



Board of Commissioners

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Water Resources Department**

**PORTAGE COUNTY WATER RESOURCES
SHALERSVILLE WATER SYSTEM**

"We have a current, unconditioned license to operate our water system"

2010 ANNUAL CONSUMER WATER QUALITY REPORT

Billing Information: 330-297-3670

Customer Service: 330-297-3685

24-Hour Number: 330-626-5283

This report is also available on our web site: www.portageco.com/waterresources.htm

Water Quality Exceeds Mark

Portage County Water Resources is committed to providing our customers with a safe and reliable supply of high quality drinking water. The water meets both state and federal standards for quality and safety. This annual "Consumer Confidence Report" required by the Safe Drinking Water Act, explains where your water comes from, what the tests show about it, and other things you should know about drinking water.

Water Source

The Shalersville Water Treatment Plant (WTP), which provides drinking water to the surrounding Shalersville Township, the City of Streetsboro, the City of Aurora, Ohio American Water, and as far South as portions of Franklin Township uses ground water wells as its drinking water source. The Shalersville Water Treatment Plant has 5 deep wells located on the treatment plant property. The plant produced an average of 2.52 million gallons of water per day in 2010. The Shalersville plant utilizes ion exchange softening units to soften the water from over 300 ppm down to about 150 ppm of hardness. In addition, measures have been taken to assure a constant water supply through agreements to purchase water from the City of Ravenna and the City of Cleveland water systems. Supplemental water was purchased from the City of Ravenna at an average of 0.20 million gallons per day. The City of Ravenna water system uses surface water drawn from Lake Hodgson. At present, there is an emergency connection to the City of Cleveland for back-up water to be used during line breaks and other emergencies; the water is drawn from Lake Erie. Both Cleveland and Ravenna are surface water suppliers and meet all state and federal standards. In the late summer of 2011 a new water main from the City of Cleveland will provide drinking water to the Shalersville system to assure we continue to provide an uninterrupted service of safe drinking water for our valued customers.



Source Water Protection

The sources of drinking water, for 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 can pick up substances resulting from the presence of animals or from human activity. The aquifer that supplies drinking water to the Shalersville area has a high susceptibility to contamination due to the sensitive nature of the aquifer in which the drinking water wells are located and existing potential known contamination sources. More information is available by calling the EPA at 1-800-963-1292. Portage County Water Resources vigilantly safeguards its ground water supplies. Future contamination may be avoided by implementing protective measures, and once again we are able to report that the department has never had a violation of a contaminant level or of any other water quality standard. 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 Environmental Protection Agency's Safe Drinking Water Hotline 1-800-426-4791). Contaminants which may become present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural or livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and Herbicides, which may come from a variety of sources, such as agriculture, urban storm runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which can come from industry, gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Portage County Water Resources has actively monitored the area around its well field for Thirty-Six (36) years to protect it from potential pollution. Ohio EPA has approved the Shalersville "Wellhead Protection Area Delineation" and has prepared a "Drinking Water Source Assessment" on the Shalersville well field area. This document can be found on our web site at www.portageco.com/waterresources.htm. There are presently no known sources of pollution affecting our ground water and we intend to use public education and regular monitoring to continually improve our protection program. We need the cooperation of everyone living and working in the area where our water originates to prevent contamination.

Special Information Available

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people and infants can be particularly at risk from infection. 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791). 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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

An Explanation of the Water Quality Data Tables

The following two (2) tables present the information on any regulated contaminant that was found to be present in any amount in the drinking water. Table A is for the water produced by the Shalersville WTP. Table B is for the water produced by the Ravenna WTP and purchased as supplemental water for the Shalersville system, normally in the northeastern portion of the County distribution system and during emergencies.



