

# Village of Wheeling

## 2010 Annual Drinking Water Quality Report

### January 1, 2010 to December 31, 2010

#### WHAT IS THE WATER QUALITY REPORT?

The Annual Water Quality Report, also known as the Consumer Confidence Report, is an annual report required by the Safe Drinking Water Act (SDWA). This report is intended to provide citizens with important information about the Village's drinking water and efforts made by the water system to provide safe drinking water. The report provides facts, violations (if applicable) and contaminants identified in the water drinking supply during the calendar year of January 1, 2010 through December 31, 2010.

The source of drinking water used by the Village of Wheeling is purchased surface water. The Village of Wheeling receives water from Lake Michigan through the Northwest Water Commission, which in turn receives water from the City of Evanston which utilizes three water cribs, or intakes, located over a mile offshore in Lake Michigan.

The Village of Wheeling is committed to providing all consumers with safe and reliable drinking water. The Village is happy to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded for 2010. For more information regarding this report, please contact Casey Wennerstrom, Utility Foreman, at 847.279.6923, or by email at [dwennerstrom@wheelingil.gov](mailto:dwennerstrom@wheelingil.gov) or Jeff Wolfgram, Water Operator, at 847.279.6928 or by email at [jwolfgram@wheelingil.gov](mailto:jwolfgram@wheelingil.gov).

*Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.*

#### SOURCES OF 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 water include:

- 1 Microbial contaminants, such as viruses and bacteria, which can come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- 1 Inorganic contaminants, such as salts and metals, which may be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- 1 Pesticides or herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off and residential uses;
- 1 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 run-off and septic systems;
- 1 Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

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 (EPA) Safe Drinking Water Hotline at 800.426.4791.

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 protections for public health.

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 from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline: 800.426.4791.

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 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 <http://www.epa.gov/safewater/lead>.

#### SOURCE WATER ASSESSMENTS

The Village of Wheeling wants customers to be informed about water quality and encourages public participation at Village Board meetings with decisions that may affect the quality of water. The Village Board meets every first and third Monday of the month at 6:30 p.m. at Village Hall, 2 Community Boulevard, Wheeling, IL 60090. The source water assessment for the Village's supply has been completed by the Illinois Environmental Protection Agency (IEPA). If you would like a copy of this information, please contact our Utility Foreman at 847.279.6923 or our Water Operator at 847.279.6928. To view a summary version of the completed Source Water Assessment, including Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, please access the IEPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

**SOURCE WATER ASSESSMENTS CONTINUED...**

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intakes with no protection only dilution, which is the reason for mandatory treatment of all surface water supplies in Illinois. All three of Evanston's intakes are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes. Water supply officials from Evanston are active members of the West Shore Water Producers Association. Coordination regarding water quality situations (i.e. spills, tanker leaks, exotic species, etc) is frequently discussed during the association's quarterly meetings. Lake Michigan, in addition to all the great lakes, has many different organizations and associations that are currently working to either maintain or improve water quality. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of watershed protection activities in the IEPA Source Water Assessment document are aimed at this purpose.

**2010 Regulated Contaminants Detected**

**Abbreviations and Definitions:**

- AL Action Level: Concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system flows.
- Avg Regulatory compliance with some MCLs is based on running annual average of monthly samples.
- MCL Maximum Contaminant Level: Highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
- MCLG Maximum Contaminant Goal: 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: Highest level of disinfectant allowed in drinking water.
- MRDLG Maximum Residual Disinfectant Level Goal: Level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.
- N/A Not Applicable
- ND Not detectable at testing limits
- NTU Nephelometric Turbidity Units
- MFL Million fibers per liter
- mrem/year millirems per year (a measure of radiation absorbed by the body).
- pCi/L picocuries per liter (a measure of radioactivity)
- ppb parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
- ppm parts per million or micrograms per liter (mg/L) - or one ounce in 7,350 gallons of water.
- ppq parts per quadrillion, or picograms per liter
- ppt parts per trillion, or nanograms per liter
- TT Treatment Technique: Required process intended to reduce the level of a contaminant in drinking water.

