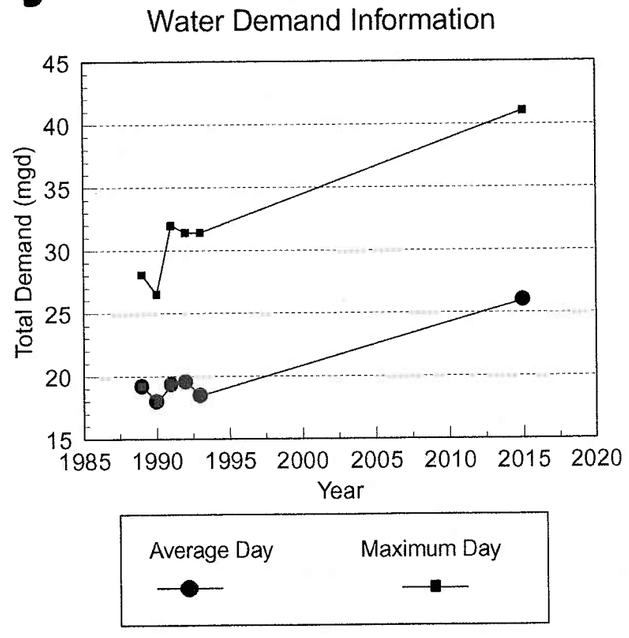
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	55.70	55.70	55.70	55.70	55.70	55.70
Ohio River	40.00	40.00	40.00	40.00	40.00	40.00
Wells	15.70	15.70	15.70	15.70	15.70	15.70
Treatment / Pumping Facility Capacity (mgd)	40.00	40.00	40.00	40.00	40.00	40.00
Total Treated Water Storage (million gallons)	34.33	34.33	34.33	34.33	34.33	34.33
Total Supply Source(s) Capacity (% of max. day)	198.2%	210.0%	174.1%	177.3%	177.2%	135.6%
Treatment / Pumping Facility Capacity (% of max. day)	142.4%	150.8%	125.0%	127.3%	127.3%	97.4%
Total Treated Water Storage (% of ave. day))	178.9%	191.2%	177.5%	175.6%	186.1%	132.2%

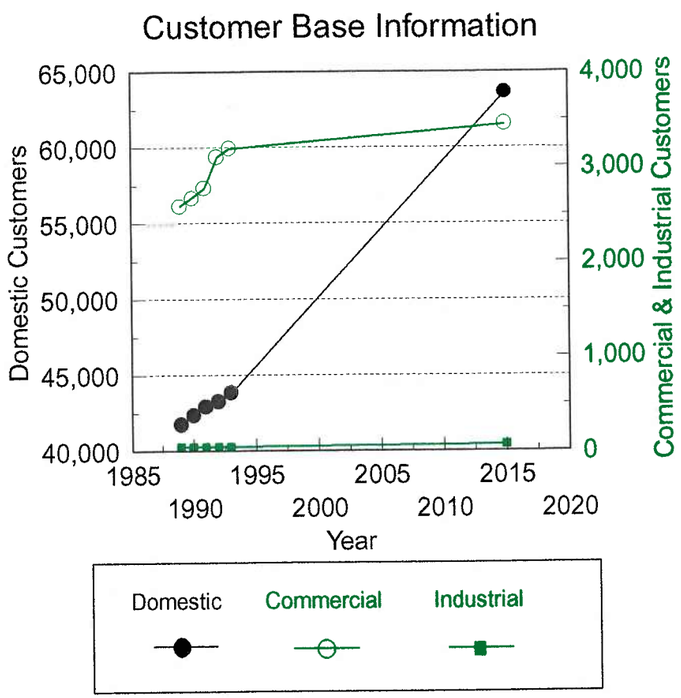
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	100%	100%	100%	100%	100%	

