

# 2014 Annual Water Quality Report

## NEW OXFORD MUNICIPAL AUTHORITY

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### THIS REPORT CONTAINS IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.

Tradúzcalo o hable con alguien que lo entienda bien.

#### Consumer Confidence Report Rule

In 1996, Congress amended the Safe Drinking Water Act, adding a provision that requires all community water systems to deliver to their customers a brief annual water quality report. Final regulations were promulgated by EPA in 1998, known as the Consumer Confidence Report Rule, which established the requirements for these annual water quality reports. The deadline for distribution of the annual report is July 1st of every year, for the preceding calendar year.

#### Treatment of Drinking Water

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 EPA's Safe Drinking Water Hotline at (800) 426-4791 or by visiting EPA's website at [www.epa.gov/safewater](http://www.epa.gov/safewater).

Surface water withdrawn from the South Branch Conewago Creek is treated at NOMA's water treatment plant using conventional filtration. Treatment chemicals added include: activated carbon, DelPAC, chlorine, and permanganate. Chemical addition is necessary for organics removal, solids removal, disinfection, taste and odor control, and neutralization. Disinfection is necessary to inactivate microorganisms which are naturally present in the environment. The treated water is pumped to the storage tanks prior to distribution to customers.

#### NOMA Sources of Water

The water system, owned and operated by the New Oxford Municipal Authority (NOMA), is permitted under the Pennsylvania Safe Drinking Water Act and is identified as PWS ID No. 7010025.



The drinking water is drawn from the South Branch Conewago Creek, which is classified as a surface water source. As water travels over the surface of the land, it dissolves naturally occurring minerals and radioactive material and may pick up substances resulting from the presence of animals or from human activity.

NOMA maintains three finished water storage tanks. Two storage tanks, each with a capacity of 1,500,000 gallons, are located at the water treatment plant. An elevated tank, with a storage capacity of 200,000 gallons, is located on East Golden Lane.

#### Safety of Drinking Water

Some people may be more vulnerable to drinking water contaminants than the general population. Immuno-compromised persons, such as people 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 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 (800) 426-4791 or at [www.epa.gov/safewater](http://www.epa.gov/safewater).



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#### For More Information About Your Water:

*New Oxford Municipal Authority Board Meetings*

Fourth Tuesday of every other Month starting January.  
Meetings @ 7:00 PM

*Meeting Location Authority Office:*  
409 Water Works Road  
New Oxford

*Contact Person:*  
**Thomas Beamer**  
624-3893  
Public Water System  
ID# 7010025

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### Common Contaminants in Water

Contaminants that may be present in the 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 storm water runoff, industrial or domestic wastewater discharges, mining or farming.
- ☛ Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- ☛ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and which may also come from gas stations, urban storm water runoff and septic systems.
- ☛ Radioactive contaminants, which can be naturally-occurring or be the result of mining activities.



In order to ensure that tap water is safe to drink, EPA establishes regulations which limit the amount of certain contaminants in water provided by public water systems.

### Contaminants Detected in Your Water

The New Oxford Municipal Authority (NOMA) is pleased to report that the water that you drink has complied with all federal and state drinking water standards during 2014.

However, even with the best water treatment, it is not always possible to remove all contaminants. Earth and rock act as natural filters and remove many of these contaminants. NOMA tested for approximately 95 different contaminants during the past 5 years. Not all of these contaminants are required to be tested every year.

### Definitions of Terms



**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 disinfectant residual, in this case for Chlorine, that is allowed in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant residual in drinking water, in this case for Chlorine, below which there is no known or expected risk to health.

**Minimum Residual Disinfectant Level (Min. RDL):** The minimum level of residual disinfectant required at the entry point to the distribution system.

**Nephelometric Turbidity Unit (NTU):** Measure of turbidity which is the clarity of water.

**Parts Per Billion (ppb):** Unit of concentration equivalent to micrograms per Liter ( $\mu\text{g/L}$ ).

**Parts Per Million (ppm):** Unit of concentration equivalent to milligrams per Liter ( $\text{mg/L}$ ).

**Picocuries per Liter (pCi/L):** Measure of radiation.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

### SWAP Plan

A draft source water assessment and protection (SWAP) plan was prepared by the Susquehanna River Basin Commission (SRBC), on behalf of the Pennsylvania Department of Environmental Protection (DEP), for NOMA's water intake on the South Branch Conewago Creek. The purpose of SWAP plans is to determine potential sources of pollution that may impact public water supplies and the appropriate measures to be taken to protect such water supplies. The core assessment issues of the South Branch Conewago Creek Watershed include contamination from agricultural activities, urban runoff and industrial point sources. The final report is available from DEP upon request.



**Violation Notice**

In 2014, NOMA failed to collect and test a monthly treated water TOC sample during the required time period in July 2014. We were unable to calculate the TOC removal average for 2014, which resulted in a DEP violation. A violation also occurred in August 2014, when a chlorine analyzer stopped recording data. Most of the data was recovered, but was not submitted to DEP before the monthly deadline.

