



# Village of Arlington Heights

A REPORT TO WATER CUSTOMERS

2010

*WATER QUALITY REPORT*



DEPARTMENT OF PUBLIC WORKS

VILLAGE OF ARLINGTON HEIGHTS  
WATER & SEWER STAFF

JUNE 2011

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## INTRODUCTION

The 1996 Safe Drinking Water Act passed by Congress mandates that every public water supply in the United States prepare and distribute an annual report on water quality. This annual report to water consumers in Arlington Heights characterizes the quality of our drinking water. The format of this report is regulated by the United States Environmental Protection Agency. U.S.E.P.A. requires certain mandatory language and data in this report. These informational items must be published every year in the Villages' Water Quality Report.

This year, as in past years, drinking water in Arlington Heights met all Federal and State standards. The Arlington Heights Water Utility constantly monitors and safeguards the water supply. The Arlington Heights water system did not exceed any State or Federal contaminant levels nor any other water quality standard during 2009. The Village is committed to providing its customers with safe drinking water and we are pleased to share this water quality report with you.

***Questions regarding water quality or other water related issues should be directed to:***

**Jeff Musinski, Superintendent of Utilities  
Village of Arlington Heights  
222 N. Ridge Avenue  
Arlington Heights, Illinois 60005  
Phone (847) 368-5800 Fax (847) 577-5930**

Periodically, water issues are addressed by the Village Board of Trustees. The Village Board meets on the first and third Monday of each month at 8:00 p.m. at the Municipal Building, 33 S. Arlington Heights Rd., Arlington Heights, IL 60005.

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### **EVALUATE HEXAVALENT CHROMIUM THROUGH REGULATORY PROCESS**

"AWWA and water providers share Environmental Working Group's concern for water quality and public health protection. Water utilities currently monitor for "total" chromium, of which hexavalent chromium is a sub-species. There is nearly universal compliance with the existing standard, which is good news for tap water consumers. "The Safe Drinking Water Act, which was established to protect the quality of drinking water, requires a rigorous scientific approach for evaluating contaminants for regulation. The U.S. Environmental Protection Agency is currently looking at new health effects data on hexavalent chromium. The process should be completed in late 2011, and results will inform future regulatory actions. "While EWG's report may raise concerns, it's important to remember that detecting a substance in water does not always imply a health risk. The key question to answer is whether the substance presents health concerns at the level it is detected. That's why the federal regulatory process requires EPA to examine potential health impacts of the substance, paths of exposure and occurrence data. A thorough evaluation of all this data increases the likelihood that new regulations will offer meaningful risk reduction."

### **WATER MONITORING, TESTING AND ANALYSIS**

This year, as in past years, the Village of Arlington Heights and the Illinois

Environmental Protection Agency have initiated and implemented significant measures which safeguard your drinking water. Drinking water in Arlington Heights is monitored and tested in accordance with United States Environmental Protection Agency standards and regulations. Each year the Village and I.E.P.A perform over 1200 analytical tests in order to assure water quality. These analytical tests are an integral part of a monitoring program that detects and quantifies over 120 contaminants and microbials.

### **A BRIEF DISCUSSION ABOUT WATER SYSTEM SECURITY AND VULNERABILITY**

The official title of this document is "Consumer Confidence Report". One essential element which contributes to the confidence level of our water customers is water system security. Our customers demand and expect that their drinking water is safe and plentiful. Water system security and protection is the cornerstone of any municipal water supply.

It is not appropriate to disseminate the specific mitigation measures developed for the Arlington Heights water system in this publication. However, appropriate plans and measures are being developed and refined as time and technology allow. The Village President and Board of Trustees, the Village Manager and the Water Utility Operations staff are unalterably committed to preventing attack and intrusion and to developing

emergency measures to counter any event or act which threatens the delivery of plentiful, reliable, and safe drinking water to customers in the Village of Arlington Heights.

