VILLAGE OF ADDISON

WATER QUALITY REPORT

FROM JANUARY 1, 2012 TO DECEMBER 31, 2012

KEEPING OUR COMMUNITY EDUCATED ON THE QUALITY OF OUR DRINKING WATER

DID YOU KNOW the Village of Addison Water Division maintains…

…2,300 FIRE HYDRANTS and

…1,800 MAIN WATER LINE VALVES and

…OVER 9,000 WATER SERVICES and

…MORE THAN 170 MILES OF WATER MAIN?

In March 1992, the Village of Addison began receiving water from the DuPage Water Commission, via the City of Chicago Jardine Water Filtration Plant. We currently purchase approximately 3.3 million gallons per day.

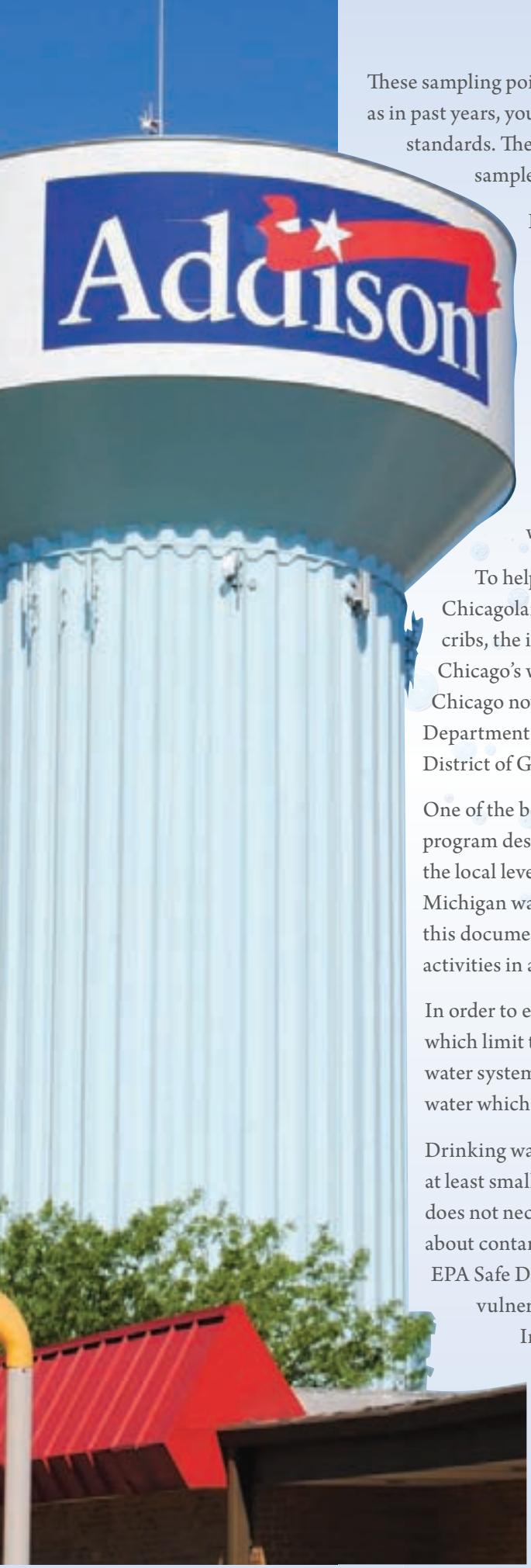
This report is designed to keep you, our village residents, informed about the quality of your drinking water and the monitoring requirements mandated by the Environmental Protection Agency (EPA). If you have any questions or concerns pertaining to this report, please call John Chrysogelos, Water Division Foreman, at **(630) 620-2020**.

To insure the Village of Addison has the ability to supply water to you in an emergency, we also maintain seven wells. These wells are exercised and sampled monthly to comply with all EPA requirements. This insures that if needed, the well water would comply with all EPA requirements.

The Environmental Protection Agency has found that the quality of Lake Michigan has improved dramatically over the past 30 years. 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.

The Village of Addison Water Department samples and monitors water from the entire water distribution system every month as mandated by the Safe Drinking Water Act (SDWA). If required samples are not submitted or if a sample was contaminated, it would violate 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 your tap water is free from bacteria.

