

2016

Annual Drinking Water Quality Report

WOMELSDORF-ROBESONIA
JOINT AUTHORITY

PWSID #3060080

We are pleased to present you with our nineteenth Annual *Drinking Water Quality Report*. This *Report* is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources.

SOURCES OF WATER

All of our water supply is from four (4) deep groundwater wells. Two of the wells are in Heidelberg Township, south of Robesonia; and the other two are in Millcreek Township. Water storage is provided by two 1.5 million gallon capacity welded steel tanks.

Need More Information?

If you have any questions about this Report or concerning your water utility, please contact:

Glenn Eberly
Chief Operator
(610) 589-2740

Written comments or correspondence also can be sent to the Authority at our mailing address or by email. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the fourth Tuesday of each month at 7:00 p.m. at the Womelsdorf Borough Hall, 101 West High Street, Womelsdorf. Written requests for our public records must be submitted to the attention of Chairman Randy Gartner at our mailing address.

We look forward to continuing to serve the residents and businesses of our community.



Last year, we provided our 2,200 customers with approximately 147,000,000 gallons of water or 402,000 gallons per day. We serve customers in Womelsdorf Borough, Robesonia Borough, Heidelberg Township, Millcreek Township, and Marion Township. Our drinking water again meets all federal and state requirements.

We continue to implement our long-term forestry management program and its enhancement of our area's ecology. Another benefit of the program is its generation of revenue through biennial timber sales.

As previously reported, breaching the Furnace Creek Dam was completed in 2014 in order to comply with DEP regulations. Check maps.google.com. **The Authority had not used water from the Furnace Creek reservoir since May 1992** when it switched to wells as its source of drinking water in order to meet DEP water quality requirements.

Other activities and actions in 2016 included:

- the construction of water system improvements and relocations in Route 422 in advance of PennDOT's repaving and betterment project.
- continued improvements to the Authority website.
- updating our Rules and Regulations.
- updating the Authority GIS (geographic information system) capabilities.
- completing the replacement of old residential meters in the Womelsdorf and Sheridan service areas.
- successful triennial inspection by DEP in September.
- making an offer to purchase a portion of the Breininger property along South Freeman Street in Robesonia for a potential well site.

We also want you to be aware that there are no lead pipes in our water system.

Quarterly Rate Schedule for Residential Meter

First 3,500 gallons or less –
\$21.00 minimum charge.

Next 16,500 gallons –
\$3.65 per 1,000 gallons

Next 20,000 gallons –
\$3.85 per 1,000 gallons

Over 40,000 gallons –
\$4.00 per 1,000 gallons

Notes:

- (1) Rates were increased at the September 2009 meeting, the first increase since 1991.
- (2) The minimum quarterly charge is greater than \$21.00 for meters larger than 5/8".
- (3) There is a \$1.00 per quarter charge for hydrant maintenance.

**Este informe contiene información muy
importante
sobre su agua potable.
Tradúzcalo ó hable con alguien que lo
entienda bien.**

**Das Bericht hot wichdich Sache tzu
saage wege eire Drinkwasser.**

Know the Health Risks

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man-made. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 visiting the EPA Office of Water website at www.epa.gov/OGWDW. MCLs are set at very stringent levels for health effects.

To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask for advice from your health care provider.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Authority is responsible for providing high quality drinking water, but we cannot control the variety of materials used in

plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.



Impurities Detected by the Womelsdorf-Robeson Joint Authority

The Womelsdorf-Robeson Joint Authority routinely monitors for constituents in your drinking water according to federal and state laws. This table shows monitoring results for the period of January 1 to December 31, 2016. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act.

This table shows only the contaminants that were detected and the levels at which they were detected. There were many other contaminants that were

not detected in the samples collected for analysis. Remember that the presence of certain constituents does not necessarily pose a health risk. All drinking water may be reasonably expected to contain at least small amounts of some constituents.

In April 2016, the Authority took samples for Chlorine Residual in the distribution system. Unfortunately, the summary report was submitted to the PA DEP late. These issues have since been resolved. The remaining samples were taken, as required, and were submitted on time to the DEP. We're proud that our drinking water meets or exceeds Federal and State requirements.

