

# BURNHAM WATER DEPARTMENT

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## 2015 Water Quality Report

IL0310360

*January 1st to December 31st, 2015*

This report is intended to provide you with important information about your drinking water and the efforts made by the BURNHAM water system to provide safe drinking water. The source of drinking water used by BURNHAM is Purchase Water. For more information regarding this report, contact **Waterworks Engineer, Gerald F. Hunter 708-868-0661**. *Este importante informe contiene informacion muy sobre el agua que usted bebe. Traduzcalo o hable Con alguien que lo entienda bien*

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. 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 the water pose a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline (1-800-426-4791).

### **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 can 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 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 can also come from gas stations, urban storm water runoff, and septic systems. 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 bottled water which must provide the same protection for public health. Some people may be vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 guide lines 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 materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## Source Water Assessment

**Source of Water Chicago:** 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 water-fowl, 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. **Source of Water Hammond:** Illinois EPA considers all surface water sources of public water supply susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion.

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 at 7:00 pm on the first and fourth Tuesday of each month at 14450 Manistee, Ave. The source water protection has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Village Hall or call our Water Operator at 708-868-0661. 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>.

## 2015 Regulated Contaminants Detected IL0310360

**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.

### 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 contaminant 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. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **Na:** not applicable. **Avg:** regulatory compliance with some MCL's are based on running average of monthly samples. **Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. **Maximum Residual Disinfectant Level Goal (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.

#### Lead and Copper / Date Sampled: 9/23/14 IL0310360

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Action Level	Violation				Likely source of Contamination
0 ppb	15 ppb	14.7	3	N				Corrosion of household plumbing systems; Erosion of natural deposits Leaching from Wood Preservatives

#### Regulated Contaminants Disinfectants & Disinfection By-Products / Date Sampled: 12/31/2015 IL0310360

	Range of Levels Detected	Highest Level Detected	Unit of Measure	MCLG	MCL	Violation	Likely Source of Contamination
Total Halo acetic Acids (HAA5)	9.29 - 19.46	19	ppb	no goal for total	60	No	By-product of chlorination
TTHMs (Total Trihalomethanes)	18.26 - 44.3	44	ppb	no goal for total	80	No	By-product of chlorination
Chlorine	0.2 - 0.4	0.3	ppm	MRDLG=4	MRDL=4	No	Additive used to control microbes

# Hammond Water Department IL0310390

## Source Water Information

Hammond's source of water is Lake Michigan, which is surface water, located in Hammond, Indiana.

The following contaminants were (BDL) Below Detection Level in the finished water at their entry point in the distribution system.

*Synthetic Organic Contaminants (SOC), Volatile Organic Compounds (VOC), Any Unregulated Contaminants*

Inorganic Compounds (IOC's) were detected as follows:

*Fluoride ranged from 0.3 to 1.5 mg/L*

*Sodium 10 mg/L*

Turbidity levels at the entry point to the Distribution System were as follows:

*0.04 - 0.11 NTU's - Tap*

*100% of samples were equal to or less than 0.30 NTU's*

Disinfectant and Disinfection By-Products

*Disinfectant Residual: 1.2 - 2.2 mg/L*

*Total Haloacetic Acids: 2.9 - 6.6 ug/L*

# Chicago Water Department IL0316000

## Detected Contaminants

<i>Contaminants (Unit of Measurement)</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level Detected</i>	<i>Range of Detection</i>	<i>Violation and Date of Sample</i>
<i>Typical Source of Contaminant</i>					

### Turbidity Data

			Lowest Monthly %	
Turbidity (NTU/Lowest Monthly % < 0.3 NTU)	N/A	TT	99.7%	99.7%-100.0%
soil run off		Limit		
		95% < 0.3 NTU		
Turbidity (NTU/Highest Measurement % < 0.3 NTU)	N/A	TT	0.45	N/A
soil run off		Limit 1 NTU		

### Inorganic Contaminants

<b>Barium (ppm)</b>	2	2	0.0201	.0193 - .0201
Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.				
<b>Nitrate (as Nitrogen) (ppm)</b>	10	10	0.30	0.30-0.31
Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.				
<b>Total Nitrate &amp; Nitrite (as Nitrogen) (ppm)</b>	10	10	0.30	0.30-0.31
Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.				

### Water Quality Data Table Footnotes

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. Fluoride is added to the water supply to help promote strong teeth. The Illinois Dpt of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l. Sodium there is not state or federal MCL for sodium. Monitoring is required to provide sodium information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about the 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 the contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

## Detected Contaminants Continued

<i>Contaminants (Unit of Measurement)</i>			<i>Highest Level</i>	<i>Range of</i>	<i>Violation and Date</i>
<i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Detected</i>	<i>Detection</i>	<i>of Sample</i>

### Total Organic Carbon

TOC (Total Organic Carbon)

Percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA.

### Unregulated Contaminants

Sulfate (ppm)	N/A	N/A	27.2	18.8-27.2	
Erosion of naturally occurring deposits					

Sodium (ppm)	N/A	N/A	8.48	8.04-8.48	
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Erosion of naturally occurring deposits; Used as water softener.

### State Regulated Contaminants

Flouride (ppm)	4	4	1.01	0.76-1.01	
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Water additive which promotes strong teeth.

### Radioactive Contaminants

Combined Radium (226/228) (pCi/L)	0	5	0.84	0.50-0.84	2/11/2014
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Decay of natural and man-made deposits.

Gross Alpha excluding radon and uranium (pCi/L)	0	15	6.6	6.1-6.6	2/11/2014
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Decay of natural and man-made deposits.

### UCMR3 Compliance Reporting

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

Chromium (ppb)	100	100	0.3	0.3-0.3	
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Naturally-occurring element; used in making steel and other alloys.

Molybdenum (ppb)	N/A	N/A	1.1	1.0-1.1	
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Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide.

Strontium (ppb)	N/A	N/A	120	110-120	
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Naturally occurring element; has been used in cathode-ray tube TVs to block x-ray emissions.

Vanadium (ppb)	N/A	N/A	0.2	0.2-0.2	
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Naturally occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate.

Chromium-6 or Hexavalent Chromium (ppb)	N/A	N/A	0.19	0.18-0.19	
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Natural-occurring element; used in making steel and alloys.