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2014

ANNUAL DRINKING WATER QUALITY REPORT EAST ROCKHILL

PWSID#1090141

This report is being mailed to you as a requirement of the federal Safe Drinking Water Act.

NPWA water meets or exceeds all State and Federal Safe Drinking Water Act standards.

PEOPLE WITH SPECIAL HEALTH CONCERNS

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at **1-800-426-4791** or visiting their website at www.epa.gov/safewater.

LEAD IN DRINKING WATER

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. North Penn Water Authority is responsible for providing high quality drinking water, but 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 EPA's Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

WHY NPWA NEEDS TO TREAT YOUR WATER

The 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 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 from 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 by-products 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.

In order to ensure that tap water is safe to drink, EPA and PA DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and PA DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.



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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at **1-800-426-4791** or visiting their website at www.epa.gov/safewater.

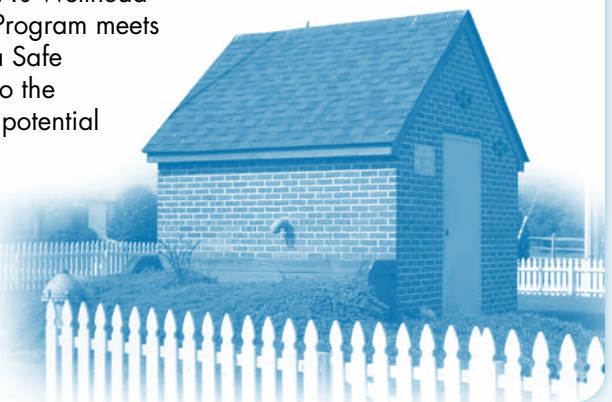
HOW NPWA IS PROTECTING THE WATER YOU DRINK



To enhance water quality, NPWA performs an annual hydrant flushing program which takes place in the spring of each year. This flushing program helps improve water quality by removing any possible build-up of mineral deposits from the inside of water distribution pipes. NPWA also has an aggressive water main replacement program to improve the quality of water that we deliver to our customers. Old unlined cast iron mains, that can affect water quality and restrict flow, are replaced on a regular basis. These projects are scheduled when Penn DOT or our member municipalities are doing work on the roads to reduce inconvenience to the community.

The Authority continues to work proactively to protect its sources of water. In 2009, NPWA's Wellhead

Protection (WHP) Program was approved by the PA DEP. The Authority's WHP Program meets the requirements for a local WHP Program in accordance with the Pennsylvania Safe Drinking Water Regulations. The WHP Program provides valuable information to the Authority such as: identifying the protection zone around each well, identifying potential sources of contamination for each well, identifying the land areas around our wells, and the underground geologic layers, that are within the pumping zones of influence. This information will greatly assist the Authority in dealing with an emergency response in case of a hazardous spill event that could threaten the well, so that remedial measures could be put in place. Also, implementation of contingency planning could involve revisions to local land use practices, if necessary, to protect the integrity of the groundwater supply.



- safe
- quality
- tested
- economical



NORTH PENN WATER AUTHORITY

2014 ANNUAL DRINKING WATER QUALITY REPORT

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda.

Owners of multiple family dwellings, commercial businesses, public housing, or similar situations, are encouraged to post and/or distribute this report. Additional copies are available and can be obtained at North Penn Water Authority's operations center or by calling (215) 855-3617.

This report is also available online at www.npwa.org.

NPWA water meets or exceeds all State and Federal Safe Drinking Water Act standards.

North Penn Water Authority (NPWA) is pleased to present to you this year's Annual Drinking Water Quality Report. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (PA DEP) state standards. We are committed to providing you with information because informed customers are our best allies. The Authority's staff of professionals is dedicated to ensuring that our customers receive a safe, economical, and continuous supply of water.

All of the water that is delivered to our customers in our East Rockhill Satellite System comes from two groundwater supply wells. The water from these wells is chlorinated before it is pumped into customers' homes. The East Rockhill Satellite System is physically separated from the NPWA main system. Water from the two systems does not ever mix.

NPWA routinely monitors for constituents in your drinking water according to EPA, PA DEP and Safe Drinking Water Regulations. The monitoring results shown in this report includes information from the **2014 calendar year**. While NPWA tests

for over 80 parameters to ensure water quality, the tables in this report summarize the monitoring results for parameters found at detectable levels. A list of parameters that NPWA monitored for but were not detected is in a separate portion of this report. Annual testing is not required for all parameters because the concentrations of these parameters do not change frequently.

Some are on multi-year cycles based on schedules determined by state and federal regulations. Therefore, some of our data, though representative, are more than one year old.

