

N O R T H P E N N W A T E R A U T H O R I T Y



C e l e b r a t i n g O u r 5 0 t h A n n i v e r s a r y

2015 ANNUAL REPORT

# CHAIRMAN'S MESSAGE



2015 marked an important milestone for North Penn Water Authority as the Authority celebrated 50 years of providing safe, reliable and affordable water to customers. From its formation in 1965 serving 7 municipalities through today serving 21, the Authority board, management, and staff have recognized that serving the customer is the reason for all that we do. The focus of the Annual Report this year is the history and progress the Authority has made over the years in doing this for a growing customer base.

In 1965, the North Penn Water Authority began doing business with board representatives from seven municipalities, Lansdale and Souderton Boroughs, and Franconia, Hatfield, Lower Salford, Towamencin, and Worcester Townships. These seven were joined by Hatfield Borough, and New Britain and Skippack Townships in the 1980's. Please look through the Annual Report which details the history and development of the North Penn Water Authority over these decades.

The financial reports of North Penn Water Authority continue to be strong. Revenue is utilized for operating expenses, debt reduction, investment in maintaining and upgrading Authority systems, and capital improvements.

During this anniversary year, I want to acknowledge the foresight of those who recognized the need for obtaining the surface water supply and persevered until the goal was achieved. One of our board members who was with the Authority during those years and continues to serve is Marvin A. Anders, who was honored in 2015 for providing 40 years of dedicated service to the Authority. I want to thank Mr. Anders and all of my fellow board members, and on behalf of the entire Board of Directors, the Authority's employees for their efforts over the years. It is due to everyone's efforts that the North Penn Water Authority has grown throughout its 50 year history ensuring that NPWA remains financially sound and able to continue fulfilling the Authority's critical mission of providing customers with a safe, reliable, high quality water supply.



**ROBERT A. FISHER**  
CHAIRMAN

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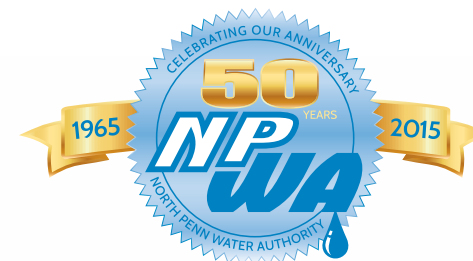
Seated (l-r) – Marvin A. Anders, Treasurer (Souderton Borough); Helen B. Haun, Assistant Secretary (New Britain Township); Ernest D. Yocum, Jr. (Towamencin Township).

Standing (l-r) – Douglas M. Johnson, Assistant Treasurer (Lower Salford Township); George E. Witmayer (Franconia Township); John S. Strobel, Vice-Chair (Hatfield Township); Jeffrey H. Simcox (Lansdale Borough); Paul D. Ziegler (Worcester Township); Robert A. Fisher, Chairman (Skippack Township); and Kenneth V. Farrall, Secretary (Hatfield Borough).

Skippack Township  
Hatfield Township  
Hatfield Borough  
Souderton Borough  
New Britain Township  
Lower Salford Township  
Worcester Township  
Lansdale Borough  
Franconia Township  
Towamencin Township

**ROBERT A. FISHER**, Chairman  
**JOHN S. STROBEL**, Vice-Chair  
**KENNETH V. FARRALL**, Secretary  
**MARVIN A. ANDERS**, Treasurer  
**HELEN B. HAUN**, Assistant Secretary  
**DOUGLAS M. JOHNSON**, Assistant Treasurer  
**PAUL D. ZIEGLER**  
**JEFFREY H. SIMCOX**  
**GEORGE E. WITMAYER**  
**ERNEST D. YOCUM, JR.**

Consulting Engineer – **Cardno BCM**  
Solicitor – **Hamburg, Rubin, Mullin, Maxwell & Lupin**  
Auditor – **Maillie LLP**  
Trustee – **Bank of New York Mellon Trust Company NA**





Celebrating Our 50th Anniversary 1965-2015



CELEBRATING OUR ANNIVERSARY

50 YEARS

NPSWA

2015

3



## 1958-1965

In 1958, a group of citizens from several local municipalities formed the North Penn Water Resources Association in an effort to improve drinking water supplies in the region.

On August 10, 1964, in accordance with the provisions of the Municipality Authorities Act of 1945, as amended, the North Penn Water Authority (NPWA) was officially incorporated. Representatives from seven municipalities, Lansdale and Souderton Boroughs, and Franconia, Hatfield, Lower Salford, Towamencin, and Worcester Townships were appointed to the Authority's first Board of Directors. Three more municipalities would join in the upcoming years.

## 1965-1975



In 1965, North Penn Water Authority began doing business and hired the first employee, Harry Borchers, as Executive Assistant to the Board.

In August of that year, NPWA purchased Lansdale and Souderton Boroughs' water systems and began work on a transmission line to connect the two. The construction of a one-million gallon water storage tank and pumping station was authorized.

Over the next 5 years, test wells were drilled throughout the service area and the concept of regional water service became a reality for the communities of the Authority's system.

The water shortages that first drew municipalities to form the Authority continued throughout the 1960's, 70's and 80's. By digging new wells and purchasing water through an interconnection, the Authority was able to create supplemental sources of ground water to meet the needs of the community.



## 1975-1985

Water shortages continued and in 1979, Trichloroethylene (TCE) was discovered in the area's ground water. NPWA tested all of its wells for TCE and closed impacted wells, resulting in a significant loss of millions of gallons of water per day, one-third of its existing capacity. Once again, water shortages were an impending risk. To prevent future shortages, the Authority began operating a Granular Activated Carbon (GAC) Treatment Plant at an affected well in 1981. This was the first GAC Plant in Pennsylvania constructed for the purpose of removing volatile organic compounds from drinking water.

The Skippack and Hilltown Water Companies were purchased along with four small water systems. The Authority was able to meet demand, except during extended dry periods, which still required water restrictions be put in place.

In the 70's and 80's, several Agreements were signed between Bucks and Montgomery Counties and later one between North Penn and North Wales Water Authorities and Montgomery County that would take the Authorities closer to a surface water supply. That supply, combined with the continued use of ground water, would eliminate the need for Authority-generated water restrictions.

In 1982, the Authority laboratory began operating, and continues to function today as an efficient and modern lab. The Water Quality Department management and staff continually upgrade the laboratory's analytical instrumentation and their own expertise as Water Quality Standards continue to increase and new technology allows testing for a growing number of parameters.



In May of 1983, construction of the Point Pleasant Pump Station was underway and the design of the Water Treatment Plant was nearly completed when opposition to the project increased. In all, it would take over a decade filled with litigation, Agreements, and Court Orders, before the Authority would be able to begin utilizing a surface water supply that would provide a sufficient amount of water to meet the growing customer needs.

## 1985-1995

The next decade showed tremendous growth for the Authority. By the end of 1987, the Authority board had grown to include representatives from the current ten member municipalities, with Skippack Township joining in 1986 and New Britain Township and Hatfield Borough in 1987.

In 1991, a new Operations Center was built at Forty Foot and Allentown Roads in Towamencin Township to accommodate the increasing growth of the Authority's system, staff and equipment.



Also in 1991, construction on the permanent Forest Park Water Treatment Plant (FPWTP) began. The plant is jointly owned by North Penn and North Wales Water Authorities and was originally designed to provide a maximum of 15 million gallons a day to each Authority to accommodate their future water supply needs. FPWTP officially began operations in 1994 using ozone, making it one of the most advanced treatment plants in the country at that time. An upgrade project was commenced in 2005 to expand capacity and modernize the filtration process to provide the highest quality water to Authority customers.



