

Kid Zone



Hey Kids!

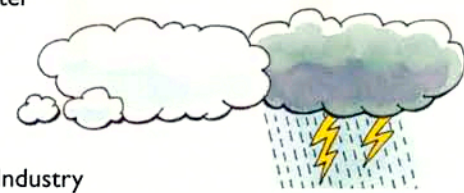
Need information for science projects?

Science projects are always a challenge; that is why we have dedicated an entire section on our website just for children.

Your children can now log on to nwwater.com, click on Kid Zone, and learn all about the water they drink and use every day. Teaching proper water stewardship is a goal of the Authority and our website is an excellent way to communicate this.

Special features of the site include:

- How to Conserve Water
- Water Glossary
- Water Treatment
- The Water Cycle
- Careers in the Water Industry
- Water Distribution
- How a Water Meter Works
- Water Related Reading List
- Water Links
- Scholarships
- Coloring and Activity Pages
- Frequently Asked Questions



We also have a number of experiments on hand and will gladly share them; simply call our public relations department for more information.

Don't delay, log on to nwwater.com and click on Kid Zone today!

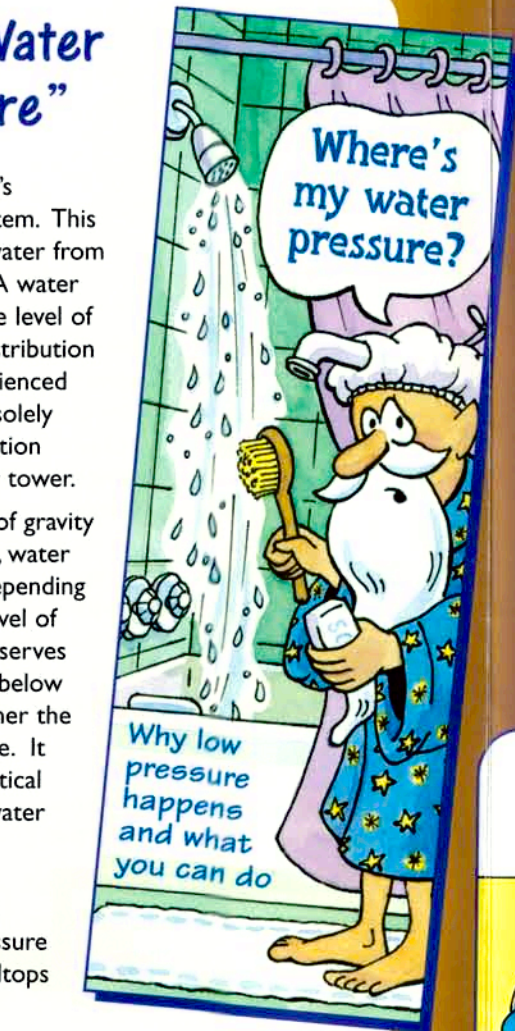
NWWA's New "Water Pressure Brochure"

The North Wales Water Authority's distribution system is a gravity system. This means that the Authority pumps water from individual sources into the NWWA water tower which maintains an adequate level of pressure throughout our water distribution system. The water pressure experienced at any home within our system is solely determined by the geographic location of that home relative to our water tower.

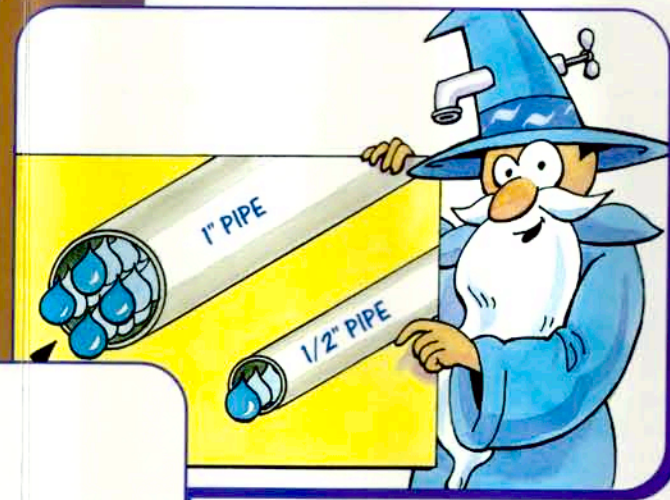
Since NWWA relies on the force of gravity to deliver water to our customers, water pressure increases or decreases depending on how far a home is below the level of the water in the storage tank that serves that home. The further a home is below the water level in the tank, the higher the water pressure will be in that home. It is important to remember that vertical distance or elevation determines water pressure, physical distance from a storage tank does not. This is why customers with homes in low-lying areas experience higher water pressure than customers who live on the hilltops and ridges in our service territory.

