TOWN OF DAVIE UTILITIES
PWS# 4060344
2018 Water Quality Report
Phone: (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 or United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline a 1-800-426-4791.

Utilities' Message

We are pleased to provide you with the Town of Davie Utilities 2018 Drinking Water Quality Report. The report contains information about your drinking water quality, including water source and treatment processes. We also included information about our programs and ongoing projects.

Every year, the Town of Davie Council adopts proclamations to be added to the Florida statewide list. By participation in statewide proclamations by local governments, utilities and customers are raising their voice to Florida's elected officials. The Town of Davie Utilities, along with other statewide utilities, declares "April as Water Conservation Month" and observes one week in May as a "Reuse Week." The Town of Davie Utilities highlights the importance of sufficient water supplies for future generations by protecting Florida's natural systems and conserving its drinking water resources with the use of Reclaimed Water as an alternative supply source. Through public education and outreach, our Utilities encourages customers to conserve water resources. An example of our commitment to water conservation, we are engaged in the Drop Savers Conservation Poster Contest sponsored by the Florida Section of the American Water Works Association (FSAWWA). Additionally, the Town promotes Broward County Toilet Rebate & Conservation Pays program as well as the Water Matters Day event.

The Town of Davie Utilities is committed to delivering exceptional service to its customers by utilizing an integrated approach to an infrastructure management program. This approach ensures lifecycle replacement and maintenance with steady investment, to ensure reliability of services while maintaining an equitable rate structure. For example, our Utilities was approved for an Advanced Metering Infrastructure (AMI) project to replace aged water meters throughout the Town's Utility Service Area. The AMI project is a systematic approach, allowing for a direct link and accountability between water treatment plant production; transmission and distribution systems; and customers water usage. The AMI project is a strategic investment to provide immediate feedback on water outages and leaks, resulting in a more efficient and reliable water service and increased customer's satisfaction.

The Town of Davie Utilities Department works diligently and around the clock to ensure services are stable, compliant and available to our residents. Our staff has been recognized by getting individual awards in their respective areas of experience, by the Florida Water and Pollution Control Operators Association (FWPCOA). Congratulations to our staff Isabella (Industrial Pretreatment), Bill (Distribution & Collections), John (Reclaimed Water), and Stanley (Potable Water) for a job well done.

Town of Davie Utilities continues to provide outstanding services with transparency to our customers. More information on our programs and operations can be found on our webpage: https://www.davie-fl.gov/372/Utilities-Operations . If you have any questions about the content or if you wish to request a copy, please contact us at 954-327-3742, we will be happy to assist.

Renuka Mohammed
Utilities Director

Compliance & Period Covered by Report

Town of Davie is pleased to present with you 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, 2018 to December 31, 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.

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 or United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline at 1-800-426-4791. Regular Town Council Meetings are held the first and third Wednesday of each month at 6:30 p.m., held at the Town Hall at 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: https://www.davie-fl.gov/Calendar.aspx. We encourage our value customers to be informed about their water quality.