# Celebrating Our 50th Anniversary 1965-2015

## 1995-2005

1995 was an important year for the Authority and its customers.

Construction of the largest water storage tank in the Authority's system to that point was completed. The 2.5-million gallon precast concrete storage tank was constructed partially below ground so the tank would blend into the landscape of Lederach.



Also in that year, the Ridge Run Well House and Booster Station were built to provide a secondary water source and additional water pressure for the customers of the Ridge Run Satellite Water System in East Rockhill Township.

And most importantly, 1995 was the year of the acquisition of the Point Pleasant Pump Station. This event, combined with the completion of the Forest Park Water Treatment Plant in 1994, was the beginning of a new era for the Authority, one with a sufficient water supply and no Authority-generated water restrictions. With the addition of the surface supply, North Penn Water Authority was able to meet the water needs of a growing customer base and provide a safe, reliable, high quality water supply.

In 1996, the completion of the Old Morris Road Booster Station improved fire protection and reliability of service in the area. At night, when water demand is low, the tank fills from the Authority's main distribution system.



Operational improvements enabled water to move easily and efficiently through the distribution system.

In the same year, a new Supervisory Control and Data Acquisition (SCADA) system was installed to give the operators and engineers a faster and more in-depth look at the dynamics of the water distribution system.



The year 1997 saw the beginning of a multi-year project to implement a Geographic Information System (GIS) at the Authority. GIS technology allows maps and records to be available at any of the Authority's computers for immediate viewing. This gives employees the ability to quickly retrieve accurate information about job sites, the distribution system, and service connections. The Environmental Science Research Institute (ESRI) featured North Penn Water Authority's implementation of a GIS system in a case study in their Arc FM 1998 promotional booklet. The Authority was held up as an example of a utility using advanced technology to meet the demands of today's information driven world.

Also in that year, the main distribution system was extended in portions of Skippack and Worcester Townships and three satellite systems were connected.



In 1998, the Authority implemented Automatic Meter Reading (AMR), a system which utilizes radio frequency for retrieving water meter readings, a relatively new technology at the time. The Authority began installing the radio frequency system on commercial accounts throughout the distribution area in 1998, and expanded with a multi-year project in 2001 with the installation on residential accounts. That technology allowed quick and accurate meter readings on all customer accounts directly from the meter readers' vans. Today, as technology in this area has continued to evolve, the Authority is working to update its meter reading equipment to continue to increase Authority efficiency and reduce costs.

The Authority participates in a variety of activities and educational programs as part of a comprehensive effort to protect source water from pollution and degradation. These efforts are one very important way that the Authority can help to ensure that clean, safe water will be available into the foreseeable future. In 1999, signs designating the North Branch Neshaminy Creek as a source of public drinking water were installed. The signs raise public awareness that the North Branch Neshaminy Creek is treated for drinking water.



At the end of 1999, the Authority introduced northpennwater.org on the worldwide web. The website is a convenient way for customers to get answers to frequently asked questions and provides instant information about the Authority to the consumer. Over the years, NPWA has made updates, including shortening the website address to npwa.org, and continues to add features to make the site more user friendly. The website is an on-going project that provides information about the Authority and the vital water resource it provides.



In 2000, there were several major capital improvement projects, including main replacement on Broad Street in Lansdale Borough, planning and design for the Orvilla Road

Transmission Main Project, and completion of the Borchers Booster Station.

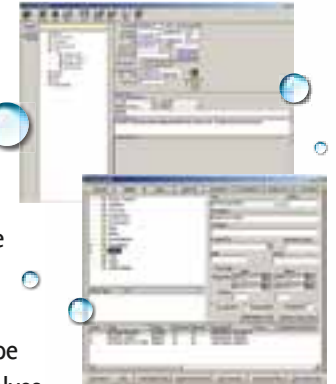


An Interactive CD, titled "Explore your Watershed", was produced and distributed in 2000 as part of the Authority's on-going efforts to educate and raise the public's awareness of watershed protection.

In 2001, a Work Order Management System was implemented to improve operating efficiency and tracking. Because the Work Order Management System is integrated with the Authority's Geographic Information System (GIS), the location of reported problems relating



to facilities, including pipe networks, valves, hydrants, and service connections, can be immediately accessed, saving valuable time.





As a result of the terrorist attacks on September 11, 2001, water utilities across the country have become increasingly diligent to better protect their critical infrastructure. NPWA enhanced its security measures in several ways. While this certainly heightened the Authority's security awareness, the North Penn Water Authority has always been attentive to the importance of protecting the integrity of its facilities and preventing the Authority's valuable assets from being compromised in any way. It is precisely that sense of diligence that has kept the water supply secure for fifty years.

North Penn Water Authority partnered with other Bucks County water utilities in 2003 in an effort to protect wells located in the Pennridge area.

In 2004, the Authority entered into a strategic, long-term partnership with Hilltown Township Water and Sewer Authority (HTWSA) that would allow North Penn Water Authority to provide a source of high quality water to the Hilltown system for the foreseeable future.

#### 2005-2015

In 2005, the North Penn Water Authority, with the North Wales Water Authority, embarked on a major capital improvement project at the Forest Park Water Treatment Plant in Chalfont. The plant is the main source of water supply for the North Penn Water Authority, comprising about 85% of the total water usage for the customers served by the Authority.

The plant treats surface water stored in Lake Galena, and was originally built and put into full operation in 1994 with a shared capacity of 30 million gallons per day (mgd). The expansion, which was completed in 2007, increased total capacity to 40 mgd and upgraded the treatment capabilities to membrane filtration, replacing the sand filter equipment.

This ensures that Authority customers continue to receive a high-quality water supply and the plant safely meets more stringent federal and state water quality regulations that will be required in the near future.



In 2006, work commenced on the Franconia Transmission Main Project which provides an important connection of the water system to Franconia, Towamencin and Lower Salford Townships.

