



Dear Resident,

The City of North Lauderdale's Public Works & Utilities Department is pleased to provide you with this year's Water Quality Report. We want to keep you informed about the quality water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water.

Este reporte contiene información muy importante sobre su agua potable. *Los clientes pueden contactar la utilidad para una copia traducida del informe o ayuda en la comprensión de este informe llamando a este numero (954) 724-7070.*

We routinely monitor for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2016. Data obtained before January 1, 2016, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

This report shows our water quality results and what they mean.

Additional Health Information

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:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) 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.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) 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.

(E) 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, the 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.

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.

Important Health Information

For Customer with Special Health Concerns

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

About Lead

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 City of North Lauderdale 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>.

Source Water Assessment

In 2016, the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated four potential sources of contamination with a low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp

How to Reach Us

If you have any questions about this report or concerning your water utility, please contact the City of North Lauderdale's Public Works & Utilities Department at (954) 724-7070. We encourage our valued customers to be informed about their water utility. North Lauderdale's City Commission meets at 6PM on the second and last Tuesday of each month in City Hall Commission Chambers.

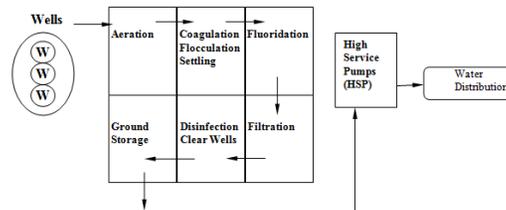
Precautionary Boil Water Notices

As part of ongoing efforts to protect the health of our communities, the state of Florida has developed rules that regulate how water utilities respond to water main breaks. According to the rules, there may be instances when a Precautionary Boil Water notice must be issued in the affected area. As the name implies, this is a precautionary measure, and more importantly, such a response is not necessary for most water leaks.

We understand that precautionary boil water notices can be a major inconvenience and we make every effort to avoid them. In the event that a precautionary boil water notice is required in your area, notices are distributed immediately. A precautionary boil water notice is lifted only after bacteriological testing confirms the water is safe to drink. We care about your safety and encourage you to follow the precautionary notice should one be issued in your area.

Your Drinking Water Process

Your water is obtained from a ground water source drawing from the Biscayne Aquifer. Once the water is pumped from our wells to the water treatment plant, the City of North Lauderdale uses aeration, traditional Lime Softening and other chemicals to remove odor, minerals and particles. The water is then filtered to remove smaller impurities and then disinfected with chloramines to destroy bacteria and other microorganisms.



CITY OF NORTH LAUDERDALE WTP
PROCESS FLOW DIAGRAM

Did You Know...

The City of North Lauderdale's Public Works & Utilities Department maintains over 800 fire hydrants throughout the water distribution system. Each year, the City flushes a portion of the hydrants to promote optimum operating conditions for the system. Periodic flushing of the water pipelines removes sediment and scale and maintains the cleanliness of the water system, assuring high quality water reliability.



What is a Cross-connection?

A cross-connection is any temporary or permanent connection between a public potable water system or consumer's potable water system and any source or system containing non-potable water or other substances, such as ground water wells, irrigation system, pools, auxiliary water system, cooling system, etc.



City's water distribution system and maintains ongoing backflow prevention efforts to systematically ensure the safety of your water.

Contaminants can enter the potable water system when the pressure of a cross-connected polluted source exceeds the pressure of the potable source or when pressure in the distribution system is lost causing backsiphonage.

The Utilities Department has a Cross-Connection control program that eliminates cross-connections from the

Drinking Water News

Last year, the City completed the construction of a new pre-stressed concrete ground storage tank, which replaces the aging steel ground storage tank. The new tank meets all regulatory requirements and ensures our abilities to continue to deliver clean safe drinking water to our customers.

The City also completed upgrades to one of its three wells and is scheduled to complete the same upgrades to another one of its wells in 2017.

How to Read the Table

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions.

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

Initial Distribution System Evaluation (IDSE): An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

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

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 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.

ND: Means not detected and indicates that the substance was not found by laboratory analysis.

ppm: parts per million or milligrams per liter (mg/L) is one part by weight of analyte to one million parts by weight of the water sample.

ppb: parts per billion or micrograms per liter (µg/L) is one part by weight of analyte to one billion parts by weight of the water sample.

pCi/l: picocurie per liter is a measure of the radioactivity in water.

Table Notes:

- A. Results in the Level Detected column for radiological contaminants or inorganic contaminants are the highest detected level at any sampling point.
- B. For chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

RADIOACTIVE CONTAMINANTS							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228 or combined radium (pCi/L)	10/2011	N	1.2	N/A	0	5	Erosion of natural deposits
INORGANIC CONTAMINANTS							
Barium (ppm)	02/2014	N	0.0047	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	Monthly 2016	N	0.63	0.47 0.63	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	01/2016	N	0.12	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	01/2016	N	0.21	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	02/2014	N	33.3	N/A	N/A	160	Salt water intrusion, leaching from soil

DISINFECTANTS AND DISINFECTION BY-PRODUCTS							
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Monthly 2016	N	2.98	1.5 – 4.3	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Quarterly 2016	N	38.64	13.89 – 52.38	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Quarterly 2016	N	39.77	0.14 – 30.34	NA	MCL = 80	By-product of drinking water disinfection

LEAD AND COPPER (TAP WATER)							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	09/2014	N	0.035	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	09/2014	N	0.85	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Unregulated Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MRL	Average Level Detected	Range of Results	MCL	Likely Source of Contamination
1,4-dioxane	04 & 10/2014	0.07	0.026	ND – 0.023	N/A	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Chromium	04 & 10/2014	0.2	0.518	0.39 – 0.60	N/A	Naturally occurring element found in soil.
Molybdenum (ppb)	04 & 10/2014	1	0.518	0.69 – 0.90	N/A	Natural occurring element found in ores and present in plants, animals, and bacteria.
Strontium (ppb)	04 & 10/2014	0.3	262	250 – 273	N/A	Natural occurring element found in soil and present in plants and animals.
Vanadium (ppb)	04 & 10/2014	0.2	1.11	0.66 – 1.6	N/A	Natural occurring elemental metal found in rocks and soil.

We monitored for Unregulated Contaminants (UCs) in 2014 as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs. However, we are required to publish the detected analytical results of our UC monitoring in our annual water quality report. For the complete list of results, including the non-detected contaminants, contact Melisa Rotteveel at 727-848-8929. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	TTL Violation Y/N	Result	MCLG	Likely Source of Contamination
Total Coliform Bacteria	04 – 12/2016	N	Positive	N/A	Naturally present in the environment

North Lauderdale Water System exceeded the allowed number of positive test samples for Total Coliform in July of 2016. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. The site was retested in accordance with regulations and the repeat samples tested negative-no bacteria present.

During the past year, we were required to conduct a Level 1 and Level 2 assessment due to total coliform positives results occurring in July 2016. The Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system. The Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system on multiple occasions. The assessments were completed in August, 2016. We were required to take no corrective actions as a result of the assessments. We have reviewed and updated our sampling plan to prevent this from reoccurring.