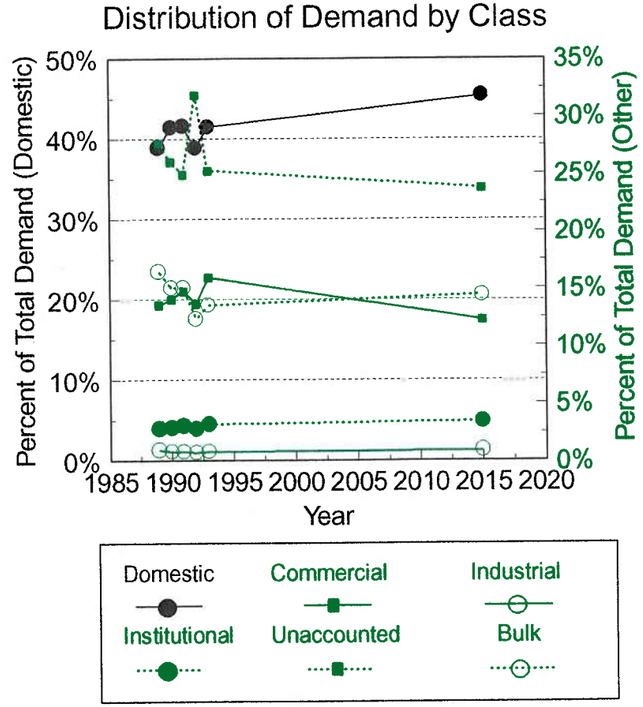
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	19.184	17.955	19.338	19.550	18.445	25.989
Maximum Day Total Water Use (mgd)	28.098	26.523	32.000	31.420	31.425	41.070
Average Daily Water Use by Customer Class (mgd)						
Domestic	7.467	7.436	8.040	7.605	7.647	11.792
Commercial	2.594	2.511	2.851	2.651	2.930	3.166
Industrial	0.166	0.152	0.152	0.145	0.154	0.237
Institutional	0.509	0.499	0.588	0.530	0.571	0.879
Bulk Sales to Suppliers	3.144	2.692	2.895	2.402	2.494	3.748
Unaccounted for and other	5.303	4.665	4.813	6.218	4.649	6.147
Average Daily Water Use (gpd/customer)	312	294	317	286	292	294
Average Daily Water Use by Customer Class (% of total)						
Domestic	38.9%	41.4%	41.6%	38.9%	41.5%	45.4%
Commercial	13.5%	14.0%	14.7%	13.6%	15.9%	12.2%
Industrial	0.9%	0.8%	0.8%	0.7%	0.8%	0.9%
Institutional	2.7%	2.8%	3.0%	2.7%	3.1%	3.4%
Bulk Sales to Suppliers	16.4%	15.0%	15.0%	12.3%	13.5%	14.4%
Unaccounted for and other	27.6%	26.0%	24.9%	31.8%	25.2%	23.7%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	44,525	45,206	45,895	46,549	47,209	67,374
Number of Customers by Class						
Domestic	41,731	42,326	42,920	43,244	43,818	63,621
Commercial	2577	2664	2770	3097	3187	3444
Industrial	45	45	45	46	46	71
Institutional	163	162	151	153	149	229
Bulk Sales to Suppliers	9	9	9	9	9	9
Estimated Service Population	122,907	124,660	126,409	127,363	129,054	198,667
Number of Customers by Class (% of total)						
Domestic	93.7%	93.6%	93.5%	92.9%	92.8%	94.4%
Commercial	5.8%	5.9%	6.0%	6.7%	6.8%	5.1%
Industrial	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Institutional	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Borough of West View Municipal Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$14,537,029
Dollars per 1,000 gallons sold	$2.89
Other Revenues	$462,790
TOTAL OPERATING REVENUES	$14,999,819
Dollars per 1,000 gallons sold	$2.98
Expenses	
Operating Expenses	
Total dollars per year	$8,892,121
Dollars per 1,000 gallons sold	$1.77
Debt Service	
Total dollars per year	$1,859,758
Dollars per customer served	$39.39
Other Expenses	$4,219,982
TOTAL EXPENSES	$14,971,861
Dollars per 1,000 gallons sold	$2.97
Net Revenues (dollars)	$27,958
Ratio of revenues to expenses	1.00
Average Annual Residential Bill	
Dollars per year per customer	$205.58
% of Median Household Income	0.55%
Retained Earnings	$95,131,400
Retained Earnings ($/customer)	$2,015.11

