



ANNUAL  
WATER  
QUALITY  
REPORT

*Water testing performed in 2008*



PWS ID#: 5100094

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

## Flushed with Success

We are pleased to present you with our annual water quality report for 2008. As you will see from the test results reported inside, Cranberry's drinking water once again meets or exceeds every state and federal standard. As a result, you should feel confident about using it for every purpose. At the same time, however, maintaining a first-rate water system requires constant change. That is particularly true for a fast-growing community like Cranberry Township during a time when new challenges to drinking water purity and availability keep surfacing. In response, we are constantly implementing new and better ways of delivering high-quality drinking water and of educating our customers about conserving and protecting their precious water supply.

Please share your thoughts with us about the information in this report; well-informed customers are our best allies.

## 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.

## Where Does My Water Come From?

Our water comes from the Ohio River. Cranberry Township purchases its entire water supply – 880 million gallons last year – from West View Water, a municipal authority in Allegheny County. Cranberry received a state Allocation Permit to use the Ohio as its source of drinking water. 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 their biggest customer.

Before the water arrives in Cranberry, it undergoes a series of treatments at West View'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 settle to the bottom in a clarifier tank, which is the next step, followed by activated carbon filtration to remove any remaining particles, odors, colorants, or anything else affecting its taste. Finally, 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.

## Do you mind if we get fresh?

Cranberry's 18-year old west water tower – which rises more than 200 feet above ground – got something of a makeover last year. For one thing, it got repainted. And while it looks much nicer now, painting a water tank is more than cosmetic.

The primer and paint used on the million-gallon tank are specially formulated and approved by the American Water Works Association to come into contact with drinking water. Unlike a gallon of house paint, which typically costs about \$20, the price for this coating is around \$100. Inside the tank, 46 tons of sand were required to blast the old paint off. Altogether, it took a specialized five-member crew nearly 12 weeks to complete the work.

If you happened to look in the direction of the tower one Saturday morning about halfway through that painting project, you might have seen a helicopter hovering above it. The helicopter's mission was to airlift a 600-pound static mixer to the top of the tank for installation. The mixer now keeps the water circulating inside. It is part of a system-wide effort to make sure that the water you drink is as fresh as possible in order to reduce the formation of disinfection byproducts.



There are several aspects to that undertaking. One is maintenance. In addition to periodically repainting the water storage tanks, Cranberry's Public Works Department flushes the entire 170 mile water distribution system every year to get any sediment out of the pipelines. It's a three-month process, but it keeps the system flowing at full capacity and rids it of any unwanted solids which may have settled in the lines.

Throughout the year, the Township checks its system for any leaking pipes, valves, hydrants or other components where water loss could reduce line pressure, create waste, or cause collateral damage. When leaks are discovered, repairs are immediate. They include, in some cases, the replacement of entire pipeline sections made of cast iron or other materials which were popular prior to 1970, but are no longer used for that purpose because they are brittle and degrade the water they carry.

The other part of our initiative is that starting this summer, the water that Cranberry buys from its supplier, the West View Water Authority, will use a longer-lasting form of chlorination as a disinfectant. The goal is to reduce the formation of potentially harmful byproducts of disinfection during the warm weather months. So in addition to moving the water more quickly from its source into your home, the treatment method will help it retain freshness and purity throughout its journey to you.

**Cranberry Township Board of Supervisors**

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call Lorin F. Meeder, Environmental Programs Coordinator, at 724-776-4806, ext. 1176.

## 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 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.

## Community Participation

We encourage public participation 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. Check the Cranberry Township Web site ([www.cranberrytownship.org](http://www.cranberrytownship.org)) or call the Customer Service Center at 724-776-4806, ext. 5, to confirm meeting times. Your input is always welcome.



### What makes water Hard?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water does not dissolve soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water. Cranberry's water has 6 to 8 grains of hardness.

### Is it safe to drink water from a garden hose?

Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you nor are they good for your pets. Allow the water to run for a short time in order to flush the hose before drinking or filling your pets' drinking containers. However there are hoses made with "food-grade" plastic that will not contaminate the water. Check your local hardware store for this type of hose.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for Cranberry's tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at [www.nrdc.org/water/drinking/bw/exesum.asp](http://www.nrdc.org/water/drinking/bw/exesum.asp).

## Lead and Drinking Water

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 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](http://www.epa.gov/safewater/lead).



## 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 table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present 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 Distribution System		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
<b>Haloacetic Acids [HAA]</b> (ppb)	2008	60	NA	0.0167	14.5–20.4	9.1	4.3–11.2	No	Byproduct of drinking water disinfection
<b>Nitrate</b> (ppm)	2008	10	10	NA	NA	0.77	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2008	80	NA	72	59–87	53.7	17.8–84.7	No	Byproduct of drinking water chlorination
<b>Total Organic Carbon</b> (removal ratio)	2008	TT=35%	NA	NA	NA	NA	36–58	No	Naturally present in the environment
<b>Turbidity<sup>1</sup></b> (NTU)	2008	TT=1	NA	NA	NA	0.09	ND–0.09	No	Soil runoff
<b>Turbidity</b> (Lowest monthly percent of samples meeting limit)	2008	TT	NA	NA	NA	100	NA	No	Soil runoff

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

				Cranberry Township		West View Water Authority			
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
<b>Copper</b> (ppm)	2007	1.3	1.3	0.19	0/30	0.1	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
<b>Lead</b> (ppb)	2007	15	0	ND	0/30	3.2	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits

## 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.

**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).

**removal ratio:** A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

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