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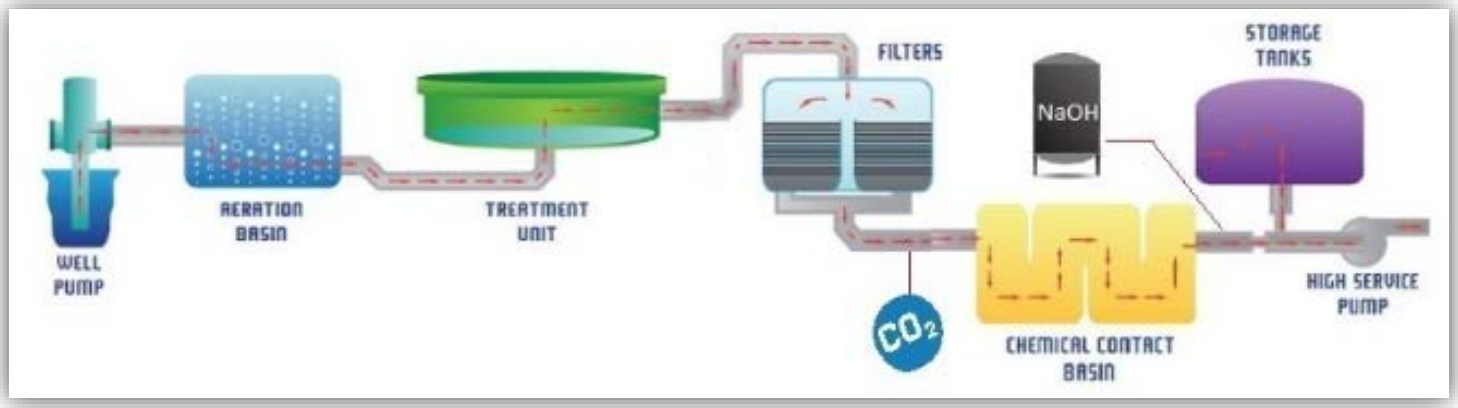
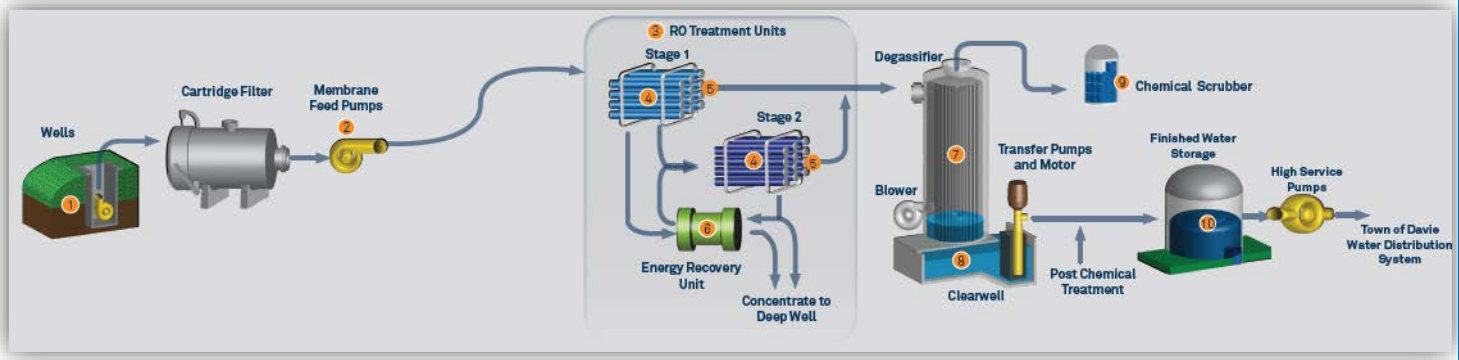
Water Source, Source Plans & Treatment

Source of Water Supply:
The Town of Davie System III Water Treatment Plant obtains 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 facility, 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 Town of Davie Utilities - 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 Town of Davie Utilities - System V diagram below).Town of Davie System V Treatment Process Diagram:



Source Water Assessment and Protection Program (SWAPP):
The SWAPP program is meant to ensure that your drinking water is safe, not just at the tap, but at its source. The Florida Department of Environmental Protection (DEP) is initiating the SWAPP as part of the federal Safe Drinking Water Act (SDWA). In 2017 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 source of contamination in the vicinity of our wells. There are eight (8) potential sources of contamination identified for our system with low susceptibility scores (0.01-8.33). The assessment results are available on FDEP Source Water Assessment and Protection Program website at https://fldep.dep.state.fl.us/swapp or they can be obtained by calling the Town's Utilities Department at (954)-327-3742.

TOWN OF DAVIE UTILITIES
PWS# 4060344
2018 Water Quality Report
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Terms & Abbreviations

In the 2017 Water Quality table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definition

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.

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.

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 UTILITIES
PWS# 4060344
2018 Water Quality Report
Phone: (954) 327-3742

2018 Water Quality Table

Microbiological Contaminants

Contaminant	Dates of sampling (mo/yr)	TT Violation	MCLG	Level 1 TT Trigger	Highest Monthly Percentage/Number	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	01/18-12/18	N	N/A	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples	2.38%	Naturally present in the environments
Contaminant	Dates of sampling (mo/yr)	TT Violation	MCLG	Level 1 TT Trigger	Highest Monthly Percentage/Number	Likely Source of Contamination
E.Coli	01/18-12/18	N	N/A	Routine and repeat samples are total coliform positive and either is E.coli positive or system fails to take repeat samples following E. coli positive routine sample or system fails to analyze total coliform positive repeat sample for E.coli	0	Human and animal fecal waste