Legend

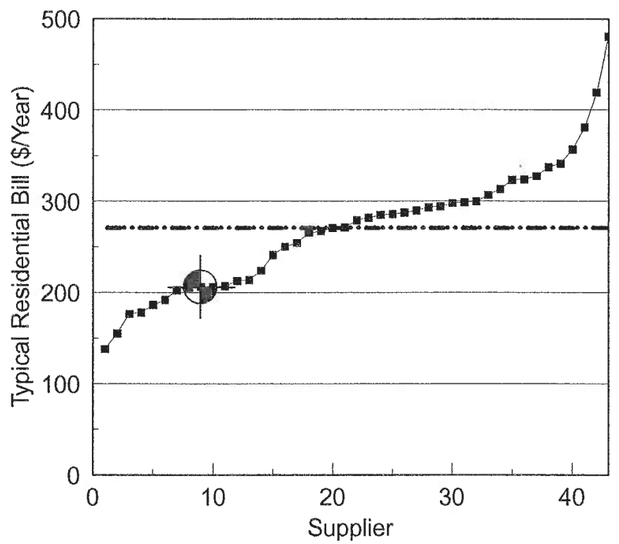
Value for this supplier

Mean value for all suppliers reporting data

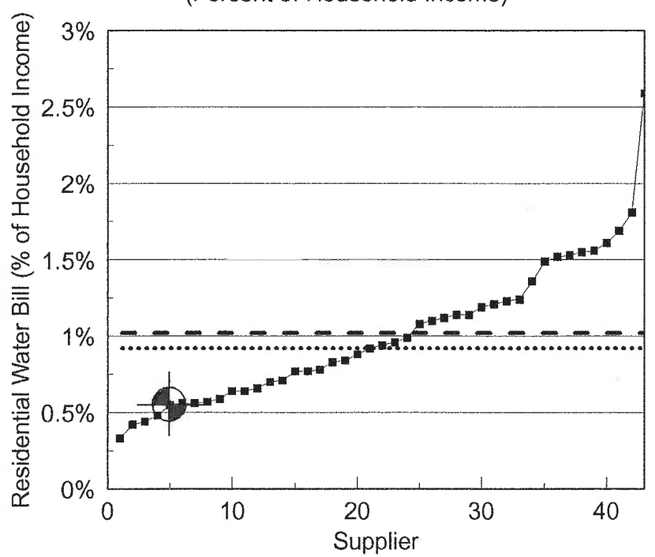
Median value for all suppliers reporting data

Individual supplier data

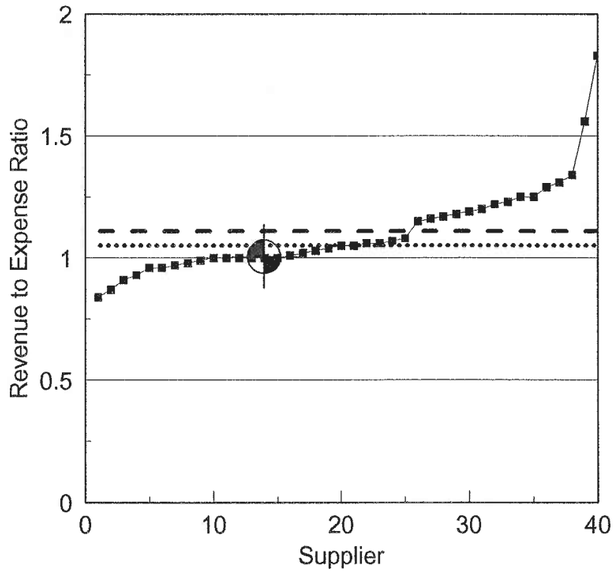
Typical Residential Water Bill
(Dollars Per Year)



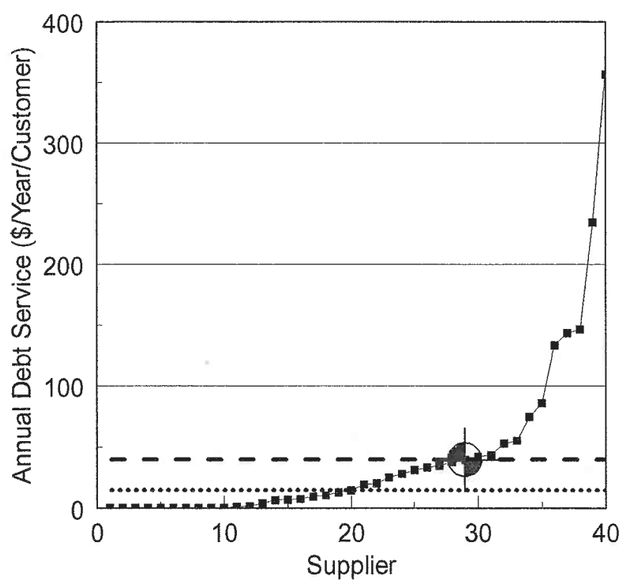
Typical Residential Water Bill
(Percent of Household Income)



