



North Wales Water Authority



2022 ANNUAL REPORT

BOARD OF DIRECTORS



Joan H. Nagel
Chair



Albert S. Tenney
Vice-Chair



Donna L. Mengel
Secretary



Neil J. McDevitt
Treasurer



Sally Neiderhiser
Asst. Secretary/
Treasurer

EXECUTIVE TEAM



Robert Bender
Executive Director



Michael Clarke, Esq.
Solicitor

OUR MISSION

To be a recognized community leader by creating customer solutions, adding value to our services, and maintaining competitive rates through the implementation of sound business practices. North Wales Water Authority ensures the highest product quality by protecting water resources, educating and training our workforce, and investing in new technologies, ideas and human resources.

OUR VISION

The North Wales Water Authority commits itself to providing a quality product and value-added services to the consumer. We will utilize advanced technologies, a well-trained, professional workforce and strategic alliances to become a recognized leader in meeting the needs and choices of the consumer. We will become the service provider of choice in a competitive market.



CHANGING TIMES IN THE PUBLIC WATER SECTOR

“The Good, the Bad, and the Sometimes Ugly.”

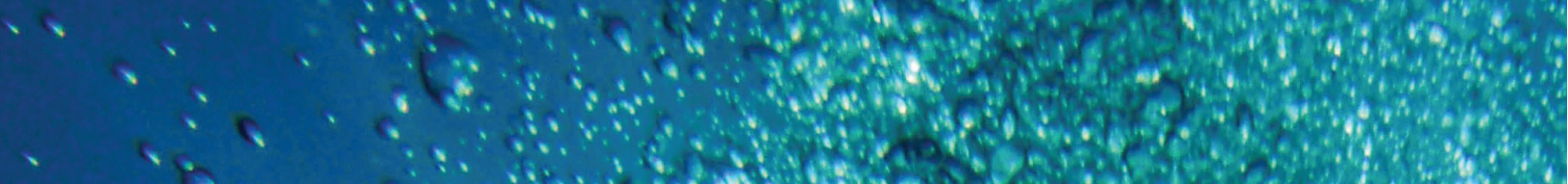
As described in several prior reports, the daily operation of a public water system has always been a complex process; however, it is becoming much more complicated every year. Below we have summarized some of the *Good, Bad, and Sometimes Ugly* aspects of operating a public water system in Pennsylvania.

The Good:

- **Our superior water quality** – The NWWA has always provided a reliable supply of safe and high-quality water to our customers. Despite ongoing challenges, we expect this to continue, allowing you to depend on our high-quality water supply.
- **American Water Works Association President’s Award** – As evidence of the above, our Forest Park Water Treatment Plant has been regularly recognized as one of the best facilities in the nation. This annual award recognizes the state-of-the-art technology we use in processing the water we deliver to our customers.
- **Skilled and experienced staff** – The NWWA has numerous staff members trained and certified in all aspects of operations, most holding the highest level of licenses.
- **Continued lowest water rates in the entire region** – The NWWA has a record of maintaining some of the lowest water rates in our entire region – for nearly 30 years!

The Bad:

- **PFAS-related contamination in local aquifers** – As recently reported in various news media, ground water contamination is a major concern in our entire region, allegedly from area military bases. Fortunately, the NWWA does not have this problem, as nearly all of our water supply is surface water coming from our Forest Park Water treatment facility, and the several wells we use meet or exceed all state and federal standards. The bad is that in order to confirm our compliance, we are now spending upwards of \$100,000 per year for increased water sampling, laboratory testing, and reporting.
- **Supply chain shortages and delays in delivery** – All public water supplies are facing ongoing supply chain issues, with the delivery of water mains and essential materials taking as long as 6-8 months for delivery.
- **Significant increases in the costs of materials and supplies** – In addition to the ongoing delays in obtaining materials and supplies, the cost of these items has skyrocketed. For instance, a major pipeline project now underway was estimated at Five Million Dollars several years ago. However, to our dismay, when the project was publicly bid last year, the lowest bid was over Nine Million Dollars, *almost doubling our costs*. We have experienced similar increased costs on many other projects.

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- **Attracting and retaining qualified professional staff** - We have all noticed many “help wanted” signs throughout the region as employers face difficulty in maintaining sufficiently qualified staff. Unfortunately, water and sewer system operators are not immune from this trend, with private sector construction companies seeking to attract workers from public utilities with offers of higher wages. In response, we have stepped up our game in providing our employees with competitive compensation packages, enhanced training, and career path counseling and opportunities.