Most low-pressure problems are created in the home. In such cases, the home has adequate water service pressure but pressure at fixtures drops off dramatically when another fixture is turned on. This situation is most commonly encountered when someone flushes a toilet when another person is in the shower. Usually the problem is that the water volume is lowered or restricted, therefore reducing the amount of water that comes out of the fixture.

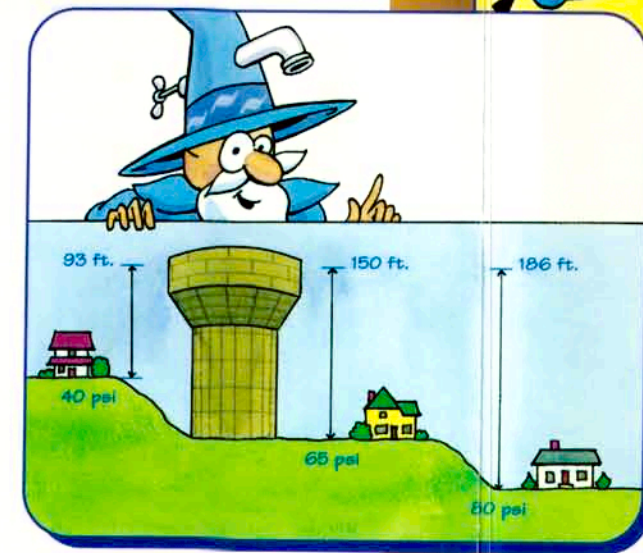
Here are some common causes of low water volume. You may have a combination of these problems.



Why low pressure happens and what you can do



4. Pipe "arteries" are getting clogged
 Rust and minerals can build up in older, galvanized plumbing and restrict the flow of water.



5. High on a hill

If your home is at a higher elevation, your water pressure may be below average. If it is below 40 pounds per square inch, a plumber can offer tips for increasing the volume of water to your fixtures.

You may have one or a combination of problems. Our best advice is to talk to a reputable plumber. Use our "Where's my water pressure?" brochure as a starting point and discuss each scenario. Usually your plumber can recommend solutions that can enhance your water volume.

For more important information, log on to nwwater.com

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 Pure water, quality service...naturally
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 North Wales, PA 19454-0339



Serving 25,000+ customers in 7 municipalities in 2 counties.

"What's in my water?"

2000 Water Quality Report



Hi! I'm the Water Wizard

...the official mascot of the North Wales Water Authority. I am pleased to present our 2000 Water Quality Report to you.

At the North Wales Water Authority, we take great pride in delivering high quality drinking water to our 25,000 plus customers. Our staff of dedicated employees work to bring you the finest drinking water available by producing water that meets or significantly exceeds all current standards. Please read on to see how we are able to deliver you water of outstanding quality.

this arrangement results in duplication of testing but ensures an added measure of quality control.

The Forest Park Water Treatment Plant utilizes ozone as both a pre-treatment and post-treatment oxidant to replace chlorine in the process. Forest Park Water is one of only a handful of ozone plants currently in operation in the United States. In addition to the use of ozone and the normal treatment train of flocculation, sedimentation and filtration, Forest Park Water was constructed with granular activated carbon (GAC) contactors after the filtration train. These contactors, in combination with the use of ozone, are designed to be biologically active. This extra "polishing step" in the process ensures that any remaining organics or taste and odor compounds are removed before the water leaves the treatment plant. As a result of this process, organic contaminants that may find their way into the raw water source are effectively dealt with automatically in the process.