**TABLE OF CONTAMINANTS**

| Contaminants                        | MCL   | MCLG   | Test Value <sup>1</sup>                  | Major Sources in Drinking Water  |
|-------------------------------------|---|--------|--|--|
| <b>MICROBIOLOGICAL CONTAMINANTS</b> |   |        |  |  |
| Turbidity <sup>2</sup>              | Minimum 95% <0.3 NTU<br>Maximum = 1.0 NTU   | NA     | TT: Minimum 100%<br>Maximum : 0.26NTU    | Soil runoff.   |
| <b>MICROBIAL CONTAMINANTS</b>       |   |        |  |  |
| Total Coliform Bacteria             | <ul style="list-style-type: none"> <li>◆ For systems that collect &lt;40 samples/month:</li> <li>◆ More than 1 positive monthly sample</li> </ul> | 0      | 0 samples out of compliance No Violation | Naturally present in the environment   |
| <b>INORGANIC CONTAMINANTS</b>       |   |        |  |  |
| Fluoride                            | 2 ppm   | 2 ppm  | Maximum: 0.08 ppm (2011)                 | Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories. |
| Nitrate                             | 10 ppm  | 10 ppm | Result: 3.15 ppm                         | Erosion of natural deposits. Runoff from fertilizer use. Leaching from septic tanks & sewage.                              |
|                                     |   |        |  |  |

<sup>1</sup> Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.

<sup>2</sup> Turbidity is a measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**Using Water Efficiently: Ideas for Residences**

**Bathroom — where over half of all water use inside a house takes place:**

- ◆ Do not let the water run while shaving or brushing teeth.
- ◆ Take short showers instead of tub baths. Turn off the water while soaping or shampooing.
- ◆ If you must use a tub, close the drain before turning on the water and fill the tub only half full.
- ◆ Bathe small children together.
- ◆ Never use your toilet as a waste basket.

**Kitchen and Laundry — simple practices that save a lot of water:**

- ◆ Keep drinking water in the refrigerator instead of letting the faucet run until the water is cool.
- ◆ Wash fruits and vegetables in a basin. Use a vegetable brush.
- ◆ Do not use water to defrost frozen foods; thaw in the refrigerator overnight.
- ◆ Scrape, rather than rinse, dishes before loading into the dishwasher; wash only full loads.
- ◆ Add food wastes to your compost pile instead of using the garbage disposal.
- ◆ Wash only full loads of laundry or use the appropriate water level or load size selection on the washing machine.

| TABLE OF CONTAMINANTS   |   |                 |   |   |
|---|---|-----------------|---|---|
| Contaminants  | MCL   | MCLG            | Test Value <sup>1</sup>   | Major Sources in Drinking Water                                       |
| <b>LEAD AND COPPER RULE</b>   |   |                 |   |   |
| Copper  | AL = 1.3 ppm                                  | 1.3 ppm         | 90th Percentile: 0.16 ppm<br>Maximum: 0.38 ppm<br>0 in 20 samples exceeded the action level | Corrosion of household plumbing systems. Erosion of natural deposits. |
| Lead  | AL = 15 ppb                                   | 0 ppb           | 90th Percentile: 0.0 ppb<br>Maximum: 6.0 ppb<br>0 in 20 samples exceeded the action level   | Corrosion of household plumbing systems. Erosion of natural deposits. |
| <b>DISINFECTION BYPRODUCTS (DBPs), PRECURSORS AND DISINFECTANT RESIDUALS</b>  |   |                 |   |   |
| Free Chlorine   | MRDL = 4.0 ppm                                | MRDLG = 4.0 ppm | Range: 0.25- 0.52 ppm   | Water additive used to control microbes.                              |
| HAA5 <sup>4</sup>   | 60 ppb  | NA              | Maximum RAA: 38.6 ppb<br>Range: 19.0 - 86.0 ppb   | Byproduct of drinking water chlorination.                             |
| TTHM <sup>5</sup>   | 80 ppb  | NA              | Maximum RAA: 34.3 ppb<br>Range: 19.6 - 56.8 ppb   | Byproduct of drinking water chlorination.                             |
| TOC <sup>6</sup> - Source   | NA  | NA              | Average: 2.40 ppm<br>Range: 1.9 - 3.3ppm  | Naturally present in the environment.                                 |
| TOC - CFE <sup>7</sup>  | <u>TT: &lt;2.0 ppm</u><br>Minimum 35% Removal | NA              | <u>RAA: 1.70 ppm</u><br>Avg. Removal: 35.0%<br>Range: 27.3% - 42.9%                         | Naturally present in the environment.                                 |
| <b>SURFACE WATER TREATMENT RULE (SWTR)</b>  |   |                 |   |   |
| Free Chlorine   | Min. RDL = 0.2 ppm                            | NA              | Range: 0.21 - 1.98 ppm  | Water additive used to control microbes.                              |
| <sup>1</sup> Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.<br><sup>2</sup> NA represents Not Applicable.<br><sup>3</sup> RAA represents Running Annual Average.<br><sup>4</sup> HAA5 represents Total Haloacetic Acids.<br><sup>5</sup> TTHM represents Total Trihalomethanes.<br><sup>6</sup> TOC represents Total Organic Carbon.<br><sup>7</sup> CFE represents Combined Filter Effluent.<br><sup>8</sup> Secondary MCLs are not enforceable but are provided as guidelines. |   |                 |   |   |

#### Information about lead

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. New Oxford Municipal 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 the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

#### New Oxford Municipal Authority Board Members

| Position                             | Term Expires  |
|--------------------------------------|---------------|
| <u>Chairman:</u> John Spalding       | Dec. 31, 2015 |
| <u>Vice Chairman:</u> Stanley Wannop | Dec. 31, 2017 |
| <u>Secretary:</u> Tom Olshanski      | Dec. 31, 2018 |
| <u>Treasurer:</u> Albert Gallo       | Dec. 31, 2019 |
| <u>Personnel:</u> Guillermo L. Bosch | Dec. 31, 2016 |