And the Sometimes Ugly:

- **Increasing cyber-attacks, ransomware intrusion, and hacking attempts** - to obtain confidential information from public water and sewer systems has become a national concern. In response, we have spent thousands of dollars and dedicated hundreds of staff hours to install protective software and maintaining backup systems to monitor data transfers, protecting both Authority and customer data on a 24-hour per day basis.
- **Privatization efforts by corporations attempting to seize control of public water systems** - For profit corporations have increasingly attempted to obtain control of public water and sewer systems nationwide. In most cases, these corporations offer to purchase systems for more than the appraised value of the system, only to recover the entire cost of acquisition through much higher rates in perpetuity – as they meet their wall street demands for corporate profits and quarterly dividends for investors. In these cases, the customers are left to foot the bills. The NWWA believes that the public water supply is much too important to be bought and sold like a common commodity and should be permanently preserved in a *not-for-profit public trust* for our children and grandchildren, and all future generations.
- **Continued unfunded mandates at the state and federal levels** - Our state and federal legislators have increasingly found it necessary to impose more stringent regulations to help protect the public water supplies being delivered. While this is an important effort which we support – it does not come without ever increasing costs. While we can sometimes obtain state grants, they are typically a one-time payment, and only a portion of the initial costs. Thereafter, the annual costs of continued compliance are the responsibility of the local authorities, and their customers.

The future of your water supply:

Despite the many challenges described above, we remain committed and confident that we will always rise to the occasion and quickly respond to all essential issues we face.

Your water supply is secure, and we pledge to continue our best efforts to remain as a leader in the industry – always providing a safe and clean supply of drinking water for your homes and businesses, as well as in providing an adequate supply of water for fire safety throughout the communities we serve.

During the good, the bad, and even when it sometimes gets ugly - our staff and professionals will always be there to serve you.

Respectfully,

NWWA Board of Directors

FOCUSED ON THE FUTURE

Water Supply:

Approximately 97% of our water supply comes from the Delaware River. The Delaware River originates in Hancock, New York and follows the borders of New York, Pennsylvania, New Jersey, and Delaware before emptying into Delaware Bay and the Atlantic Ocean. Often referred to as the “Lifeblood of the Northeast,” it provides drinking water to over 17 million people.

North Wales and North Penn Water Authorities withdraw water from the Delaware River at our jointly owned and operated Point Pleasant Pump Station. The water is then discharged into the Bradshaw Reservoir and then into the North Branch of the Neshaminy Creek, where it flows to Lake Galena, located in New Britain Township, Bucks County. The water continues downstream from Lake Galena in the North Branch of the Neshaminy Creek, where it is withdrawn at our Forest Park Water (FPW) treatment facility. About 50 million gallons of water are withdrawn for processing and stream bypass daily.



Water Treatment:

FPW is a state-of-the-art water treatment facility that combines conventional treatment processes with advanced techniques, which include ozone disinfection as well as carbon and membrane filtration processes. Ozone is generated on-site and provides a potent disinfection barrier. We apply ozone twice in the disinfection process—first in pre-treatment and then again after filtration to enhance the aesthetics of the water. Only a small percentage of public water suppliers in the United States take advantage of this powerful disinfection tool. Membrane filtration is a leading-edge technology capable of consistently producing very high-quality water and ensures the plant can safely meet the ever more stringent federal and state water quality regulations. This combination of traditional and innovative water treatment allows FPW to produce the safest, highest quality water possible today, and for many years into the future.

Further, FPW continues to be awarded for excellence. In 2022, FPW was awarded the Area-Wide Optimization Program (AWOP) Award for the 15th consecutive year. AWOP is a national filter plant optimization effort among numerous states, the Environmental Protection Agency (EPA), and the Association of State Drinking Water Administrators (ASDWA). Its goal is to encourage water plants to go beyond what is legally required and to produce the best water quality possible. This means FPW submits more water quality data than is required

under the Safe Drinking Water Act, and we are constantly analyzing that data to find any deficiencies. FPW has received the award each year ever since it was awarded in Pennsylvania.

