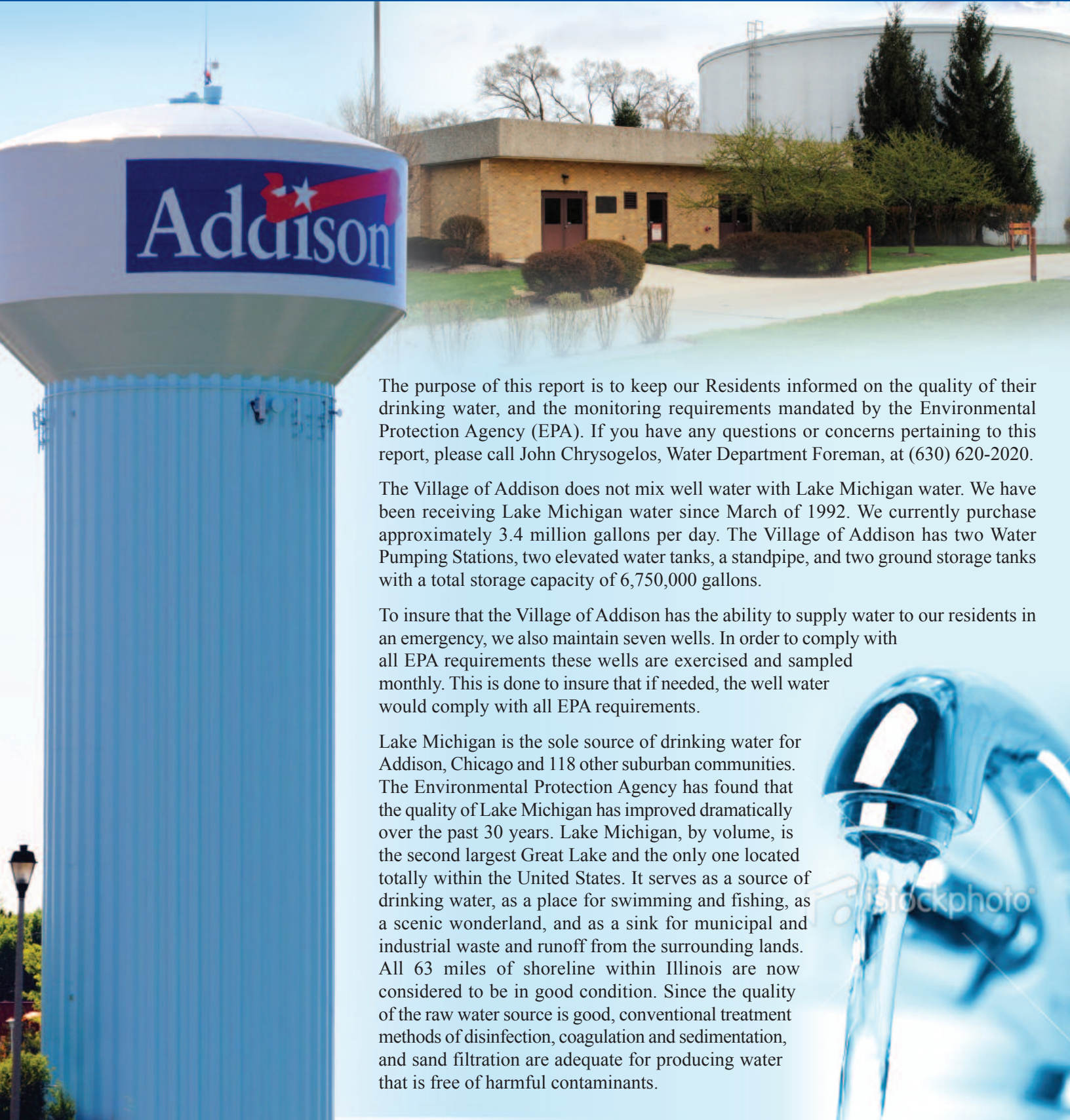


# VILLAGE OF ADDISON

## Water Quality Report *From*

January 1, 2010 To December 31, 2010

**Keeping Our Community Educated On the Quality of Our Drinking Water**



The purpose of this report is to keep our Residents informed on the quality of their drinking water, and the monitoring requirements mandated by the Environmental Protection Agency (EPA). If you have any questions or concerns pertaining to this report, please call John Chrysogelos, Water Department Foreman, at (630) 620-2020.

The Village of Addison does not mix well water with Lake Michigan water. We have been receiving Lake Michigan water since March of 1992. We currently purchase approximately 3.4 million gallons per day. The Village of Addison has two Water Pumping Stations, two elevated water tanks, a standpipe, and two ground storage tanks with a total storage capacity of 6,750,000 gallons.

