

*Annual*  
**WATER  
QUALITY  
REPORT**

*Reporting Year 2012*



*Presented By*



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

PWS ID#: 510094

## Here When You Need Us

We are pleased to present this annual water quality report, which covers all testing performed between January 1 and December 31, 2012. 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.

For any questions relating to your drinking water, call Lorin Meeder, Cranberry Township Environmental Programs Coordinator, at 724-776-4806, ext. 1176.

## 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 Thursday 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](http://www.cranberrytownship.org)) or call the Customer Service Center at 724-776-4806 to confirm meeting times.

## Where Does My Water Come From?

Our water comes from the Ohio River. Cranberry Township purchased its entire water supply – 867 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.

## 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>.

## Water Main Flushing

Distribution mains (pipes) convey water to the homes, businesses, and hydrants in your neighborhood. The water which goes into those distribution mains is of very high quality; but over time, water quality can deteriorate in areas of the pipeline distribution system. Water main flushing is the technique of cleaning the interior of water distribution lines by sending a rapid flow of water through those mains. Cranberry flushes its entire water system every year.

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

During flushing operations in your neighborhood, some short-term deterioration of water quality is possible. You should avoid using tap water for cooking or cleaning at those 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 keep sediment from accumulating 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.

## Keeping Ahead of the Curve

Dear fellow Cranberry resident:

Once again this year, we're delighted to inform you that the results of our federally mandated water quality study confirm that the water delivered to your home here in Cranberry meets or surpasses all U.S. standards for safeguarding human health. The details of those tests appear in this report, but their bottom line is that you can continue to have confidence in the quality of your municipal water supply.

But those results shouldn't be taken for granted. For one thing, the standards keep getting more demanding; water that would have been perfectly acceptable ten years ago, wouldn't necessarily make the grade today. So we've been investing in new technologies, and expanding our capabilities, to enable us to keep ahead of both rising standards, rising demand, and emerging threats to the water supply.

For example, West View Water Authority, our sole supplier of drinking water, changes its disinfectant chemistry depending on the season. There's a good reason for that, but one of the unintended consequences is that in warm weather, unhealthy chlorine by-products, referred to as THMs, can accumulate in pockets of the delivery system – particularly where the water is relatively slow moving.

So this past year, we installed a power mixer into our biggest storage tank to stir things up and keep the water circulating. We refined our practices concerning the filling and draining schedules of all three storage tanks. And we continue to flush the distribution lines throughout our entire system every year. But this past year, we did something more; we bought several auto-flushers – clock-driven devices which attach to fire hydrants at the farthest points in the system – and then flush them on a daily basis to reduce the level of THMs which accumulate there.

We're also addressing the increased demand for fresh water prompted by our continuing growth. At the end of last year, we completed a new \$2.3-million pump house in Thorn Hill Industrial Park. It replaces an aging, but smaller pumping station nearby, and it is designed to deliver the volume which will be needed by the time Cranberry becomes fully built-out in another 20 years or so. We're also starting construction on a new 24-inch water line which will link the Township's two main delivery circuits and provide enough water to meet rapidly growing residential and commercial needs in the northern areas of our Township.

In addition, we've acquired a valve maintenance trailer which is being used to make sure our water shut-off valves, which are located at thousands of junctures throughout the system, remain in good working order. That means any line repairs can be handled quickly and with a minimum of service disruption or water damage to nearby homes and businesses.

What all of it demonstrates is that we're not taking the good results of our water study for granted. A system serving a fast-growing community like ours requires constant attention, care, and new investment to continue providing the level of service our residents have a right to expect.

Cranberry Township Board of Supervisors



## 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, 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 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 can 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.



## 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.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

### NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

### ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.



## Lead in Home Plumbing

There are no homes in Cranberry equipped with water pipes containing lead, although the plumbing in homes built before 1987 may have used solder containing lead as well as faucet parts made with small amounts of lead. However, if lead were present – as it is in some older communities in the region – elevated levels could cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with the service lines and interior plumbing of older homes. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in household plumbing components decades ago. If you are unsure whether there is lead in your water, you may wish to have your home water tested. To minimize the potential for lead exposure in homes where it may be present, particularly if it has been sitting in your pipelines for more than several hours, you can flush the tap for one or two minutes before using the water for drinking or cooking. 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](http://www.epa.gov/safewater/lead).

## Sampling Results

During the past year, we took hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants which were detected in the water. The state requires us to monitor for certain substances less 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)	2012	2	2	NA	NA	0.044	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines [Distribution] (ppm)	2012	[4]	[4]	NA	NA	0.92	0.72–0.92	No	Water additive used to control microbes
Chloramines [Entry Point] <sup>1</sup> (ppm)	2012	MinRDL=0.2	NA	NA	NA	0.49	0.49–1.36	No	Water additive used to control microbes
Chlorine [Distribution] (ppm)	2012	[4]	[4]	1.07	0.13–2.12	1.52	0.56–1.52	No	Water additive used to control microbes
Chlorine [Entry Point] <sup>1</sup> (ppm)	2012	MinRDL=0.2	NA	NA	NA	1.12	1.12–2.46	No	Water additive used to control microbes
Fluoride (ppm)	2012	2	2	NA	NA	0.7	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 (ppb)	2012	60	NA	17	9–28	9.1	8.8–25.7	No	By-product of drinking water disinfection
Nitrate (ppm)	2012	10	10	NA	NA	1.0	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2012	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)	2012	80	NA	57	26–122	17.1	31.2–64.8	No	By-product of drinking water disinfection
Total Organic Carbon (% removal)	2012	TT	NA	NA	NA	NA	30–49	No	Naturally present in the environment
Turbidity <sup>2</sup> (NTU)	2012	TT	NA	NA	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2012	TT	NA	NA	NA	NA	NA	No	Soil runoff

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

				Cranberry Township		West View Water Authority <sup>3</sup>			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	0.061	0/30	0.18	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2010	15	0	ND	0/50	11	5/50	No	Corrosion of household plumbing systems; Erosion of natural deposits

<sup>1</sup> The amount-detected value represents the lowest level that was detected.

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

<sup>3</sup> Sampled in 2012.

## Definitions

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

**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).

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