Revenue to Expense Ratio



Annual Debt Service
(Dollars Per Year Per Customer)



Wilkinsburg-Penn Joint Water Authority

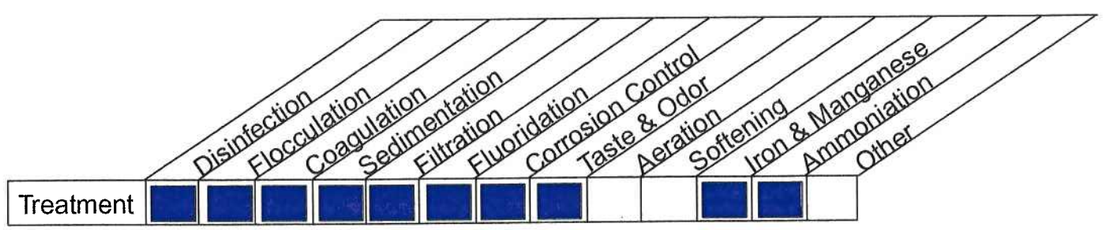
The Wilkinsburg-Penn Joint Water Authority serves approximately 43,794 customers in the following municipalities:

Braddock Boro.	East Pittsburgh Boro. (1)	North Huntington Twp.	Swissvale Boro. (1)
Braddock Hills Boro.	Edgewood Boro. (1)	North Versailles Twp.	Trafford Boro.
Chalfant Boro.	Forest Hills Boro. (1)	Penn Hills Municipality (2)	Turtle Creek Boro. (1)
Churchill Boro. (1)	Monroeville Municipality	Pitcairn Boro.	Wilkinsburg Boro. (3)
East McKeesport Boro.	North Braddock Boro. (1)	Pittsburgh City	Wilkins Twp.
			Wilmerding Boro.

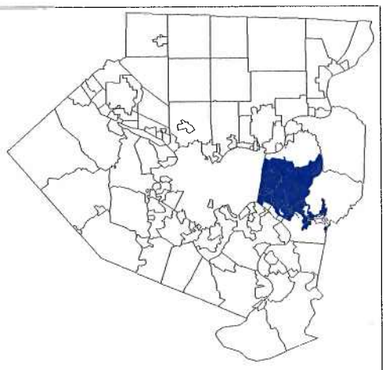
The Authority also sells water in bulk to the following suppliers for resale:

Braddock Borough Water Authority
Monroeville Water Authority
Plum Borough Water Authority
Rankin Borough
North Versailles Township Water Authority