Addison Landmark the Heidemann Windmill (1868-1958) was located at the corner of Sharon and Ronald Drives.



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.

In addition to performing bacteriological testing, every three years the Village of Addison 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 10% of the collected samples exceed levels set by the USEPA, we would be notified of what actions we must take. Testing first began in July 1992, and after two rounds of sampling, the IEPA reduced the number of samples and frequency from 60 tests to 30, due to Village of Addison water being in compliance with lead and copper standards.

To help keep Lake Michigan water a safe source of drinking water for the Chicagoland area, extraordinary steps have been taken such as building offshore cribs, the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways, and the city's Lakefront Zoning Ordinance. The city of Chicago now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC (Metropolitan Water Reclamation District of Greater Chicago) to assure the safety of the city's water supply.

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.

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 bottles water which must provide the same protection for public health.

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)**.

How Much of the Earth's Water is Suitable for Drinking?

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.

Explanations of the abbreviations and definitions you will need to understand the sampling data on the water quality sheet for 2012 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.

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 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 - (HAA5) are disinfectant by-products. The Village of Addison began monitoring for HAA5 in 2000. The City of Chicago started monitoring for HAA5 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

Answer: 1%

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** .

How Much Does One Gallon of Water Weigh?

In 2011, this R.O.V. was used to inspect the interior of our 2 million gallon Standpipe as it was too deep for a diver to safely inspect the tank. A diver was sent into the Lombard Rd tank to repair the cathodic protection system and inspect the interior of that tank.

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.

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

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. Hexavalant 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

Answer: 8.34 pounds

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.

We are upgrading to new state of the art programmable logic controllers (PLC) with digital displays to replace our current PLCs as they are no longer manufactured and contain hard-to-find replacement parts.

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.

VILLAGE OF ADDISON

No drinking water quality violations were recorded during 2012

LEAD AND COPPER

	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90TH PERCENTILE	# SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Lead	6/13/2011	0	15	2	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	6/13/2011	1.3	1.3	0.21	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems

REGULATED CONTAMINANTS

Disinfectants and Disinfection By-Products	Collection Sampled	Highest Level	Range of Detection	Units	MCLG	MCL	Violation	Likely Sources of Contaminants
Chlorine	12/31/2012	0.7	0.4413 – 0.75	ppm	MRDLG=4	MRDL=4	No	Water additive used to control microbes
Haloacetic Acids (HAA5)		10	3.5 - 23	ppb	No goal for the total	60	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.

Total Trihalomethanes (TTHM)		32	18 - 40	ppb	No goal for the total	80	No	By-product of drinking water disinfection

BELOW ARE SAMPLE RESULTS COLLECTED FROM THE VILLAGE OF ADDISON EMERGENCY BACKUP WELLS AND NOT CHICAGO WATER.

INORGANIC CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	UNITS	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Arsenic		4	0 - 4	ppb	0	10	No	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production waste.
Barium		0.048	0.016 – 0.048	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium		4.9	0 – 4.9	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride		0.427	0 – 0.427	ppm	4	4.0	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron		3.8	0.58 – 3.8	ppm		1.0	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits
Manganese		83	9.5 - 83	ppb	150	150	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits
Nitrate (measured as Nitrogen)		0.13	0 – 0.13	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium		110	27 - 83	ppm			No	Erosion from naturally occurring deposits, Used in water softener regeneration
Zinc		0.024	0 – 0.024	ppm	5	5	No	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 DETECTION**	**MCLG**	**MCL**	**UNITS**	**VIOLATION**	**LIKELY SOURCE OF CONTAMINATION**
Combined Radium 226/228	8/24/2011	2.35	1.163 – 2.35	0	5	pCi/L	No	Erosion of Natural deposits
Gross alpha excluding radon and uranium	8/24/20122	1.72	1.3 – 1.72	0	15	pCi/L	No	Erosion of Natural deposits

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)

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.

How Much of the Human Body is Water?