Water Delivery:

Modern-day water systems are incredibly intricate and complicated, requiring many professionals with various levels of training and experience, with many levels of licensing. Every water operator must earn an operator's license before performing even the most basic operations. As his or her responsibility increases, so does the licensing requirement, with Pennsylvania now issuing over 14 levels of operator licenses. NWWA has multiple highly trained operators, including every level of license available, with our most senior operators holding Class A, 1-14 licenses, *the highest level available*.

In addition, every day we monitor water sampling throughout our distribution system, laboratory testing, adherence to ISO standards for fire protection to our communities, pressure stabilization, scheduled system flushing, water tanks and towers, maintenance of valves, main replacements and repairs, operation of pump stations, metering, and regular inspection and maintenance of over 3550 fire hydrants and 570 miles of water mains.

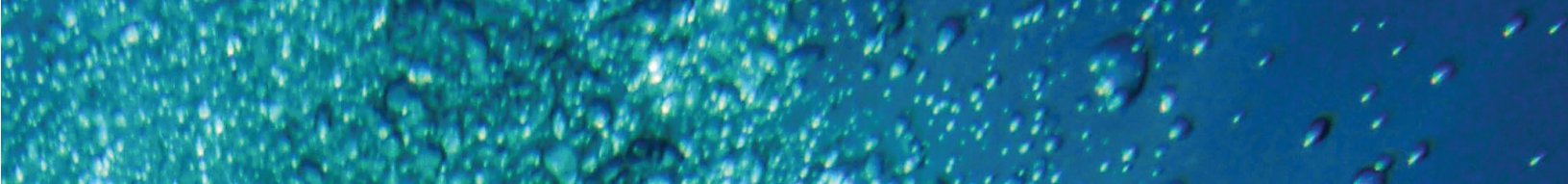
We also have a massive infrastructure, including water pipelines, water storage tanks, groundwater wells, pumping stations, pipeline valves, water service lines, meters, fire hydrants, vehicles and well houses. We spent over 22 million dollars in 2022 in our critical infrastructure maintenance program. For a detailed look at some of these expenditures, please see the Service Statistics page at the end of this report.

Water Quality:

Source Water Protection - Clean, safe drinking water is often taken for granted. Many people have no idea where their drinking water comes from, how it is treated, or how it arrives at their kitchen sink. Protecting the raw water supply has been increasingly recognized as a critical element in the overall mission of delivering a safe and reliable supply of drinking water to our customers. In 2022, the Authority received the completed Source Water Protection Plans for six of our Bucks County satellite systems. This project, which is voluntary, was approved by the Pennsylvania Department of Environmental Protection's Source Water Technical Assistance Program. The Source Water Protection Plans for the North Wales main system, including the Forest Park Water Treatment Plant, have previously been completed.

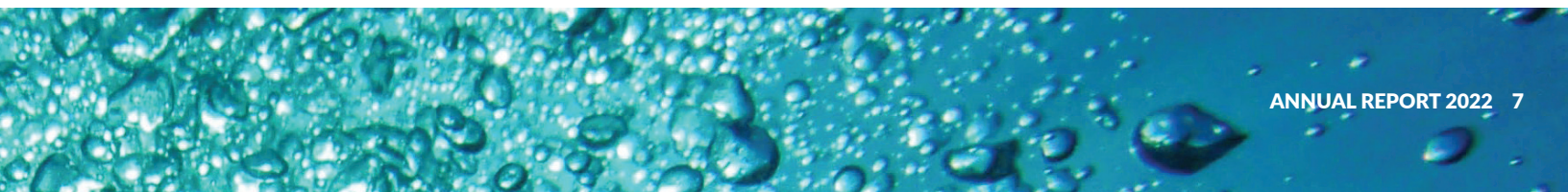
Unregulated Contaminant Monitoring Rule 5 - The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published in





the Federal Register at the beginning of 2022. UCMR is a recurring national water quality monitoring program required by the Safe Drinking Water Act to provide baseline occurrence data that, combined with other research, will support decisions about future drinking water regulations. UCMR 5 requires sample collection at all entry points in the distribution system for 30 unregulated chemical contaminants using analytical methods specified by the US Environmental Protection Agency. The contaminants included in UCMR 5 monitoring are 29 per- and polyfluoroalkyl substances (PFAS) and lithium. The Authority has participated in all previous rounds of this special monitoring.