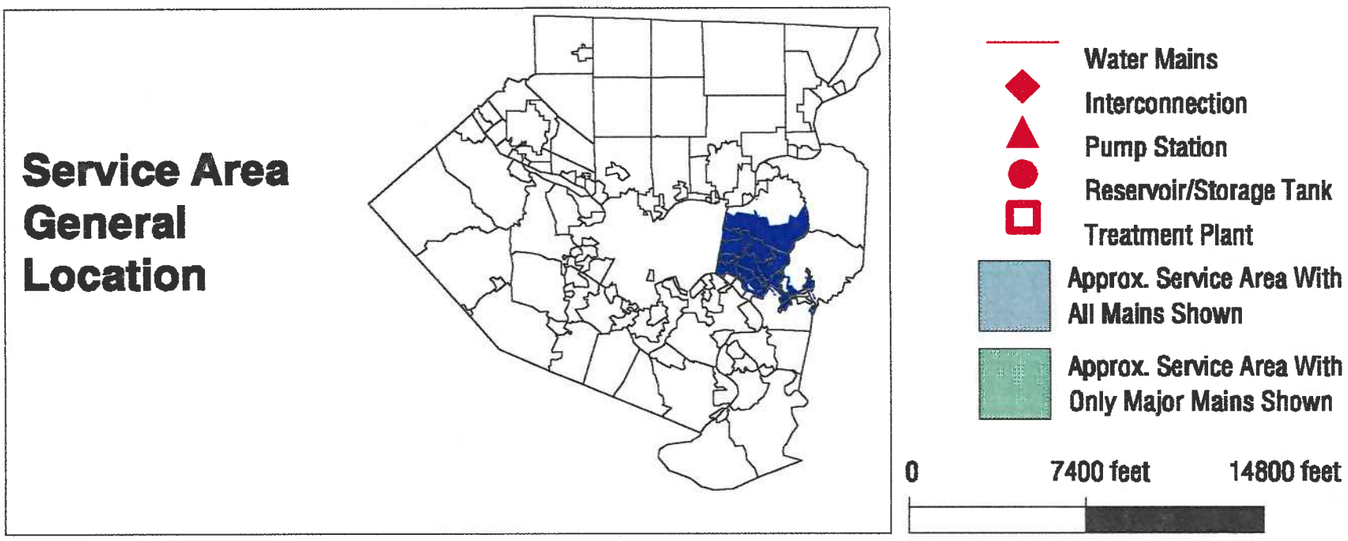
The Authority was formed in 1945. The authority board is comprised of 12 members. Members are appointed by the various municipalities as indicated on the above list. The Authority obtains its water supply from the Allegheny River. The processes employed by the Authority's water treatment plant are illustrated below. In addition to the treatment plant, the Authority operates 18 distribution system water storage facilities and eight booster pumping stations. During the past five years, the Authority has experienced a 2.5 percent increase in the total number of customers served. Total daily water use in 1993 averaged 21.055 million gallons per day. The total service population is projected to increase from approximately 125,811 persons in 1993 to approximately 136,997 by the year 2015. Average daily water demands are projected to increase from 21.055 mgd (30.677 mgd maximum day) in 1993 to 27.291 mgd (34.369 mgd maximum day) in the year 2015. These demands are within the capacity of the Authority's treatment facility. However, the maximum day demands exceed the established water allocation for the source of supply. An increase in the allocation will be required to meet future demands. Distribution storage is expected to remain sufficient throughout the planning period.