Answer: 66%

With the increased cost of water, water conservation has become a hot topic these days. You should be aware of water use in your home or business. One cause of higher than usual water bills, are leaking toilets. Water meters have a low flow indicator built into them to show very small water usage. This usage, can add up very rapidly to a high water bill. The low flow indicator is ether a red or white triangle located on the meter head. The slightest water usage will cause the triangle to turn. If you find the triangle turning and there is no faucet in your home running, you might have a leaking toilet.

Starting here to 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 (#-04-120), 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.**

CITY OF CHICAGO 2012 TEST RESULTS

DETECTED CONTAMINANTS

CONTAMINANT (UNIT OF MEASUREMENT) TYPICAL SOURCE OF CONTAMINANT	MCLG	MCL	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	COLLECTION DATE
TURBIDITY DATA					
TURBIDITY (NTU/Lowest Monthly %<0.3NTU) Soil runoff.	n/a	TT(95%<0.3NTU)	99.7%	99.7% - 100.0%	
TURBIDITY (NTU/Highest Single Measurement) Soil runoff.	n/a	TT(1NTUmax)	0.69	n/a	
INORGANIC CONTAMINANTS					
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0204	0.0194 – 0.0204	
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.34	0.34 – 0.34	
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.34	0.34 – 0.34	
UNREGULATED CONTAMINANTS					
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	17.6	13.4 – 17.6	
SODIUM (ppm) Erosion from naturally occurring deposits; Used in water softener.	n/a	n/a	7.07	6.88 – 7.07	
STATE REGULATED CONTAMINANTS					
FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	0.85	0.84 – 0.85	
RADIOACTIVE CONTAMINANTS					
Combined Radium 226/228 (pCi/L) Decay of natural and man-made deposits	0	5	1.38	1.300 – 1.380	03/17/2008
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits	0	15	0.88	0.090 – 0.880	03/17/2008

TOC (TOTAL ORGANIC CARBON)

The percent of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA

2012 CITY OF CHICAGO VIOLATION SUMMARY TABLE

The following table lists all violation that occurred in the City of Chicago during 2012.

CONTAMINANT OR PROGRAM	VIOLATION TYPE	MONITORING PERIOD START DATE- END DATE	VIOLATION EXPLANATION
Individual Filter Effluent Turbidity Monitoring	Minor Routine Monitoring (IESWTR/LT1)	09/01/2012 – 09/30/2012 10/01/2012 – 10/31/2012	The city of Chicago failed to complete all the required tests of our drinking water for the contaminant and period indicated.
Health Effects (if applicable)		None	
Actions we took:	The City of Chicago Department of Water Management has installed a new low level turbidity detection alarm program in the electronic turbidity monitoring system and provided corrective action training to staff. This will ensure continuous filter effluent turbidity monitoring without interruption.		

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

Village of Addison
1 Friendship Plaza
Addison, IL 60101-2786

ECRWSS
Postal Customer
Addison, IL 60101

required to show that the upgrade will not have an adverse effect on the original design of your sprinkler system.

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 of 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 BELONGS TO THE HOME OR BUSINESS OWNER.

The Village of Addison Water Department is continually testing and improving the core of your water system. Since 1989, an annual water main replacement program has been in progress. All mains installed after 1989 are sleeved in a plastic wrap to keep it from coming in contact with any corrosive soil. To date, all mains replaced since 1989 have never experienced a failure.

The Water system has five pressure adjusting stations (P.A.S.), and two booster pumping stations. These stations along with our water storage tanks are all controlled by a central located Control and Data Acquisition (S.C.A.D.A.). This system went into service in the early 1990s and allows us to monitor the water system 24/7.

The Village of Addison was one of the first towns in DuPage County to own and operate their own leak detection equipment. This equipment allows us to check for possible leaks that are not surfacing, pinpoint a leak under pavement or under a heavy frost line that we would otherwise be chasing down the street. The leak detection equipment uses sound waves to locate the leak by calculating the exact distance between two points. There have also been times where we get a call from a resident or business owner who thinks their service line might be leaking. We have the ability to listen to that service line and determine if in fact it is leaking.

Now with the new state of the art electronic equipment leaks can no longer hide from us.