Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with underlying 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 contaminants may also include treatment recommendations for users to minimize exposure to contaminants in drinking water. Cryptosporidium and other microbial contaminants are overviewed on the PA Safe Drinking Water Hotline at 1-800-426-4791 or visiting their website at www.epa.gov/safewater.

In order to ensure that tap water is safe to drink, EPA and PA DEP periodically monitor the water supply for a broad range of contaminants that may be present. The amount of certain contaminants in water provided by public water systems is determined by the water quality analysis. Food and Drug Administration (FDA) and PA DEP regulations establish limits for contaminants in public water which must provide the same protection for public health.

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 the water delivery to your tap. You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or preparing food. If you are on well 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.

Radon was tested in our wells in 2008. There is no federally-recognized health standard for radon in drinking water. However, the Federal Safe Drinking Water Act standard for radon in drinking water is 140 picocuries per liter (pCi/L) as an annual average. Radon levels in water and indoor air are not directly related. For additional information, contact EPA’s Radon Hotline at 1-800-776-7236 or visit their website at www.epa.gov/radon for more information.

The sources of drinking water (both tap water and bottled water) can be naturally-occurring minerals and, in some cases, manmade contaminants. Water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, manmade contaminants. As water is delivered to our customers, it 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, agriculture, 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, agriculture, or mining.
- **Organic chemical contaminants**, such as 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.
- **Radionuclides**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Contaminants in water quality.

**WHAT IS NPWA DOING TO PROTECT WATER QUALITY?**

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

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 sediments or 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 meter 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. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply. In addition, the Authority continues to partner with other Bucks County water utilities in an effort to protect wells located in the groundwater supply.
Below is a list of contaminants which NPWA monitored for in 2010 but DID NOT DETECT:

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\begin{array}{llllll}
\text{Contaminant} & \text{Unit (Unit of Measure)} & \text{Viol. Yes/No} & \text{ActionResult} & \text{MCLG} & \text{MCL} \\
\text{Regulated Volatile Organic Compounds} & & & & & \\
1,1-Dichloroethane & ppm & No & 0.15 & 1.3 & \\
1,2-Dichloroethane & ppm & No & 0.15 & 1.3 & \\
1,1,2-Trichloroethane & ppm & No & 0.15 & 1.3 & \\
2,2-Dichloropropane & ppm & No & 0.15 & 1.3 & \\
Acetone & ppm & No & 0.15 & 1.3 & \\
Hydrogen Sulfide & ppm & No & 0.15 & 1.3 & \\
\text{Unregulated Contaminants} & & & & & \\
Barium & ppm & No & 0.15 & 1.3 & \\
Cadmium & ppm & No & 0.15 & 1.3 & \\
Copper & ppm & No & 0.15 & 1.3 & \\
Fluoride & ppm & No & 0.15 & 1.3 & \\
Lead & ppm & No & 0.15 & 1.3 & \\
Nickel & ppm & No & 0.15 & 1.3 & \\
Phenol & ppm & No & 0.15 & 1.3 & \\
Pesticides & ppm & No & 0.15 & 1.3 & \\
Silver & ppm & No & 0.15 & 1.3 & \\
\text{Microbiological Contaminants} & & & & & \\
Total Coliform Bacteria & CFU/100 mL & No & 0.15 & 1.3 & \\
Total Escherichia coli & CFU/100 mL & No & 0.15 & 1.3 & \\
\text{Unregulated Contaminants} & & & & & \\
Methylene (or methylene) biathy (MTBE) & ppm & No & 0.15 & 1.3 & \\
\end{array}
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