

# Water Quality Report 2005

January 1, 2005—December 31, 2005



## Village of Huntley Drinking Water Treatment Program

**Phone Number: (847) 669-3450 Fax Number: (847) 659-1866**

**Website: [www.huntley.il.us](http://www.huntley.il.us)**

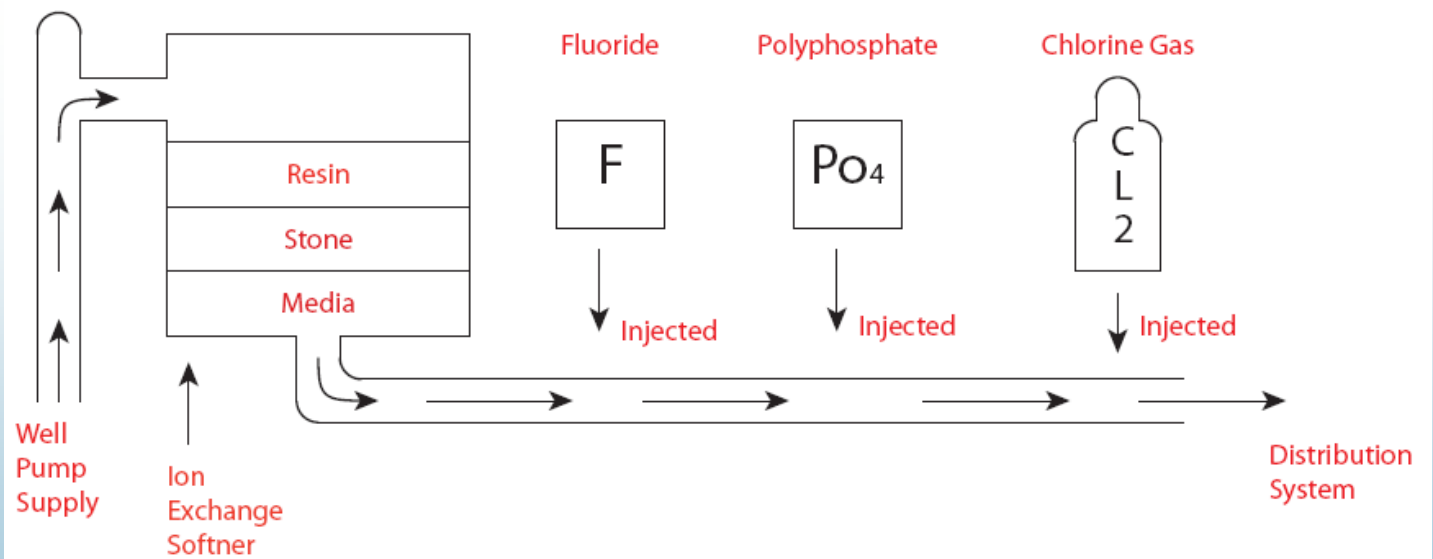
**Contact Person: Jim Schwartz, Director of Public Works**

**This report is intended to provide you with important information about your drinking water and the efforts made by the Village of Huntley Water Production Facility to provide safe drinking water.**

The staff at the Huntley Water Treatment Plant work around the clock to ensure that Huntley's award-winning tap water is safe and of high quality. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

To confirm that your tap water meets EPA regulations, we regularly submit water samples for analysis. This report will summarize contaminants found during testing during calendar year 2005. In 2005, the Village of Huntley water system was 100% compliant with the Total Coliform Rule, which regulates the bacteriological quality of tap water.

Water flow and the process simplicity are shown in this schematic of the Huntley Water Treatment Program.



**More information about contaminants and potential health effects can be obtained by calling the US Environmental Protection Agency's SAFE DRINKING WATER HOTLINE 1-800-426-4791.**

### Tap Water Information

- Village water has a pH of 7.1—7.5
- Village water has an average hardness of 50—102 mg/liter which is equivalent to 3—6 grains per gallon.
- Fluoride content is 1.0 PPM (1.0 mg/l) as required by the Illinois Department of Public Health

## Village of Huntley's Source Water Assessment Summary

Based on the information obtained in a Well Site Survey, published in 1989 by the Illinois EPA, twenty eight potential secondary source or possible problem site were identified within the survey area of Huntley wells. Furthermore, information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated several additional sites with ongoing remediation, which may be of concern.

The Illinois EPA has determined that the Huntley Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydro geologic data on the wells.

Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Huntley Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the city's wells are properly constructed with sound integrity and proper site conditions; a hydro geologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the city's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in this vulnerability determination. Hence, well hydraulics were not evaluated for this groundwater supply. The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Huntley's wells. These minimum protection zones are regulated by the Illinois EPA. In addition, the community enacted a "maximum setback zone ordinance" for wells #5, #6, and #7, which is authorized by the Illinois Environmental Protection Act and allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from the wells. To further reduce the risk to source water, the city has implemented a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA, which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the facility considerable analysis costs.

To further minimize the risk to the groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the city may wish to enact a "maximum setback zone" ordinance for wells #8, #9, and #10, to further protect their water supply. These ordinances are authorized by the Illinois Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to a fixed distance, normally 1,000 feet from their wells. The water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a city will minimize their risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the village.

**Village of Huntley – Annual Drinking Water Quality Report  
Regulated Contaminants Detected in 2005 (Sampled in 2005 unless noted)**

**Lead and Copper (9/10/04)**

Definitions: Action Level (AL): The concentration of a contaminant which is no known or expected risk to health. ALG's allow for a margin of safety.  
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 MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	6.4 ppb	0	1.3 ppm	1.3 ppm	0.857 ppm	0	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 liter or parts per million - or one ounce in 7,350 gallons of water. ug/l: 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 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
THMs [Total Trihalomethanes]	7/20/2004	8	Not Applicable	N/A	80	ppb	No	By-product of drinking water chlorination
Chlorine	3/31/2005	0.78	0.6955 - 0.78	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Fluoride	8/23/2004	1.1	0.88 - 1.1	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Barium	8/23/2004	1.8	0.75 - 1.8	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate-Nitrite	1/8/2003	0.32	0.26 - 0.32	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	8/23/2004	2	1 - 2	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Combined Radium	1/29/2003	9.8	2.1 - 9.8	0	5	pCi/L	No	Erosion of natural deposits
Alpha Emitters	1/29/2003	15.9	2.3 - 15.9	0	15	pCi/L	No	Erosion of natural deposits
State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Iron This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more.	8/23/2004	48	21 - 48	N/A	1000	ppb	No	Erosion from naturally occurring deposits
Sodium 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 you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.	8/23/2004	100	89 - 100	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration

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.



## HEALTH INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The mere presence of contaminants does not necessarily indicate that water poses a health risk.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as cancer patients undergoing chemotherapy, organ transplant recipients, persons with HIV/AIDS or other immune system disorders, and some elderly persons and infants, can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers.

USEPA/CENTER FOR DISEASE CONTROL 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**.

## PLANS FOR IMPROVEMENT

In order to maintain its ability to provide safe, reliable drinking water to the citizens of Huntley both now and in the future, the Village continues to augment and improve its water collection, treatment, and distribution systems. This includes projects such as adding new wells to increase well water delivery capacity, and rehabilitation of existing storage tanks and treatment plant facilities.

### EXPECTED CONTAMINANTS:

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

### CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

**Microbial contaminants** such as viruses, protozoa, and bacteria, which may come from wastewater 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 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 can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants**, which can be naturally-occurring or be the results of oil and gas production and mining activities.