To insure that the Village of Addison has the ability to supply water to our residents in an emergency, we also maintain seven wells. In order to comply with all EPA requirements these wells are exercised and sampled monthly. This is done to insure that if needed, the well water would comply with all EPA requirements.

Lake Michigan is the sole source of drinking water for Addison, Chicago and 118 other suburban communities. The Environmental Protection Agency has found that the quality of Lake Michigan has improved dramatically over the past 30 years. Lake Michigan, by volume, is the second largest Great Lake and the only one located totally within the United States. It serves as a source of drinking water, as a place for swimming and fishing, as a scenic wonderland, and as a sink for municipal and industrial waste and runoff from the surrounding lands. All 63 miles of shoreline within Illinois are now considered to be in good condition. Since the quality of the raw water source is good, conventional treatment methods of disinfection, coagulation and sedimentation, and sand filtration are adequate for producing water that is free of harmful contaminants.

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 EPA Safe Drinking Water Hotline at (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/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 (1-800-426-4791).

The Village of Addison Water Department samples and monitors the water from the entire water distribution system every month as mandated by the Safe Drinking Water Act (SDWA). If the required samples are not submitted or if a sample would be found to be contaminated, this would be a violation of the SDWA and EPA regulations, and all Addison residents would have to be notified as soon as possible. Our Water Department collects 47 water samples every month to insure that your tap water is free from bacteria. These sampling points are distributed evenly throughout the Village. This year, as in past years, your drinking water has met all USEPA and State drinking water standards. The City of Chicago and the DuPage Water Commission also sample and test the water before it reaches the Village of Addison.



The Village of Addison, in addition to performing bacteriological testing, also collects water samples at homes throughout the village to test for lead and copper contamination. Homes containing lead pipes, lead service lines or copper pipe soldered with lead based solder were chosen based on criteria set by the United States Environmental Protection Agency. If more than ten per cent of the collected samples exceed levels set by the USEPA, we would be notified by the IEPA of what actions we must take. The testing began in July 1992, and after two rounds of sampling, the IEPA reduced the number of samples and frequency. The Village of Addison was reduced from 60 tests to 30, due to the water being in compliance with lead and copper standards. The Village of Addison now collect Lead and Copper samples every 4 years.

The Chicago Water Department monitors for contaminants which are proposed to be regulated or for which no standards currently exist but which could provide useful information in assessing the quality of the source 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 materials, 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 plants, septic systems, agricultural livestock operations and wildlife.
- B) 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.
- 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 by-products 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 bottle water which must provide the same protection for public health.





Explanations of the abbreviations and definitions you will need to understand the sampling data on the water quality sheet for 2009 are as follows:

**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 a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

**Action Levels (AL)** - The concentration of a contaminant that triggers treatment or other required actions by the water supply.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Maximum Residual Disinfectant Level (MRDL)** - The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contamination.

**Ppb** micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

**nd** not detectable at testing limits

**n/a** not applicable

**ppm** parts per million, or milligrams per liter – or one ounce in 7,350,000 gallons of water.

**Avg** Regulatory compliance with some MCLs are based on running annual average of monthly samples.



**Range of Detection** - This column represents a range of individual sample results, from lowest to highest that were collected during the Consumer Confidence Report (CCR) calendar year.

**Level Found**- This column represents an average of sample data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

**Haloacetic acids - (HAAs)** are disinfectant by-products. The Village of Addison began monitoring for HAAs in 2000. The City of Chicago started monitoring for HAAs in July, 1998. All samples collected by the Village of Addison have been far below the levels set by the IEPA.

### **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. 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. The Village of Addison is 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 or at <http://www.epa.gov/safewater/lead>.

**Action level goal (ALG);** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Trihalomethanes-** are disinfectant by-products. The Village of Addison started sampling for Trihalomethanes in July 1987. The samples are collected quarterly.

**Turbidity-** is a measure of the cloudiness of the water. The City of Chicago monitors it because it is a good indicator of water quality and the effectiveness of their filtration system.

**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 no 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 the level is greater than 20 mg/l and you are on a sodium-restricted diet, you should consult a physician.



**Cryptosporidium-** Analyses have been conducted monthly on the source water since April 1993. Cryptosporidium has not been detected in these samples. Cryptosporidium is a single-celled parasite, highly resistant to chlorine, which produces an illness characterized by vomiting, fever, diarrhea and fatigue when ingested. Treatment processes have been optimized to ensure that if there are cryptosporidium cysts in the source water, they will be removed during the treatment process. By maintaining a low turbidity and thereby removing the particles from the water, the threat of cryptosporidium organisms getting into the drinking water system is greatly reduced.

