



## *2007 Annual Drinking Water Quality Report* *Village of Oostburg*

### Our Mission

The Oostburg Municipal Water Department strives to provide safe and sufficient water to enhance and sustain our vibrant community. Our goal is to furnish you with the best possible water at the lowest possible price. We continually surpass all state and federal health and safety standards while providing water at a cost of less than a quarter of a penny per gallon.

### The 2007 Water Quality Report

As a service to our customers, we are pleased to provide you with this annual water quality report for 2007. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually protect our water resources. We are committed to ensuring the quality of your water.

Tri-monthly tests are performed throughout the distribution system to look for indicator organisms called coliform bacteria. If these bacteria are detected, there may be a potential for harmful organisms also to be present. Last year we collected 36 samples to monitor for this condition. There have been no unsafe sample results since 1990. This is a very good record.

### Health Information

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 (800-426-4791).

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/CD guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

### Source of Water Supply

The water we use in the village is drawn from the Niagaran Dolomite Aquifer. This aquifer is overlain by 130 to 165 feet of glacial drift. We currently have three wells in the village that pump water from this aquifer into our system. Well #1 that is located at 324 N. 9<sup>th</sup> Street is 275 feet deep and can pump 400 gallons a minute into the system. Well #2 is located at 513 Center Ave., is 360 feet deep and can pump 430 gallons a minute. Well #3 is located at 538 S Business Park Drive, is 353 feet deep and can pump 400 gallons a minute. All the wells are computer controlled, and have the ability to be run by a portable generator in an emergency with well #3 having a dedicated generator set installed.

### Water Storage Capacity

The water that is pumped from the wells is stored in the system mains and two reservoirs. In 2007 the village was serviced by 95,648 feet of water main with 1,118 water services connected to it. Pressure for the system is supplied by two reservoirs. The main reservoir is an elevated steel storage tank of 250,000-gallon capacity. It provides pressure to the system through the gravitational pull on the water stored 143 feet high. The second reservoir is a concrete reservoir at well #1 with a capacity of 60,000 gallons. It is stored mostly below ground level and provides pressure to the system by pumping the water into the mains at 420 gallons per minute as needed. These systems are all computer controlled.

### Educational Information

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:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
5. 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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

## Number of Contaminants Required to be Tested

This table displays the number of contaminants that were required to be tested in the last five years. The Consumer Confidence Report may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the Consumer Confidence Report. If testing is done less frequently, the results shown on the Consumer Confidence Report are from the past five years.

Contaminant Group	# of Contaminants
Inorganic Contaminants	16
Disinfection Byproducts	1
Unregulated Contaminants	4
Microbiological Contaminants	2
Volatile Organic Contaminants	21
Synthetic Organic Contaminants including Pesticides and Herbicides	23

## 2007 SUMMARY OF WATER TEST RESULTS

(the following results were taken from the most recent water sample testing on each given item)

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
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### Disinfection Byproducts

HAA5	N	3	ppb	60	60	
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### Inorganic Contaminants

Antimony	N	.1	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	6	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	.044	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	N	.10	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	N	.0	ppb	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Chromium	N	1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper	N	.125	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	.9	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	13	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Mercury	N	.4	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel	N	2.9000	ppb	0.00	100	Erosion of natural deposits
Sodium	N	47.80	ppm	n/a	n/a	Erosion of natural deposits
Thallium	N	.1	ppb	.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

### Unregulated Contaminants

Bromodichloromethane	N	3.87	ppb	n/a	n/a	n/a
Bromoform	N	.45	ppb	n/a	n/a	n/a
Chloroform	N	3.67	ppb	n/a	n/a	n/a
Dibromochloromethane	N	2.93	ppb	n/a	n/a	n/a

### Volatile Organic Contaminants

Dichloromethane	N	.2	ppb	0	5	Discharge from pharmaceutical and chemical factories
TTHM	N	16.4	ppb	0	80	By-product of drinking water chlorination

## Definitions

Term	Definition
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.
MFL	Million fibers per liter
mrem/year	Millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	Picorcuries per liter (a measure of radioactivity)
Ppm	Parts per million or milligrams per liter (mg/l)
Ppb	Parts per billion, or micrograms per liter (ug/l)
Ppt	Parts per trillion, or nanograms per liter
Ppq	Parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

## Additional Health Information

While your drinking water meets USEPA's standard for arsenic, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## Taste and Odor

Our water supply, coming from an aquifer deep in the ground, is rich in solids consisting mostly of minerals. These minerals dissolve over time and become part of the water supply. This can result in occasional water complaints, but are not harmful for consumption or health.

At times our water customers have reported "brown" or "rust colored" water. This is due to the high iron content of our water supply, resulting in iron particles settling on the surfaces of the water mains and household water pipes. This condition is most noticeable when there is rapid water movement through the mains such as when there is a water main break, which stirs these particles and suspends it in the water supply until it can settle again. While this occurrence may be unpleasant, it is not harmful for consumption. In 2000, the Village of Oostburg began adding silicates to the water supply in an effort to control the rust color in the water. This may take several years to take effect.

Occasionally we get reports on a "sulfur smell" or "rotten egg smell" in the water. This can be caused by the sulfate content of our water. This is often most noticeable on hot water from the water heater. Routine flushing of the water heater can help reduce this problem. Currently the Village of Oostburg is adding Chlorine to the water supply in an attempt to improve this problem.

The Village of Oostburg currently has numerous dead ends in the water distribution system. These dead ends do not get the system wide water flow that "looped" mains get; therefore higher levels of these solids have a chance to settle in the mains. To help with this problem, waterworks personnel flush all hydrants (to stir up and wash out settled solids), including dead ends, twice per year.

## So What Does It Mean?

As you can see by the water analysis table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. The EPA has determined that **YOUR WATER IS SAFE** at these levels.

## Conclusion

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at the Village of Oostburg work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. If you have any questions about this report or concerning your water utility, please contact Roger Oonk, Director of Public Works (564-3844) or Jill E. Ludens, Clerk/Treasurer (564-3214). We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings. They are held on the second Monday of every month at the Oostburg Municipal Office, 927 Center Ave., Suite 4 (back of building), Oostburg, at 7:00PM.