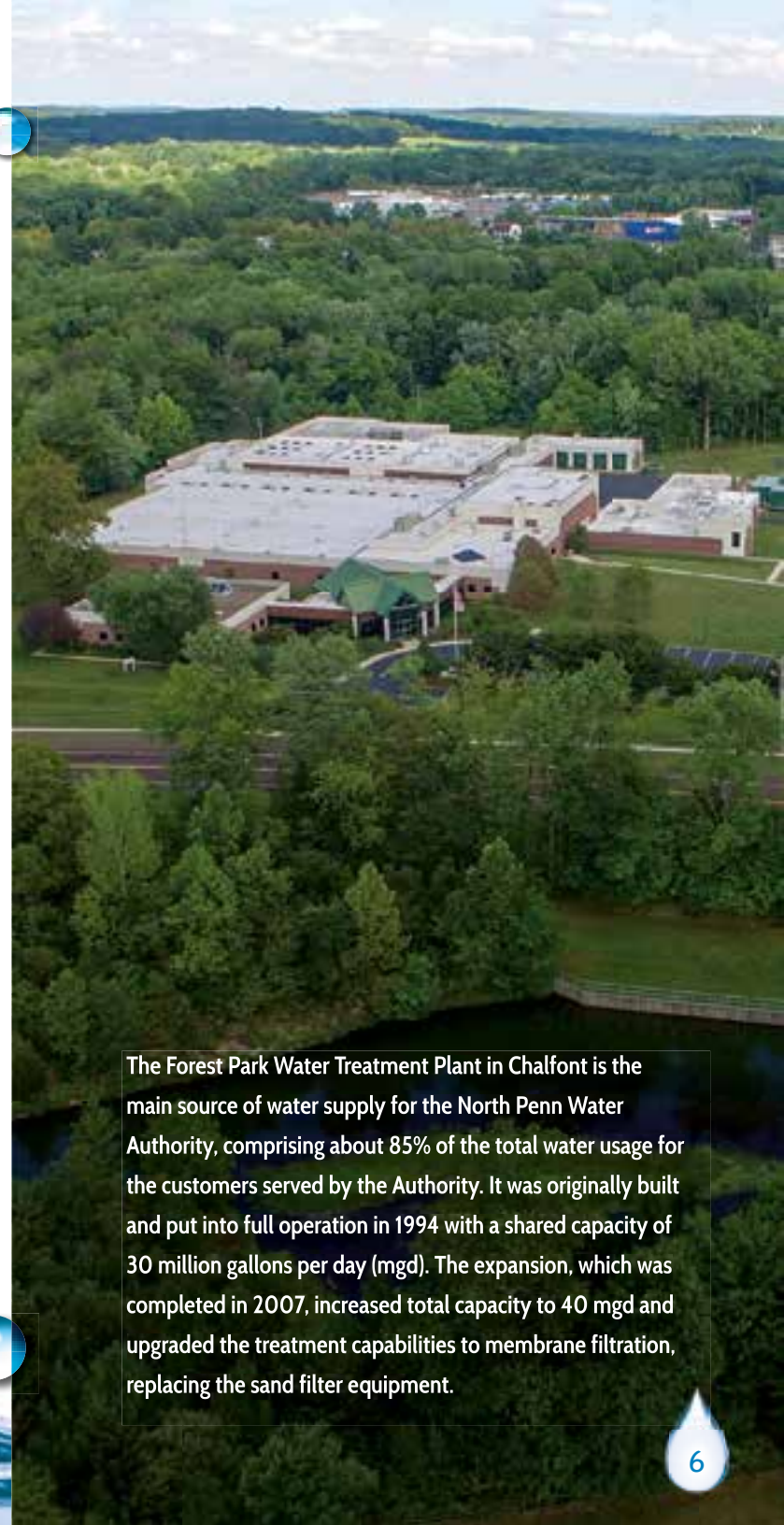
Also in 2006, the Authority's Supervisory Control and Data Acquisition (SCADA) system was significantly upgraded to provide improved operational control.

It was designed with multiple layers of safeguards including disinfection control limits that will automatically turn the well off and issue an alarm should any reading fall outside those settings, providing increased security at Authority facilities. Additional improvements were made to the SCADA system in 2007, giving Authority staff the ability to monitor and control the water system from a central location at the Authority Operations Center or employees' laptop computers.

The Authority continued to work to protect its water supply at the source with the help of grant money from the Department of Environmental Protection (DEP). The DEP's Wellhead Protection Program focused on prevention of groundwater contamination. In 2007, the Authority formed a Steering Committee and began work on a multi-year study of the Montgomery County portion of the service area.

The Authority continued to address the issue of energy conservation by conducting an energy audit of the Operations Center in 2008, and implemented programs which included a Load Demand Response Program to curtail electric usage from the power grid at critical times. An energy efficient HVAC system and a white membrane roof to reflect heat and improve summertime cooling in the Operations Center were installed.

In the field, NPWA implements ways to save water and energy. Valve maintenance and leak detection programs help to conserve water and reduce energy costs associated with pumping. Automatic meter reading via radio signals reduces vehicle use, gasoline usage, and staff time. Use of electronic maps for viewing the water supply infrastructure on mobile laptop computers provides current data and reduces paper consumption. Electronic bidding of contracts streamlines the project management process and reduces consumption of large volumes of paper.



The Forest Park Water Treatment Plant in Chalfont is the main source of water supply for the North Penn Water Authority, comprising about 85% of the total water usage for the customers served by the Authority. It was originally built and put into full operation in 1994 with a shared capacity of 30 million gallons per day (mgd). The expansion, which was completed in 2007, increased total capacity to 40 mgd and upgraded the treatment capabilities to membrane filtration, replacing the sand filter equipment.



# Celebrating Our 50th Anniversary 1965-2015

The Authority made many infrastructure improvements in 2008 and 2009. In 2008, Phase I of the Schoolhouse Road Transmission Main Project began, and in 2009, NPWA embarked on the Main Street Project in Lansdale. That project involved the replacement of approximately 8,460 feet of cast iron main in the Main Street area, most of which was 75-100 years old. It was the most complex water main improvement project in many years and cost \$1,661,905 to complete.



Also, in 2009, Phases I, II, and III of the Allentown Road Extension Project in Salford Township and Phase II of the Schoolhouse Road Transmission Main Project were completed.

Improvements were made to the Old Morris Road Pumping Station in Lower Salford Township, the East Rockhill Booster Station, and the Peter Wentz Booster Station in Worcester Township.



In addition, emergency generator capability was installed at the Forest Park Water Treatment Plant and at all NPWA booster stations to ensure uninterrupted water service to all customers even during periods of extended power outage.

To reduce energy costs, the FPWTP began in 2009 to participate in a Load Demand Response Management Program with PJM/EnerNOC. The program reduces electrical energy consumption at critical times. FPWTP is removed from the utility's power grid during periods of peak usage and temporarily switches over to the on-site diesel powered engine generator. This reduces the burden on the utility's electrical power grid and helps to ensure the widespread reliability of power for all users, thereby avoiding sudden brownouts and blackouts.

In 2010, Sellersville Borough decided to solicit offers from interested parties for the purchase of its water system and ultimately chose the Authority as the water provider for that community.

NPWA was also asked to extend new water main into a portion of Salford Township in order to serve a new residential housing development and the Village of Tylersport.

Schwenksville Borough experienced a water shortage during high demand periods in the summer, so the Schwenksville Borough Authority (SBA) approached NPWA seeking to request an interconnection between the two water systems that would serve as a backup emergency supply in case SBA needed it in the future.

The state of Pennsylvania approached NPWA in 2010 to inquire if capacity was available to enable the Authority to function as the primary water supplier for the new, expanded Graterford Prison in Skipack. Sufficient capacity is available, and water sales will begin to be provided to the new prison in 2016.

At the end of 2010, North Penn Water Authority and North Wales Water Authority reached an agreement with Bucks County Water and Sewer Authority for purchase of a large quantity of water from the FPWTP. Construction began in 2013, and in 2014, the 17-mile long transmission main was completed. On July 1, 2014, the Bucks County Water and Sewer Authority began purchasing an average of 10 million gallons per day of water from the FPWTP. As part of this project, NPWA also completed a dual transmission main from the treatment plant to the Authority's service area, ensuring critical redundancy of water supply transmission capability. Also in 2010, the Schoolhouse Road Transmission Main Project was completed.

The Authority became one of twelve charter members of the new Distribution System Optimization Program (DSOP) in Pennsylvania in 2011. The objective of the Partnership for Safe Water Optimization Program is to identify those opportunities for improvement in system operations, and to empower operators with knowledge to recognize and apply procedures that result in water quality and system reliability improvements. It is one of the ways in which the North Penn Water Authority continues to ensure it provides to customers the high quality water and reliable service they have come to expect.

A new interconnection and transmission main between the North Penn Water Authority and Sellersville was completed in 2011, enabling NPWA to provide Sellersville with treated surface water from the FPWTP.

A major project that the Authority undertook was upgrading the water facilities in Sellersville Borough including piping, valves and fire hydrants, where needed.