### **WATER SOURCE AND DELIVERY SYSTEM**

It should be noted that the source water for customers in Arlington Heights is Lake Michigan. Beginning in 1985, the Village Water Utility changed from deep well ground water to Lake Michigan surface water. Although the Village maintains 6 deep wells for emergency purposes the sole water source for Arlington Heights is Lake Michigan water treated by the City of Evanston.

### **INTERESTING STATISTICS**

Miles of public water main (4"-30") 230+.  
Number of metered customers, 20,788.  
Average day water pumpage, 8.6 million gallons.  
Number of public fire hydrants, 2700+.  
Number of water storage reservoirs; 10.  
Pumping capacity; 31,050 gallons/minute.

### **WATER TREATMENT**

The City of Evanston is responsible for all water treatment of our drinking water. The Evanston water filtration plant provides the following treatment processes: Flocculation, Sedimentation, Rapid Sand Filtration, and Disinfection. The Evanston plant adds fluoride and chlorine to the water in accordance with State and Federal

The following table provides information regarding finished water quality obtained by the City of Evanston during periodic sampling at their water treatment facility.

## Evanston 2010 Water Quality Data

### 2010 Regulated Contaminants

#### 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	1.2	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	1	No	Naturally present in the environment

#### Lead and Copper

Date Sampled: 12/31/2005

Definitions:

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	0 ppb	0	1.3 ppm	1.3 ppm	0 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits.

#### Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology. Maximum contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety .mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water .ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water .na: not applicable .Ave: Regulatory compliance with some MCLs are based on running annual average of monthly samples. Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
<b>Disinfectants &amp; Disinfection By-Products</b>								
TTHMs (Total Trihalomethanes)		24	0 - 38	N/A	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)		10	6.8 - 11	N/A	60	ppb	No	By-product of drinking water chlorination.
Chlorine		0.4	0.3707 - 0.48	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
<b>Radioactive Contaminants</b>								
Beta/photon emitters	1-9-08	7.3	7.3 - 7.3	0	50	mrem/yr	No	Decay of natural and man-made deposits
Combined Radium 226/228	1-9-08	0.82	0.82 - 0.82	0	5	pCi/L	No	Erosion of natural deposits
Gross alpha excluding radon and uranium	1-9-08	3.9	3.9 - 3.9	0	15	pCi/L	No	Erosion of natural deposits
<b>Inorganic Contaminants</b>								
Fluoride		1.1	1.1 - 1.1	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium		7	7.1 - 7.1	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration
There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.								

\*MCL Statement: The maximum contaminant level(MCL) for TTHM and HAA5 is 80 ppb and 60 ppb respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs will become effective 01/01/2004 for all groundwater supplies and surface supplies serving less then 10,000 people. Until 01/01/2004, surface water supplies serving less then 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 100 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may have increased risk of getting cancer.

**Note:** The state requires monitoring of certain contaminants less than once per year because the contaminants do not change frequently. Therefore, some of this data may be more than one year old. 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.

ppm: parts per million      ppb: parts per billion      ppt: parts per trillion      pCi/l: picoCuries per liter (measurement of radioactivity)

TURBIDITY					
Limit (Treatment Technique)	Lowest Monthly % meeting limit	Highest Single Measurement	Violation	Source	
0.3 NTU	100.0	N/A	No	Soil runoff	
1 NTU	N/A	0.23	No	Soil runoff	

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants. Results may be obtained by calling the contact listed on the first page of this report.

### TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was measured each month and met all TOC removal requirements set by I.E.P.A., unless a TOC violation is noted in the violations section.

