

# 2016 Water Quality Report

## Town of Davie Utilities Department

### 954-327-3742

Este informe contiene información importante acerca de su agua potable. Llame al 954-327-3742 para obtener una copia en español o ayuda para traducir el contenido de este reporte.

## Director's Message

The Town of Davie is pleased to provide you with the 2016 Water Quality Report. This report contains information regarding our Town's water supply, the process of treatment and the quality of the water.

Water has an important role in our everyday lives. This is why the Town has made it a priority to continuously provide a dependable supply of drinking water while continually working to improve our facilities, infrastructures and processes. In order to do this, it is important to expand strategically in an environmentally conscientious manner towards our vision. To meet the needs of every customer, we work hard to protect our water supply through conservative methods all while exceeding regulatory standards. Our water supply comes from two sources: the Floridian Aquifer and the Biscayne Aquifer. The water from the aquifers travels into our water plants which will process the untreated water through a process of either lime softening or reverse osmosis. The water is then sent into your homes or businesses as the high quality product that is there for you to use every single day.

We are pursuing water conservation on a few fronts such as the Broward Water Partnership and Water Matters Day, the expansion of water reuse in our community, and public outreach. Our outreach efforts target our younger citizens by conducting facility tours, coordinating the AWWA Drop Savers Water Conservation poster contest, participating in local events and promoting water conservation. Through our state-of-the-art Water Reclamation Facility, the Town actively pursues water conservation by implementing our Reuse Program. The result is a decreased demand for drinking water used for irrigation while 'being green' as well. Current users of this program include Grande Oaks Golf and Country Club and Nova Southeastern University.

Awards and recognition we have received show our commitment to excellence. As we plan for generations to come, I give you my pledge that we will continue to improve our Utility by addressing short and long term planning, production and distribution system needs. Let us continue "Making Davie Clean through Green".

Town residents can learn more about the Utilities Department by visiting our webpage: [http://www.davie-fl.gov/Pages/DavieFL\\_UtilityDpt/index](http://www.davie-fl.gov/Pages/DavieFL_UtilityDpt/index)

Regards, Don Bayler, Utilities Director

## Compliance & Period Covered by Report

The Town of Davie is pleased to present you with this year's Annual Water Quality Report. This report contains important information about the Town's water source, water supply, treatment process and the contents of your drinking water and what they mean. The Town 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, 2016 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.

## Contact Information

For more information or questions about this report, or to request a paper copy, please contact the Town's Utilities Department at 954-327-3742.

Regular Town Council Meetings are held the first and third Wednesday of each month at 6:30 p.m. These are held at Town Hall, 6591 Orange Drive. Open public session occurs at the beginning of the first council meeting of every month. Public Meeting Calendar is available at this link: [http://www.davie-fl.gov/Pages/DavieFL\\_PubCalendr/](http://www.davie-fl.gov/Pages/DavieFL_PubCalendr/). We encourage our valued customers to be informed about their water utility.