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)	02/17	N	0.65	ND-0.65	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/17	N	0.0033	ND-0.0033	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	01/18-12/18	N	0.77	0.32-0.77	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)	03/18	N	0.23	0.04-0.23	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	03/18	N	0.38	ND-0.38	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	02/17	N	82.6	36.4-82.6	N/A	160	Salt water intrusion, leaching from soil

Disinfectant Residuals

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)	01/18- 12/18	N	2.77	1.93-3.54	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Disinfectant and Disinfection By-Products

Haloacetic Acids (HAA5) (ppb)	2/18, 5/18, 8/18, 10/18	N	2.8	ND-8.0	N/A	MCL = 60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2/18, 5/18, 8/18, 10/18	N	0.5	ND-0.53	N/A	MCL = 80	By-product of drinking water disinfection

TOWN OF DAVIE UTILITIES
PWS# 4060344
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2018 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)	6/18	N	0.0624	0 out of 92	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/18	N	3.1	2 out of 92	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 (800) 426-4791 or at http://www.epa.gov/safewater/lead.

Advanced Metering Infrastructure (AMI)

What is AMI?

Traditionally, water meters reads and finding a water leaks has been a manual process. There was a time and resources consuming method with questionable accuracy. Advanced Metering Infrastructure, or AMI, has become a smart system in water industry over the last few years and it's being adopted more by water utilities to increase the efficiency. The AMI meters are equipped with transmitters that automatically register and send current readings. With AMI system, the whole distribution network can be continuously monitored.

Examples of AMI's Benefits:

- Accurate and time effective reads;
- Improve operations and respond;
- Discover distribution leaks;
- Prevent a small leak from becoming a bigger leak and a water main break;
- Discover water tampering;
- Account of non-revenue water loss;
- Improve asset management by knowing the condition of underground pipes;
- Planned maintenance;
- Efficient allocation of employees;
- Promote water conservation;

Improving Customer Service

Customer service is critical for the Town of Davie Utilities and we continue our commitment to offer conservation assistance and accurate billing. With AMI system the detailed usage data will be available and customer service representatives have immediate access to customer's consumption information. When a customer calls with water usage complaint, our representative can provide a complete picture of their water usage. The ability to provide real-time water consumption data not only adds validity to the accuracy of the meter, it makes for superior customer relationships. The Utilities will be able to investigate, diagnose and quickly resolve customer's inquiries. Tracking real-time water consumption through AMI's may indicate other unknown problems, such as leaking toilets, faulty irrigation system or dripping faucet. Utilities encourage water conservation and involves public in the operations process to understand that every drop counts.

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PWS# 4060344
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Public Outreach & Education

17th Annual Broward County Water Matters Day

Once again, the Town has participated in the annual Water Matters Day, held at the Broward County Tree Tops Park in Davie. Water Matters day is a Broward County educational effort to educate local residents about their water resources, management and future needs. The residents received information on water conservation principles, practices and how to receive credit for replacing an old toilet for a new high-efficient, low flow WaterSense® toilet. The event was packed with children's activities, interactive educational booths and exhibits, conservation ideas and giveaways. Participants were also able to take home free native plants by visiting the event's exhibits and obtaining stamps from each on their event program. The theme was "Conservation – a Winning Strategy" and the Town of Davie Utilities focused their message on what initiatives can be taken at home or in your community to conserve water resources and could actually save you money. We hope to see you again, at the next Water Matters Day!

Broward Water Partnership

The Town of Davie is a member of the Broward Water Partnership's Programs. This multi-year program has an aggressive media campaign to enhance awareness of water conservation and to achieve the program's goal to save water, save money, and save the environment. This partnership helps to inform various communities throughout the County about the importance of year-round water conservation to meet today's water demands, as well as our future demands. To learn more about the program and qualifying rebates visit http://conservationpays.com/ or call at 1-800-270-9794.

Broward Water Partnership
A Collaboration of Local Governments.

Reclaimed Water Availability and Use

The Town of Davie Utilities is continuing to recognize the need to provide its residents with Reclaimed Water supplies. Reclaimed water is wastewater that has been treated and transformed into a product that meets standards normally applied to drinking water. The reclaimed water can be delivered to homes and businesses through an underground distribution system entirely separate from the drinking water. Reclaimed water pipelines are colored purple, to help to keep them distinct from potable water lines. Purple color is the universal symbol of reclaimed water. Connecting to the Reclaimed Water distribution system and changing a water source helps to save drinking water supplies and money. Conserving water and preserving the local environment shows foresight in planning for a better tomorrow.