On October 29, 2012, a particularly challenging event for many millions of people across several states on the east coast of the U.S. was Hurricane Sandy. The power failure in the North Penn region was a major problem that forced many businesses and schools to remain closed for several days. In addition, the event inconvenienced thousands of people with flooded basements and interruptions of household services such as lighting, heating, refrigeration, phone, television, and internet. Despite the Authority also losing electric power, none of the Authority's nearly 33,000 customers lost water for any period of time during this event because of the backup power systems that were installed at the Authority's facilities as well as the FPWTP. Under normal circumstances, if power is lost from one of the two 33KV PECO electrical feeds that provide service to FPWTP, the other supply will pick up. These sources are on separate PECO circuits to provide a redundant source should one of the circuits go down. Following the hurricane, however, power was lost from both circuits, and plant staff shifted to on-site diesel power generators that seamlessly carried the full load of the plant.

Many of the Authority's wells and booster stations also lost power, but the very critical facilities were kept running with both stationary and mobile generators. If all of these water facilities were not kept continually functioning, there would have been a public health emergency declared implementing mandatory water use restrictions for customers because of the lack of water. Fortunately, that was avoided.

In April of 2013, North Penn Water Authority began construction of a new 3-million gallon water storage tank located just off Township Line Road, near Cowpath Road, in Franconia Township, which was completed in December of 2014.





Construction of a new 2.5-million gallon storage tank on the property of the Graterford Prison in Skippack Township commenced in the spring of 2014 and was completed in 2015. Although located on the prison site, this new tank will benefit not just the prison, but also NPWA's distribution system and customers outside that property.



With the completion of the Franconia Tank, additional storage was available allowing much needed maintenance and painting of the Lansdale Tank, which was completed in 2015.

To continue increasing efficiency and reduce costs, the Authority is installing Advanced Metering Infrastructure (AMI), which is the next generation of meter reading technology that sends the signal

to a fixed base for continuous readings. This technology eliminates the need for meter vans to drive through neighborhoods to collect readings.

2015 also marked an important milestone for North Penn Water Authority as the Authority celebrated 50 years of serving safe, reliable, and affordable water to customers.

To further their environmental stewardship efforts, NPWA launched the Refill From the Tap campaign, an environmentally-conscious program encouraging NPWA customers to use a double-walled, stainless steel insulated water bottle, compliments of NPWA, to refill from the tap instead of buying one-time use plastic water bottles. A mini brochure was produced to explain the benefits of using refillable water bottles.



The Authority renovated the lobby of its Operations Center and honored Marvin A. Anders, a long-serving NPWA board member for 40 years, with a lobby dedication ceremony and ribbon cutting at a community celebration on September 11, 2015. Mr. Anders joined the NPWA Board of Directors in 1975.



In August of 2015, the Pennsylvania Municipal Authorities Association 2014-2015 President Tony Bellitto, who is also Executive Director of the



Authority, presented an Extended Service Award to Mr. Anders recognizing his 40 years of dedicated service. Mr. Anders was the chairman of Univest and worked at the bank for 47 years before retiring. He is also a staple in the North Penn and Souderton communities, having served on the boards for Christopher Dock Mennonite High

School and Lifepath, and on committees for the Indian Creek Foundation and Penn View Christian School. In addition to the NPWA Board, Anders continues to serve on the board of the Penn Foundation.

NPWA also honored a long-time employee, Owen Kratz, for 60 years of service. He started with Lansdale Municipal Authority in 1955 and became an NPWA employee in 1965 when the Authority took over Lansdale's water system.

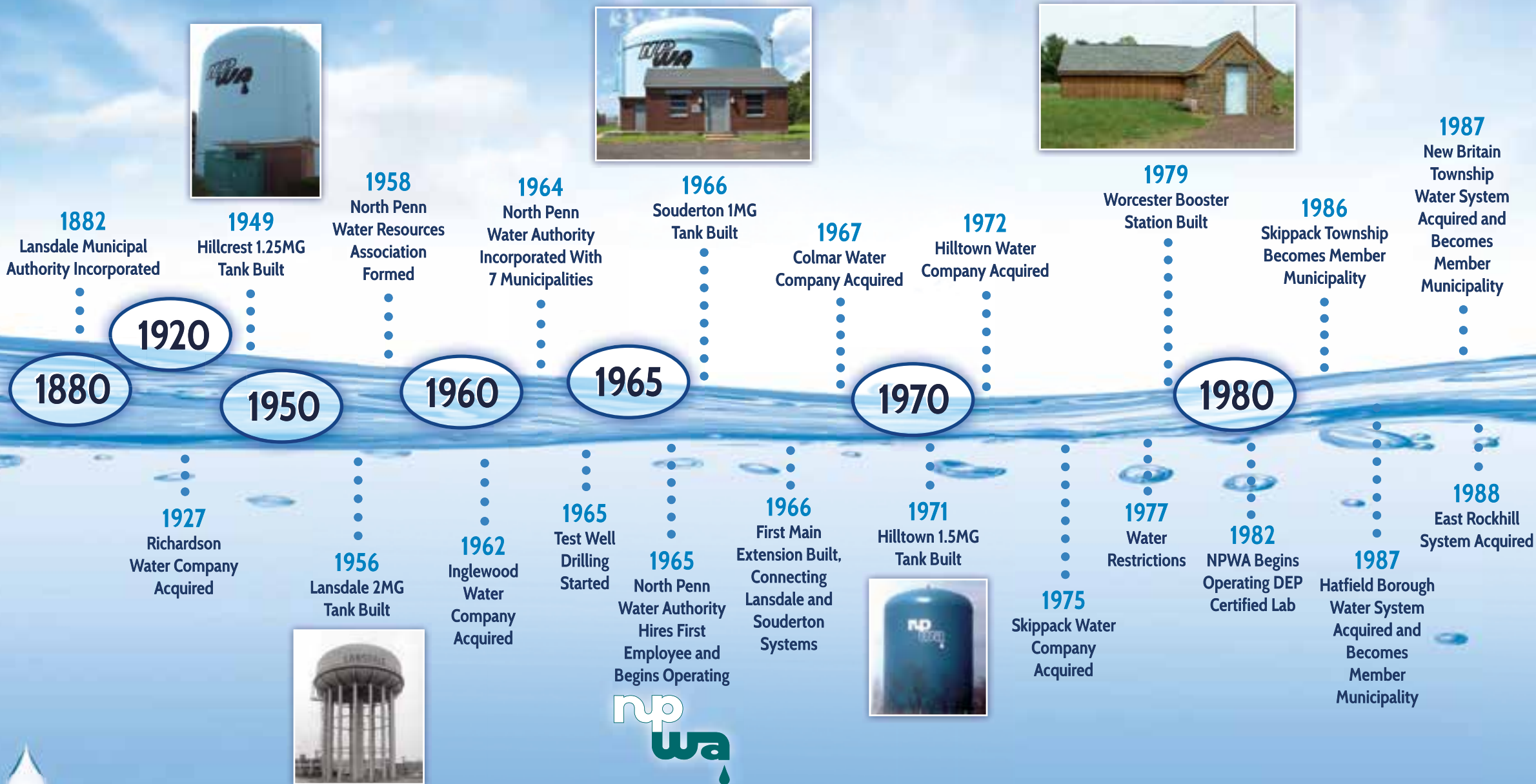


What started out as a small water utility serving 7,000 customers in 7 municipalities through 72 miles of main has grown to one providing water to over 33,800 customers in 21 municipalities through over 570 miles of main. There have been many changes over the decades but one thing has remained the same. Throughout the last 50 years, NPWA has positioned itself to provide a safe, reliable, economical, and high quality water supply now and well into the future.