**Coliform Bacteria:**

MCLG	Total Coliform MCL	Highest No. of Positive	Fecal Coliform or E. Coli MCL	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples are positive	2.3		0	N	Naturally present in the environment

**Lead and Copper:**

Contaminant	MCLG	Action Level (AL)	90th Percentile	# of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	1.3	1.3	0.118	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	0	15	3.77	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Action Level Goal (ALG):** Level of contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. **Action Level:** Concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## Regulated Contaminants

Disinfectants & Disinfectant By-Products	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	0.9	0.85 - 0.875	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5) *	15	0 - 15	No goal for the total.	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TThm) *	43	20 - 43	No goal for the total.	80	ppb	N	By-product of drinking water chlorination.

\* Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	0.031	0.031 - 0.031	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	1	1.0 - 1.0	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	0.31	0.31 - 0.31		1	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	7	7.0 - 7.0	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	26	26 - 26			ppm	N	Erosion from naturally occurring deposits; Used in water softener regeneration.
Zinc	0.007	0.007 - 0.007	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium, 226/228	11/16/10	14.33	11.51 - 14.33	0	5	pCi/L	N	Erosion of natural deposits
Uranium	11/16/10	0.5346	0.5215 - 0.5364	0	30	ug/l	N	Erosion of natural deposits.
Gross Alpha excluding Radon & Uranium	11/16/10	28.2	16.9 - 28.2	0	15	pCi/L	N	Erosion of natural deposits.

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.
Highest single measurement	1 NTU	0.14 NTU	N	Soil runoff.

### Total Organic Carbon:

The total percentage of total organic carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA, unless a TOC violation is noted in the violation section. *NOTE: The State requires monitoring of certain contaminants less than once per year because the contaminants do not change frequently. Therefore, some of the data may be more than one year old.*

## Unwanted Medicines/Pharmaceuticals

Many individuals dispose of unused medicines by flushing them down toilets. These medicines can pass intact through sewage treatment facilities and find their way into waterways, lakes and aquifers. Additionally, unused medicines thrown in with regular garbage end up in the landfill, and then pose a hazard to the underlying groundwater system. Residents are encouraged to dispose of unused medicines, or pharmaceuticals, properly. The Village of Wheeling hosts a Prescription Drug and Sharps Disposal Event every third (3rd) Saturday of each month from 10:00 a.m. until 12:00 p.m. at the Police Department, 1 Community Boulevard. At this event, residents can bring unwanted medications for proper disposal. The Village accepts prescription and over-the-counter medications in original containers. Controlled substances such as Oxycontin and Percocet are not accepted.

At the event, used sharps (needles and syringes) are accepted. Sharps must be in rigid containers with sealed lid. The Village will not accept sharps that are not in a rigid container. For more information on the Prescription Drug and Sharps Disposal Event, contact the Village Health Officer at 847.499.9045.

