



The Town of Northlake

WATER QUALITY REPORT 2014

PWS ID# 0610235

THE TOWN OF NORTHLAKE PROVIDES EXCEPTIONAL WATER to you!

Once again we are proud to present our annual water quality report. This edition covers all testing completed from January through December 2014. We are pleased to tell you that our water meets all state and federal drinking water laws. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. For more information about this report, or for any questions relating to your drinking water, please call Eric J. Tamayo, Public Works Director at 940-648-3290, x251.

WHERE DOES OUR WATER COME FROM?

The Town's drinking water is obtained from Town owned wells, Argyle Water Supply Corp. and the City of Fort Worth's surface water system. The City of Fort Worth obtains surface water from Lake Worth, Richland Chambers Reservoir, Eagle Mountain Lake, Clear Fork, Trinity River, and Cedar Creek Reservoir and supplies the south portion of our Town. The northern subdivisions are supplied by Town wells in the Trinity and Paluxy aquifers, and Argyle Water Supply Corp. for the Harvest subdivision. The TCEQ completed an assessment of your source water (North Ridge Estates) and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report.

WHY FIXING LEAKS AROUND YOUR HOME IS IMPORTANT

A single conservation measure that can have the biggest impact is to fix all leaks. Even the smallest leak can have a big effect on your water usage and your wallet. Here are some leak facts that may surprise you:

- A leaking toilet can use 90,000 gallons of water in 30 days.
- A dripping faucet or hose bib can lose up to 180 gallons a month or 2,160 gallons per year.
- About one in every 318 homes or buildings has a leak.
- A typical toilet leak loses 30,000 gallons of water per year.
- Washing a single car uses 150 gallons of drinking water.
- Using a broom instead of a hose to clean a sidewalk saves 150 gallons of water.
- Collecting water for gardening from the faucet while waiting for hot water saves about 250 gallons of water a month.

Source: American Leak Detection and Water Online.

WHY PROVIDE A Water Quality Report?

A Source Water Susceptibility Assessment for your water sources (customers south of Denton Creek) is 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 our source water protection strategies. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses 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 stormwater 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 byproducts 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 result of oil and gas production and 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>



TWO COMMON CROSS-CONNECTIONS ARE:

Any hose is a cross-connection when left submerged in a swimming pool, laundry sink, or car wash bucket.

To protect your water from these cross connections, make sure to have air vacuum breakers installed on each of your hose bibs.

These simple devices are inexpensive and can be purchased from your local hardware store. They are easy to install; you just screw them on.

Your in-ground irrigation system is also a cross connection so make sure to do the following:

1. Confirm your irrigation system has a back flow assembly device, if not, get one installed.
2. Test the backflow prevention device annually
3. Turn in your test results to the Town of Northlake Public Works Department.

If you have any questions, please contact Eric J. Tamayo, Public Works Director at 940-648-3290, x251.

UNDERSTANDING THE CHARTS: The charts shown on the following pages shows the result of Northlake's water quality analysis related to public health. Every regulated contaminant detected in the water, even in the most minute traces, is listed. The charts contains the name of each substance, the year the sample was tested, the range of detected levels, the highest level allowed by regulation (MCL), key units of measurement, the usual source of such contamination, and footnotes* explaining the findings.

CITY OF FORT WORTH CONSTITUENTS DETECTED FOR 2014

Contaminant	Measure	MCL	2014 Highest Single Result	Lowest monthly % of samples ≤ 0.3 NTU	MCLG	Common Sources of Substance
Turbidity ¹	NTU	TT	0.29	100%	N/A	Soil runoff (Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Contaminant	Measure	MCL	2014 Level	Range	MCLG	Common Sources of Substance
Total Coliforms (including fecal coliform & E. coli)	% positive samples	Presence in 5% or less of monthly samples	Presence in 1.4% of monthly samples	0 to 1.4%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.

