



Annual WATER QUALITY REPORT

Reporting Year 2013

Presented By



PWS ID#: 5100094

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

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

Данный报 告含 蕊 有 重 要 的 信 息。请 将 它 翻 译 成 您 能 理 解 的 语 言，或 者 找 一 位 理 解 能 力 强 的 人 帮 您 翻 译。

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

この情報は重要です。
翻訳を依頼してください。

यह सूचना महत्वपूर्ण है।
कृपा करके किसी से सकां अनुवाद करायें।

此份有关你的食水报告，
内有重要资料和讯息,请找
他人为你翻译及解释清楚。

“هذا التقرير يحتوي على معلومات مهمة تتعلق ب المياه الجوفية (أو التربة).
ترجم التقرير، أو تكلم مع شخص يستطيع أن يفهم التقرير.”

Meeting the Challenge

We are pleased to present this annual water quality report, which covers all testing performed between January 1 and December 31, 2013. Over the years, our efforts have been focused on producing drinking water that satisfies all state and federal standards; the test results reported here confirm that those standards have been met. At the same time, we continually strive to adopt new methods for delivering the best-quality drinking water, some of which are described in this report. As new challenges to drinking water safety emerge, we will remain vigilant in meeting the goals of protecting our potable water supplies, conserving fresh water, and educating customers about their water service while continuing to serve the needs of our fast-growing community.

Community Participation

We encourage public involvement on issues concerning our water and wastewater systems. Meetings of the Cranberry Township Board of Supervisors are normally scheduled on the first and last Thursdays of each month at 6:30 p.m. in the Cranberry Township Municipal Center, 2525 Rochester Road, and public comment is always welcome. Check the Cranberry Township Web site (www.cranberrytownship.org) or call the Customer Service Center at (724) 776-4806 to confirm meeting times.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Pennsylvania DEP has a Web site (www.portal.state.pa.us/portal/server.pt/community/drinking_water_management/10543) that provides complete and current information on water issues in Pennsylvania, including valuable information about our watershed.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; **Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems; **Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

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. We are 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 www.epa.gov/safewater/lead.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

QUESTIONS?

We are always available to assist you with concerns about your water supply. For any questions relating to your drinking water, call Lorin F. Meeder, Cranberry Township Environmental Programs Coordinator, at (724) 776-4806, ext. 1176. This report, along with those from previous years, is posted online at www.cranberrytownship.org/WaterQualityReport. Printed copies of this report are also available upon request.

Where Does My Water Come From?

Our water comes from the Ohio River. Cranberry Township purchased its entire water supply, 839 million gallons last year, from West View Water, a municipal authority in Allegheny County. Cranberry has a state Allocation Permit to use up to 4.4 million gallons a day from the Ohio River as its source of drinking water, and we are still comfortably below that allocated level of use. The Township's water supply, which includes provisions for substantial growth over the coming decade, is secured through a long-term agreement with West View, and we are now its biggest customer.

Big Deal

Once again we are pleased to present you with this report card on the quality of Cranberry's water supply for 2013. As you will see from the data reported here, our water meets or surpasses every federal quality standard, and you can feel confident about using it for any purpose.

But quality is not our only concern about your water; so is quantity. As a growing community, our need for water will continue expanding for at least another 15 or 20 years. So we are happy to report that on May 1, we signed a new agreement with the West View Water Authority, our partner and sole supplier of fresh water, to provide us with water for the next 25 years, and to do so at their very lowest rate.

That's a huge benefit for a community like ours, especially when you look at so many others around the country whose future prospects are constrained by limited water availability. It means assuring a more robust, more flexible supply arrangement for the residents of Cranberry Township for decades to come.

But it is also a huge benefit to our partners at West View Water. That's because Cranberry is West View's single largest customer. Our agreement to buy water from them through 2039 provides the Authority with the financial security that allows them to move ahead with their capital improvement plan, one that will help secure the water that Cranberry residents and businesses will need for the future.

