



2018 Water Quality Report ***CITY OF ATLANTIC BEACH, FLORIDA***

We are very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our constant goal is to provide you with safe and dependable drinking water. We want you—our valued customers—to understand our water quality results and what they mean.

Our water source is the **Floridan Aquifer**, which is similar to a large underground river. Groundwater is pumped from nine wells that are approximately 700 to 1000 feet deep. This water is aerated to remove sulfides and chlorinated for disinfection at the four separate Water Treatment Plants. Corrosion control treatment is also provided. Trained, state certified plant operators ensure proper treatment of nearly three million gallons per day of water provided to our customers. **We are pleased to report that our drinking water quality meets all Federal and State requirements.**

If you have any questions about this report or concerning your water utility, please contact Mr. Bill Pittman, Utilities Director at 904-247-5875.

If you want to become informed about upcoming water-related projects or programs, please attend any of our City Commission meetings which are scheduled on the 2nd and 4th Monday of every month at 6:00 p.m. at City Hall, 800 Seminole Road, Atlantic Beach, Florida 32233.

The City of Atlantic Beach routinely monitors for contaminants in your drinking water according to Federal and State laws. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1st to December 31st, 2018. Data obtained before January 1, 2018 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

As authorized and approved by the EPA (Environmental Protection Agency), the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

The EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table are the only ones detected in your drinking water.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 micro-biological contaminants are available from EPA's Safe Drinking Water Hotline at 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. Atlantic Beach 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>.

In 2018 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 12 potential sources of contamination identified for our system with low susceptibility levels. To protect our source waters, the City enacted a Wellhead Protection Ordinance. Also, FDEP has a very active petroleum contamination prevention program, and handles permitting and enforcement for both domestic and hazardous wastes. FDEP has some of the most stringent rules in the country. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

Thank you for allowing us to continue providing your family with clean, quality water this year. We at the City of Atlantic Beach work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources.

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In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

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

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 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 (MRDL) — The highest level of a disinfectant allowed in drinking water. There is a convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (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.

Non-Detects (ND) — Means not detected and indicates that the substance was not found by laboratory analysis.

Not Applicable (N/A) — The information does not apply in this category or for this contaminant.

Parts per billion (ppb) or Micrograms per liter (ug/L) – One part by weight of analyte to one billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/L) – One part by weight of analyte to one million parts by weight of the water sample.

Picocuries per liter (pCi/l) – Measure of the radioactivity 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:

(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.

ATLANTIC BEACH WATER QUALITY DATA 2018

Contaminant and Unit of Measurement	Sample Date (mo./yr.)	Maximum Level Allowed (MCL or MRDL)	Goal (MCLG or MRDLG)	Highest Level Detected (HLD)	Range of Results	Typical Source of Contaminant	MCL Violation (Y/N)
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(Results in the HLD column are the highest detected level at any sampling point)

Inorganic Contaminants							
Barium (ppm)	7/17	2	2	0.0297	0.0274 - 0.0297	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	N
Nitrate (as Nitrogen) (ppm)	5/18	10	10	0.02	0 – 0.02	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	N
Fluoride (ppm)	7/17	4.0	4	0.71	0.64 - 0.71	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm.	N
Lead (point of entry) (ppb)	9/17	15	0	1.05	ND-1.05	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing and solder	N
Sodium (ppm)	7/17	160	N/A	15.5	13.0 – 15.5	Salt water intrusion, leaching from soil	N
Synthetic Organic Contaminants							
Di(2-ethylhexyl) phthalate (ppb)	2/18, 5/18, 10/18	6	0	0.07	ND - 0.07	Discharge from rubber and chemical factories	N

In the third quarter of 2018 we failed to sample for Di(2-ethylhexyl) phthalate as required due to administrative error. Some people who drink water containing di(2-ethylhexyl)phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer. Sampling resumed in October 2018.

Stage 1 Disinfectants and Disinfection By-Products

For bromate, chloramines, or 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.

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 2018	N	1.1	0.9 – 1.3	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

Haloacetic Acids (HAA5) (ppb)	Quarterly 2018	N	21.98	6.9-20.49	60	N/A	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	Quarterly 2018	N	40.85	9.68-45.08	80	N/A	By-product of drinking water disinfection

Lead and Copper Tap Sampling

Contaminant and Unit of Measurement	Sample Date (mo/yr)	AL (Action Level)	MCLG	90 th Percentile Result	No. of sampling sites exceeding the AL	Likely Source of Contamination	AL Exceeded Y/N
Copper (tap water) (ppm)	9/17	1.3	1.3	0.1421	0 of 41	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	N
Lead (tap water) (ppb)	9/17	15	0	1.93	0 of 42	Corrosion of household plumbing systems; erosion of natural deposits	N

Unregulated Contaminants Information and Results Table

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2018, Atlantic Beach WTP participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR4). For a copy of the results please call (904) 247-5875.

Contaminants (Units)	Sample Year	Average Level Found	Range of Detections
2-Methoxyethanol (ppb)	2018	Not Detected	NA
2-Propen-1-ol (Allyl alcohol) (ppb)	2018	Not Detected	NA
Bromide (ppb)	2018	71.1	60.2-89.8
Germanium (ppb)	2018	Not Detected	NA
Manganese (ppb)	2018	0.7	ND -2.4
n-Butanol (ppb)	2018	Not Detected	NA
Total Organic Carbon (ppb)	2018	2101.25	1940 - 2240