

# Report on Drinking Water Quality

## 2008 Consumer Confidence Report for

### DELAFIELD WATERWORKS

#### Water System Information

If you would like to know more about the information contained in this report, please contact Paul Zellner at (262) 646-6225- Ext. 802.

#### Customer Questions ?

If you would like to learn more, please attend any of our regularly scheduled meetings. The Common Council meets on the 1<sup>st</sup> and 3<sup>rd</sup> Monday of each month at 7:00 P.M. The Public Works Committee meets on the 1<sup>st</sup> Wednesday of each month at 6:30 P.M. All meetings are held in the Council Chambers at the Delafield City Hall located at 500 Genesee Street.

#### 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 systems 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/CDC 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(s) of Water

Source id	Source	Depth (in feet)	Status
1	Groundwater	1215	Active
2	Groundwater	220	Active

To obtain a summary of the source water assessment please contact Paul Zellner at 262-646-6225-ext. 802

## 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:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 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.
- 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 can also come from gas stations, urban stormwater runoff and septic systems.
- 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 CCR 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 CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

<b>Contaminant Group</b>	<b># of Contaminants</b>
Disinfection Byproducts	2
Inorganic Contaminants	16
Microbiological Contaminants	1
Radioactive Contaminants	3
Synthetic Organic Contaminants including Pesticides and Herbicides	23
Unregulated Contaminants	4
Volatile Organic Contaminants	20

## Disinfection Byproducts

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2008)	Violation	Typical Source of Contaminant
TTHM (ppb)	80	0	.2	.2	08/14/2007	NO	By-product of drinking water chlorination

## Inorganic Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2008)	Violation	Typical Source of Contaminant
ARSENIC (ppb)	10	n/a	5	nd- 5		NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (ppm)	2	2	.110	.047-.110		NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CADMIUM (ppb)	5	5	.2	nd- .2		NO	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
CHROMIUM (ppb)	100	100	2	1- 2		NO	Discharge from steel and pulp mills; Erosion of natural deposits
COPPER (ppm)	AL=1.3	1.3	.243	0 of 5 results were above the action level.		NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
FLUORIDE (ppm)	4	4	.4	.2- .4		NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

LEAD (ppb)	AL=15	0	5.00	0 of 5 results were above the action level.		NO	Corrosion of household plumbing systems; Erosion of natural deposits
NICKEL (ppb)	100		1.6000	1.5000-1.6000		NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)	10	10	.10	nd- .10		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)	n/a	n/a	5.50	5.10-5.50		NO	n/a

## Radioactive Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2008)	Violation	Typical Source of Contaminant
COMBINED URANIUM (ug/l)	30	0	0.4	-1.0- 0.5		NO	Erosion of natural deposits
GROSS ALPHA, INCL. R & U (n/a)	n/a	n/a	9.3	0.7- 9.3		NO	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)	5	0	6.2	.6- 6.2		NO*	Erosion of natural deposits

\*Historically the Combined Radium levels have exceeded the MCL of 5. In an effort to reduce the Combined Radium levels to an acceptable level. The City of Delafield Water Utility began blending water from a new well (well # 2) located in the north east quadrant of the City, with well # 1 located in the south east quadrant of the City in November of 2007. This blending operation will reduce the radium levels below the maximum contaminant levels in the distribution system.

## Unregulated Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2008)	Violation	Typical Source of Contaminant
CHLOROFORM (ppb)	n/a	n/a	.24	.24	08/14/2007	NO	n/a

## Definition of Terms

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	picocuries 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.