That capital improvement plan, which visualizes a second water production plant and a new transmission line to Cranberry a few years down the road, was not developed in isolation. For years now, Cranberry and West View have deliberately synchronized capital improvements to their water systems. And our new agreement ratifies the connection between those two capital plans, committing West View to the improvements required to make sure we get the water we need.

At the same time, Cranberry is continuing to upgrade and make incremental improvements to its own distribution system. Last year, for example, Cranberry added a new high-capacity pump station on Commonwealth Drive and a new 24-inch main along Executive Drive. Both projects were designed in close coordination with engineers from West View.

Every major land development project in the Township provides a new opportunity to enhance that system and to satisfy a key goal of our Master Plan: to provide reliable, affordable, high-quality water service to all of our customers. As a result, one of the top priorities for both the Township and the Authority is to improve and maintain our current water systems, keeping them in good repair for the long term. Part of that involves identifying leaks in our distribution lines.

Cranberry has contracted with a firm that checks our entire system for leaks twice a year. It has saved us well over \$100,000 in lost water every year since that arrangement began. Today our water loss (the difference in volume between the water we buy from West View and the water local customers are billed for) is under five percent, which is less than half of what most Western Pennsylvania communities experience.

So while we are blessed to be in a region of the country with abundant water resources, we are keenly aware that protecting this asset and making high-quality water available to all our residents for generations to come will continue to require vigilance, hard work, and significant capital investment. We think our new contract with West View will help us achieve that goal, which is a truly big deal.

Water Treatment Process

Before water arrives in Cranberry, it undergoes a series of treatments at the West View Water Authority's plant on Neville Island. After screening at the plant's intake, the water goes through a mixing chamber where treatment chemicals coagulate unwanted particles. Those particles then settle to the bottom in a clarifier tank, followed by activated carbon filtration to remove any remaining particles, odors, colorants, or anything else affecting its taste. Then a disinfectant is added to kill bacteria, the water passes through an ultraviolet light disinfection system, fluoride is added, and its pH level is stabilized with sodium hydroxide before powerful pumps send the water on its way to Cranberry.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES									
				Cranberry Township		West View Water Authority			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2013	2	2	NA	NA	0.03	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines [Distribution] (ppm)	2013	[4]	[4]	0.89	0.25–1.28	0.93	0.68–0.93	No	Water additive used to control microbes
Chloramines [Entry Point] ¹ (ppm)	2013	MinRDL: SW=0.2/ GW=0.4	NA	0.748	0.33–1.2	0.63	0.63–1.19	No	Water additive used to control microbes
Chlorine [Distribution] (ppm)	2013	[4]	[4]	1.03	0.1–1.5	1.65	0.62–1.65	No	Water additive used to control microbes
Chlorine [Entry Point] ¹ (ppm)	2013	MinRDL: SW=0.2/ GW=0.4	NA	1.23	0.125–2.2	1.0	1.0–2.03	No	Water additive used to control microbes
Fluoride (ppm)	2013	2	2	NA	NA	0.5	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2013	60	NA	14.72	5.07–27.31	14.2	7–28	No	By-product of drinking water disinfection
Nitrate (ppm)	2013	10	10	NA	NA	0.8	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2013	1	1	NA	NA	<0.01	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2013	80	NA	69.03	28.6–102.06	46.1	25.3–71.9	No	By-product of drinking water disinfection
Total Organic Carbon (% removal)	2013	TT	NA	NA	NA	35%	31%–76%	No	Naturally present in the environment
Turbidity ² (NTU)	2013	TT	NA	NA	NA	0.09	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2013	TT=95% of samples <0.3 NTU	NA	NA	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.03	0/16	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	0	0/16	No	Corrosion of household plumbing systems; Erosion of natural deposits

¹The amount-detected values for chloramines [entry point] and chlorine [entry point] represent the lowest levels that were detected.

²Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

GW: Groundwater source.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

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

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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SW: Surface water source.

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