

# City of Urbana Consumer Confidence Report



## The New Water Treatment Plant Annual Water Quality Report City of Urbana 2009

**For more information** about your drinking water and for opportunities to get involved, please contact Robert W. Munch (652-4335). Also you are welcome and encouraged to attend City of Urbana Council meetings on the 2nd and 4th Tuesday of each month at 7 pm.

### Educational Information

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 (1-800-426-4791).

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 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 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 can 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 the tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### City of Urbana Annual Water Quality Report PWSID # 1101212

The City of Urbana Water Division provides water to the community that meets all requirements of the State of Ohio and the USEPA. We take our mission very seriously. As shown in this annual report covering 2009, the water we delivered complies with the regulations of the State of Ohio and the U.S. Environmental Protection Agency. We have a current, unconditional license to operate our water system

Urbana disinfects your water using sodium hypochlorite (chlorine) to remove pathogens that may come from the source water. Additionally a granular activated carbon system is used to remove possible Volatile Organic Contaminants. In 2009, the City of Urbana pumped 716 million gallons of water.

Ohio EPA completed a study of the City of Urbana's source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water sources. According to this study, the aquifer that supplies water to the City of Urbana's Grimes Airport and Old Troy Pike Well fields have a high susceptibility to contamination. This determination is based on the following:

- Lacks protective layer of clay overlying the aquifer
- Shallow depth (less than 30 feet below ground surface) of the aquifer
- Presence of significant potential contaminant sources in the protection area, and the presence of manmade contaminants in treated water. Nitrate, tetrachloroethene, and trichloroethene were detected in the treated and raw water at levels of concern since 1991. This indicates a manmade influence.

Due to this contamination, the City of Urbana has been forced to seek an alternative water source. These on-going improvements are the SR 29 West Water System Improvements, which include 3 new wells, a treatment facility, which went online January 28, 2009, and 2 miles of transmission water main. During the first round of testing for the Unregulated Contaminants Monitoring Rule, none of the listed contaminants were detected. The risk of future contamination can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling Robert W. Munch at 652-4335.

### State Route 29 Water Treatment Plant

The SR 29 West Water Treatment Plant is designed to presently treat 2 MGD (million gallons per day) of ground water. When additional capacity is needed in the future, it can be readily be expandable to 4 MGD capacity.

The location of the plant site was selected primarily on the merits of supplying an adequate supply of safe groundwater for the City of Urbana. This site being approximately 3 miles north of the City is remotely located from the potential of future industrial contamination and has sufficient aquifer yields to provide additional flow capacity for future expansion when needed.

The Improvements' include;

A New Well Field - The Well Field consists of three, 40 HP 1 MGD pumps with capabilities to add a 4th well in the future. Each well pump motor is elevated above the 100 year flood elevation. The site also includes a 150 KW standby generator.

Iron and Manganese Filters - A total of three, 10 foot diameter by 24 foot long horizontal pressure filters that are rated for 1 MGD each. Room has been included for a 4th filter to be added in the future.

Clearwell -The clearwell consists of a 200,000 gallon ground storage tank to help equalize flow and provide storage to the system. Interior baffling is provided to enhance chlorine contact time.

Chemical Treatment—Chemicals included in treatment include; Sodium Hypochlorite, Potassium Permanganate, Sodium Hydroxide and Sodium Thiosulfate.

Other components include High Service Pumps, Backwash pumps, Red Sand Filters, Outfall pumping station and structure, Future Nitrate and UV disinfection, and a Laboratory.

To find out more information about the New Treatment facility or to arrange a tour, Contact Robert W. Munch at 652-4335.

## City of Urbana's 2009 Monitoring Results for Contaminants in Drinking Water

*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 at risk. These people should seek advice about drinking water from their health care provider. EPA/CDC guidelines on the 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).*

**Total Coliforms:** Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. In 2009 the City of Urbana was not cited for any violations.

**Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of <6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

**Volatile Organic Contaminants (VOC):**  
**Tetrachloroethene PCE:** Some people who drink water containing Tetrachloroethene in excess of the MCL over many years could experience problems with their liver, and may have an increased risk of getting cancer.  
**Trichloroethane TCA:** Some people who drink water containing trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.  
**Trichloroethene TCE:** Some people who drink water containing trichloroethene in excess of the MCL over many years could experience problems with their liver, and may have increased risk of getting cancer.

**Lead Statement** "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. The Urbana Water Division is 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 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>."

**Definitions**  
**Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs 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. MCLGs allow for a margin of safety.

**90th Percentile:** 90% of samples are equal to or less than the number in the chart.

**N/A:** Not applicable  
**N/D:** Not detectable at testing limits.

**ppb or parts per billion:** micrograms per liter (ug/l), are units of measure for concentration of contaminant. A part per billion corresponds to one second in 31.7 years.