# NORTH PENN WATER AU





# THORITY HISTORICAL TI



**Forest Park Water**  
**1989**

Interim Forest Park  
Water Treatment  
Plant Built



**1991**  
Current Operations  
Center Built



**1994**  
Permanent Forest Park  
Water Treatment Plant Built



**1996**  
Old Morris Rd Booster Station  
Lower Salford 2.5MG Tank Built

**1997**  
Main Distribution  
System Extended  
in Skippack  
and Worcester  
Townships  
Connecting Three  
Satellite Systems



**2001**  
Borchers Booster  
Station Built

**2005**  
Hilltown  
Interconnection  
Built

**2006**  
Supervisory  
Control  
and Data  
Acquisition  
(SCADA)  
System  
Upgraded

**2009**  
NPWA  
Starts Serving  
Tylersport

**1990**

**2000**

**20**

**1989**  
Second Hilltown  
1.5MG Tank Built



**1993**  
East Rockhill  
.25MG Tank Built



**1995**  
Point Pleasant Pumping  
Station Acquired



**1997**  
NPWA Implements  
Geographic Information  
Systems (GIS)



**1997**  
NPWA Gets Its  
Current Logo

**1998**  
NPWA  
Implements  
Automated  
Meter  
Reading  
(AMR)

**1999**  
NorthPennWater.org  
Goes Online

**2001**  
Work Order  
Management System  
Began Improving  
Operating Efficiency  
and Tracking Work

**2006**  
Work Commenced  
on the Franconia  
Transmission Main  
Project



**2007**  
Forest Park Water  
Treatment Plant Expansion  
and Treatment Upgrade  
Completed

# CAPITAL IMPROVEMENTS

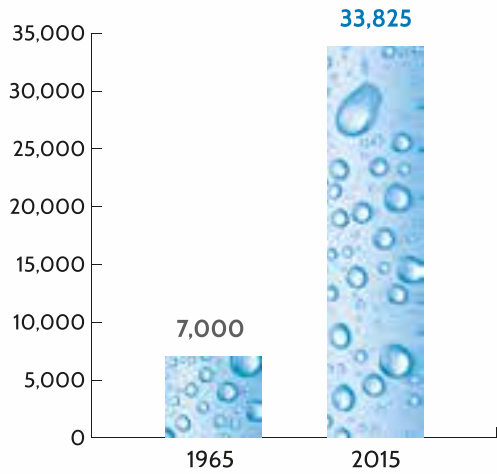
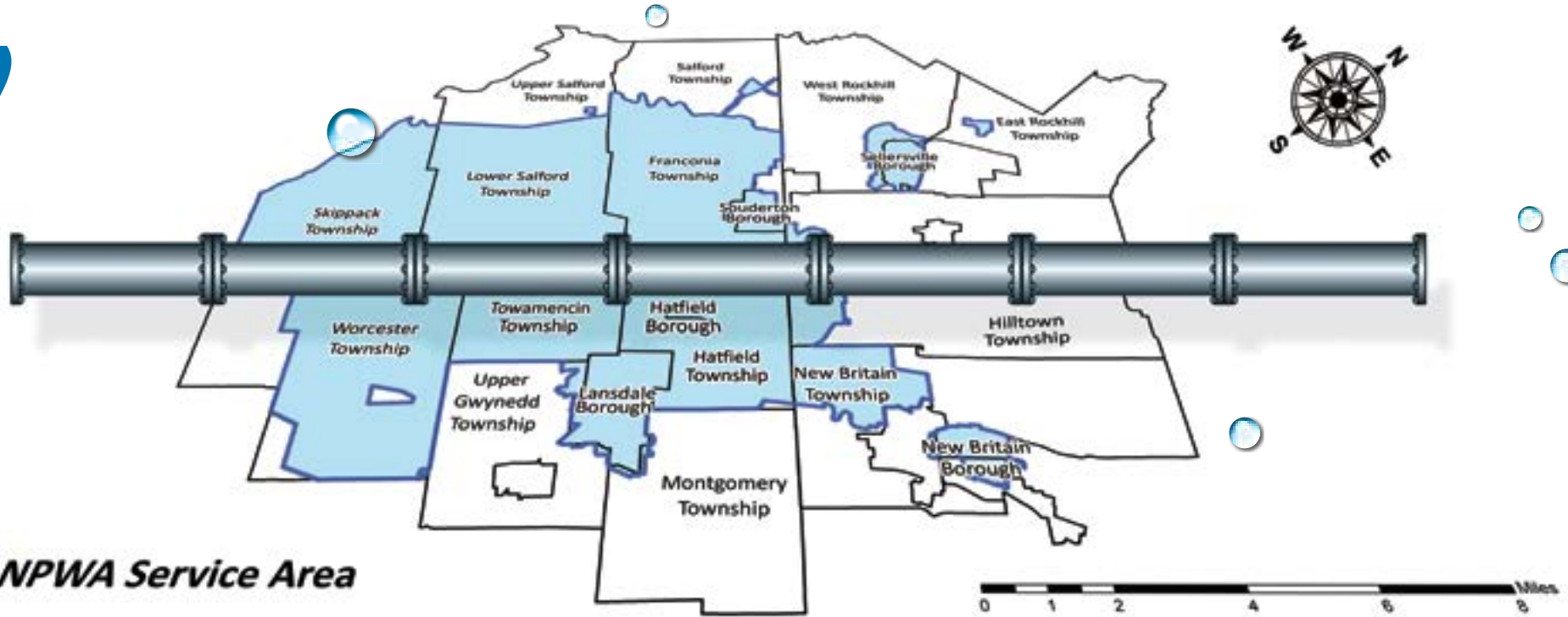
The Authority spent over \$10.1 million in capital improvements in 2015. These expenditures included installation, replacement, and servicing portions of the 572 miles of water main throughout the Authority's service area. The costs this year also included two new water storage tanks, the upgrade and replacement of meter equipment as well as maintenance and construction of tanks, booster pump stations and well stations. Of that amount, \$969,000 was for meter replacement to increase efficiency, \$2.9 million was allocated for two new water storage tanks, one in Franconia Township and the other in Skippack Township, and \$1.4 million was allotted toward the Forest Park Water (FPW) Transfer Station and miscellaneous improvements at FPW to ensure Authority customers receive a continuous, high quality water supply now and into the future.

## WATER SYSTEM INFRASTRUCTURE CAPITAL IMPROVEMENT EXPENDITURES

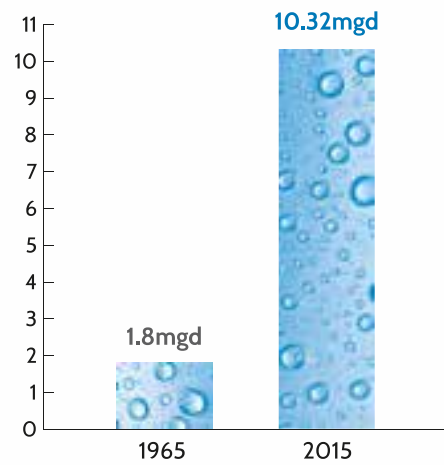
Municipality	Description	Total Investment
<b>Water Main Infrastructure</b>		
Lower Salford Township	Old Morris Road Transmission Main	\$1,385,182
Franconia Township	Godshall Road Main Replacement	401,572
Upper Gwynedd Township	Rosemont Avenue Main Replacement	338,190
Sellersville Borough	Pennridge Transmission Main	324,873
Lansdale Borough	Third Street Main Rehabilitation	286,707
Lansdale Borough	Perkiomen Avenue Main Replacement	265,272
Towamencin Township	Bustard Road Bridge Tie-In	258,052
New Britain Township	30" Main Relocation	205,041
Souderton Borough	Montgomery Avenue Main Replacement	200,842
Souderton Borough	Green Street Main Replacement	180,857
Towamencin Township	Woodlawn Drive Main Replacement	175,446
Towamencin Township	Allentown Road Main Replacement	120,008
Sellersville Borough	Branch Street Main Replacement	87,741
Sellersville Borough	Cherry Street Main Replacement	63,571
Skippack Township	SCI-Phoenix Tie-in	25,506
<b>Other Capital Infrastructure Projects</b>		
Franconia & Skippack Townships	Two New Water Storage Tank Projects	2,956,525
Meter Replacement	Various Locations	969,116
New Britain Township	Forest Park Transfer Station	798,016
Forest Park WTP	Miscellaneous Capital Improvements	646,649
SCADA, Well & Booster Stations	Various Locations	442,438
		<b>\$10,131,604</b>