The Reclaimed Water program provides the Town of Davie community with new sources of clean water while promoting water conservation, energy efficiency and environmental stewardship. Reclaimed Water is a clear and odorless high -quality water source, which can be used for irrigation, agricultural research and industrial uses. Reclaimed Water meets over 95% of the standards for Drinking Water and it is the product of the Town of Davie Utilities advanced Water Reclamation Facility (WRF), which became operational in 2013. The Town of Davie Utilities has one of the most progressive Reclaimed Water programs in the nation and has been recognized with the 2016 David W. York Water Reuse Facility of the Year Award (1 to 5 MGD category) from the Florida Water Environment Association.

Town of Davie Utilities facility located at 7351 SW 30 Street is using reclaimed water for irrigation and flushing toilets.

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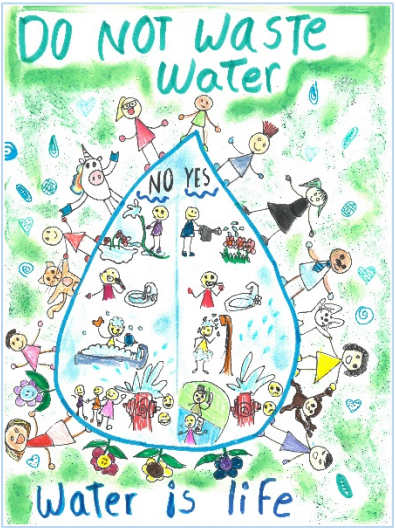
AWWA Drop Savers Water Conservation Poster Contest

The Town of Davie Utilities is proud to announce the winners of the annual AWWA "Drop Savers" poster contest. The program fosters the importance of water conservation through education and awareness. The contest is open to (5) divisions based on grades:

Division 1: K-1st grade
Division 2: Grade 2, 3
Division 3: Grade 4, 5
Division 4: Grade 6-8
Division 5: Grade 9-12

Division 1: K-1st grade



Division 1 Winner
Valeria,
Davie Elementary

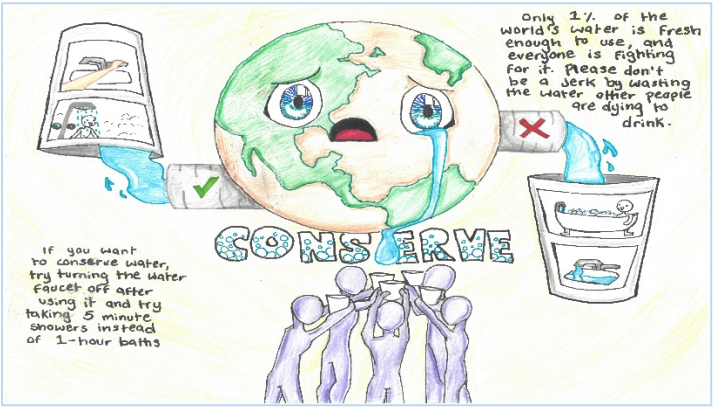
Division 2: Grade 2, 3

Division 2 Winner
Anabia,
Nova Blanche Forman Elementary

Division 3: Grade 4, 5

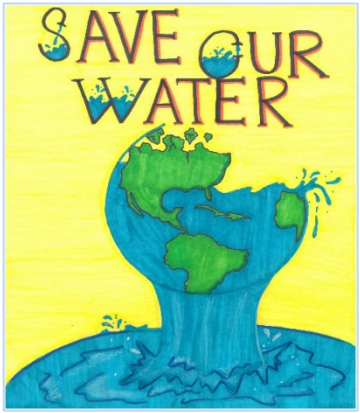
Division 3 Winner
Savannah,
Nova Blanche Forman Elementary