This treatment process ensures that customers of the NWWA are receiving the finest quality drinking water available today from any surface water treatment plant in the United States.

Monitoring Your Water

The North Wales Water Authority routinely monitors for constituents in your drinking water according to Federal and State laws. The North Wales Water Authority tables show the results of our monitoring for the period of January 1st to December 31st, 2000.

Where Does Your Water Come From?

Forest Park Water, which is jointly owned by North Wales and North Penn Water Authorities, consists of a 96 million gallon per day raw water pumping station on the Delaware River at Point Pleasant and transmission mains which discharge the Delaware River water into the North Branch of the Neshaminy Creek. Once discharged, the water flows down the Neshaminy Creek through Lake Galena. The water released from Lake Galena flows two miles downstream to the Forest Park Water Treatment Plant located in Chalfont, Pennsylvania. From the treatment plant, the North Wales and North Penn Water Authorities individually take their share of the supply for distribution within their respective service areas. Currently, 85% of our water comes from the Delaware River and 15% comes from ground water sources.

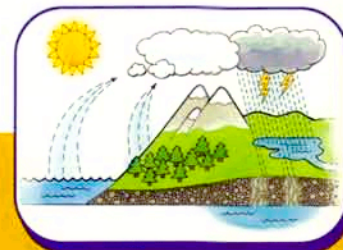
Water Quality

Since the Authority operates its own distribution system, as well as being a part owner of the Forest Park Water facilities, sampling under the SDWA (Safe Drinking Water Act) is conducted independently by both utilities in accordance with appropriate requirements. This ensures that the Authority takes all distribution samples for which it is responsible and Forest Park Water takes all samples related to a surface water treatment facility. To some extent,

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

Every year the Authority receives a new set of monitoring requirements from the Pennsylvania Department of Environmental Protection (DEP) based on our previous results. Individual and groups of contaminants may be required to be monitored weekly, monthly, quarterly, annually, etc. Currently, the Authority monitors for ninety-three (93) contaminants at nine entry points and throughout the distribution system. We constantly monitor the water supply for various constituents. Our 2000 monitoring did not detect any cryptosporidium in our source water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or visit the EPA website at www.epa.gov/safewater/dwhealth



In these tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

Non-Detects (ND) — laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) — one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter — one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) — one part per trillion corresponds to one minute in 2,000,000 years or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) — one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) — picocuries per liter is a measure of the radioactivity in water.

Million Fibers per Liter (MFL) — million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) — nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

AL - Action Level — the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

TT - Treatment Technique — A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

MCL - Maximum Contaminant Level — The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal — The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.



Volatile Organic Contaminants

Contaminant (Unit of Measurement)	Violation Yes/No	NWWA Level Detected	Range	MCLG Goal	MCL
TTM [Total trihalomethanes] (ppb)	No	12	1-26	0	100
HAAS [Haloacetic Acids] (ppb)	No	5	1-7	0	80

Benzene (ppb), Carbon tetrachloride (ppb), Chlorobenzene (ppb), o-Dichlorobenzene (ppb), p-Dichlorobenzene (ppb), 1,2 - Dichloroethane (ppb), 1,1 - Dichloroethylene (ppb), cis-1,2-Dichloroethylene (ppb), trans-1,2-Dichloroethylene (ppb), Dichloromethane (ppb), 1,2-Dichloropropane (ppb), Ethylbenzene (ppb), Methyl tertiary butyl ether (MTBE) (ppb), Styrene (ppb), Tetrachloroethylene (ppb), 1,2,4-Trichlorobenzene (ppb), 1,1,1 - Trichloroethane (ppb), 1,1,2 - Trichloroethane (ppb), Trichloroethylene (ppb), Toluene (ppm), Vinyl Chloride (ppb) and Xylenes (ppm) were monitored but not detected.

* MTBE is a non-regulated contaminant.