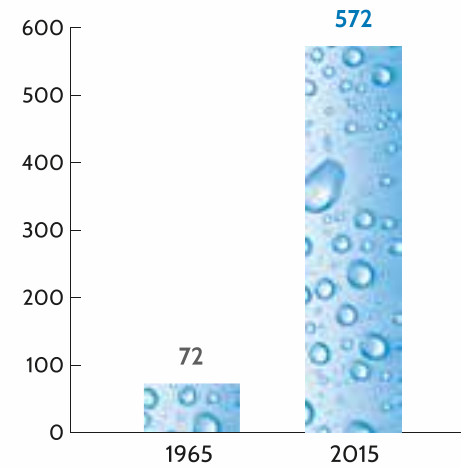
# NPWA SERVICE AREA MAP & GROWTH CHARTS



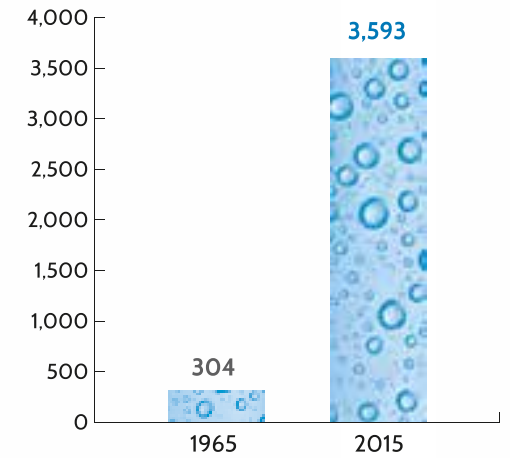
Customers



Average Daily Water Use



Miles of Pipe



Fire Hydrants

# NORTH PENN WATER AUTHORITY

## STATEMENTS OF NET POSITION - DECEMBER 31, 2015 AND 2014

	2015	2014
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents	\$11,690,423	\$12,240,269
Accounts receivable - customers	2,213,847	2,083,727
Accounts receivable - PECO Energy Company	687,462	805,048
Accounts receivable - other	177,875	171,263
Assessments receivable (current portion)	-	644
Unbilled revenues	2,115,420	2,082,241
Materials inventory	1,151,967	3,843,582
Interest receivable	2,088	1,130
Other	266,785	267,286
<b>Total Current Assets</b>	<b><u>18,305,867</u></b>	<b><u>21,495,190</u></b>
<b>Restricted Assets</b>		
Cash and cash equivalents	27,126,662	15,230,996
Investments at fair value	2,673,519	2,673,519
Prepaid pension asset	863,023	1,006,953
Interest receivable	34,565	21,147
<b>Total Restricted Assets</b>	<b><u>30,697,769</u></b>	<b><u>18,932,615</u></b>
<b>Utility Plant</b>		
Property, plant and equipment, net	121,185,554	111,843,534
Investment in Forest Park Water, net	44,957,799	47,331,585
<b>Total Utility Plant</b>	<b><u>166,143,353</u></b>	<b><u>159,175,119</u></b>
<b>Other Assets</b>		
Derivative instrument, rate swap	4,654,628	5,218,732
Assessments receivable (non-current portion)	881,311	13,015
Unamortized bond discount, net	-	-
<b>Total Other Assets</b>	<b><u>5,535,939</u></b>	<b><u>5,231,747</u></b>
<b>Total Assets</b>	<b><u>220,682,928</u></b>	<b><u>204,834,671</u></b>
<b>Deferred Outflows of Resources</b>		
Deferred charge on refunding	\$1,805,328	\$2,007,794

	2015	2014
<b>Liabilities</b>		
<b>Current Liabilities</b>		
Accounts payable	\$317,284	\$1,732,554
Main extension deposits	784,228	707,418
Other	694,688	799,634
<b>Current liabilities payable from restricted assets</b>		
Accrued interest on bonds	479,220	249,082
Current portion of bonds payable	4,460,000	3,120,000
<b>Total Current Liabilities</b>	<b><u>6,735,420</u></b>	<b><u>6,608,688</u></b>
<b>Non-Current Liabilities</b>		
Long-term debt - bonds payable	78,585,000	64,995,000
Unamortized bond premium, net	5,214,651	3,905,912
<b>Total Non-Current Liabilities</b>	<b><u>83,799,651</u></b>	<b><u>68,900,912</u></b>
<b>Total Liabilities</b>	<b><u>90,535,071</u></b>	<b><u>75,509,600</u></b>
<b>Deferred Inflows of Resources</b>		
Accumulated increase in fair value of hedging derivative	4,654,628	5,218,732
Deferred pension credit	863,023	1,006,953
<b>Total Deferred Inflows of Resources</b>	<b><u>5,517,651</u></b>	<b><u>6,225,685</u></b>
<b>Net Position</b>		
Net investment in capital assets	103,215,424	103,243,634
Restricted assets	3,912,899	3,912,064
Unrestricted assets	19,307,211	17,951,482
<b>Total Net Position</b>	<b><u>\$126,435,534</u></b>	<b><u>\$125,107,180</u></b>



## STATEMENTS OF REVENUE, EXPENSES AND CHANGES IN NET POSITION

<u>Years Ended December 31, 2015 and 2014</u>	<u>2015</u>	<u>2014</u>
<b>Operating Revenues</b>		
Metered sales	\$18,465,805	\$17,293,191
Unmetered sales	481,902	479,538
Other revenues	56,515	49,107
<b>Total Operating Revenues</b>	<b><u>19,004,222</u></b>	<b><u>17,821,836</u></b>
<b>Operating Expenses</b>		
Water collection system	2,619,401	2,540,804
Purification system	61,734	57,862
Laboratory costs	392,193	403,392
Pumping system	518,126	578,800
Metering and customer service	439,352	441,668
Distribution system	3,016,039	1,232,428
Landscape maintenance	30,706	30,847
Administration and engineering	1,797,610	1,746,242
General expenses	2,551,535	2,665,931
<b>Total Operating Expenses</b>	<b><u>11,426,696</u></b>	<b><u>9,697,974</u></b>
<b>Operating Income</b>	<b><u>\$7,577,526</u></b>	<b><u>\$8,123,862</u></b>

