

# VILLAGE OF BENSENVILLE



## Annual Water Quality Report 2010

## Consumer Confidence Report June 30, 2011



## VILLAGE OF BENSENVILLE

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### **Annual Water Quality Report for 2010 Consumer Confidence Report**

This water quality report was prepared to inform you, the consumer about the quality of the water and the services that the Bensenville Department of Public Works - Utilities Division provides to you on a daily basis. No action is required, as this report is informational.

This is a required report by the EPA. It is in accordance with the 1996 amendments to the safe drinking water act. This report will summarize the quality of the water we provided in the calendar year of 2010. It will include information about where your water comes from, what it contains and how it compares to the USEPA and IEPA standards.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien. En español, llame al 630-350-3403.

#### **WATER UTILITY INFORMATION**

If you have any questions about this report, or concerns about your water system, we can be reached at Public Works, 630-350-3435. If you, our valued customers, would like to learn more about the water system, please feel free to attend any of our regularly scheduled Village Board meetings. The Village Board meetings are held on the first and third Tuesdays of the month at 7:30 pm in the Village Hall located at 12 S. Center Street.

#### **MISSION STATEMENT**

In the calendar year of 2010 as in past years, your tap water has met all USEPA and State Drinking Water Health Standards. The Village of Bensenville is dedicated to deliver a sufficient supply of safe, clean and quality water to our customers.

#### **HISTORY**

Bensenville began its storied history as a dairy farm community. They incorporated in 1884, in response to the need for a local school system. It has grown to become one of the ten largest industrial communities in the state of Illinois. With thoughtful planning and continuous progress, Bensenville has earned its reputation as one of DuPage County's prized communities. The Village has a population of 18,352 residents according to 2010 census report.

The Village of Bensenville started receiving Lake Michigan water from the DuPage Water Commission in May of 1992. The entry point or metering station is located on Church Road. The Village has one pressure adjusting station, which accepts water from the DuPage Water Commission at 120 PSI and is then reduced in pressure to 55 PSI. From the pressure adjusting station the water is pumped and/or conveyed to the water distribution system or to storage facilities of the Bensenville water system.

The Bensenville Utilities Division maintains 68 miles of water main, 1,143 fire hydrants and over 4,900 water customer services and meters. The Village has completed the installation of a new Radio Read system to read meters and become more efficient in water billing.

In the calendar year 2010 the Village purchased 823,966,000 gallons of water from The DuPage Water Commission and had distributed a daily average of 2.2 million gallons with a one time daily maximum of 3.3 million gallons per day, which occurred on the 14<sup>th</sup> of January 2010. Bensenville also has three stand-by wells that were not used in the calendar year of 2010. These wells are operated, maintained and sampled regularly in case of an emergency situation.

## **SOURCE OF WATER SUPPLY**

The Village of Bensenville, along with 24 other Municipal Water Suppliers and 2 Private Utility Companies purchase water from the DuPage Water Commission, which receives the treated water from the City of Chicago, Department of Water Management. The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan and Wisconsin and is the second largest Great Lake, which is 307 miles long and 30-120 miles wide, with a maximum depth of 923 feet. It serves as a source of drinking water as well as recreational activities such as, swimming, fishing and boating. The EPA has found that the quality of the waters of Lake Michigan has improved dramatically over the past few decades.

## **SOURCE WATER ASSESSMENT**

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 of water quality. At certain times of year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, placement of crib structures may serve to attract water fowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source of water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of ground water to the lake. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicago area. From the building of 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.

Further information on our community water supply's water source assessment is available on the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl> or by calling the groundwater section of the Illinois EPA at 217-785-4787

## **TREATMENT**

Since the quality of the raw water source (Lake Michigan) is good, a conventional treatment method of coagulation, sedimentation, sand-filtration, chemical addition and disinfection are adequate for producing a water that is free from harmful contaminants.

## **EDUCATIONAL STATEMENTS REGARDING COMMONLY FOUND DRINKING WATER CONTAMINANTS FOR THE 2010 CONSUMER CONFIDENCE REPORT**

The City of Chicago's Department of Water Management, the DuPage Water Commission and the Village of Bensenville Department of Public Works Utility Division routinely monitors for contaminants in your drinking water according to Federal and State Laws. The Village of Bensenville Department of Public Works, Utility Division collects twenty bacteriological samples per month. The attached table shows the results of the Villages

monitoring for the period of January 1, 2010 to December 31, 2010.