Likely Source of Contamination TTHM (Total trihalomethanes): By-products of drinking water disinfection. HAAS (Haloacetic Acids): By-products of drinking water disinfection

Inorganic Contaminants

Contaminant (Unit of Measurement)	Violation Yes/No	NWWA Level Detected	Range	MCLG Goal	MCL
Copper* (ppm) 9/98	No	0.6	0-0.9	1.3	AL=1.3
Lead* (ppb) 9/98	No	8	0-10	0	AL=15
Nitrate (as Nitrogen) (ppm) 3/00	No	1.55	0-2.8	10	10

Antimony (ppb), Arsenic (ppb), Asbestos (MFL), Barium (ppm), Beryllium (ppb), Cadmium (ppb), Chromium (ppb), Cyanide (ppb), Fluoride (ppm), Mercury (inorganic) (ppb), Nickel (ppb), Nitrite (as Nitrogen) (ppm), Selenium (ppb) and Thallium (ppb) were monitored but not detected.

* Naturally occurring levels of lead and copper in the source water are non-detectable. This table represents the level detected in the 90th percentile of homes monitored in accordance with the US-EPA Lead and Copper Rule. None of the homes monitored for these contaminants exceeded the Action Level.

Likely Source of Contamination: Copper: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives; Lead: Corrosion of household plumbing; erosion of natural deposits; Nitrate (as Nitrogen): Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits

Radioactive Contaminants

Contaminant (Unit of Measurement)	Violation Yes/No	NWWA Level Detected	Range	MCLG Goal	MCL
Alpha Emitters (pCi/l) 6/00	No	.8	N/A	0	15
Combined Radium (pCi/l) 7/96	No	< 1	N/A	0	5

Likely Source of Contamination: Alpha Emitters and Combined Radium: Erosion of natural deposits

Microbiological Contaminants

Contaminant (Unit of Measurement)	Violation Yes/No	NWWA Level Detected	Range	MCLG Goal	MCL
Total Coliform Bacteria	No	0	N/A	0	presence of coliform bacteria in 5% of monthly samples
Fecal Coliform and E. coli Bacteria	No	0	N/A	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive
Turbidity (NTU)	No	0.04	0.03-0.07	N/A	TT

Likely Sources of Contamination: Turbidity: Soil runoff

Coliform bacteria, disinfection residual and turbidity are monitored on a continuous basis and reported monthly. Quarterly monitoring for Giardia and Cryptosporidium performed at Forest Park was negative.

Synthetic Organic Contaminants Including Pesticides & Herbicides

2,4-D (ppb), 2,4,5-TP (Silvex) (ppb), Alachlor (ppb), Atrazine (ppb), Benzo(a)pyrene (PAH) (nanograms/l) 8/00, Chlordane (ppb), Carbofuran, Dalapon (ppb), Dicamba (ppb), Di(2-ethylhexyl) adipate (ppb) 8/00, Di(2-ethylhexyl) phthalate (ppb) 8/00, Dinoseb (ppb), Endrin (ppb), Heptachlor (nanograms/l), Heptachlor epoxide (nanograms/l), Hexachlorobenzene (ppb), Hexachlorocyclo-pentadiene (ppb) 4/00, Lindane (nanograms/l), Methoxychlor (ppb), Oxamyl (ppb) 5/00, Pentachlorophenol (ppb) 4/00, Picloram (ppb), Simazine (ppb) and Toxaphene (ppb) were monitored but not detected.

Data presented in the above tables is from the most recent testing and monitoring done in accordance with the regulations of the Pennsylvania Department of Environmental Protection. VOC testing was last performed 3/00 • TTHM and HAAS monitoring was performed quarterly throughout 2000 • Unless otherwise noted, IOC testing was last performed 4/00 • Unless otherwise noted, SOC testing was last performed 7/00 • Bacteria and turbidity are monitored on a continuous basis.

Customer Service



Our regularly scheduled public meetings are held at 7:00 pm on the 1st and 3rd Wednesday of the month at the North Wales Water Authority.

If you have a community event you would like us to participate in or you are interested in a tour of Forest Park Water, please contact our public relations department.