**Chromium-** Occurs naturally in the environment as chromite iron ore. It is rarely found naturally in water, yet it is widely distributed in soils and plants. Chromium in this form is an important contributor to human health. Chromium can also exist in a toxic state as Hexavalent Chromium, which is associated with industrial waste. Chromium is used in metal alloys including stainless steel, protective coatings on metal, magnetic tapes and pigments for paints, cement, paper and rubber. The USEPA determined that there is no evidence that the lifetime exposure to Chromium in drinking water can cause cancer. Hexavalent Chromium at acute levels can cause skin irritation or ulcerations; long-term exposure to Hexavalent Chromium can lead to liver and kidney damage as well as damage to nerve tissue. Hexavalent chromium has been successfully eliminated from entering the environment as a result of past and current national pollution discharge elimination system and industrial pollution discharge limits. The MCL for Chromium in drinking water is 100 ug/l.

#### UNREGULATED CONTAMINANTS:

A maximum contaminant level (MCL) for this contaminant has not been established by either the state or federal regulations, nor has mandatory health effect language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

#### SOURCE WATER ASSESSMENT:

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

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 intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicago land area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance. The city now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water.

**Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.**

## VILLAGE OF ADDISON

No drinking water quality violations were recorded during 2010

### Regulated Contaminants

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform Or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source Of Contamination
0	5% of monthly samples are positive	0	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	0	No	Naturally present in the environment

### Lead and Copper

	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# sites over AL	Units	Violation	Likely Source of Contamination
Lead		0	15	2	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper		1.3	1.3	0.2	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems

### Disinfectants\Disinfection By-Products

Regulated	Collection Sampled	Highest Level	Range of Levels	Units	MCLG	MCL	Violation	Likely Sources of Contaminants
Chlorine		0.6	0.5365 – 0.7553	ppm	MRDLG=4	MRDL=4	No	Water additive used to control microbes
Total Haloacetic Acids (HAAs)		13	4.1 - 23	ppb	No goal for the total	60	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHMs )		40	22 - 46	ppb	No goal for the total	80	No	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	Collection Date	Highest Level Detected	Range of Levels Detected	Units	MCLG	MCL	Violation	Likely Source of Contamination
Arsenic	10/07/2009	2	0 - 2	ppb	0	10	No	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production waste.
Barium	10/07/2009	0.041	0.026 – 0.041	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	10/07/2009	5	0 – 5	Ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Iron	10/07/2009	4	2.8 - 4	ppm		1.0	No	Erosion from naturally occurring deposits
Manganese	10/07/2009	73	41 - 73	ppb	150	150	No	Erosion from naturally occurring deposits
Sodium	10/07/2009	110	49 - 110	ppm			No	Erosion from naturally occurring deposits, Used in water softener regeneration
Thallium	10/07/2009	1	0 – 1	Ppb	0.5	2	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.
Zinc	10/07/2009	0.007	0 – 0.007	Ppm	5	5	No	Erosion from naturally occurring deposits.

\* MCL Statement: The Maximum contaminant level (MCL) for TTHM and HAAs 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 became effective 01/01/2004 for all groundwater supplies and surface supplies serving less than 10,000 people. Before 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people had to 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, may have increases risk of getting cancer.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these 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 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: pico Curies per liter (measurement of radioactivity)