TABLE A
2010 Shalersville Treated Water Quality
Detected Contaminants

| Inorganic Contaminants | | | | | | | |
|--|--------------|---------|--------------|--------------------|-----------|--------------|--|
| Contaminant Units | MCL | MCLG | LEVEL FOUND | RANGE OF DETECTION | VIOLATION | YEAR SAMPLED | Sources of Contaminate |
| Fluoride (ppm) | 4 | 4 | 1.04 | 0.79-1.20 | NO | 2010 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer plants and aluminum factories |
| Copper (ppm) | AL = 1.3 | 1.3 | 0.650 90% | 0.190-0.670 | NO | 2010 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead (ppb) | AL= 15 | 0 | 2.5 90% | <2.0-3.4 | NO | 2010 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Sodium | NA | NA | 129.0 | 117-142 | NA | 2010 | Naturally occurring deposits |
| Barium (ppm) | 2 | 2 | 0.028 | NA | NO | 2010 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Iron (ppm) | NA | NA | 0.10 | 0.08 – 0.11 | NO | 2010 | Naturally occurring deposits |
| Manganese (ppm) | NA | NA | 0.04 | 0.03 – 0.050 | NO | 2010 | Naturally occurring deposits |
| Hardness (ppm) | NA | NA | 151.9 | 141.6-172.0 | NO | 2010 | Naturally occurring deposits |
| Phosphate | NA | NA | 0.20 | 0.20-0.40 | NA | 2010 | Naturally occurring deposits |
| Chlorides (ppm) | NA | NA | 57.9 | 45-64 | NA | 2010 | Naturally occurring deposits |
| Volatile Organic Contaminants | | | | | | | |
| Bromodichloro methane | NA | NA | 8.0 | NA | NA | 2010 | Byproduct of drinking water chlorination |
| Bromoform | NA | NA | 2.0 | NA | NA | 2010 | Byproduct of drinking water chlorination |
| Chloroform | NA | NA | 3.4 | NA | NA | 2010 | Byproduct of drinking water chlorination |
| Dibromochloro methane | NA | NA | 9.1 | NA | NA | 2010 | Byproduct of drinking water chlorination |
| HAA5 (ppb) HALOACETIC ACIDS | 60 ARA | 60 | 21.2 | 9.2-38.7 | NO | 2010 | Byproduct of drinking water chlorination |
| TTHM (ppb) Total Trihalomethanes | 80 ARA | 80 | 53.1 | 23.7-124.5 | NO | 2010 | Byproduct of drinking water chlorination |
| IDSE TTHMs (ppb) | | | | | | | |
| | NOT REQUIRED | | | | | | |
| IDSE HAA5 (ppb) | | | | | | | |
| | NOT REQUIRED | | | | | | |
| Total Chlorine (ppm) | MRDL = 4 | MRDLG=4 | 1.10 | 0.60 – 1.30 | NO | 2010 | Water additive to control microbes |