*The City of Evanston also tested for, but did not detect, the following chemicals and compounds: antimony, beryllium, cadmium, chromium, cyanide, mercury, nitrite (as nitrogen), selenium, thallium, 2,4-D, 2,4,5-TP, alachlor, atrazine, benzo(A) pyrene, carbofuran, chlordane, dalapon, DI(2-ethylhexyl) adipate, DI(2-ethylhexyl) phthalate, dinoseb, diquat, endothall, endrin, heptachlor, heptachlor epoxide, hexachlobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, oxamyl, polychlorinated biphenyls, pentachlorophenol, picloram, simazine, toxaphene, benzene, carbon tetrachloride, o-dichlorobenzene, p-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethylene, CIS-1,2-dichloroethylene, trans-1,2-dichloroethylene, dichloromethane, 1,2-dichloropropane, ethylbenzene, styrene, tetrachloroethylene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, toluene, xylenes, aldrin, DDT, dieldrin, iron, manganese, zinc, methyl tert-butyl ether (MTBE), nickel, monochloroacetic acid, barium, sulfate, arsenic, 1,2 dibromo-3-chloropropane, ethylene dibromide, aldicarb, aldicarb sulfone, aldicarb sulfoxide, monochlorobenzene, monobromoacetic acid, dibromoacetic acid, nitrate as N03.*

### EDUCATIONAL STATEMENTS

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 U.S.E.P.A. Safe Drinking Water Hotline at 1-800-426-4791.**

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, people 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline 1-800-426-4791.

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 can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or 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 may be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses;

- **Organic chemical contaminants** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gasoline stations, urban storm water runoff and septic systems; and

- **Radioactive contaminants** which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is

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safe to drink, the USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide similar protection for public health.

### VIOLATION REPORT SUMMARY

The Village of Arlington Heights water utility is proud to report that no violations of any state or federal

standard occurred during the 2010 reporting period.

### Cryptosporidium Monitoring –

The Village of Arlington Heights does not monitor for cryptosporidium. However, in accordance with the “Long Term Enhanced Surface Water Treatment Rule” established by U.S.E.P.A. Evanston is currently monitoring for cryptosporidium monthly. Monthly testing for cryptosporidium began in April 2007. Monitoring performed by Evanston in 2010 did not detect cryptosporidium, giardia,

or escherichia coli in the “raw” source water withdrawn from Lake Michigan.

### Monitoring Data Summary Tables

- In addition to the informational section of this water quality report the Village has included for your review several tables. These tables list and quantify contaminants that were detected in your drinking water or were tested for but not detected.

The following table and data is applicable to Arlington Heights drinking water:

## Arlington Heights 2010 Water Quality Data

### Regulated Contaminants

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 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

#### Lead and Copper

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

**Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of contamination
Copper	08/18/2008	1.3	1.3	0.104	0	ppm	N	Erosion of natural deposits. Leaching from wood preservatives; Corrosion of household plumbing systems;
Lead	08/18/2008	0	15	2.62	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contaminant
<b>Disinfectants and Disinfection By-Products</b>								
Chlorine		0.4	0.373 - 0.553	ppm	MRDLG=4	MRDL=4	N	Water additive used to control microbes
Haloacetic Acids (HAA5)*		10	6.8 - 17	ppb	No goal for the total	60	N	By-product of drinking water chlorination
Total Trihalomethanes (TTHm)*		32	18.9 - 40	ppb	No goal for the total	80	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.

<b>Inorganic Contaminants</b>								
Arsenic	10/07/2009	4	0 - 4	ppb	0	10	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	10/07/2009	0.07	0.027 - 0.07	ppm	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	10/07/2009	17	0 - 17	ppb	100	100	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	10/07/2009	1.2	0.81 - 1.2	ppm	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	10/07/2009	0.94	0.2 - 0.94	ppm		1.0	N	Erosion of natural deposits.
Manganese	10/07/2009	16	10 - 16	ppb	150	150	N	Erosion of natural deposits.
Selenium	10/07/2009	16	0 - 16	ppb	50	50	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; discharge from mines.
Sodium	10/07/2009	240	23 - 240	ppm			N	Erosion from naturally occurring deposits; Used in water softener regeneration.
Thallium	10/07/2009	1	0 - 1	ppb	0.5	2	N	Discharge from electronics, glass, and Leaching from ore processing sites; drug factories.

