



Presented By
**North Springs
Improvement
District**

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017

Quality First

Once again we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Community Participation

The Board of Supervisors of NSID will hold their meetings for the fiscal year 2017 at 5:00 p.m. in the District Office at 9700 NW 52nd Street, Coral Springs, FL, on the first Wednesday of each month.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Environmental Protection Agency/Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in 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.

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 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 by-products of industrial processes and petroleum production, and can come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. 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 (800) 426-4791.

Lead in Home 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. We are 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 www.epa.gov/lead.

Following the addition of the RO water treatment system at NSID, it is required for this public water system to return to biannual monitoring for lead and copper and water-quality parameters effective January 1, 2018.



Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.



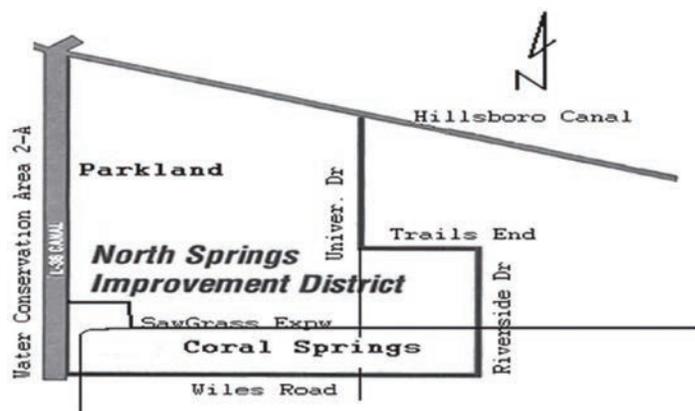
34 BILLION The number of gallons of water produced daily by public water systems in the U.S.

Source Water Assessment

In 2017, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are three potential sources of contamination identified for this system with low susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at <https://fldep.dep.state.fl.us/swapp> or by calling the NSID laboratory at 954-752-0400.

Where Does My Water Come From?

In 2017, 1.500 billion gallons of water were distributed to the customers of North Springs Improvement District. The water source for the District is the Biscayne Aquifer, an underground geological formation. The Biscayne Aquifer has been a reliable source of high-quality water since the early 1920s. Water from the Aquifer is withdrawn and pumped to the water treatment plant by nine raw water wells located within the District. It is then treated by a combination of our new Reverse Osmosis (RO) Water Treatment plant and lime softening that improves taste, odor, and appearance of water by removing contaminants that cause taste and odor problems. The water is then filtered and disinfected with chlorine and ammonia for bacteria removal. Fluoride is added as an aid in preventing tooth decay.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call the Water Department at (954) 752-0400 or email rodc@nsidfl.gov. Visit us on the web at www.nsidfl.gov.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.



Test Results

NSID routinely monitors 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, 2017. Water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected. Our goal is to keep all detects below their respective maximum allowed levels.

Data obtained before January 1, 2017, and presented in this report is from the most recent testing done in accordance with the laws, rules, and regulations.

Note: Total coliform bacteria was not detected in our water at any point in 2017.

PRIMARY REGULATED CONTAMINANTS

Inorganic Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Barium (ppm)	2017	No	0.00734	NA	2	2	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	2017	No	0.690	NA	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	2017	No	0.593	NA	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive that promotes strong teeth when at the optimum level of 0.7 ppm
Sodium (ppm)	2017	No	39.8	NA	NA	160	Salt water intrusion, leaching from soil

Disinfectants

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Chloramines (ppm)	01/17-12/17	No	3.9	2.2–4.0	[4]	[4.0]	Water additive used to control microbes

DISINFECTION BY-PRODUCTS

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Haloacetic Acids (five) [HAA5] (ppb)	06/16/2017	No	21.25	12.02–21.25	NA	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	06/16/2017	No	14.5	12.1–14.5	NA	80	By-product of drinking water disinfection

Lead and Copper (Tap water samples were collected from sites throughout the community)

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	AL EXCEEDANCE (YES/NO)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] (ppm)	09/16/2015	No	0.130	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	09/16/2015	No	2.1	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Lead and Copper Sampling

For lead and copper, 30 samples were collected based on an approved sampling plan from the water distribution system. Results are reported as the 90th percentile value of the most recent round of sampling. Sampling for lead and copper is every 3 years. However, following the addition of the RO water treatment system at NSID, which was put in operation November 2017, it is required for our public water system to return to biannual monitoring for lead and copper and water-quality parameters.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. HAAs and TTHMs Level Detected values are reported as LRAAs.

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.

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.

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 contaminants.

NA: Not applicable

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

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