It is important for our valued customers to be informed about their water quality. If you have any questions about this report or regarding your water utility, please contact Lindsay Hughes, Community Relations Coordinator, at (215) 855-3617 or visit

our website at www.npwa.org. If you want to learn more about NPWA, please attend any of our regularly scheduled Board of Directors meetings. Meetings are held on **the fourth Tuesday of every month at the Authority's operations center located at 300 Forty Foot Road, near the intersection of Forty Foot and Allentown Roads in Towamencin Township. Meetings begin at 7:30 p.m.**



DETECTED SAMPLE RESULTS PWSID # 1090141

DISINFECTANT RESIDUALS - Tested at Wells

| | Violation Yes/No | Units | Average Level Detected | Range of Results | MRDL | MRDLG | Use or Environmental Source |
|----------|------------------|-------|------------------------|------------------|------|-------|---|
| Chlorine | No | ppm | 0.89 | 0 - 2.00 | 4 | 4 | Water additive used to control microbes |

DISINFECTANT RESIDUALS - Tested Throughout Distribution System

| | Violation Yes/No | Units | Average Level Detected | Range of Monthly Averages | MRDL | MRDLG | Use or Environmental Source |
|----------|------------------|-------|------------------------|---------------------------|------|-------|---|
| Chlorine | No | ppm | 1.06 | 0.85 - 1.25 | 4 | 4 | Water additive used to control microbes |

DISINFECTION BY-PRODUCTS - Tested Throughout Distribution System

| | Violation Yes/No | Units | Average Level Detected | Range of Results | MCL | MCLG | Use or Environmental Source |
|-------------------------------|------------------|-------|------------------------|------------------|-----|------|---|
| Haloacetic Acids (HAAs) | No | ppb | 2.07 | 1.08 - 3.05 | 60 | N/A | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHMs) | No | ppb | 13.0 | 7.0 - 18.9 | 80 | N/A | By-product of drinking water disinfection |

INORGANIC CHEMICALS (IOCs) - Tested at Wells

| | Violation Yes/No | Units | Average Level Detected | Range of Results | MCL | MCLG | Use or Environmental Source |
|-------------------------|------------------|-------|------------------------|------------------|-----|------|---|
| Fluoride (2012 Results) | No | ppm | 0 | 0 - 0.11 | 2 | 2 | Erosion of natural deposits; Discharge from fertilizer and aluminum factories |
| Nitrate | No | ppm | 0.56 | 0.36 - 0.75 | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |

LEAD AND COPPER - Tested at Customers' Taps - Most recent tests were done in 2013

| | Violation Yes/No | Units | 90th Percentile Results | Action Level (AL) | MCLG | # of Sites Above AL of Total Sites | Use or Environmental Source |
|--------|------------------|-------|-------------------------|-------------------|------|------------------------------------|--|
| Copper | No | ppm | 0.276 | 1.3 | 1.3 | 0 out of 11 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead | No | ppb | 0 | 15 | 0 | 0 out of 11 | Corrosion of household plumbing systems; Erosion of natural deposits |

RADIONUCLIDES - Tested at Wells - Most recent tests were done in 2012

| | Violation Yes/No | Units | Average Level Detected | Range of Results | MCL | MCLG | Use or Environmental Source |
|----------------|------------------|-------|------------------------|------------------|-----|------|-----------------------------|
| Alpha Emitters | No | pCi/L | 1.72 | 0.12 - 3.31 | 15 | 0 | Erosion of natural deposits |
| Uranium | No | µg/L | 4.32 | 2.99 - 5.64 | 30 | 0 | Erosion of natural deposits |

In the above 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:

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL):** 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.
- **Maximum Contaminant Level Goal (MCLG):** 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.
- **Maximum Residual Disinfectant Level (MRDL):** 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.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
- **N/A:** Not Applicable
- **pCi/L:** picocuries per liter (a measure of radioactivity in water)
- **ppb:** parts per billion, or micrograms per liter (µg/L)
- **ppm:** parts per million, or milligrams per liter (mg/L)

Below is a list of parameters which NPWA monitored for in 2014 but **DID NOT DETECT**:

| Coliform Bacteria | Volatile Organic Chemicals (VOCs) | | | |
|-----------------------------------|-----------------------------------|--------------------------|----------------------------|-------------------|
| E. Coli | 1,1,1-Trichloroethane | 1,2-Dichloropropane | Dichloromethane | Trichloroethylene |
| Total Coliform Bacteria | 1,1,2-Trichloroethane | o-Dichlorobenzene | Ethylbenzene | Vinyl Chloride |
| | 1,1-Dichloroethylene | Benzene | Styrene | Xylenes, total |
| Inorganic Chemicals (IOCs) | 1,2,4-Trichlorobenzene | Carbon tetrachloride | Tetrachloroethylene | |
| Nitrite | p-Dichlorobenzene | Chlorobenzene | Toluene | |
| | 1,2-Dichloroethane | cis-1,2-Dichloroethylene | trans-1,2-Dichloroethylene | |

| Synthetic Organic Chemicals (SOCs) | | | |
|------------------------------------|----------------------------|---------------------------|----------------------------------|
| 1,2-Dibromo-3-chloropropane | Dalapon | Ethylene dibromide | Oxamyl [Vydate] |
| 2,4-D | Di(2-ethylhexyl) adipate | Glyphosphate | Pentachlorophenol |
| 2,4,5-TP [Silvex] | Di(2-ethylhexyl) phthalate | Heptachlor | Picloram |
| Alachlor | Dinoseb | Heptachlor epoxide | PCBs [Polychlorinated biphenyls] |
| Atrazine | Dioxin [2,3,7,8-TCDD] | Hexachlorobenzene | Simazine |
| Benzo[a]pyrene | Diquat | Hexachlorocyclopentadiene | Toxaphene |
| Carbofuran | Endothall | Lindane | |
| Chlordane | Endrin | Methoxychlor | |