Lead and Copper Rule Revisions - This new revision focuses on a suite of actions to address lead contamination in drinking water. The new revisions are meant to improve the current Lead and Copper Rule and further reduce lead exposure resulting in increased public health protection. The purpose of the revisions to the service line inventory requirements is to track a water system's progress to full lead service line replacement. The revised service line inventory will provide the basis for communicating to the public, customers, residents, and other persons served by the water system and which of the four new categories of service line is delivering the water they consume. The final purpose of the inventory is a way to verify whether monitoring samples are being collected from homes with service lines that are lead. Having a complete and accurate service line inventory is the first step to compliance with the Lead and Copper Rule Revisions. All activities required by the regulation will be built from this initial service line inventory.



FINANCIAL STATEMENTS

Statement of Net Position - December 31, 2022

ASSETS

CURRENT ASSETS

Cash and cash equivalents - unrestricted	\$ 3,563,315
Accounts receivable	
Billed water and sewer charges	752,667
Unbilled water and sewer charges	2,274,096
Other	1,356,599
Lease receivable - current portion	474,052
Inventory	1,112,551
Prepaid insurance and other expenses	463,864
TOTAL CURRENT ASSETS	9,997,144

RESTRICTED ASSETS

Cash and cash equivalents - restricted	7,628,276
Investments - restricted - market value	14,394,721
Interest receivable - restricted	56,869
TOTAL RESTRICTED ASSETS	22,079,866

INVESTMENT IN FOREST PARK PROJECT, net

Forest Park Water	73,549,062
Point Pleasant Pumping Station	14,886,195
PECO energy contract	604,198
Total investment in Forest Park Project	89,039,455
Less accumulated depreciation	(56,367,040)
NET INVESTMENT IN FOREST PARK PROJECT	32,672,415

CAPITAL ASSETS

Property, plant and equipment	218,817,048
Less accumulated depreciation	(66,846,670)
NET CAPITAL ASSETS	151,970,378

OTHER ASSETS

Lease receivable - noncurrent portion	8,208,425
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TOTAL ASSETS	224,928,228
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DEFERRED OUTFLOWS OF RESOURCES

Unamortized deferred charge on bond refunding	235,614
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LIABILITIES AND NET POSITION

CURRENT LIABILITIES

Accounts payable and FPW requisition payable	\$ 2,246,963
Current maturities of bonds payable	6,205,000
Accrued compensated absences	370,089
Accrued interest payable on bonds	780,029
Developer, consumers, and other deposits	881,012
MIRIA prepaid water bills	277,045
Unearned service connection fees	156,909
TOTAL CURRENT LIABILITIES	10,917,047

LONG-TERM LIABILITIES

Bonds payable- net of current maturities	38,320,000
Unamortized bond premium, net	4,514,548
TOTAL LONG-TERM LIABILITIES	42,834,548

TOTAL LIABILITIES	53,751,595
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DEFERRED INFLOWS OF RESOURCES

Deferred inflows of resources, leases	7,757,678
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NET POSITION

Net investment in capital assets, net of related debt	135,603,245
Restricted	22,079,866
Unrestricted	5,971,458

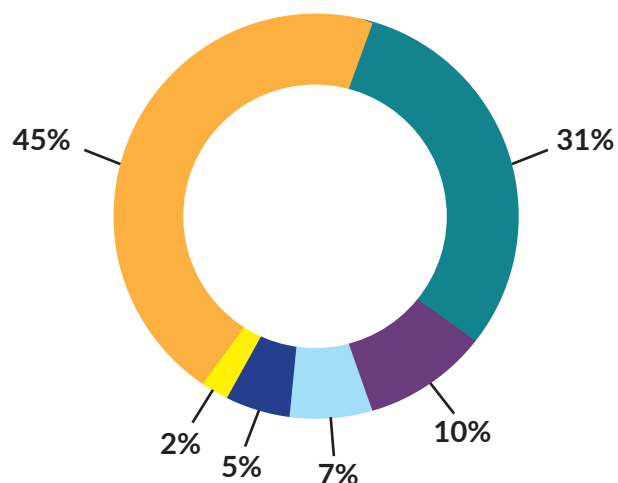
TOTAL NET POSITION	\$163,654,569
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Statement of Revenues, Expenses, and Changes in Net Position - For the Year Ended December 31, 2022

