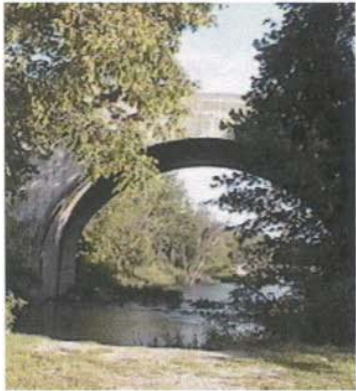


# CITY OF PLANO

## Annual Water Quality Report for the period of January 1 to December 31, 2009



# 2010 Drinking Water Quality Report

This report is intended to provide you with important information about your drinking water and the efforts made by the PLANO water system to provide safe drinking water. The source of drinking water used by PLANO is Ground Water. **This report will be mailed to all consumers by way of the Village Free Press.** If you have any questions about this report or concerning your water system, please contact John P. McGinnis, P.E., Director of Public Works at (1-630-552-8275), [planopublicworks@comcast.net](mailto:planopublicworks@comcast.net). If you would like to learn more, please feel welcome to attend any of our regularly scheduled Council meetings the second and fourth Monday of each month at 6:00 p.m. in the City Hall, 17 E. Main Street.

Este reporte contiene información muy importante sobre el agua que usted bebe. Si es necesario que sea traducido, por favor llame a la ciudad de Plano, al número 1-630-552-8275 o hable con alguien que lo entienda.

### Source of Drinking Water

The sources of drinking water (both tap water and Bottled water) includes 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.

### Contaminates 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 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.

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's *Safe Drinking Water Hotline* at (1-800- 426-4791).

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 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's *Safe Drinking Water Hotline* at (1-800- 426-4791).

# CITY OF PLANO

## 2009 Regulated Contaminants Detected

**Lead and Copper**      Date Sampled: 2008      **IF LEAD IS PRESENT IN DRINKING WATER**, 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 City of Plano 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 Hotline" or at <http://www.epa.gov/safewater/lead>.

Definitions:      Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirement 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.

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 ppb	15 ppb	7 ppb	1	1.3 ppb	1.3 ppb	0.32 ppb	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.

**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.

**n/a:** 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. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit	Violation?	Likely Source of Contaminant
<b>Disinfectants &amp; Disinfection By-Product</b>								
Chlorine	2009	0.95	0.4 - 0.95	4	4	ppm	No	Water additive used to control microbes.
Total Haloacetic Acids (HAA5)	2007	1.8	1.8 - 1.8	n/a	60	ppb	No	By product of drinking water chlorination.
TTHMs (Total Trihalomethanes)	2007	8.4	8.4 - 8.4	n/a	80	ppb	No	By product of drinking water chlorination.
<b>Inorganic Contaminants</b>								
Barium	2009	0.0818	0.052 - 0.0818	2	2	ppm	No	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.
Fluoride	2009	1.2	0 - 1.2	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Iron	2009	0.46	0 - 0.46		1	ppm	No	Erosion of natural occurring deposits.
Nitrate (measured as Nitrogen)	2009	4.2	0 - 4.16	10	10	ppm	No	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Selenium	2009	2	0 - 2	50	50	ppb	No	Erosion of natural deposits; Discharge from petroleum, metal refineries and mines.
Sodium	2009	23.6	9.8 - 23.6			ppm	No	Erosion of natural occurring deposits; Used in water softener regeneration.
<b>Radioactive Contaminates</b>								
Combined Radium 226 / 228	2009	2.3	0 - 2.3	0	5	pCi/L	No	Erosion of natural deposits.
<b>Volatile Organic Contaminants</b>								
1,1,1 - Trichloroethane	2009	0.702	0 - 0.702	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
Dichloromethane	2009	0.75	0 - 0.75	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.

Note: Not all sample 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 should occur in the future. 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.

---

## Source Water Information

Plano is currently using 5 wells (#3, #4, #5, #7 & #9). They are all shallow unconfined ground water. The City feeds chlorine to disinfect any possible bacteria that may be present. We also feed fluoride to reach optimum levels for the prevention of dental disease per the Illinois Department of Public Health guide lines. Wells #7 & #9 are run through LayneOx filters to remove iron and manganese. 2009 average daily pumpage was 787,700 gallons and our maximum day was August 15<sup>th</sup> at 1,375,000 gallons.

## Source Water Assessment

To determine Plano's susceptibility to groundwater contamination, a Well Site Survey, published in 1989, was reviewed. During the survey of Plano's source water protection area, Illinois EPA staff recorded two potential sources, routes, or possible problem sites within the 400 foot minimum setback zone of well #4. A total of five potential sources or problem sites are located within the combined 1,000 foot survey area of all the active wells. The Illinois EPA considers the source water of this facility to be susceptible to contamination. This determination is based on a number of criteria including the following: monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, and assessing the available hydrogeologic data on the wells. The Illinois Environmental Protection Act established minimum protection zones of 400 feet for Plano's active community water supply. These minimum protection zones are regulated by the Illinois EPA. As authorized by the Illinois Environmental Protection Act, the city enacted a maximum setback zone ordinance for wells #3, #4, and #5, which allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. A 5-year recharge zone for the active community wells was delineated. This is the geographic area surrounding a well or well field providing potable water to a community water supply as modeled using computer software to determine a five year time of travel. From the community wells this recharge area extends nearly 900 feet to the southeast and 7,600 feet to the northwest from the center of the well field and attaining a maximum width of approximately 3,900 feet. Additionally, the community has developed a groundwater monitoring program for a salt storage unit located within the minimum and maximum setback zone areas, to comply with the requirements of 35 Ill. Ad. Code 615, Subpart L.

To further minimize the risk to the City's water supply, the City of Plano has done the following per Illinois EPA recommendations: Revisited our contingency planning documents in order to ensure the plans are current and the water department and emergency response staff are aware of, and adequately trained to implement, emergency procedures. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a water supply will minimize their risk of being without safe and adequate water. Our cross connection ordinance is up to date. 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 supply. The City has a contract with R & R Electrical Contractors, Inc. for construction of a new chemical feed building built above the 100 year flood plain and to install a generator for uninterrupted power for wells #3, #4 & #5.