TABLE B
2010 Ravenna Treated Water Quality
Detected Contaminants

| Contaminant | Date Tested | Unit | MCL | MCLG | Detected Level | Range | Major Sources In Drinking Water | Violation |
|---|-------------|-------|--------|-------|----------------|------------|--|-----------|
| Inorganic Contaminants | | | | | | | | |
| Nitrate | 2010 | ppm | 10 | 10 | 0.42 | 0.11- 0.42 | Runoff from fertilizer, Leaching from septic tanks, Sewage; Erosion of natural Deposits | NO |
| Fluoride | 2010 | ppm | 4 | 4 | 1.02 | 0.77-1.05 | Erosion of natural deposits: Water additive. | NO |
| Copper | 2009 | ppm | 1.3 AL | 1.3 | 0.42 | 0-1.10 | Corrosion of household plumbing systems. | NO |
| No samples exceeded AL | | | | | 90%-0.42 | | Erosion of natural Deposits | |
| Lead | 2009 | ppb | 15 AL | 0 | 12.0 | 0 – 93 | Corrosion of household plumbing systems. | NO |
| No samples exceeded AL | | | | | 90%-12.0 | | Erosion of natural | |
| Barium | 2010 | ppm | 2 | 2 | 0.010 | N/A | Discharge of drilling wastes; Metal refineries or Erosion of natural deposits | NO |
| Cadmium | 2010 | ppm | 0.005 | 0.005 | <0.005 | N/A | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries & paints. | NO |
| Nickel | 2010 | ppm | 0.10 | 0.10 | <0.10 | N/A | Erosion of natural deposits; Discharge from electroplating, stainless steel, and alloy products; Mining & refining operations | NO |
| Chlorine, Total | 2010 | ppm | 4 | 4 | .96 | 0.2-2.2 | Water additive used to control microbes. | NO |
| Chlorite | 2010 | ppm | 1.0 | 0.8 | 0.99 | 0.00-0.99 | By-product of drinking water | NO |
| Microbiological Contaminants | | | | | | | | |
| Turbidity | 2010 | NTU | 0.3 | TT | 0.50 | 0.05-0.5 | Soil runoff | NO |
| 99% of the samples were Below the TT value of 0.3 | | | | | | | | |
| Total Coliform Bacteria | 2010 | 0 | 1 | 0 | 0 | NA | Naturally present in environment | NO |
| Total Organic Carbon (UV254) | 2010 | ppm | TT | N/A | 1.65 | 1.46-1.86 | Naturally present in the environment | NO |
| Radioactive Contaminant | | | | | | | Decay of natural & man made deposits | NO |
| Gross Alpha | 2010 | pCi/L | 15 | 0 | <3 | N/A | | |
| Radium 228 | 2010 | pCi/L | 5 | 0 | <1 | N/A | | |
| Volatile Organic Contaminants | | | | | | | | |
| Bromodichloromethane | 2010 | ppb | NA | NA | 14.0 | NA | Byproduct of chlorination | NO |
| Clorodibromomethane | 2010 | ppb | NA | NA | 2.1 | NA | Byproduct of chlorination | NO |
| Chloroform | 2010 | ppb | NA | NA | 42.0 | NA | Byproduct of chlorination | NO |
| Trihalomethanes | | | | | | | | |
| TTHMs(Total trihalomethanes) | 2010 | ppb | 80 ARA | 0 | 50.0 | 28.2-107.0 | Byproduct of chlorination | NO |
| Haloacetic Acids | | | | | | | | |
| Total Haloacetic acids | 2010 | ppb | 60 ARA | NA | 33.0 | 20.1-58.2 | Byproduct of chlorination | NO |



Lead and Copper Precautions

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. Shalersville Water System is responsible for providing high quality drinking water, but can not control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing for 30 seconds to 2 minutes before using water for drinking and 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 <http://www.epa.gov/safewater/lead>. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Disinfectants/Disinfection Byproducts Rule (D/DBPR)

Our public water system was not required to perform the new series of evaluations.

Customer Views Welcome

If you are interested in learning more about the water department and water quality or participating in the decision-making process there are a number of opportunities available. Questions about water quality can be answered by calling our Customer Service office at 330-297-3685. Inquiries about public participation and policy decisions can be made by calling the main office at 330-297-3670. The Board of Commissioners meetings are Tuesday and Thursday at 9:30 am and open to the public.

Additional Information and Relative Measurements

EPA considers 50 pCi/L to be the level of concern for Beta particles

Iron and manganese have only secondary maximum contaminant levels (SMCL):

SMCL for iron = 0.300 ppm

SMCL for manganese = 0.050 ppm

DEFINITIONS OF TERMS

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 maximum margin of safety.

Maximum contaminant level (mcl): the highest level of a contaminant that is allowed in drinking water. mcls are set as close to the mclg as feasible using the available treatment technology.

Maximum residual disinfectant level (mrcl): the highest residual disinfectant level allowed.

Maximum residual disinfectant level goal (mrclg): the level of residual disinfectant below which there is no known or expected risks to health.

Action level (al): the concentration of a contaminant, which if exceeded, triggers treatment or other requirements which a water system must follow.

Parts per million (ppm), or milligrams per liter (mg/l): are units of measure for concentration of a contaminant. A part per million corresponds to one second in 11.5 days.

Parts per billion (ppb) or micro grams per liter (ug/l): are units of measure for a contaminant. A part per billion corresponds to one second in 31.7 years.



The “<” symbol which means less than. A result of <5 means that the lowest level that could not be detected was 5 and the contaminant in that sample was not detected.

IDES: initial distribution system evaluation

ARA: annual running average

NA: not applicable

Picocuries per liter (pci/l) a measure of radiation

Millions of fibers per liter (mf/l): a measure of asbestos

USEPA: United States Environmental Protection Agency

EPA: Environmental Protection Agency