Division 4: Grade 6-8



Division 4 winner: ***Sophia,*** *Nova Middle School*

Division 5: Grade 9-12



Division 5 winner: ***Zona,*** *Nova High School*

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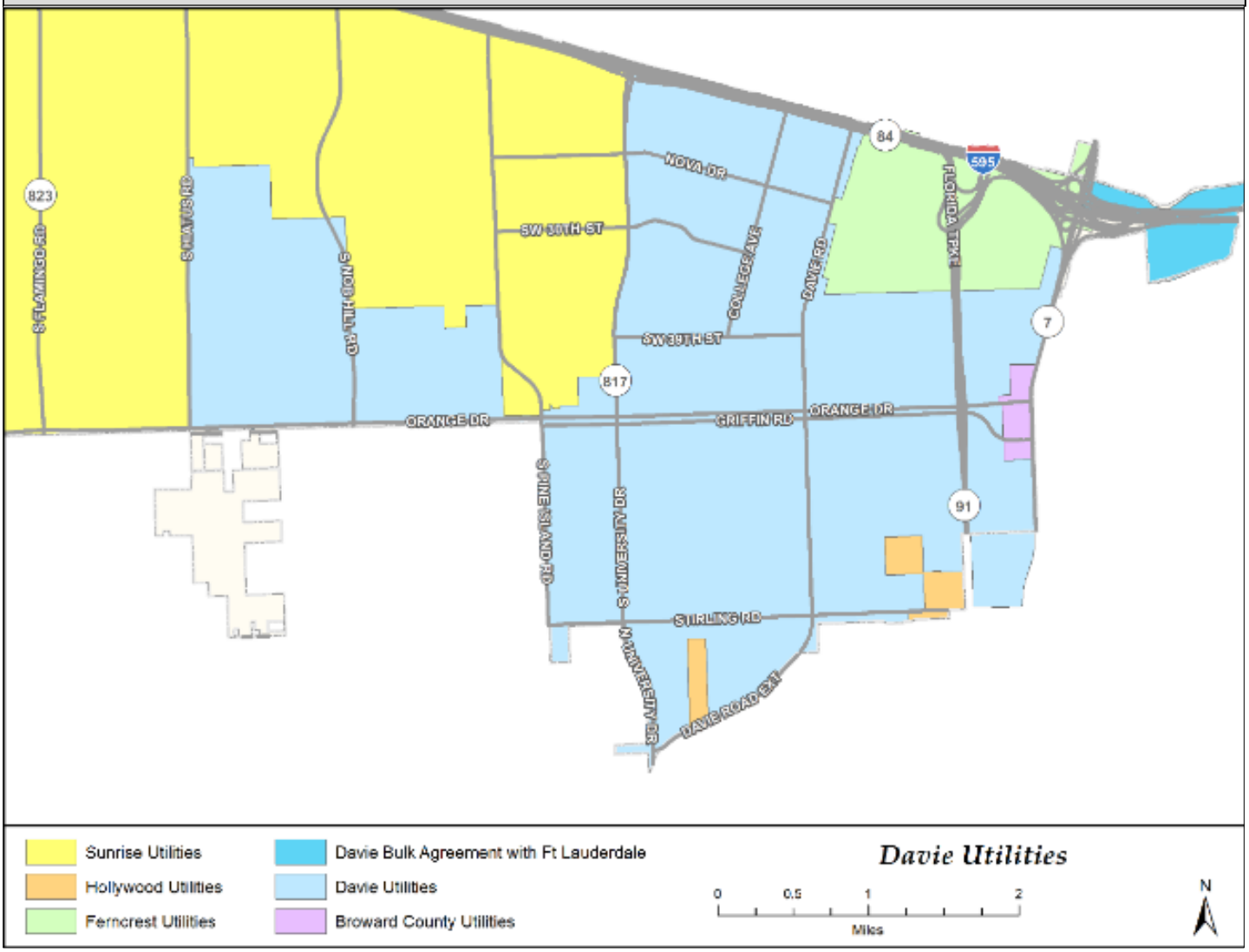
Town of Davie Utilities Service Area



The Town of Davie provides water and sewer services to a portion of the Town. Other portions of the Town are serviced by other municipalities or by private utility companies. If you do not know what provider services your area, please visit: https://www.davie-fl.gov/375/Utility-Service-Area

Thank you for taking the time to read this report. If you have any questions about the information contained in this report, your drinking water, or the Authority in general, please call us at 954-327-3742.
This Drinking Water Quality Report is available on our website: https://www.davie-fl.gov/DocumentCenter/View/2233/2016-Water-Quality-Report-PDF