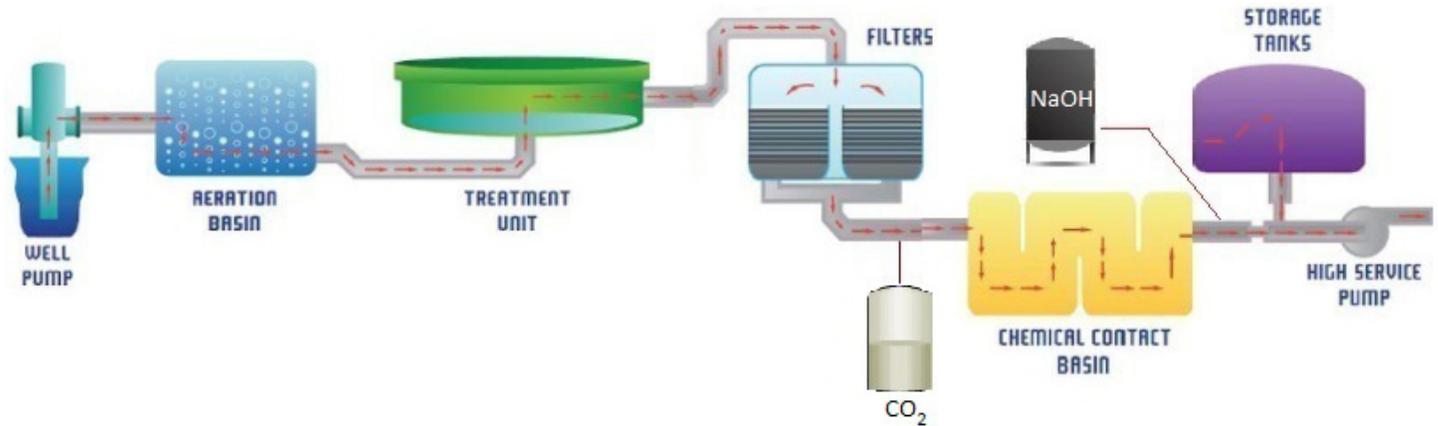


# Water Source, Source Plans, and Treatment

## Source of Water Supply

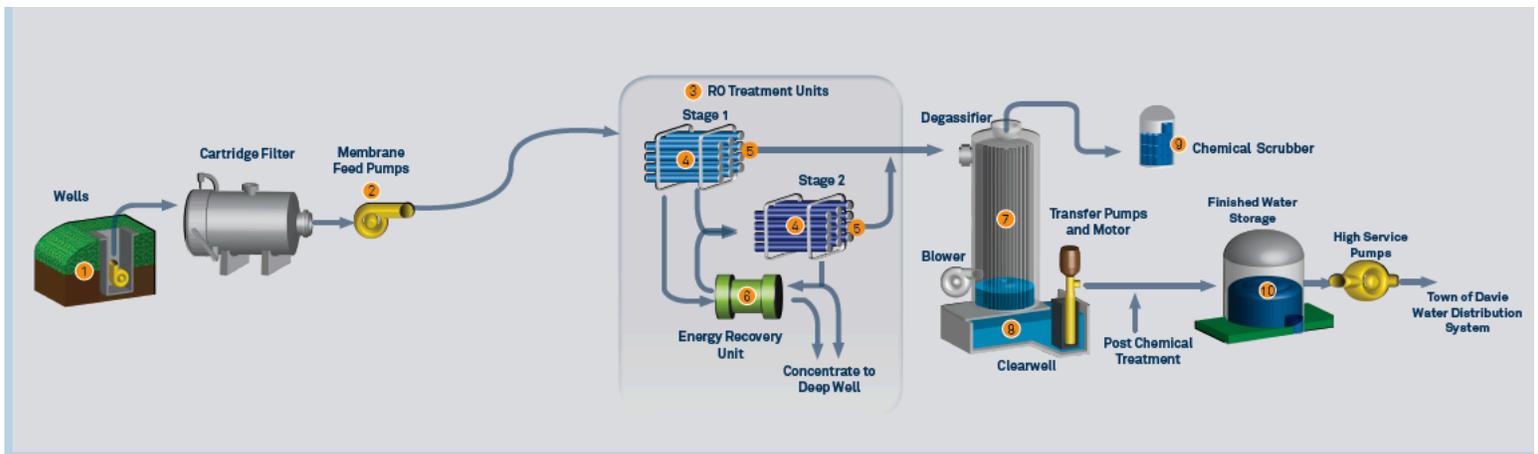
The Town of Davie System III Water Treatment Plant obtain its ground water from the Biscayne Aquifer, a shallow underground geologic formation where water is stored. Water is pumped from the wells to the water treatment facilities which aerate, soften, filter, disinfect with sodium hypochlorite and fluoridate water from the wells and transmit treated water into a common distribution system (See schematic of System III below).

## Town of Davie System III Treatment Process Diagram



The Town of Davie System V Water Treatment Plant obtains its ground water from the Floridan Aquifer, a deep underground geologic formation where water is stored. Water is pumped from the wells to the water treatment facility, where reverse osmosis membranes remove high concentration of salts and other contaminants. The water is then aerated, disinfected with sodium hypochlorite and fluoridated and transmitted into a common distribution system (See schematic of System V diagram below).

## Town of Davie System V Treatment Process Diagram



## Source Water Assessment and Protection Program (SWAPP)

In 2016 the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment provides the utility with information about any potential sources of contamination in the vicinity of our wells. There are eight (8) potential sources of contamination identified for our 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/>.

# Terms and Abbreviations

In the 2016 Water Quality table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

**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.

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

**Locational Running Annual Average (LRAA):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**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.

