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# City of Highland Consumer Confidence Report



## HIGHLAND IL 1190550

### **Annual Water Quality Report for the period of January 1 to December 31, 2008**

**This report is intended to provide you with important information about your drinking water and the efforts made by the HIGHLAND water system to provide safe drinking water. The source of drinking water used by HIGHLAND is Surface Water.**

**For more information regarding this report contact:**

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or  
Russ Parker, W&S Dist. Supt., 654-6823**

**Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.**

**Background** - Highland has provided public water-supply services since 1926, when it acquired and upgraded rustic facilities begun in the 1890's when the Pet Milk Company built a dam and piped untreated water to their milk-condensing plant. Our water source is Silver Lake, located off State Route 143 northwest of town.

A succession of other improvements followed construction in 1926 of the filtration plant, and the treatment works was expanded and overhauled completely in 1993. In 2006 a 1.5 million gallon standpipe was added, increasing storage capacity. Water is pumped from the lake, treated by flocculation and settling, pre-chlorinated, filtered, post-chlorinated, fluoridated, and pumped to the distribution system. Activated carbon is used to remove organic chemicals and aid in taste and odor control. The treatment plant presently can produce 4.2-million gallons daily of potable water.

### **Your Potable Water 2008**

Highland is pleased to present its 11<sup>th</sup> Annual Water Quality Report. Regulations Issued by the United States Environmental Protection Agency (USEPA) require that we inform you about the quality of water and services we provide. We are pleased to comply and quite proud of our performance in this role. Our constant goal is to provide you with a safe and dependable supply of drinking water.

### **Source of Drinking Water**

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 for 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 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).

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, livestock operations and wildlife.

*Inorganic contaminants*, such as salts and metals, which may be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

*Pesticides or herbicides*, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

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

**Radioactive compounds, which may be naturally occurring or the result of oil and gas production or 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 too must provide the same protection for public health.

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. 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).

**Source Water Assessment** - The source water assessment for our supply has been completed by the Illinois EPA. The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential problems; hence the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Highland Silver Lake has been a participant in the Illinois Voluntary Atrazine Monitoring Program, sponsored by the Ciba Geigy Corporation to study atrazine levels in surface waters, as well as participating in the 1981 Rural Clean Water Program and Volunteer Lake Monitoring Program. Additionally, the City acquired a protective buffer strip and conservation areas when land was purchased for dam and lake construction. These lands were annexed and the Highland Silver Lake Commission (HSLC) was established to guide and advise on lake management issues. The Highland Parks and Recreation Department has also made efforts to expand forest and native grass areas around the Lake.

In order to help farmers in adopting sound agricultural practices the Illinois Council on Best Management Practices (C-BMP) was formed. The Council is a coalition of agribusiness and agricultural producer organizations with the support of the University of Illinois Extension and serves as a clearing house on current research to protect water quality in Illinois. The council also provides information and support to local watershed groups to help implement sound water quality initiatives and can offer educational assistance and help facilitate the technical and financial resources needed to carry out water quality objectives. For more information on BMP's, please refer to the website at [www.ctic.prudue.edu](http://www.ctic.prudue.edu), as well as a Guide to Illinois Lake Management available from Illinois EPA. The Illinois Agronomy Handbook should also be used as guidance in implementing BMP contact Dr. George Czapar, Springfield Extension Center, P.O. Box 8199, Springfield, IL 62791, email: [g-czapar@uiuc.edu](mailto:g-czapar@uiuc.edu). In a national effort to ensure adequate protection against groundwater contamination from the herbicide atrazine, USEPA made significant changes to the atrazine use label in 1990. It is a violation of law to apply, mix, or load atrazine within 50' of any

well, including water wells, irrigations wells, livestock water wells, abandoned wells or sinkholes. In 1992, the atrazine label was further amended to protect surface waters by requiring a 200' application setback for lakes and reservoir. In addition, there is a 66' setback from any point where field surface water runoff enters a stream or river. A Concerted effort to incorporated best management practices for atrazine applications is on-going, an atrazine BMP document is available fro Novartis Crop Protection, or by contacting the Illinois Fertilizer & Chemical Association at (800) 892-7122. In an effort to minimize the impact of livestock facilities on water resources on a statewide basis, livestock facilities and waste-handling structures. Detailed information on the Livestock Management Facilities Act may be found at the website [www.age.state.il.us](http://www.age.state.il.us). In addition, further watershed protection efforts and priorities of the Illinois EPA, Illinois Department of Agriculture, Illinois Department of Natural Resources, U.S. Department of Agriculture's Natural Resources Conservations Service, U.S. Army Corps of Engineers, and the Nature Conservancy are described and illustrated at Illinois EPA's website: [www.epa.state.il.us](http://www.epa.state.il.us).

**Highland's Performance** – Highland personnel are diligent in the detection of contaminants in our supply, and prepared to adjust the treatment process to remove any contaminant found above allowable limits. We perform about 2,000 tests every year

to ensure levels of contaminants remain below recommended safe levels.

During 2008, no violations were found in water produced by Highland. Water quality is monitored by observations and laboratory testing at the treatment plant and verified by samples analyzed by laboratories of the Illinois EPA and independent services.

**Your Participation** - We want you to understand the efforts we make to continually improve the water treatment process, protect our water resources, and provide the information you need to make informed decisions about water-supply matters. Consequently, copies of this report may be obtained at the Public Works Building at 1113 Broadway during business hours. This Consumer Confidence Report will not be mailed or hand delivered. Annual reports must be made public by July 1, 2009.

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any regularly scheduled Silver Lake Commission or City Council meeting.

We are deeply committed to ensuring the highest practicable quality of your water and invite any suggestion or comment to that end.

1190550 HIGHLAND

## 2008 Regulated Contaminants Detected

### 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. We are responsible for providing high quality drinking water, but 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 you 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. ALG's allow for a margin of safety.

Lead & Copper	Date Sampled	MCLG	Action Level	90 <sup>th</sup> Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination	
Copper		1.3	1.3	.1	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.	<a href="#">Edit</a>
Lead		0	15	2.5	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.	

### Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.na: not applicable.Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. Maximum Residual Disinfectant Level 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.

### Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Chloramines		2.7	.2 -2.7	MRDLG =	MRDL	ppm	No	Water additive used	<a href="#">Edit</a>

Haloacetic Acids (HAA5) *		54	26 – 73	No goal for the total	60	ppb	No	By-product of drinking water chlorination	<a href="#">Edit</a>
Not all sample results may have been used in 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) *		71	18-109.98	No goal for the total	80	Ppb	No	By-product of drinking water chlorination	
Not all sample results may have been used for calculation 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	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Barium		.04	.04-.04	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	<a href="#">Edit</a>
Fluoride		.9	.85 - .85	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	<a href="#">Edit</a>
Manganese		4	4 -4	150	150	ppb	No	Erosion from naturally occurring deposits.	
Nitrate [measured as Nitrogen]		1	.76 - .8	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	<a href="#">Edit</a>
Sodium		4	3.7 – 3.7			ppm	No	Erosion from naturally occurring deposits: Used in water softener regeneration	<a href="#">Edit</a>
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Combined Radium 226/228		.74	.74 - .74	0	5	pCi/L	No	Erosion of natural deposits	<a href="#">Edit</a>

#### Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Source	
Lowest monthly % meeting limit	0.3 NTU	95.17%	No	Soil Runoff	<a href="#">Edit</a>
Highest single measurement	1NTU	0.56 NTU	No	Soil Runoff	<a href="#">Edit</a>

**Information Statement:** Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

#### Total Organic Carbon

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