<u>Years Ended December 31, 2015 and 2014</u>	<u>2015</u>	<u>2014</u>
<b>Non-Operating Income</b>		
	<b><u>\$3,457,505</u></b>	<b><u>\$4,789,437</u></b>
<b>Income before Debt Service Costs and Depreciation and Amortization</b>	<b><u>11,035,031</u></b>	<b><u>12,913,299</u></b>
<b>Debt Service Costs</b>		
Interest on bonds	3,466,825	2,862,962
Bond issuance costs	248,553	312,888
Amortization of bond discount and premium	(270,376)	(166,741)
<b>Total Debt Service Costs</b>	<b><u>3,445,002</u></b>	<b><u>3,009,109</u></b>
<b>Income exclusive of Depreciation and Amortization</b>	<b><u>7,590,029</u></b>	<b><u>9,904,190</u></b>
<b>Depreciation and Amortization</b>		
Property, plant and equipment	4,115,342	3,809,870
Forest Park Water	2,146,333	2,055,386
<b>Total Depreciation and Amortization</b>	<b><u>6,261,675</u></b>	<b><u>5,865,256</u></b>
<b>Change in Net Position</b>	<b><u>1,328,354</u></b>	<b><u>4,038,934</u></b>
<b>Net Position, Beginning of Year</b>	<b><u>125,107,180</u></b>	<b><u>121,068,246</u></b>
<b>Net Position, End of Year</b>	<b><u>\$126,435,534</u></b>	<b><u>\$125,107,180</u></b>

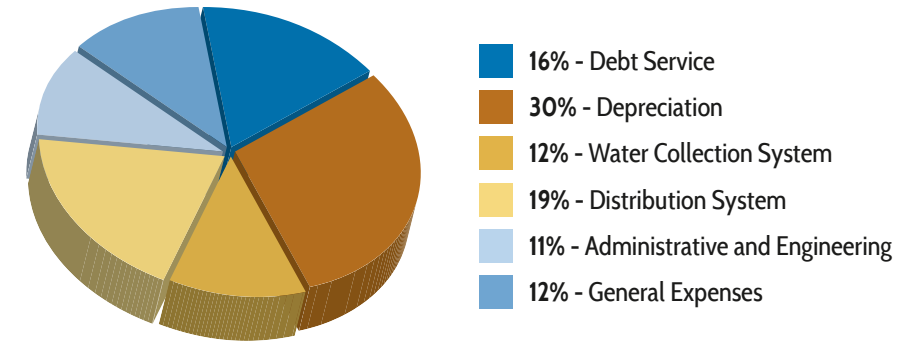


# YEAR-END CUSTOMER COUNT

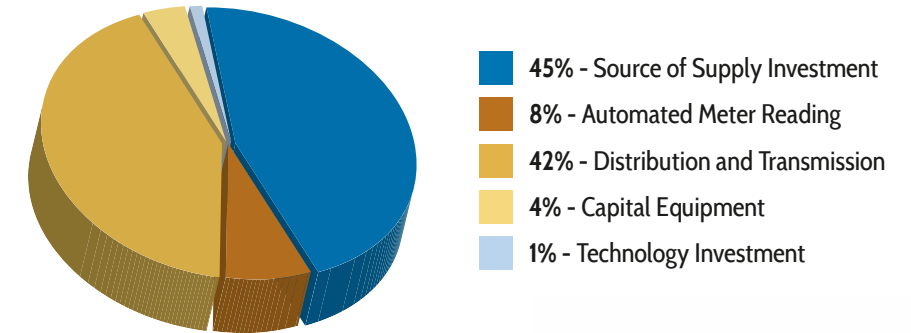
## NUMBER OF ACTIVE CUSTOMERS BY MUNICIPALITY AND ACCOUNT CLASSIFICATION

Municipality	DOMESTIC	COMMERCIAL	INDUSTRIAL	PUBLIC	UTILITY	TOTAL
East Rockhill Township	194	0	0	0	0	194
Franconia Township	3,152	72	38	28	0	3,290
Hatfield Borough	922	60	16	8	0	1,006
Hatfield Township	4,125	445	139	23	0	4,732
Hilltown Township	117	91	6	2	3	219
Lansdale Borough	4,917	392	66	36	0	5,411
Lower Salford Township	3,461	118	37	35	1	3,652
Montgomery Township	66	5	0	1	0	72
New Britain Borough	214	42	0	4	0	260
New Britain Township	833	29	13	8	1	884
Perkasie Borough	6	0	0	0	0	6
Salford Township	203	1	0	1	0	205
Sellersville Borough	1,746	57	2	11	0	1,816
Skipack Township	3,013	64	7	27	1	3,112
Souderton Borough	2,064	157	5	13	0	2,239
Telford Borough	1	0	0	0	1	2
Towamencin Township	4,756	160	41	44	0	5,001
Upper Gwynedd Township	242	9	0	3	0	254
Upper Salford Township	2	16	0	0	0	18
West Rockhill Township	106	26	0	1	0	133
Worcester Township	1,271	32	3	13	0	1,319
<b>Total</b>	<b>31,411</b>	<b>1,776</b>	<b>373</b>	<b>258</b>	<b>7</b>	<b>33,825</b>

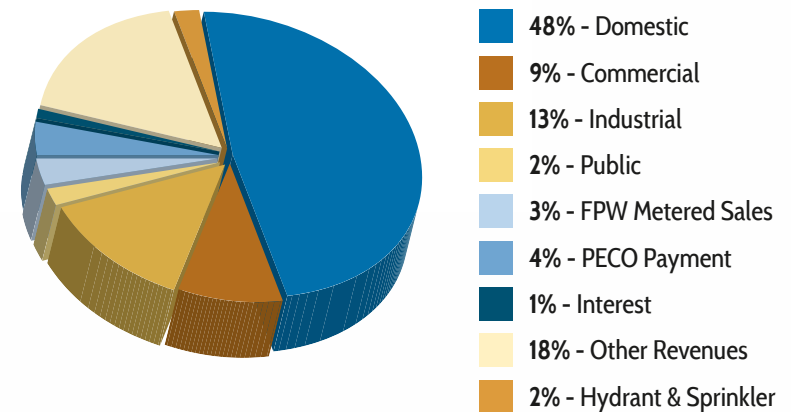
## EXPENSES



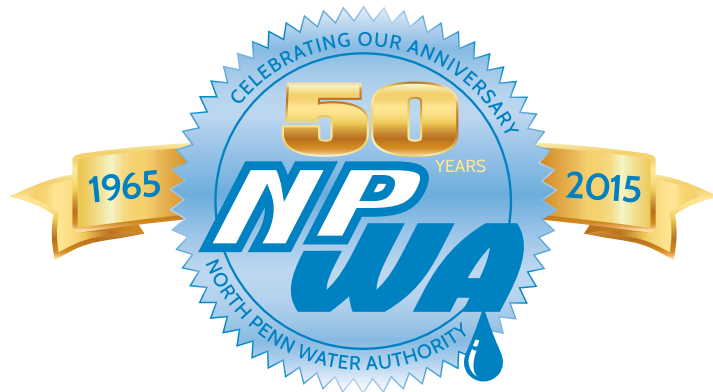
## CAPITAL EXPENDITURES



## REVENUE SOURCES







## GROWTH STATISTICS as of December 31, 2015

	2014	2015	% Change
Water Purchased from Forest Park [MGD]	8.61	9.03	4.88%
Daily Pumpage Authority Wells [MGD]	1.40	1.29	-7.86%
Average Daily Sendout [MGD]	10.01	10.32	3.10%
Peak Daily Sendout [MGD]	12.12	12.40	2.31%
Number of Wells****	17	17	0.00%
Pumping Capacity Wells [MGD] ***	4.01	4.01	0.00%
Purchased Capacity [MGD]	20.00	20.00	0.00%
Average Daily Sales [MGD]	8.61	8.81	2.32%
Number of Customers*	33,530	33,825	0.88%
Storage Totals [MG]	15.35	17.85	16.29%
Number of Fire Hydrants	3,564	3,593	0.81%
Miles of Main	567	572	0.88%
Metered Ratio**	86.01%	85.37%	-0.75%