“NA” means not applicable

**Parts per billion (ppb) or Micrograms per liter (µg/l):** one part by weight of analyte to 1 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 1 million parts by weight of the water sample.

**Picocurie per liter (pCi/L):** Measure of the radioactivity in water.

## 2016 Water Quality Table

### Radioactive Contaminants

Contaminant (Unit of Measurement)	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Uranium (µg/L)	7/14	N	0.131	0.115 - 0.131	0	30	Erosion of natural deposits

# 2016 Water Quality Table

## Inorganic Contaminants

Contaminant (Unit of Measurement)	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	07/14	N	0.73	ND - 0.73	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	07/14	N	0.004	ND - 0.0040	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	07/14	N	6.3	ND - 6.3	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	01/16 - 12/16	N	0.69	0.38 - 0.69	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

# 2016 Water Quality Table

## Inorganic Contaminants

Contaminant (Unit of Measurement)	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	07/16	N	0.064	0.037 - 0.064	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	07/16	N	0.43	ND - 0.43	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	07/14	N	98.7	33.9 - 98.7	N/A	160	Salt water intrusion, leaching from soil

## Disinfectant and Disinfection By-Products

Disinfectant or Contaminant (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
Chloramines (ppm)	01/16 - 12/16	N	3.15	2.55 - 3.45	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2/16, 6/16, 8/16, 10/16	N	2.87	0.37 - 1.8	N/A	MCL = 60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2/16, 6/16, 8/16, 10/16	N	0.29	0.25 - 0.27	N/A	MCL = 80	By-product of drinking water disinfection

# 2016 Water Quality Table

## Lead and Copper (Tap Water)

Contaminant (Unit of Measurement)	Dates of Sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	9/16	N	0.214	0 out of 86	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	9/16	N	0.006	4 out of 86	0	15	Corrosion of household plumbing systems; erosion of natural deposits

## 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 Town of Davie 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

# General Drinking Water 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.

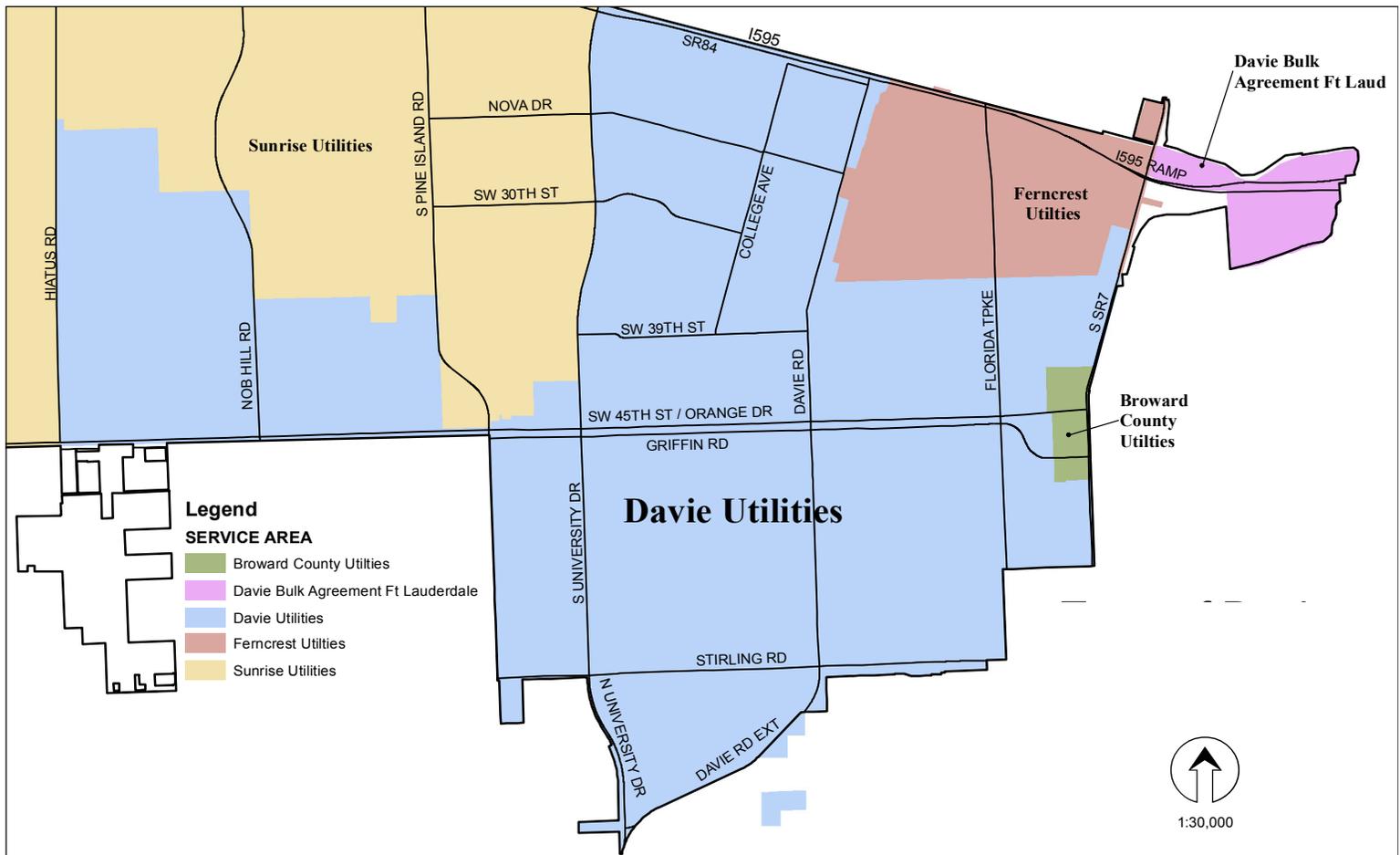
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.