Contaminant	MCL	2014 Level	Range	MCLG	Common Sources of Substance
Gross Beta emitters ² (pCi/L)	50	5.6	4 to 5.6	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Radium 226/228 ² (pCi/L)	5	1	1 to 1	0	Erosion of natural deposits
Arsenic (ppb)	10	1.28	0.97 to 1.28	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine (ppb)	3	0.09	0 to 0.10	3	Runoff from herbicide used on row crops
Antimony (ppb)	6	0.22	0 to 0.22	6	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder, test addition
Barium (ppb)	2	0.07	0.05 to 0.07	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (Total) (ppb)	100	0.55	0.00 to 0.55	100	Discharge from steel and pulp mills, erosion of natural deposits
Cyanide (ppb)	200	113	0 to 113	200	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Fluoride (ppm)	4	0.62	0.27 to 0.62	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	10	0.82	0.28 - 0.82	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen) (ppm)	1	0.03	0 to 0.03	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate (ppb)	10	8.92	0 to 8.92	0	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	11.5	0 to 11.5	N/A	By-product of drinking water disinfection
Total Trihalomethanes (ppb)	80	26	0 to 26	N/A	By-product of drinking water disinfection

Contaminant	High	Low	Average	MCL	MCLG	Common Sources of Substance
Total Organic Carbon	1	1	1	TT = % removal	N/A	Naturally occurring

⁴ Total Organic Carbon is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

UNREGULATED DISINFECTION BY-PRODUCTS

Contaminant	Range of Detects	2014 Level	MCL	MCLG	Common Sources of Substance
Chloral Hydrate (ppb)	0.26 to 0.49	0.49	Not regulated	None	By-product of drinking water disinfection
Bromoform (ppb)	1 to 3.6	3.6		None	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane (ppb)	2.6 to 7.6	7.6		None	
Chloroform (ppb)	2.8 to 9	9		70	
Dibromochloromethane (ppb)	2.2 to 6.8	6.8		60	
Monochloroacetic Acid (ppb)	0 to 3.5	3.5		70	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Dichloroacetic Acid (ppb)	3 to 5.7	5.7		None	
Trichloroacetic Acid (ppb)	0 to 1.8	1.8		20	
Monobromoacetic Acid (ppb)	1 to 2	2		None	
Dibromoacetic Acid (ppb)	0 to 3.3	3.3		None	

Fort Worth's testing detected only four of the 21 chemical contaminants and none of the seven hormones.

Contaminant	Range of Detects	2014 Level	MRL	Common Sources of Substance
Vanadium (ppb)	0.62 to 0.86	0.86	0.2	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
Molybdenum (ppb)	1.4 to 2.1	2.1	1	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Strontium (ppb)	260 to 290	290	0.3	Naturally-occurring element found in ores and present in plants, animals and bacterial; commonly used form molybdenum trioxide used as a chemical reagent
Chromium ¹ (ppb)	ND	ND	0.2	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate class of cathode-ray tube televisions to block x-ray emissions
Chromium-6 (ppb)	0 to 0.068	0.068	0.03	Naturally-occurring element; used in making steel and other alloys; chromium-3 or-6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Chlorate (ppb)	0 to 170	170	20	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide

¹ Total Chromium, the sum of chromium in all its valence states, is already regulated in drinking water. As part of UCMR 3, EPA requires testing for Total Chromium in the same samples used to test for Chromium 6, which is on the UCMR 3 list. The value differs from what is listed in the table on Page 6 because of different sampling periods. The MCL for EPA's current total chromium regulation was determined based upon the health effects of Chromium 6.

SECONDARY CONSTITUENTS

These items do not relate to public health but rather to the aesthetic effects. These items are often important to industry.

Contaminant	2014 Level
Bicarbonate (ppm)	81.8 to 126
Calcium (ppm)	31.3 to 47.9
Chloride (ppm)	19.9 to 27.1
Conductivity (µmhos/cm)	306 to 433
pH (units)	7.9 to 8.1
Magnesium (ppm)	4 to 6.9
Sodium (ppm)	18 to 28.1
Sulfate (ppm)	23.5 to 36.4
Total Alkalinity as CaCO ³ (ppm)	81.8 to 126
Total Dissolved Solids (ppm)	171 to 267
Total Hardness as CaCO ³ (ppm)	104 to 125
Total Hardness in Grains (grains/gallon)	6 to 7

Disinfectants: The City of Fort Worth and Argyle Water Supply Corp. use Chloramines, which is a mixture of chlorine and ammonia, to disinfect the treated water and Northlake uses only free chlorine. Range of Detections Fort Worth - 2.0 to 3.3 (ppm) Northlake 1 to 2.2 (ppm). Argyle Water Supply Corp. - 1.2 to 3.4 (ppm)

TABLE DEFINITIONS

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

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

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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 contamination.