<b>Radioactive Contaminants</b>								
Combined Radium 226/228		42.4	8.2 - 42.4	pCi/L	0	5	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium		29.6	2.62 - 29.6	pCi/L	0	15	N	Erosion of natural deposits.
Uranium		0.51554	0.51554 - 0.51554	ug/l	0	30	N	Erosion of natural deposits.

**Note:** The state requires monitoring of certain contaminants less than once per year because the contaminants do not change frequently. Therefore, some of this data may be more than one year old. **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. **AL** (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Definitions: **MCLG:** Maximum Contaminant Level Goal, or 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. **MCL:** Maximum Contaminant Level, or 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. **AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. **TT:** Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

Abbreviations: **nd** – not detectable at testing limits. **n/a** – not applicable. **ppm** – parts per million or milligrams per liter. **ppb** – parts per billion or micrograms per liter. **ppt** – parts per trillion, or nanograms per liter. **ppq** – parts per quadrillion, or pictograms per liter. **n/a** – not applicable. **NTU** – Nephelometric Turbidity Unit, used to measure cloudiness in drinking water. **%<0.5 NTU** – Percent samples less than 0.5 NTU. **MFL** – Million fibers per liter, used to measure

asbestos concentration. **mrem/yr** – millirems per year, used to measure radiation absorbed by the body. **pCi/l** – picocuries per liter, used to measure radioactivity. **#pos/mo** – number of positive samples per month. **%pos/mo** – percent positive samples per month.

In most cases, the “**Level Found**” column represents an average of sample result data collected during the CCR calendar year. The “**Range of Detections**” column represents

a range of individual sample results, from lowest to highest that were collected during the CCR calendar year. If a date appears in the “**Date of Sample**” column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

### **About the Data**

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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

#### **A Word About Taste and Odor Problems**

Periodically, due to changes in the chemical properties of your drinking water, objectionable tastes and/or odors may be present. These “T & O” problems are typically attributable to either the chlorine used to disinfect the water or to algae in Lake Michigan.

Although counterintuitive, the chlorine smell is due to too little chlorine in the water rather than too much. The low chlorine residual is out of balance with the physical and chemical properties of the water resulting in a strong chlorine odor. This problem typically disappears in a day or two.

The second taste and odor problem is related to algae in Lake Michigan. Simply stated, when the algae comes in contact with the chlorine disinfectant an earthy, musty taste and odor is imparted to the water. Although harmless, the earthy, musty taste is highly objectionable to a majority of water customers. The City of Evanston has initiated enhanced water treatment techniques which

have helped to mitigate the taste and odor problems.

#### **Water Testing and Monitoring in Arlington Heights**

Water quality and purity is of paramount importance in Arlington Heights. The Village Water Utility Operations staff is on constant vigil to monitor for and guard against microbial and chemical contamination of the drinking water. The following is a brief description of the testing parameters and frequency of testing used in Arlington Heights. (All tests are performed by a private, I.E.P.A. certified laboratory or by the I.E.P.A. Laboratory in Champaign, Illinois).

**Microbial Testing** – Samples are obtained from 20 sites in the Village on a weekly basis. These sites are located strategically throughout the Village and are representative of the entire water distribution network in Arlington Heights. The 20 weekly bacteriological samples are analyzed for chlorine residual value and for bacteriological contamination. Particular emphasis is placed on detecting Coliform bacteria.

**Disinfectant Monitoring** – The essence of a safe drinking water supply is disinfection. Initial disinfection of our drinking water is done as part of the water treatment process at the City of Evanston’s water treatment plant. Disinfectant (chlorine) residual content is maintained by both the Northwest Water Commission and by the Village. The Village monitors chlorine residual by using continuous chlorine analyzers. These analyzers instantaneously determine if additional chlorine is needed in order to maintain safe, effective disinfectant levels.