OPERATING REVENUES		DEPRECIATION AND AMORTIZATION EXPENSE	
Metered sales	\$ 16,270,157	North Wales Water Authority	3,543,184
Unmetered sales	625,156	Forest Park Water	1,550,000
Other operating revenues	13,905,351	Point Pleasant Pumping Station - PECO energy contract	1,210,000
TOTAL OPERATING REVENUES	30,800,664	TOTAL DEPRECIATION AND AMORTIZATION	6,303,184
OPERATING EXPENSES		OPERATING INCOME	6,087,310
General operations	1,395,651	NON-OPERATING REVENUES (EXPENSES)	
Water collection system	7,503,346	Investment and rental income	950,944
Pumping system	517,450	Gain on sale of fixed assets	33,551
Distribution system	1,176,467	Contributions in aid of construction	639,331
Vehicles and equipment	318,571	Interest expense on revenue bonds	(1,524,534)
Facilities maintenance	456,694	TOTAL NON-OPERATING REVENUE (EXPENSES)	99,292
Metering, billing, and customer service	1,134,699	CHANGE IN NET POSITION	6,186,602
PA One Call	198,288	NET POSITION- JANUARY 1, 2022 - RESTATED	157,467,967
Water quality	462,546	NET POSITION- DECEMBER 31, 2022	\$163,654,569
Wastewater collection and treatment	443,439		
General and administrative	4,803,019		
TOTAL OPERATING EXPENSES, before depreciation and amortization expense	18,410,170		
OPERATING INCOME, before depreciation, and amortization expense	12,390,494		

2021/2022 ACTUAL SALES

- Other Operating Revenue
- Domestic
- Utility
- Industrial/Public
- Commercial
- Unmetered



Statement of Cash Flows

For the Year Ended December 31, 2022

CASH FLOWS FROM OPERATING ACTIVITIES	
Cash received from customers and users	\$31,908,743
Cash paid to suppliers for goods and services	(13,881,939)
Cash paid to employees for services and related expenses	(5,564,231)
NET CASH PROVIDED BY OPERATING ACTIVITIES	12,462,573
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Proceeds from rental of capital assets	729,603
Contributions in aid of construction	639,331
Principal paid on revenue bonds	(6,015,000)
Interest paid on revenue bonds	(1,758,658)
Proceeds from sale of capital assets	33,551
Additions to investment in Forest Park Project	(1,009,660)
Acquisition and construction of capital assets	(13,994,928)
NET CASH (USED) IN CAPITAL AND RELATED FINANCING ACTIVITIES	(21,375,761)
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest received on investments	212,836
Net proceeds from maturities of investments	(7,728,726)
NET CASH (USED) IN INVESTING ACTIVITIES	(7,515,890)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(16,429,078)
RESTRICTED AND UNRESTRICTED CASH AND CASH EQUIVALENTS - JANUARY 1, 2022	27,620,669
RESTRICTED AND UNRESTRICTED CASH AND CASH EQUIVALENTS - DECEMBER 31, 2022	\$11,191,591
RECONCILIATION OF OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION EXPENSE TO NET CASH PROVIDED BY OPERATING ACTIVITIES:	
Operating income, before depreciation and amortization expense	
Adjustments to reconcile operating income, before depreciation and amortization expense, to net cash provided by operating activities	12,390,494
Increase (decrease) in	
Accounts receivable	1,108,079
Accrued interest receivable	(47,867)
Inventory	(160,708)
Prepaid insurance and other expenses	(63,782)
Increase (decrease) in	
Accounts payable and FPW requisition payable	298,690
Developer, consumers, and other deposits	(22,714)
Accrued interest payable on bonds	(99,300)
Accrued compensated absences	26,074
Unearned service connection fees and MIRIA credited water billings	(966,393)
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$ 12,462,573

SERVICE STATISTICS

Includes all Systems

Water Main Installations and Replacements for 2022

The Authority maintains over 3 million feet of water main in the system, that's over 570 MILES OF PIPE. Water main in the water system varies in size from 4 inch to 42 inch.

In 2022 the Authority installed a total of 9390 feet and replaced a total of 160 feet.

	New Water Main Installation	Water Main Replacements
4 inch	136 ft.	-
6 inch	3278 ft.	-
8 inch	4583 ft.	-
12 inch	1392 ft.	-
16 inch	-	160 ft.

