



# 2010 Annual Drinking Water Report

(Consumer Confidence Report)

CITY OF PLANO PWS 0430007 (972) 769-4160

This report is available online at [livegreeninplano.com](http://livegreeninplano.com)

**En Español:** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (972) 769-5130 para hablar con una persona bilingüe en español.

## OUR DRINKING WATER IS REGULATED

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

## Sources of Drinking Water

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. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

## 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 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.

## Where do we get our drinking water?

The source of drinking water used by City of Plano is purchased surface water from the North Texas Municipal Water District (NTMWD). To contact NTMWD, call (972) 442-5405. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

**Public Participation Opportunities:** To learn more about future public meetings concerning your drinking water or about how to protect and save our water supplies, please visit [plano.gov/water](http://plano.gov/water) or [livegreeninplano.com](http://livegreeninplano.com).

ALL drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health benefits to purchasing bottled water or point of use devices. 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 (800) 426-4791.

**SPECIAL NOTICE** (Required language for ALL community public water supplies): You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons (such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders) can be particularly at risk for infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines and appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791.

**Secondary Constituents:** Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document by federal law but they may greatly affect the appearance and taste of your water.

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

**Maximum Contaminant Level Goal or 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.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level or MRDL:** The highest level of a 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 or MRDLG:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**N/A:** Not applicable.

**NTU:** Nephelometric Turbidity Units.

**pCi/L:** picocuries per liter (a measure of radioactivity)

**ppb:** parts per billion or micrograms per liter—or one ounce in 7,350,000 gallons of water.

**ppm:** parts per million or milligrams per liter—or one ounce in 7,350 gallons of water.

### Inorganic Constituents

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Possible Source
2010	Barium	0.04	0.03	0.08	2	2	ppm	Erosion of natural deposits.
2010	Fluoride	0.58	0.51	0.64	4	4	ppm	Erosion of natural deposits; water additive.
2010	Nitrate	0.26	<0.07	0.51	10	10	ppm	Runoff from fertilizer use.
2010	Gross Beta Emitters	N/A	N/A	4.4	50	0	pCi/L	Decay of natural and man-made deposits.

### Organic Constituents

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Possible Source
2010	Atrazine	<0.1	<0.1	0.24	3	3	ppb	Runoff from herbicide use.
2010	Simazine	<0.07	<0.07	0.08	4	4	ppb	Runoff from herbicide use.

### Maximum Residual Disinfectants

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Possible Source
2010	Chloramines	2.63	0.9	4	4.0	<4.0	ppm	Disinfectant used to control microbes.
2010	Chlorine Dioxide	0	0	0	0.8	0.8	ppm	Disinfectant.
2010	Chlorite	0.33	0.01	0.75	1.0	N/A	ppm	Disinfectant.

### Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Possible Source
2010	Total Haloacetic Acids	23.31	14.9	30.2	60	ppb	Byproduct of drinking water disinfection.
2010	Total Trihalomethanes	32.41	25.5	36.8	80	ppb	Byproduct of drinking water disinfection.

### Unregulated Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Possible Source
2010	Chloroform	13.88	10.7	15.33	ppb	Byproduct of drinking water disinfection.

Note: There is no maximum contaminant level for this chemical at the entry point to distribution.

### Lead and Copper

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCLG	Unit of Measure	Possible Source
2010	Lead	0.00131	0.000359	0.00959	15	ppm	Corrosion of customer plumbing
2010	Copper	0.8466	0.251	1.42	1.3	ppm	Corrosion of customer plumbing

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. This water supply 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 [epa.gov/safewater/lead](http://epa.gov/safewater/lead).

## Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Possible Source
2010	Turbidity	1.14	99.86	0.3	NTU	Soil runoff.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

## Unregulated Constituents (No associated adverse health effects)

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Possible Source
2010	Bicarbonate	100	73	120	N/A	ppm	Corrosion of carbonate rocks.
2010	Calcium	56	34	87	N/A	ppm	Abundant naturally occurring element.
2010	Chloride	28	24	34	300	ppm	Abundant naturally occurring element.
2010	Copper	0.09	0.04	0.13	1	ppm	Corrosion of household plumbing.
2010	Hardness as Ca/Mg	174	162	185	N/A	ppm	Naturally occurring elements.
2010	Iron	<0.2	<0.2	<0.2	0.3	ppm	Erosion of natural deposits.
2010	Magnesium	4	3.6	4.7	N/A	ppm	Abundant naturally occurring element.
2010	Manganese	<0.001	<0.001	0.002	0.05	ppm	Abundant naturally occurring element.
2010	Nickel	0.04	0.03	0.05	N/A	ppm	Erosion of natural deposits.
2010	pH	7.8	7.4	8.6	>7.0	units	Measure of corrosivity of water.
2010	Sodium	32	25	36	N/A	ppm	Erosion of natural deposits.
2010	Sulfate	79	56	96	300	ppm	Natural occurring.
2010	Total Alkalinity (CaCO <sub>3</sub> )	100	73	120	N/A	ppm	Natural occurring soluble mineral salts.
2010	Total Dissolved Solids	346	336	355	1000	ppm	Total dissolved mineral constituents.
2010	Total Hardness (CaCO <sub>3</sub> )	149	107	186	N/A	ppm	Natural occurring calcium.
2010	Zinc	<0.01	<0.01	0.17	5	ppm	Abundant naturally occurring element.

## Total Coliform

Year	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Possible Source
2010	Total Coliform Bacteria	12.6	*	Presence	Naturally present in the environment.

\* Presence of coliform bacteria in 5% or more of the monthly samples. REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## Violations Table

Violation Type	Violation Begin	Violation End	Violation Explanation
Total Coliform MCL, Monthly	06/01/2010	06/30/2010	Coliforms are bacteria that are naturally present in the environment; while not disease-causing themselves, they are used as an indicator that other, potentially harmful, bacteria may be present. In an unusual occurrence, Coliforms were found in more samples than allowed in one month and this was a warning of potential problems. No pathogenic organisms (those which cause illness) and no indicators of fecal contamination have been detected.
Monitoring (TCR), Repeat (Minor)	06/01/2010	06/30/2010	We failed to collect all of the follow-up samples in response to finding Total Coliform bacteria in a routine sample.

## Steps to Correct Violations:

- 1) All samples had shown chlorine residuals greater than 2.8 ppm, which would protect the water system from minor contaminations.
- 2) No pathogenic organisms (those which cause illness) and no indicators of fecal contamination have been detected.
- 3) For the remainder of 2010, all water samples have tested "good", with no presence of Coliform bacteria.
- 4) Working with Plano Health Department and North Texas Municipal Water District, the City completed thorough replications of testing procedures to identify possible sources for the abnormal results. This testing review determined several sites were found to have physical problems which have been corrected.
- 5) For quality assurance, a private lab and environmental consultant were employed to corroborate results and evaluate our procedures. The private lab results did not detect Total Coliform bacteria, and the consultant recommended procedural changes which have been implemented.
- 6) Since the time of the violation, the City has been implementing extra monitoring for additional parameters such as monochloramines, pH, etc. in order to obtain more information to improve monitoring of water quality. It is the responsibility of the City to inform you of this isolated occurrence. Be assured that your water is and will continue to be safe to drink and use. Ensuring the quality of water delivered to City of Plano customers is of the utmost importance and every step is being taken to prevent any further occurrence.