**Water Quality Monitoring** – The Village samples and tests incoming water supplied by Evanston and the Northwest Water Commission. These tests are conducted on a bi-weekly basis. These samples are obtained from the four Northwest Water Commission water supply entry points to the Village. These samples are analyzed for pH, corrosion inhibitor and related water quality parameters.

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guidelines. Additionally, the Evanston plant adds Polyorthophosphate as a corrosion inhibitor to guard against lead and copper contamination of the drinking water supply. The Village monitors the levels of chlorine disinfectant in the treated, finished water. The Village adds chlorine as needed in order to maintain a disinfectant residual as required by State and Federal Regulations.

**SOURCE WATER ASSESSMENT AND PROTECTION**

In accordance with the 1996 Amendments to the Federal Safe Drinking Water Act, the Illinois Environmental Protection Agency (IEPA) has performed and completed a "Source Water Assessment" for the Village of Arlington Heights water supply. The "source water" for Arlington Heights is Lake Michigan at Evanston, Illinois. The City of Evanston provides complete water treatment and filtration of all water supplied to Village of Arlington Heights municipal water customers.

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, which is the reason for

mandatory treatment for 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. 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 Associations quarterly meetings. Lake Michigan, as well as 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 this document is aimed at this purpose. The combination of land use, drainage basin attributes, and the proximity of sources of pollution all contribute to the susceptibility of the Lake Michigan source

water at Evanston. However, it should be stressed that water treatment provided by Evanston is highly protective of their consumers. The history of finished water quality produced by the Evanston Water Treatment Facility is testimony to the thoroughness and effectiveness of the Evanston Water Treatment Program. All agencies involved in ensuring the delivery of safe drinking water to consumers in Arlington Heights have developed programs designed to address source water protection issues at the local level.

Specific source water assessment and protection information can be obtained from the IEPA at [www.epa.state.il.us/water/groundwater/source-water-and-water/groundwater/source-water-and-water.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl](http://www.epa.state.il.us/water/groundwater/source-water-and-water/groundwater/source-water-and-water.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl)

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.

**Water Quality Data Table Footnotes**

- TURBIDITY** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.
- \*BETA/PHOTON EMITTERS** The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be a level of concern for beta particles.
- FLUORIDE** Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.
- SODIUM** There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.
- UNREGULATED CONTAMINANTS:** A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of regulated contaminants in drinking water, and whether future regulation is warranted.

**A Note To All Retail, Commercial, Industrial, and Multi-Family Water Customers**

In June 2008 the Public Works Department began the installation of "automatic meter reading" technology in all retail, commercial, industrial, and multi-family buildings. Water meter readings using A.M.R. technology improves customer service and significantly reduces meter reading costs. The implementation of this automatic meter reading program will be phased over a 3 year period. Specific information will be disseminated to customers as the implementation program progresses. This meter system upgrade project will be complete during calendar year 2011.

**A Word of Caution**

The Village of Arlington Heights does not engage the services of outside vendors to monitor water quality. All water sampling is performed by Village Department of Public Works staff members. All Public Works staff members carry Village-issued identification cards. Please keep this in mind when dealing with individuals who want to discuss water quality issues with you.

*Water Quality in Arlington Heights meets or exceeds all State and Federal drinking water standards.*

*This 2010 Water Quality Report documents the commitment made by the Village of Arlington Heights to provide you with a safe, reliable drinking water supply. The Village President and Board of Trustees and the Village Water Utility Operations staff have an enviable history in developing, financing, and operating the public water supply in Arlington Heights. This responsibility is taken very seriously and we pledge our continued vigilance in supplying you with safe drinking water.*



**Village of Arlington Heights**  
33 S. Arlington Heights Road  
Arlington Heights, IL 60005

PRSRT STD  
CARRIER ROUTE  
U.S. POSTAGE  
**PAID**  
PALATINE, IL 60095  
PERMIT NO. 2594

**ECRWSS**  
**POSTAL CUSTOMER**