MCLG (Maximum Contaminant Level Goal): 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.

MCL (Maximum Contaminant Level): 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.

NA: Not applicable

ND: Not detected

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

Turbidity: A measurement of the amount of particulates in water in Nephelometric Turbidity Units (NTU). Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment processes used to remove these particulates.

ARGYLE WATER SUPPLY CORPORATION CONSTITUENTS DETECTED FOR 2014

REGULATED CONTAMINANTS							
Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)* (ppb)	2014	5	0 - 10.8	No goal for the total	60	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	2014	16	0 - 39.2	No goal for the total	80	N	By-product of drinking water disinfection.
INORGANIC CONTAMINANTS							
Barium (ppm)	2014	0.049	0.049 - 0.049	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium (ppb)	2014	1	1 - 1	100	100	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide (ppb)	2014	138	14.9 - 138	200	200	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride (ppm)	2014	0.872	0.235 - 0.872	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen] (ppm)	2014	1	0 - 0.602	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES							
Atrazine (ppb)	2014	0.13	0 - 0.13	3	3	N	Runoff from herbicide used on row crops.
Simazine (ppb)	2014	0.09	0 - 0.09	4	4	N	Herbicide runoff.

	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/30/2013	1.3	1.3	0.173	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/30/2013	0	15	2.31	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

TOWN OF NORTHLAKE WATER SYSTEM CONSTITUENTS DETECTED FOR 2014

① Water from The City of Fort Worth ② Town Owned Wells

REGULATED CONTAMINANTS							
Contaminant	Collection Date	Average Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
① Haloacetic Acids (HAA5)* (ppb)	2014	5	2.9 - 5.8	No goal for the total	60	N	By-product of drinking water disinfection.
① Total Trihalomethanes (TTHM) (ppb)	2014	6	4 - 8.1	No goal for the total	80	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	
② Barium (ppm)	2014	0.016	0.016 - 0.016	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
② Chromium (ppb)	2014	12	12 - 12	100	100	N	Discharge from steel and pulp mills; Erosion of natural deposits.
② Fluoride (ppm)	2014	0.743	0.743 - 0.743	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
② Nitrate [measured as Nitrogen] (ppm)	2014	1	0.192 - 0.875	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
② Nitrite [measured as Nitrogen] (ppm)	2014	0.0625	0.0625 - 0.0625	1	1	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
② Selerium (ppb)	2014	1.5	1.5 - 1.5	50	50	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
② Combined Radium 226/228 (pCi/L)	09/22/2011	1	1 - 1	0	5	N	Erosion of natural deposits.

Contaminant	Date Sampled	MCGL	Action Level (AL)	90th Percentile	# Sites Over AL	Violation	Likely Source of Contamination
Lead ppm	08/02/2012	1.3	1.3	0.158	0	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Copper ppb	08/02/2012	0	15	3.12	1	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Contaminant	Collection Date	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive Samples	Fecal Coliform or E. Coli Maximum Contaminant Level	Total # of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
Coliform Bacteria	2014	0	1 Positive Monthly Sample	There were no TCR detections for this system in the WQR period	0	0	No	Naturally present in the environment.

MAXIMUM DISINFECTANT LEVEL

Disinfectant	Collection Date	Average Level	Min Level	Max Level	MRDLG & MRDL	Violation	Source
① Chloramines (ppm)	2014	1.9	0.5	3.6	4	N	By-product of drinking water disinfection
② Free Chlorine (ppm)	2014	1.1	0.2	3.1	4	N	By-product of drinking water disinfection

Message from the EPA

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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 Safe Drinking Water Hotline (1-800-426-4791).

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 Town of Northlake 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 drinking 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://water.epa.gov/drink/info/lead>.