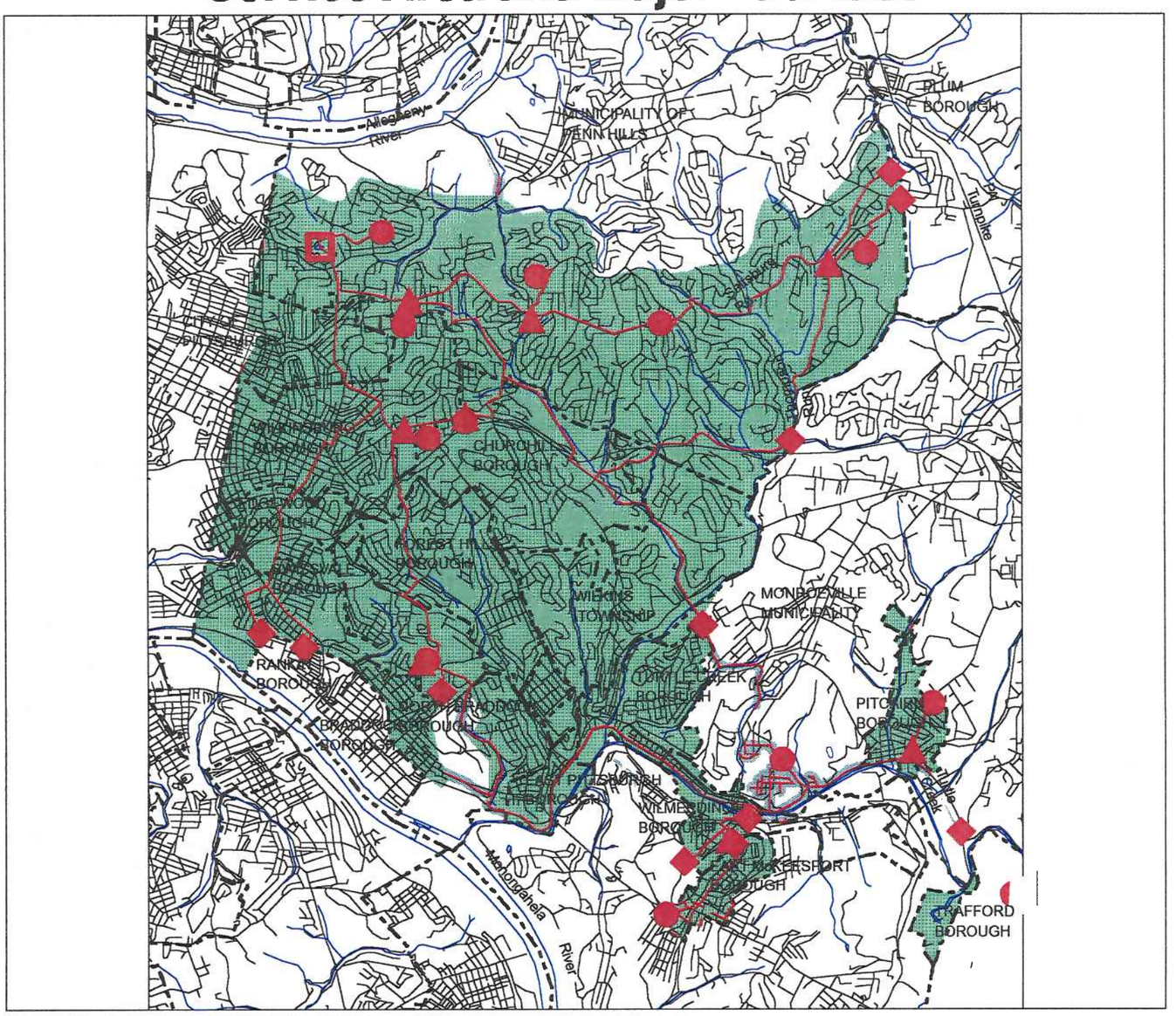
Service Area General Location



SYSTEM MAP LOCATED ON FOLLOWING PAGE



Service Area and Major Facilities



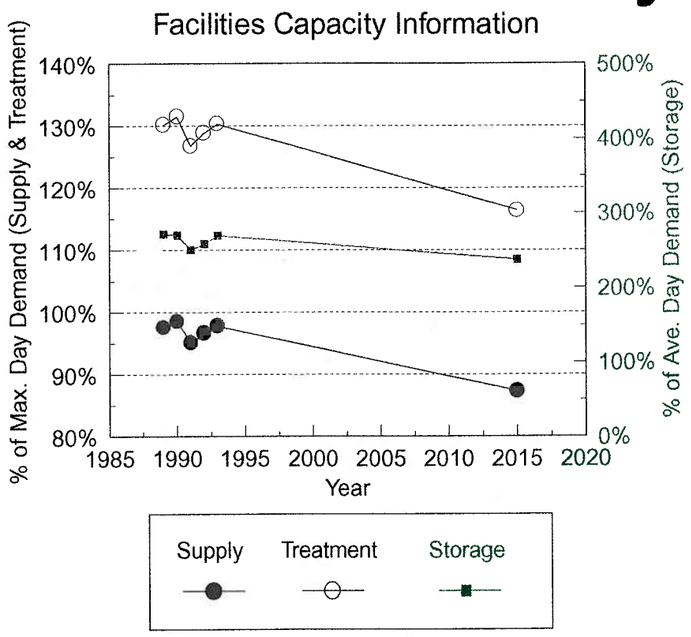
Wilkinsburg-Penn Joint Water Authority

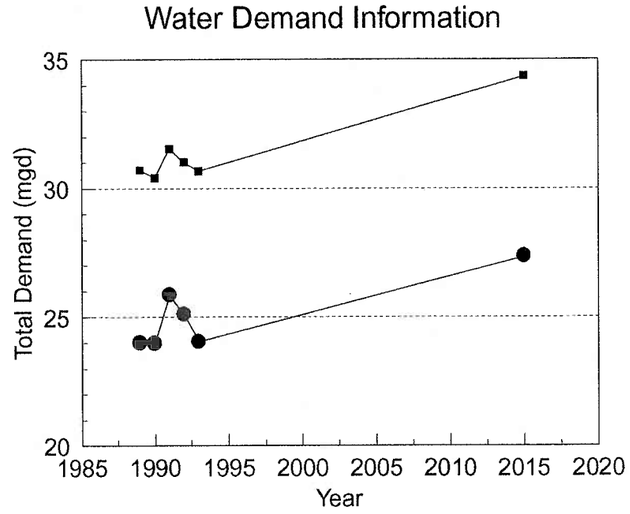
FACILITIES INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Supply Source(s) Capacity (mgd)	30.00	30.00	30.00	30.00	30.00	30.00
Allegheny River	30.00	30.00	30.00	30.00	30.00	30.00
Treatment / Pumping Facility Capacity (mgd)	40.00	40.00	40.00	40.00	40.00	40.00
Total Treated Water Storage (million gallons)	65.26	64.94	64.94	64.94	64.97	64.97
Total Supply Source(s) Capacity (% of max. day)	97.6%	98.6%	95.1%	96.7%	97.8%	87.3%