Contaminant	Highest Level Allowed (MCL)	WRJA Highest Detected Value	WRJA Range of Detected Values	EPA MCLG (EPA Goal)	Sources of Contamination	Violation Y or N		
Disinfectant/Disinfection By-Products (7/2016 - 10/2016)								
Haloacetic Acids (HAA5)	60 ug/l	2 ug/l	0 - 2 ug/l	N/A ug/l	By-product of drinking water disinfection	N		
Trihalomethanes (THMs)	80 ug/l	9.9 ug/l	0.80 - 9.9 ug/l	N/A ug/l	By-product of drinking water chlorination	N		
Bromodichloromethane (THM)	N/A ug/l	2.4 ug/l	1.5 - 2.4 ug/l	0 ug/l	By-product of drinking water chlorination	N		
Chloroform (THM)	N/A ug/l	6.4 ug/l	0.80 - 6.4 ug/l	70 ug/l	By-product of drinking water chlorination	N		
Chlorodibromomethane (THM)	N/A ug/l	1.1 ug/l	0.90 - 1.1 ug/l	N/A ug/l	By-product of drinking water chlorination	N		
Inorganic Chemicals								
Nitrate (ppm)	10	2.71	1.41 - 2.71	10	Geology, farmland runoff, septic tanks, sewage	N		
Volatile Organic Chemicals								
Ethylbenzene (ppm), (10/2016)	0.7	0.0005	0 - 0.0005	0.7	Discharge from petroleum refineries	N		
Xylene (ppm), (10/2016)	10	0.0039	0 - 0.0039	10	Discharge from petroleum or chemical factories	N		
Radiological Contaminants (4/2015)								
Radium-(226 & 228)	5 pCi/l	2.0 pCi/l	0 - 2.0 pCi/l	0 pCi/l	Erosion of natural deposits	N		
Disinfectant Residual								
Chlorine (ppm)	MRDL = 4	1.13	0.38 - 1.13	MRDLG = 4	Water additive used to control microbes	N		
Entry Point Disinfectant Residual								
Contaminant	Location ID	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Sources of Contamination	Violation Y or N
Chlorine (ppm)	101	0.4	0.70	0.70 - 2.01	ppm	1/1/2016	Water additive used to control microbes	N
Chlorine (ppm)	103	0.4	0.73	0.73 - 1.42	ppm	6/28/2016	Water additive used to control microbes	N
Chlorine (ppm)	104	0.4	0.63	0.63 - 1.80	ppm	4/27/2016	Water additive used to control microbes	N

Lead and Copper Rule (8/2016) ¹							
Contaminant	WRJA Range of Detected Values	90th Percentile	Action Level	EPA MCLG	# of Sites Above AL of Total Sites	Sources of Contamination	Violation Y or N
Copper (mg/L)	0.036 - 0.882	0.23	1.3	1.3	0 of 20	Pipes, geology, wood preservatives	N
Lead (ug/L)	0 - 12	2	15	0	0 of 20	Corrosion of old pipes, geology	N

Notes:

* The PA DEP allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Items not sampled for in 2016 are noted with the last year of sampling.

1. The Action Level (AL) for Lead and Copper serves as a trigger for water systems to take additional treatment steps if exceeded in more than 10% of tap water samples. The Action Level for Lead is 15 ug/L, and the Action Level for Copper is 1.3 mg/L. No Action Levels were exceeded in the 2016 sampling.

Definitions

In the tables in this report 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:

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL - Maximum Contaminant Level

The "Maximum Allowed" 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.

mg/l - Milligrams per liter or Parts per million (ppm)

One milligram per liter or one part per million (ppm) corresponds to one minute in two years or a single penny in \$10,000.

MCLG - Maximum Contaminant Level Goal

The "Goal" 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.

MRDL - Maximum Residual Disinfectant Level

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

pCi/l - Picocuries per liter

Picocuries per liter is a measure of the radioactivity in water.

ug/l - Micrograms per liter

One microgram per liter corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.



Source Water Protection

The Source Water Protection Plan (SWPP) with the Newmanstown Water Authority and the Borough of Richland continues to be implemented. **Its goal is to reduce the possibility of contaminants entering our water supply sources.** Consistent with the plan, the Authority is a participant in the Berks County Conservancy's Western Highlands effort. Several point and non-point potential sources of contamination (PSOC) were identified in the preparation of the SWPP. Overall, the Authority's wellhead protection areas have a low risk of contamination. A complete list of the PSOCs, as well as the entire Plan, can be reviewed by submitting a written request to the Authority.



Undetected Impurities Tested for by Womelsdorf-Robeson Joint Authority

(PWSID #3060080)

Inorganic Chemicals (1/2015)

Antimony
Arsenic
Asbestos (9/2013)
Barium
Beryllium
Cadmium
Chromium
Cyanide (Free)
Fluoride
Mercury
Nickel
Nitrite (4/2016)
Selenium
Thallium

Synthetic Organic Chemicals (4/2014)

Alachlor
Atrazine
Dicamba
Methoxychlor
27 Other SOC's²

Disinfection By-Products

Bromoform (THM)

Organic Chemicals (10/2016)

1,1,1-Trichloroethane
1,1,2-Trichloroethane
1,1-Dichloroethylene
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,4-Dichlorobenzene
Benzene
Carbon tetrachloride
Chlorobenzene
cis-1,2-Dichloroethylene
Dichloromethane
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
Trichloroethylene
Vinyl chloride

Microbiological Contaminants (2016)

Total Coliforms

Radiologicals

Combined Uranium (12/2011)
Gross Alpha (4/2014)

Notes: *Contaminants in Italics Not Regulated by EPA.*

⁽¹⁾ *Not all contaminants are sampled for every year, according to DEP regulations. Those contaminants not sampled for in 2016 are noted with the last month and year of sampling.*

⁽²⁾ *We received exemptions from testing for Synthetic Organic Compounds (SOC's) at two of our wells from the DEP, because the locations of the wells are not susceptible to this type of contamination. Additional SOC testing was performed at the Entry Point to the system in 2014.*