Customer Service continues to remain a priority for the North Wales Water Authority. We are continually seeking ways to improve our relationship with you. One of the most important aspects of customer service is actually listening to the customer. In 2000, we conducted a customer survey. The results indicated that you wanted to know more information about water pressure, so we are providing you with that information in this report. You also told us that 80% of you have internet access, so we expanded our website to include a wealth of information about water conservation, water hardness, water treatment, backflow prevention and how to read your water meter. These are just a few examples to let you know that we are listening to your needs.

Value-Added Services

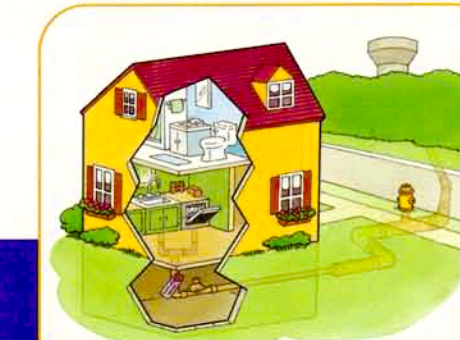
Value-added services are another way that we provide additional services to you. We have two programs that we offer:

- **AutoFlow** is an automatic bill payment program that withdraws funds directly from your checking or savings account. This bill-free payment service eliminates the need to write checks and saves you money on postage. AutoFlow is a great way to save time and money.
- **Lateral Maintenance Plan** basically offers you protection against the possibility of costly repair bills and covers any service line damages from the curb stop to the outside wall of your home or building. Under the Lateral Maintenance program, if anything happens to your service line, we'll take care of it at no additional cost to you.

The charge for this program is minimal:

For Residential	For Commercial	For Commercial
\$10 per year	3/4" and 1" connections \$18 per year	1 1/2" and 2" connections \$30 per year

If you are interested in taking advantage of either of these services, please log on to our website at nwwater.com for the applications or simply call our office at 215-699-4836 and our customer service department will gladly handle your request.



NWWA Scholarships

NWWA recognizes its role and obligation in being an active participant in the promotion of sound water supply and environmental stewardship for the future benefit of all. To this end NWWA participates in a number of projects and cooperative efforts to ensure adequate water supply of the highest quality, to protect source water, to promote wellhead protection and improve water quality in our watersheds. We believe that we need to encourage individuals to take an interest in education and careers in the water supply industry and related fields. The North Wales Water Authority Scholarship Program is designed to help meet the future needs of the water supply industry and promote proper stewardship of our most fundamental and precious resource.

These scholarships are available to customers of the Authority and immediate family members of Authority customers that claim the customer's address as their permanent residence. Authority board members, employees, members of the Borough Council of North Wales and their immediate families are not eligible to participate.



Applications may be obtained by contacting the Authority or visiting our web site at www.nwwater.com. After an initial screening by Authority staff to ensure that minimum requirements are satisfied, the board of the Authority will make the final selections in June of each year for the fall term. The application deadline will be May 1st of each year.

Successful candidates will be invited to attend a luncheon with the scholarship committee to receive their awards.

UNDERGRAD

1. The Authority may award one (1) undergraduate scholarship each year in the amount of \$2,500.
2. Applicants must file a complete application with supporting documents by the deadline date.
3. The applicant shall have completed 50 credits of undergraduate work with a minimum GPA of 2.5 at an accredited 4-year institution.

4. The applicant shall be pursuing a degree in a field applicable to the water supply industry.
5. The applicant's prior history of work and/or volunteer activities related to such things as pollution prevention, source water protection, stream biology and chemistry, water supply, etc. will be considered as an indicator of future goals.

6. Although financial need will not be a major consideration, applicants that are not receiving full scholarships covering tuition and room and board will be given priority.

GRADUATE

1. The Authority may award up to one (1) graduate scholarship each year in the amount of \$4,000.
2. Applicants must file a complete application with supporting documents by the deadline date.

3. The applicant must have received a bachelor's degree from an accredited institution in a water supply related field with a minimum GPA of 2.75.
4. The applicant must have a letter of acceptance from a graduate school and be pursuing a degree in a field of study applicable to the water supply industry.

5. The applicant's prior history of work and/or volunteer activities related to the industry will be considered as an indicator of future goals.