**CITY OF CHICAGO 2010 TEST RESULTS**  
No drinking water quality violations were recorded during 2010

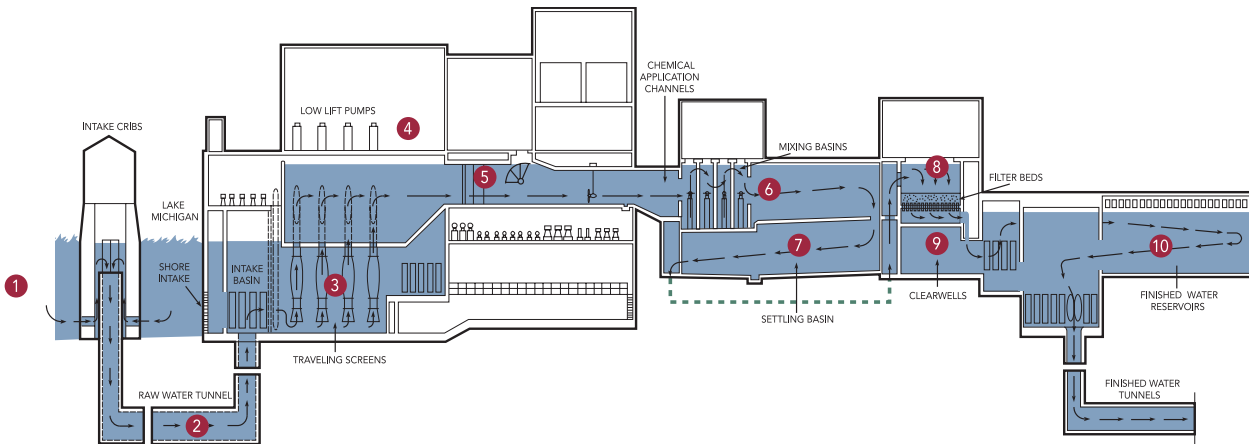
**Detected Contaminants**

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	RANGE OF DETECTION	COLLECTION DATE
<b><u>Inorganic Contaminants</u></b>					
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0182	0.0175 – 0.0182	
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits	1.3	AL = 1.3	0.032 (90 <sup>th</sup> percentile)	0 sites exceeding AL	6/1/2009-9/30/2009
LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits	0	AL=15	6.07 (90 <sup>th</sup> percentile)		
NITRATE (AS NITROGEN) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.311	0.288 – 0.311	
TOTAL NITRATE & NITRITE (AS NITROGEN) (PPM) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.311	0.288 – 0.311	
<b><u>Synthetic Organic Contaminants</u></b> (Including Pesticides and Herbicides) Di (2-ethylhexyl) phthalate (ppb) Discharge from rubber and chemical factories	0	6	0.76	0.00-0.76	
<b><u>Unregulated Contaminants</u></b>					
SULFATE (ppm)	n/a	n/a	33.600	30.400-33.600	
SODIUM (ppm) Erosion from naturally occurring deposits; Used in water softener.	n/a	n/a	8.98	8.26-8.98	
<b><u>State Regulated Contaminants</u></b>					
FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	0.817	0.651-0.817	
<b><u>Radioactive Contaminants</u></b>					
Combined Radium 226/228 Erosion of Natural Deposits	0	5	1.38	1.3 – 1.38	03/17/2008
Gross alpha excluding radon and uranium Erosion of Natural Deposits	0	15	0.88	0.09 – 0.88	03/17/2008

NOTE: The Village of Addison data provided to us by the Illinois Environmental Protection Agency. The City of Chicago data provided to us by The City of Chicago.



The Village of Addison receives all of its water through the DuPage Water Commission (DWC), via the City of Chicago Jardine Water Filtration Plant. Below is a diagram that shows the process that the Lake Michigan water goes through prior to it being pumped to the Western Suburbs



1. Water from Lake Michigan enters the intake crib at depths of 20 to 30 feet.
2. Water enters the purification plant's intake basin through a tunnel beneath the lake bed.
3. Water is filtered through eight traveling screens to catch debris.
4. Water is pumped by low lift pumps up 25 feet for the first chemical treatment.
5. Water flows from the chemical application channels.
6. Water flows through mixing basins to begin the flocculation process.
7. Flocculation water passes into settling basins to sit for four hours allowing floc to settle.
8. Water is filtered through precisely graded sand and gravel performing a "natural polishing".
9. Filtered water flows into clearwells for its final chemical application.
10. From finished water reservoirs water flows to the distribution system and the Dupage Water.

Several years ago the Village of Addison passed an ordinance pertaining to Cross Connection and Backflow Protection, sighting the Illinois State Plumbing Code and the EPA (Environmental Protection Agency). We have been aggressively enforcing this ordinance, and are making sure all backflow devices which encompass irrigation systems, fire sprinkler systems, and in some cases domestic water lines, are all in compliance. **All backflow protection devices need to be tested and certified on a yearly basis by a licensed plumber certified to test backflow devices, a copy of the test data needs to be sent to us for our records.** The Village of Addison no longer will send out reminder letters. It is your responsibility to have each device tested each year. The Village of Addison encourages you to seek out the best possible price for this certification and can provide you with a list of plumbers if you wish. This is an ongoing annual program. If residents and business owners are unsure if this pertains to them or have any questions please call Stewart McLeod, Water Operator, at (630) 620-2020.



The Village of Addison also has identified buildings with single detector check devices on their fire sprinkler systems. Single detector check devices or SDC are no longer acceptable backflow devices. The Illinois Environmental Protection Agency requires that all SDC valves on fire sprinkler systems be removed and upgraded to a Reduced Pressure Zone or RPZ. If your building contains a SDC you are required to contact the Community Development Department (630-543-4100). You will be required to obtain a permit for the upgrade. Your contractor will be required to show that the upgrade will not have an adverse effect on the original design of your sprinkler system.





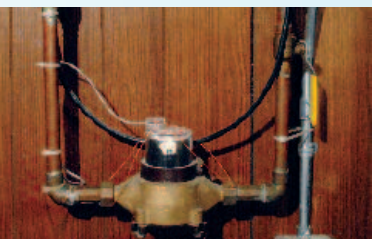
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If your home or business has an underground irrigation system, a RPZ must be installed to separate it from the Village Water Supply. No other valve is allowed for this application. If you have an irrigation system, but have chosen not to use it, the backflow device must be removed, separating the irrigation system from the Public Water Supply and both lines capped.



In your home or business, the Village of Addison is **only** responsible for the water meter and the threaded connections on either side of the meter. **All other piping** including the shut off valves in the building belong to the home or Business owner.