# For Customers 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).

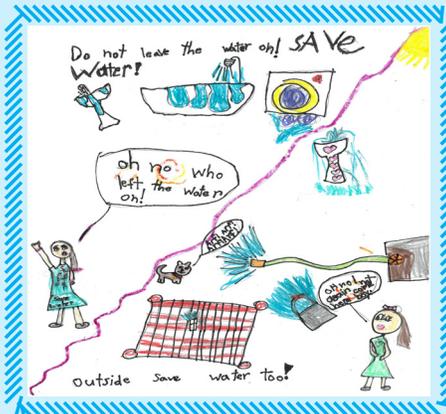
## Town of Davie Utility Service Areas



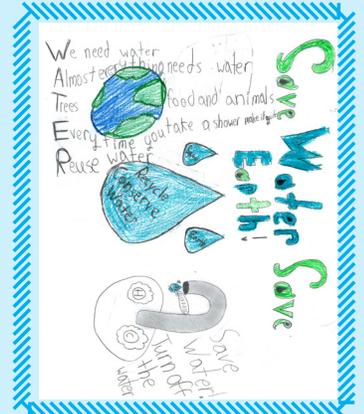
# Public Outreach and Education

## Drop Saver's Poster Contest

The Town is proud to announce the winners of the annual "Drop Saver's" poster contest. The program fosters the importance of water conservation through long range education and awareness. What better way to preserve our precious resource than with our young citizens. The students were recognized at a Town Council Meeting.



**Division 1: K - 1st Grade**  
**Student: Valentina Exposito,**  
**1st grade**  
**School: Somerset Academy Davie**



**Division 2: Grades 2 - 3**  
**Student: Alyssa Ramdeen,**  
**3rd Grade**  
**School: Davie Elementary**

**Division 3: Grades 4 - 5**  
**Student: Janai Chambliss,**  
**4th Grade**  
**School: Davie Elementary**



**Division 4: Grades 6 - 8**  
**Student: Sophia Fermin,**  
**6th Grade**  
**School: Nova Middle**



**Division 5: Grades 9 - 12**  
**Student: Colby Larrucea,**  
**10th Grade**  
**School: Nova High**



## Town of Davie Water Matters Day

### Broward Water Matters Day 2017

Each year the Town participates in the Annual Water Matters Day, a Broward County educational program that helps homeowners, policymakers, local businesses, and property managers understand their role in water management and water conservation. Water is a limited resource. The Town of Davie is committed to increasing public awareness about water conservation. Just as water is for everyone, this program is designed for everyone — from adults to children, experts to laypeople. We all make an impact on our environment. Understanding our role in the water management system is the best way to make sure our impact is a positive one. We hope to see you at the next Water Matters Day!