Drinking water, including bottled drinking 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

The Village of Bensenville is pleased to report that our drinking water is safe and meets federal and state requirements.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 material and components associated with service lines and home plumbing. Bensenville is responsible for providing high quality drinking water but, cannot control the variety of materials used in the plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap water 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>.

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 material, and can pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

- 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 can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater 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 safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## WATER QUALITY TEST RESULTS

**Definition of Terms / Abbreviations and Footnotes: The following tables contain scientific terms and measures, Some of which may require explanation.**

<b>AL</b>	Action Level or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must <b>follow</b> .
<b>AVG</b>	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
<b>Date of Sample</b>	If a date appears in this 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 Consumer Confidence Report calendar year.

<b>Fluoride</b>	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.
<b>Lead</b>	Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).
<b>Highest Level Detected</b>	This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent single sample if only one sample was collected.
<b>MCL</b>	Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCL'S are set as close to the MCLG's as feasible using the best available treatment technology.
<b>MCLG</b>	Maximum Contaminant Level Goal, or 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.
<b>MRDL</b>	Maximum Residual Disinfectant Level – The highest level of disinfectant allowed in drinking water.
<b>MRDLG</b>	Maximum Residual Disinfectant Level Goal – The level of disinfectant in drinking water below which there is no known or expectant risk to health. MRDLG's allow for a margin of safety.
<b>N/A</b>	Not applicable.
<b>NTU</b>	Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
<b>%&lt;0.5 NTU</b>	Percent samples less than 0.5 NTU
<b>pCi/l</b>	Picocuries per liter (a measure of radioactivity).
<b>ppb</b>	Parts per billion, or micrograms per liter (ug/l) or one ounce in 7,350,000 gallons of water.
<b>ppm</b>	Parts per million, or milligrams per liter (mg/l) or one ounce in 7,350 gallons of water.
<b>Range of Detection</b>	This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year
<b>Sodium</b>	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 the level is greater than 20mg/l, and you are on a sodium-restricted diet, you should consult a physician.
<b>Total Coliform Bacteria</b>	Coliforms are bacteria that are naturally present in the environment, and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed, and this was a warning of potential problems.
<b>TT</b>	Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.
<b>Turbidity</b>	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.
<b>Unregulated</b>	A maximum contaminant level (MCL) for these contaminants has not yet been established by either state or federal <b>Contaminants:</b> regulations, nor has mandatory health effects language. The purpose for monitoring these contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.
<b>Haloacetic Acids And Total Trihalomethanes</b>	Not all samples 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 occur in the future

## 2010 Water Quality Data Tested By Chicago (Detected Contaminants)

Contaminant (units of measurement)	MCLG	MCL	Highest Level Detected	Range Of Detections	Violation	Date of Sample	Typical source of contaminant
<b>Microbial Contaminants</b>							
TOTAL COLIFORM Bacteria (% pos/mo)	0	5%	0.2%	n/a			Human and animal fecal waste
FECAL COLIFORM AND E. COLI 0 (# POS/MO)	0	1		n/a			Human and animal fecal waste

TURBIDITY (% <0.3 NTU) Lowest monthly percent meeting limit	N/A	TT	99.740%	99.740% - 100%		Soil Runoff.
TURBIDITY (NTU) Highest single measurement	N/A	TT=1NTUmax	0.38	n/a		Soil runoff.

### Inorganic Contaminants

Barium (ppm)	2	2	0.0182	0.0175 – 0.0182		Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Copper (ppm)	1.3	AL = 1.3	0.032	0 sites exceeding AL	6/09 - 9/09	Corrosion of household plumbing systems erosion of natural deposit
Lead (ppb)	0	AL = 15	6.07 90th percentile	1 site exceeding AL	6/09 - 9/09	Corrosion of household Plumbing systems Erosion of natural deposit
NITRATE (ppm) (As Nitrogen)	10	10	0.311	0.288 – 0.311		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural Deposits.
Total NITRATE & NITRITE (ppm)	10	10	0.311	0.288 – 0.311		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

### Unregulated Contaminants

SULFATE (ppm)	N/A	N/A	33.600	30.400 – 33.600		Erosion of naturally Occurring deposits
Sodium	N/A	N/A	8.98	8.26 – 8.98		Erosion of naturally occurring deposits used in water softening regeneration..