New and Replaced Services, Meters and Fire Hydrants

New Services Installed	107
Renewed Services	12
New Meters Installed	331
New Fire Hydrants Installed	10
Replaced Fire Hydrants	21

Total Domestic Meters in the System

Residential	33,475
Commercial	1327
Industrial	352
Other	287

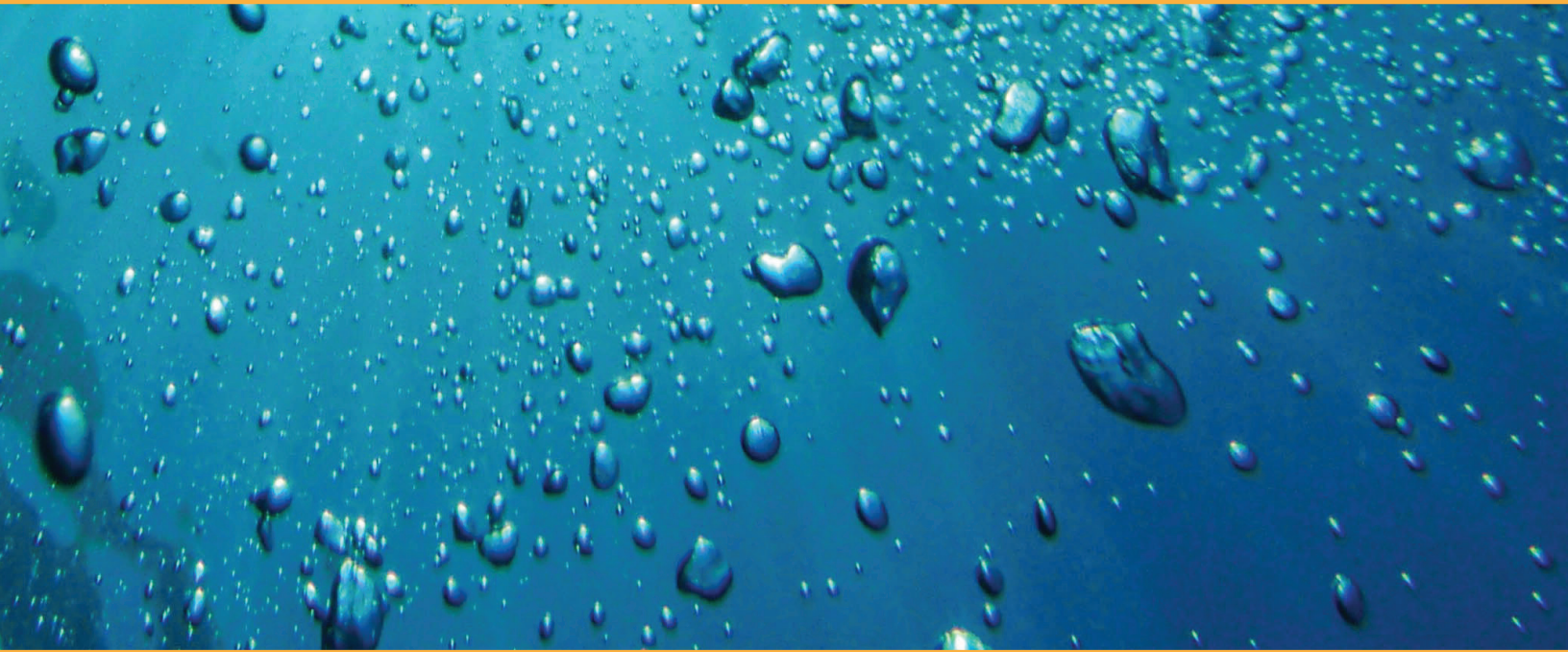
Water Produced in Gallons

Gallons Pumped	4,885,691,000
Gallons Accounted For	4,710,358,014
Unmetered Water	175,332,986
Average Daily Demand	13,905,090



North Wales Water Authority

2022 ANNUAL REPORT



For more information contact:

North Wales Water Authority

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Bucks County Office

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The NWWA service area encompasses approximately 50 square miles.
We serve customers in the Borough of North Wales, Buckingham, Doylestown,
Horsham, Lower Gwynedd, Montgomery, New Britain, Solebury, Upper Dublin,
Upper Gwynedd, Warminster, Warrington, and Whitpain Townships.