2010 WATER QUALITY DATA – EVANSTON, ILLINOIS

Non-Detected Contaminants

Inorganic Contaminants	MCLG	MCL	UL	MRL	Level Found	Volatiles Organic Chemicals	MCLG	MCL	UL	MRL	Level Found
Arsenic (ppb)	0	10	2	2	nd	Methyl Tert-Butyl Ether (MTBE) (ppb)	n/a	n/a	0.5	0.5	nd
Barium (ppb)	2	2	2000	2000	nd	1,2,4-Trichlorobenzene (ppb)	70	70	0.5	0.5	nd
Cadmium (ppb)	5	5	5	5	nd	Cis-1,2-Dichloroethylene (ppb)	70	70	0.5	0.5	nd
Chromium (ppb)	100	100	100	100	nd	Xylenes (ppm)	10	10	0.5	0.5	nd
Cyanide (ppb)	200	200	0.2	0.2	nd	Dichloromethane (ppb)	0	5	0.5	0.5	nd
Iron (ppb)	n/a	1000	0.3	0.3	nd	O-Dichlorobenzene (ppb)	600	600	0.5	0.5	nd
Manganese (ppb)	n/a	150	50	50	nd	P-Dichlorobenzene (ppb)	75	75	0.5	0.5	nd
Mercury (Inorganic) (ppb)	2	2	2	2	nd	1,1-Dichloroethylene (ppb)	7	7	0.5	0.5	nd
Nickel	n/a	100	100	100	nd	Tran-1,2-Dichloroethylene (ppb)	100	100	0.5	0.5	nd
Selenium (ppb)	50	50	50	50	nd	1,2-Dichloroethane (ppb)	0	5	0.5	0.5	nd
Sulfate			250	250	nd	1,1,1-Trichloroethane (ppb)	200	200	0.5	0.5	nd
Antimony (ppb)	6	6	6	6	nd	Carbon Tetrachloride (ppb)	0	5	0.5	0.5	nd
Beryllium (ppb)	4	4	4	4	nd	1,2-Dichloropropane (ppb)	0	5	0.5	0.5	nd
Thallium (ppb)	0.5	2	2	2	nd	Trichloroethylene (ppb)	0	5	0.5	0.5	nd
Zinc (ppb)	n/a	5000	5000	5000	nd	1,1,2-Trichloroethane (ppb)	3	5	0.5	0.5	nd
Nitrate as N (NO3)	10	10	5	5	nd	Tetrachloroethylene (ppb)	0	5	0.5	0.5	nd
Nitrate as Nitrogen (ppm)	1	1	0.5	0.5	nd	Monochlorobenzene (ppb) same as Chlorobenzene	100	100	0.5	0.5	nd
<b>Synthetic Organic Contaminants</b>											
Endrin (ppb)	2	2	0.1	0.1	nd	Benzene (ppb)	0	5	0.5	0.5	nd
BHC-Gamma (Lindane)	200	200	0.1	0.1	nd	Toluene (ppm)	1	1	0.5	0.5	nd
Methoxychlor (ppb)	40	40	0.1	0.1	nd	Ethylbenzene (ppb)	700	700	0.5	0.5	nd
Toxaphene (ppb)	0	3	1	1	nd	Styrene (ppb)	100	100	0.5	0.5	nd
Diquat (ppb)	20	20	2	2	nd	<b>Radionuclides</b>					
Dalapon (ppb)	200	200	5	5	nd	(sampled every 6 years) next test 2014, last sampled 2008					
Endothall (ppb)	100	100	9	9	nd	Combined Radium - 226,228 (pCi/L)	0	5			nd
Di(2-ethylhexyl)adipate (ppb)	400	400	0.6	0.6	nd	<b>THM/HAAs</b>					
Oxamyl (Vydate) (ppb)	200	200	2	2	nd	Monochloroacetic Acid (ppb)	70	70	2.0	2.0	nd
Simazine (ppb)	4	4	0.35	0.35	nd	Monobromoacetic Acid (ppb)	n/a	n/a	1.0	1.0	nd
Di(2-ethylhexyl)phthalate (ppb)	0	6	0.6	0.6	nd	Dibromoacetic Acid (ppb)	n/a	n/a	1.0	1.0	nd
Picloram (ppb)	500	500	1	1	nd	<i>MCL = Maximum Contaminant Level</i>					
Dinoseb (ppb)	7	7	1	1	nd	<i>MCLG – Maximum Contaminant Level Goal</i>					
Hexachlorocyclopentadiene (ppb)	50	50	0.5	0.5	nd	<i>UL MRL – Underwriters Laboratories Maximum Reporting Level</i>					
Aldicarb sulffoxide	n/a	n/a	1	1	nd						
Aldicarb sulfone	n/a	n/a	1	1	nd						
Carbofuran (ppb)	40	40	0.9	0.9	nd						
Aldicarb	n/a	n/a	1	1	nd						
Atrazine (ppb)	3	3	0.3	0.3	nd						
Alachlor (Lasso) (ppb)	0	2	0.2	0.2	nd						
Heptachlor	0	100	0.04	0.04	nd						
Heptachlor Epoxide (ppt)	0	100	0.02	0.02	nd						
Dieldrin	n/a	1	0.05	0.05	nd						
2,4-Dichloro-phenoxyacetic Acid (2,4-D) (ppb)	10	10	1	1	nd						
2,4,5-TP (Silvex) (ppb)	50	50	1	1	nd						
Hexachlorobenzene (ppb)	0	1	0.1	0.1	nd						
Benzo (A) Pyrene (ppb)	0	200	0.1	0.1	nd						
Pentachlorophenol (PCP) (ppb)	0	1	0.4	0.4	nd						
Aldrin (ppb)	n/a	1	0.05	0.05	nd						
Polychlorinated Biphenyls (PCB) (ppb)	0	500			nd						
DDT Total	n/a	n/a	1	1	nd						
1,2-Dibromo-3-Chloropropane (DBCP) (ppb)	0	0.2	0.02	0.02	nd						
Same as Dibromochloropropane											
Ethylene Dibromide (EDB) (ppb)	0	50	0.01	0.01	nd						
Chloradane	0	2	0.2	0.2	nd						