

# City Of Defiance Water Department

## 2002 Annual Water Quality Report

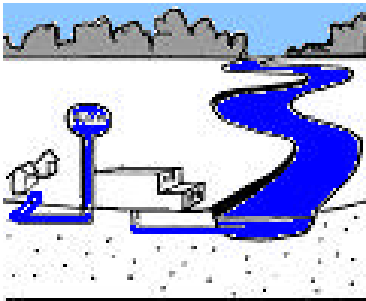
### What's Inside?

This Report outlines the processes involved in delivering to you the highest quality drinking water available. In it, we will answer three important questions:

- ✓ Where does my water come from?
- ✓ How do I get involved?
- ✓ What is in my drinking Water?

### Your Water, Our Profession

The City of Defiance is once again proud to present to you our annual water quality report. Over the years, we have dedicated ourselves to producing drinking water that meets or exceeds state and federal drinking water standards. We continually strive to adopt new and better methods of delivering the best quality drinking water to you. As regulations and drinking water standards change, we will endeavor to incorporate these changes and continue providing the best water quality possible.



### Where Does My Water Come From?

Defiance uses surface water from the Maumee River and the Upper Maumee Watershed. An

estimated 57% of Ohio's population gets its drinking water from surface water sources. Currently, the water plant pulls water directly from the river and into the plant.

Occasionally, such as periods off high rain, large amounts of silt and other contaminants such as Nitrates can be washed into the river making the water hard to treat. To correct this problem, the City of Defiance will be constructing a reservoir, which can be used as a pretreatment basin or as an alternate source of supply. This will help the water plant to provide better quality water and should eliminate problems such as nitrates in the future.

### Do I Need to Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 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 (CDC) guidelines on appropriate means to lessen the risk of infection by Crypto-sporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### What are sources of contamination to drinking water?

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

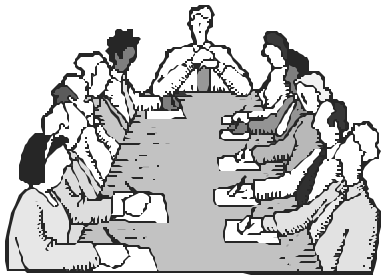
(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plant, septic systems, agricultural livestock operation, and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial 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 water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from 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.

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.

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).

### How Do I Get Involved?

You are invited to attend the City Council meetings to voice your concerns about your drinking water. City Council meetings are open to the public and are held at the City Services Building at 631 Perry Street on Tuesdays at 7:30 pm.



You can also help by keeping the streams and rivers clean and reporting any potential spills or pollution sources. Accidental or unauthorized releases of contaminants to the air, land or water such as spills, releases, intentional dumping or emissions can be

reported to Ohio EPA 24-hour EMERGENCY RESPONSE hotline at 800-282-9378. You can also call the Water Treatment Plant at 419-782-1886.

### About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The City of Defiance Water Department conducted sampling for bacteria, inorganic, radiological, and volatile organic contaminate sampling during 2002. Samples were collected for a more than 100 different contaminants, most of which were not detected in our water supply. Listed on the chart below is information on those contaminants that were found in the City of Defiance water.

During the month of December, the City of Defiance Water Department released a notice on high Nitrate levels. Also during the fourth quarter of 2002, we exceeded the MCL for Trihalomethanes (TTHMs). The Water Department is taking steps to avoid these problems in the future, including the construction of a reservoir basin for pretreatment of the source water.

### Specific Contaminant Information.

Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Some people who drink water containing fluoride well in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled or discolored teeth.

Some people who drink water containing Trihalomethanes (TTHMs) in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Presently the water department is investigating options to ensure that future violations do not occur. These options include treatment chemical changes, operational improvements and the construction of an up-ground reservoir for pretreatment.

### Need More Information?

For more information on water in Defiance or to schedule a group tour, please contact:

Richard J. Kipp  
Water Superintendent  
1356 Baltimore  
Defiance, Ohio 43512  
Ph: 419-782-1886  
[rkipp@cityofdefiance.com](mailto:rkipp@cityofdefiance.com)

For more information about water related issues, please visit the following sites online:

City of Defiance at:  
[www.cityofdefiance.com](http://www.cityofdefiance.com)

Ohio EPA Division of Drinking and Ground Water at:  
<http://www.epa.state.oh.us/ddagw/ddagwmain.html>

Or the American Water Works Assoc., consumer information page at:  
<http://www.awwa.org/Advocacy/learn/>

## Water Conservation Tips.

Conservation is an important first step in preserving our water supply. Using these measures can also save you money by reducing your water and sewer bills. Here are a few suggestions.

Indoors:

- Fix leaking faucets, pipes, and toilets.

- Install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let water run while shaving or brushing teeth.
- Run the dishwasher only when full.

Outdoors:

- Water the lawn and garden in the early morning or evening to prevent evaporation.
- Use mulch around plants and shrubs.
- Use water from a bucket to wash your car and save the hose for rinsing.

## Definitions of Some Terms Found Within This Report.

**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 Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

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

**Parts per Million (ppm):** Units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days.

**Parts per billion (ppb):** Units of measure for concentration of a contaminant. A part per billion corresponds to one second in approximately 31.7 years.

2002 TEST RESULTS FOR CITY OF DEFIANCE WATER DEPARTMENT							
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violation Yes/No	Year Sampled	Typical Sources of Contaminants
<b>Microbiological Contaminants</b>							
Turbidity (NTU)	N/A	TT	0.38	0.2-0.38	No	2002	Soil Water Runoff
Turbidity (% Samples meeting standard)	N/A	TT=95%	100%	100%	No	2002	
<b>Inorganic Contaminants</b>							
Copper (ppb)	1.3	AL = 1.3	0.51	0-1.1	No	2001	Corrosion of household plumbing systems; Erosion of natural deposits.
Fluoride (ppm)	4	4	1.03	0.38-1.25	No	2002	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead (ppb)	0	AL = 15	N/D	N/D	No	2001	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (ppm)	10	10	13.1	0.3-19.5	Yes	2002	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Synthetic Organic Contaminants including Pesticides &amp; Herbicides</b>							
Atrazine (ppb)	3	3	2.4	0.0-12.2	No	2002	Runoff from herbicide used on row crops.
Alachlor (ppb)	0	2	0.0	0.0	No	2002	Runoff from herbicide used on row crops.
Simazine (ppb)	4	4	0.7	0.0-4.2	No	2002	Herbicide runoff.
<b>Volatile Organic Contaminants</b>							
Total Trihalomethanes (TTHM) (ppm)	N/A	0.08	0.081	.05-.116	Yes	2002	By-product of drinking water chlorination
Bromodichloromethane (ppm)	N/A	N/A	6.5	6.5	No	2002	By-product of drinking water chlorination
Chloroform (ppm)	N/A	N/A	19.0	19.0	No	2002	By-product of drinking water chlorination