Treatment / Pumping Facility Capacity (% of max. day)	130.2%	131.5%	126.8%	128.9%	130.4%	116.4%
Total Treated Water Storage (% of ave. day))	271.8%	270.8%	251.1%	258.5%	270.1%	237.4%

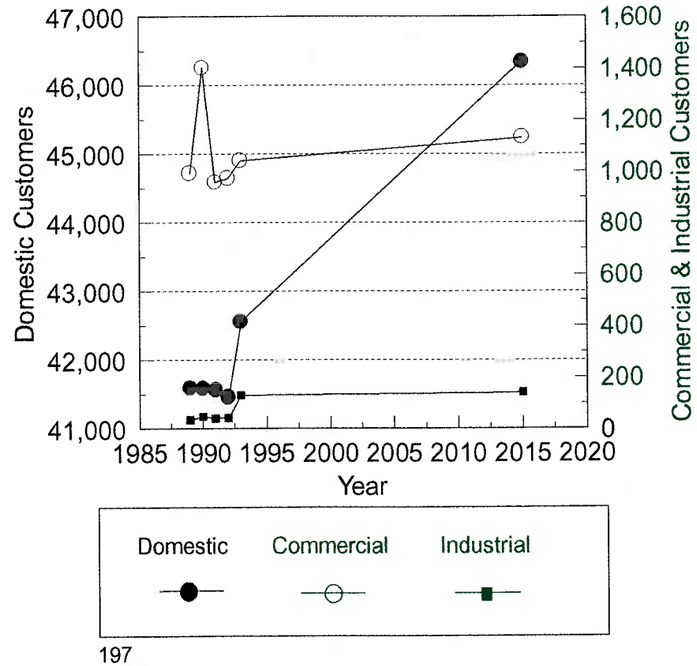
SAFE DRINKING WATER ACT COMPLIANCE	YEAR					
	1989	1990	1991	1992	1993	2015
MCL Compliance History (% of months in compliance)						
Bacteriological	100%	100%	100%	100%	100%	
Turbidity	100%	100%	100%	100%	100%	
Disinfectant Residual	100%	100%	100%	100%	100%	
Organic Chemicals	100%	100%	100%	100%	100%	
Trihalomethanes	100%	100%	100%	100%	100%	
Inorganic Chemicals (other than lead and copper)	100%	100%	100%	100%	100%	
Lead and Copper	100%	100%	100%	100%	100%	
Monitoring Requirements	92%	92%	92%	100%	100%	