\* Number of Customers is the number of service connections

\*\* Metered Ratio is the ratio of total water sold to customers divided by the total

\*\*\* Capacity based on active production wells only

\*\*\*\* Well Capacity reflects active production wells only

## TOTAL FOOTAGE IN SYSTEM BY SIZE

Municipality	2"	3"	4"	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	TOTAL
Chalfont Borough	0	0	0	83	183	0	51	3,387	0	0	10	2,069	3,840	9,623
East Rockhill Township	6	0	118	303	12,459	0	22	0	0	0	88	0	0	12,996
Franconia Township	76	0	1,489	23,534	199,483	10	80,485	15,987	0	0	11,875	0	0	332,939
Hatfield Borough	10	0	1,279	14,983	33,070	115	2,483	4,418	0	0	238	0	0	56,596
Hatfield Township	1,473	0	3,799	85,880	227,327	3,007	83,859	55,863	0	60	24,204	53	0	485,525
Hilltown Township	906	0	69	2,969	21,941	0	14,533	15,268	0	0	1,388	0	0	57,074
Lansdale Borough	399	0	30,013	92,444	118,326	0	31,548	14,574	0	0	280	0	0	287,584
Lower Salford Township	140	0	1,923	30,237	240,966	0	87,781	48,970	0	0	0	0	0	410,017
Montgomery Township	0	0	9	559	0	0	129	0	0	0	0	0	0	697
New Britain Borough	14	0	751	6,932	15,023	0	699	0	0	0	197	0	0	23,616
New Britain Township	742	0	715	19,867	34,508	5,271	13,195	21,552	0	5	2,864	12,878	0	111,597
Perkasie Borough	0	0	0	510	0	0	0	0	0	0	0	0	0	510
Salford Township	115	0	7	1,334	7,579	0	14,333	0	0	0	0	0	0	23,368
Sellersville Borough	410	0	11,625	22,415	43,064	3,413	12,208	419	0	0	0	0	0	93,554
Skippack Township	430	0	1,508	25,090	146,286	5	85,563	35,576	0	0	17	0	0	294,475
Souderton Borough	480	0	21,172	22,374	49,489	0	15,469	858	0	0	0	0	0	109,842
Towamencin Township	203	0	14,090	78,213	239,542	1,079	76,728	29,363	0	0	210	0	0	439,428
Upper Gwynedd Township	0	0	28	4,961	13,188	0	7,948	53	0	0	0	0	76	26,254
Upper Salford Township	0	0	0	105	1,303	0	2,310	0	0	0	0	0	0	3,718
West Rockhill Township	16	80	884	3,640	16,924	9,841	1,460	1	570	0	0	0	0	33,416
Worcester Township	53	0	1,520	13,239	115,853	0	52,289	25,422	0	0	0	0	0	208,376
<b>Total</b>	<b>5,473</b>	<b>80</b>	<b>90,999</b>	<b>449,672</b>	<b>1,536,514</b>	<b>22,741</b>	<b>583,093</b>	<b>271,711</b>	<b>570</b>	<b>65</b>	<b>41,371</b>	<b>15,000</b>	<b>3,916</b>	<b>3,021,205</b>

As of December 31, 2015, total length of pipe in the NPWA system is 572.20 miles.

# NPWA EMPLOYEES - as of December 31, 2015

## Executive Director

Anthony J. Bellitto, Jr., P.E.

## Director of Operations and Engineering

Daniel C. Preston, P.E.

## Financial Director

Dale B. Reichenbach

## Administration and Public Relations

Maryann M. Regan, Administration and Public Relations Manager

Lindsay J. Hughes

Susan E. Borowski

Helene J. Dunn - PT

## Customer Service

William D. Kasper, Customer Service Manager\*

Barbara W. Sigg, Supervisor

Margaret M. Olender

Alicia K. Smith

Amber M. Krauss

## Engineering

Karen S. Sullivan\*

Daniel J. Yaw, Jr.

## Equipment Maintenance

John W. Boyce

## Financial

Lorraine E. Girone, Supervisor

Dolores Ferguson

Susan Sarnocinski

Danielle Frankenfield

## Information Technology

Daniel P. Pearce, Information Technology Manager

Mark J. Wensel

## Meter

Francis R. Kent, Jr., Supervisor\*

David L. Galluppi\*

Steven J. Reber

Jeffrey D. Hagan

Edward M. Pierce\*

Chris M. Johnson - PT

Jason Conard - PT

## Operations

Jonathan C. Hartzell, Operations Manager\*

James P. Sharayko, Construction Superintendent\*

William R. Hoffman, Jr., Maintenance Superintendent\*

Stephen A. Fretz, Jr.

John M. Myers, Crew Leader\*

John L. Dickinson, III\*

Kevin Mokriski

Craig Symons\*

Harold M. Wesner, Jr.\*

William H. Wooler\*

Bryan S. Reimel, Crew Leader\*

Daniel M. Beiler\*

Angelo V. Cosentino

Sean M. Gore\*

Michael A. Petrone

Owen A. Kratz - PT

## System Control

Michael J. Bush, Chief Operator\*

Erwin G. Hunsberger\*

James C. Lengel\*

Sean M. Rogers\*

## Water Quality

Heidi L. Palmer, Water Quality Manager

Bruce W. Sandstrom

Cuiming Yan

Ryan A. Repash

\* Certified Water Works Operator  
PT - Part-time

## MANAGEMENT TEAM



*(Back - left to right)*

**Jonathan C. Hartzell**, Operations Manager

**Heidi L. Palmer**, Water Quality Manager

**William D. Kasper**, Customer Service Manager

**Maryann M. Regan**, Administration and Public Relations Manager

**Daniel P. Pearce**, Information Technology Manager

*(Front - left to right)*

**Daniel C. Preston**, P.E., Director of Operations and Engineering

**Anthony J. Bellitto**, Jr., P.E., Executive Director



**Dale B. Reichenbach**, Financial Director



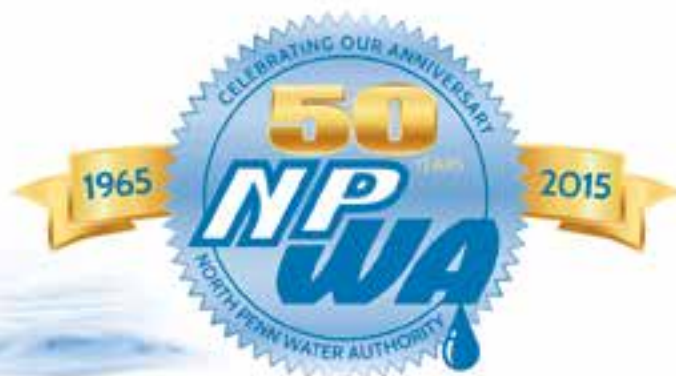
## RETIREMENT

Gary Raser, who joined the North Penn Water Authority on August 6, 1973, retired on May 1, 2015 after nearly 42 years of service. The Authority wishes to thank Gary, our former Customer Service Manager, for his many years of dedicated service to the North Penn Water Authority, and extend best wishes to him for a happy, healthy, and successful future in this next phase of his life.





"A dedicated, professional workforce committed to providing the community with a safe, reliable, and economical water supply."



300 Forty Foot Road, Lansdale, PA 19446  
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[www.npwa.org](http://www.npwa.org)