### State Regulated Contaminants

FLUORIDE (ppm)	4	4	.817	.651 -0.817		Water additive which Promotes strong teeth.
Synthetic Organic Contaminants (including Pesticides & Herbicides)						
Di(2-ethylhexyl) phthalate	0	6	0.76	0.00 – 0.76		Discharge from rubber & chemical factories

### Disinfectants/Disinfection By-Products (Stage 1)

TTHM's (ppb) Total Trihalomethanes	n/a	80	20	11.700 – 28.600		By-Product of drinking water disinfection.
HAA5 (ppb) HALOCETIC ACIDS	n/a	60	10	6.000 – 14.200		By-Product of drinking water disinfection.
CHLORINE (as Cl2) (ppm)	4.0	4.0	0.80	0.7063 – 0.8189		Drinking water disinfectant

#### TOC (Total Organic Carbon)

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

## Radioactive Contaminants

Contaminant	0	5	1.38	1.300 – 1.380	3-17-2008	Decay of natural and man made deposits
Combined Radium ( pCi/l )						
Gross Alpha excluding Radon and uranium (pCi)	0	15	0.88	0.090 – 0.880	3-17-2008	

### Unregulated Contaminant Monitoring Rule II (UCMRII)

The Chicago water system was required to monitor for all contaminants required under the Unregulated Contaminant Rule II (UCMRII). All 2009 UCMRII results were non-detected. A final round#4 sampling is scheduled for May,2011. Inquiries and results may be obtained by calling the Chicago Water Quality Division office at 312 742-7499

### Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)

In compliance with the provisions of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), the Chicago Department of Water Management had undertaken monthly source water monitoring for Cryptosporidium, Giardia E coli and turbidity, a process that began in October 2006 and lasted two years, ending in November 2008. The goal of LT2ESWTR is to require water systems, whose source water is susceptible to Cryptosporidium contaminants, to improve control of the pathogen. Monitoring performed in two year period did not detect ant Cryptosporidium or Giardia in source water samples collected.

#### 2010 Voluntary Monitoring

Since the end of the official monitoring period in November 2008 of LT2ESWTR, the City of Chicago has continued monitoring for Cryptosporidium, Giardia & E coli in source water as part of its water quality program. To date, Cryptosporidium has not been detected in any samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium ocysts & Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from water, the possibility of Cryptosporidium & Giardia organisms getting into the drinking water system is greatly reduced.

## Violation Summary Table (Chicago)

### Violation Description

No drinking water quality violations were recorded during 2010

### 2010 Water Quality Data Tested by Bensenville (Regulated Contaminants Detected)

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Arsenic	04/09/2008	0.262	0.123 – 0.262	0	.10	ppb	No	Erosion of natural Deposits runoff from Orchards, glass & Electronics
Barium	04/09/2008	0.0557	0.00502 – 0.0557	.2	.2	ppm	No	Discharge of drilling Waste, refineries & Natural deposits
Fluoride	04/09/2008	3.36	1.13 – 3.36	4	4.0	ppm	No	Erosion of natural Deposits
Iron	04/09/2008	0.193	0.0963 – 0.193		1.0	ppm	No	Erosion of natural Deposit
Manganese	04/09/2008	18.7	7.24 – 18.7	150	150	ppb	No	Erosion of naturally Occurring Deposits
Sodium	04/09/2008	82	31.3 – 82			ppm	No	Erosion from naturally Occurring deposits used In water softener Regeneration

### Radioactive Contaminants

Combined Radium		17.1	1.2- 17.1	0	5	pci/L		Erosion of natural Deposits
Gross Alpha excluding Radon & uranium		16.28	0 – 16.28	0	15	pci/L		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.

## Violation Summary Table (Bensenville)

### Violation Description

**No drinking water quality violations were recorded during 2010**

For more information, please contact Ron Jaski at 630-350-3435. Bensenville tabulated data available @ <http://163.191.83.31/dww/>

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. 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>*

This notice is being sent to you by the Village of Bensenville, Water System ID # IL0434140, Distributed on June 30, 2011.



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