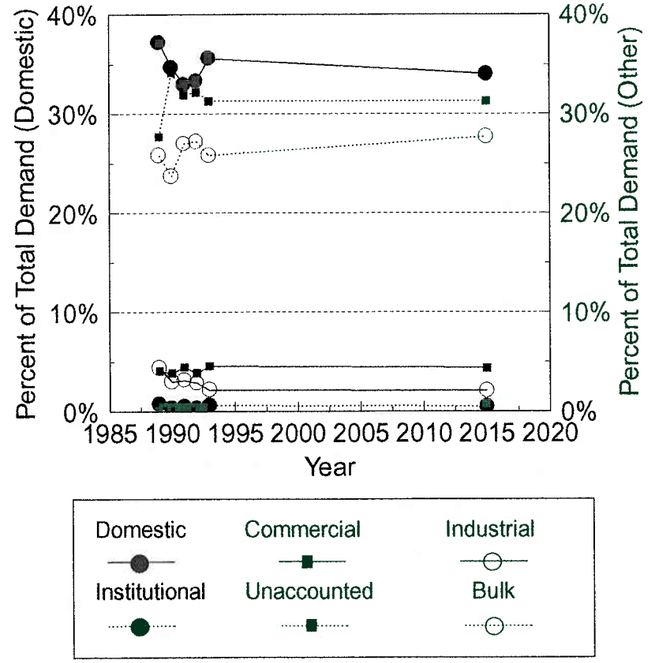
WATER DEMAND INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Average Daily Water Use (mgd)	24.005	23.983	25.860	25.118	24.055	27.365
Maximum Day Total Water Use (mgd)	30.727	30.426	31.552	31.032	30.677	34.369
Average Daily Water Use by Customer Class (mgd)						
Domestic	8.938	8.314	8.510	8.374	8.554	9.302
Commercial	0.979	0.941	1.184	0.971	1.097	1.194
Industrial	1.048	0.715	0.839	0.721	0.527	0.574
Institutional	0.186	0.107	0.120	0.113	0.135	0.147
Bulk Sales to Suppliers	6.194	5.695	6.975	6.841	6.215	7.581
Unaccounted for and other	6.660	8.212	8.251	8.098	7.527	8.567
Average Daily Water Use (gpd/customer)	406	365	412	399	377	394
Average Daily Water Use by Customer Class (% of total)						
Domestic	37.2%	34.7%	32.9%	33.3%	35.6%	34.0%
Commercial	4.1%	3.9%	4.5%	3.9%	4.6%	4.4%
Industrial	4.4%	3.0%	3.2%	2.9%	2.2%	2.1%
Institutional	0.8%	0.4%	0.5%	0.4%	0.6%	0.5%
Bulk Sales to Suppliers	25.8%	23.7%	27.0%	27.2%	25.8%	27.7%
Unaccounted for and other	27.7%	34.2%	31.9%	32.2%	31.3%	31.3%

CUSTOMER INFORMATION	YEAR					
	1989	1990	1991	1992	1993	2015
Total Number of Customers	42,712	43,177	42,701	42,609	43,794	47,687
Number of Customers by Class						
Domestic	41,600	41,593	41,566	41,461	42,564	46,348
Commercial	992	1403	958	973	1042	1134
Industrial	36	48	42	43	131	143
Institutional	77	127	129	132	50	54
Bulk Sales to Suppliers	7	6	6	N/A	7	7
Estimated Service Population	122,962	122,941	122,861	122,551	125,811	136,997
Number of Customers by Class (% of total)						
Domestic	97.4%	96.3%	97.3%	97.3%	97.2%	97.2%
Commercial	2.3%	3.2%	2.2%	2.3%	2.4%	2.4%
Industrial	0.1%	0.1%	0.1%	0.1%	0.3%	0.3%
Institutional	0.2%	0.3%	0.3%	0.3%	0.1%	0.1%
Bulk Sales to Suppliers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%









Wilkinsburg-Penn Joint Water Authority

Financial Data	
Operating Revenues	
Sales	
Total dollars per year	$12,034,095
Dollars per 1,000 gallons sold	$1.99
Other Revenues	$845,388
TOTAL OPERATING REVENUES	$12,879,483
Dollars per 1,000 gallons sold	$2.13
Expenses	
Operating Expenses	
Total dollars per year	$8,320,600
Dollars per 1,000 gallons sold	$1.38
Debt Service	
Total dollars per year	$1,454,944
Dollars per customer served	$33.22
Other Expenses	$31,876
TOTAL EXPENSES	$9,807,420
Dollars per 1,000 gallons sold	$1.63
Net Revenues (dollars)	$3,072,063
Ratio of revenues to expenses	1.31
Average Annual Residential Bill	
Dollars per year per customer	$178.28
% of Median Household Income	0.64%
Retained Earnings	$30,141,578
Retained Earnings ($/customer)	$688.26