**ppm or parts per million:** milligrams per liter (mg/l), are units of measure for concentration of contaminant. A part per million corresponds to one second in a little over 11.5 days.

**pCi/L or picocuries per liter:** a measure of radioactivity.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**Action Level or AL:** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow

< A sign used to represent less than. In the result table it is used to represent an amount that is less than the range of detection by the lab's testing method. Equal to a non-detected.

≥ A sign to represent greater than or equal to.

Total Hardness was 478 mg/l or 28 grains

pH is 7.7

**For the most current information you may access the City of Urbana website at [www.urbanaohio.com](http://www.urbanaohio.com).**

Unregulated Contaminants	Units	MCLG	MCL	Max Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Chloroform	ppb	0	n/a	27.8	< 0.5 - 27.8	No	2009	Disinfection By-Products
Bromoform	ppb	0	n/a	1.3	< 0.5 - 1.3	No	2009	Disinfection By-Products
Bromodichloromethane	ppb	0	n/a	6.4	< 0.5 - 6.4	No	2009	Disinfection By-Products
Dibromochloromethane	ppb	0	n/a	4.1	< 0.05 - 4.1	No	2009	Disinfection By-Products
trihalomethanes, Total	ppb	0	80	39.6	< 2.0 - 39.6	No	2009	Disinfection By-Products
Contaminants Radiological	Units	MCLG	MCL	Max Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Alpha, Total	pCi/L	0	15	< 3.00	< 3.00	No	2009	Radiological Decay
Radium 228	pCi/L	0	5	< 1.00	< 1.00	No	2009	Radiological Decay
Inorganics 90th Percentile								
Copper	ppb	0	AL 1300	100	10.0 - 110.0	No	2009	Household Plumbing
Lead	ppb	0	AL 15	7	< 2.0 - 24.0	No	2009	Household Plumbing
Antimony, Total	ppb	0	6	< 3.0	< 3.0	No	2009	Naturally Occurring Deposits
Arsenic, Total	ppb	0	10	< 3.0	< 3.0	No	2009	Naturally Occurring Deposits
Barium, Total	ppb	0	2000	190	190	No	2009	Naturally Occurring Deposits
Beryllium, Total	ppb	0	4	< 0.5	< 0.5	No	2009	Naturally Occurring Deposits
Cadmium Total	ppb	0	5	< 0.5	< 0.5	No	2009	Naturally Occurring Deposits
Chromium, Total	ppb	0	100	< 10.0	< 10.00	No	2009	Naturally Occurring Deposits
Mercury, Total	ppb	0	2	< 0.2	< 0.2	No	2009	Naturally Occurring Deposits
Nickel, Total	ppb	0	100	< 10.0	< 10.0	No	2009	Naturally Occurring Deposits
Selenium, Total	ppb	0	50	< 3.0	< 3.0	No	2009	Naturally Occurring Deposits
Thallium, Total	ppb	0	2	< 1.0	< 1.0	No	2009	Naturally Occurring Deposits
Fluoride, Total	ppm	0	2	0.31	0.31	No	2009	Naturally Occurring Deposits
Cyanide, Total	ppb	0	200	< 5.0	< 5.0	No	2009	Naturally Occurring Deposits
111 Trichloroethane	ppb	0	200	< 0.5	< 0.5	No	2009	Industrial Solvents
Tetrachloroethene	ppb	0	5	< 0.5	< 0.5 - 1.1	No	2009	Industrial Solvents
Trichloroethane	ppb	0	5	< 0.5	< 0.5	No	2009	Industrial Solvents
Nitrates	ppm	0	10	3.6	3.4 - 3.6	No	2009	Fertilizers and Animal Wastes
Dibromoacetic Acid	ppb	0	n/a	1.2	< 1.0 - 1.2	No	2009	Disinfection By-Products
Dichloroacetic Acid	ppb	0	n/a	4.7	< 1.0 - 4.7	No	2009	Disinfection By-Products
Monochloroacetic Acid	ppb	0	n/a	< 2.0	< 2.0	No	2009	Disinfection By-Products
Trichloroacetic Acid	ppb	0	n/a	1.4	< 1.0 - 1.4	No	2009	Disinfection By-Products
Monobromoacetic Acid	ppb	0	n/a	< 1.0	< 1.0	No	2009	Disinfection By-Products
Benzene	ppb	0	5	1.1	< 0.5 - 1.1	No	2009	Industrial Solvents
Total HAA	ppb	0	60	7.1	< 6.0 - 7.1	No	2009	Disinfection By-Products