



# Water Reuse

**A safe and effective way to save water**

*The color purple is used to identify pumps and pipes carrying reclaimed water for reuse.*

*Water reuse facility in Pompano Beach*



Safe, clean and sustainable water resources are essential to Florida's environment, citizens and visitors. The demand for water is projected to increase over the long term throughout Florida. Fresh groundwater and surface water will not be sufficient to satisfy all future demands. Meeting the growing demand hinges on efforts to develop alternative water sources. This brochure looks at one of the ways to conserve Florida's water resources — reclaiming water for reuse.

Consider what happens to the water used inside the home. Once down the drain, this water is piped to the local wastewater treatment plant where it undergoes treatment to meet state standards for disposal. Historically, most of the water was disposed by injecting it deep underground or by discharging it to the ocean or surrounding waters.

More and more communities are finding that wastewater can be recycled. They are reclaiming this water for many uses, but most commonly for irrigation of residential lots, golf courses, sports fields, fire protection, and groundwater recharge.



*Wakodahatchee Wetlands in Delray Beach*

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# WHAT IS RECLAIMED WATER AND REUSE?

**Water reuse** is the use of highly-treated domestic wastewater (reclaimed water) for beneficial purposes, such as: irrigation of yards, golf courses, parks and other green space; industrial purposes such as cooling water and process water; groundwater recharge; toilet flushing; dust control; environmental restoration; and even drinking water. Reuse reduces the reliance on groundwater, surface water and potable water.

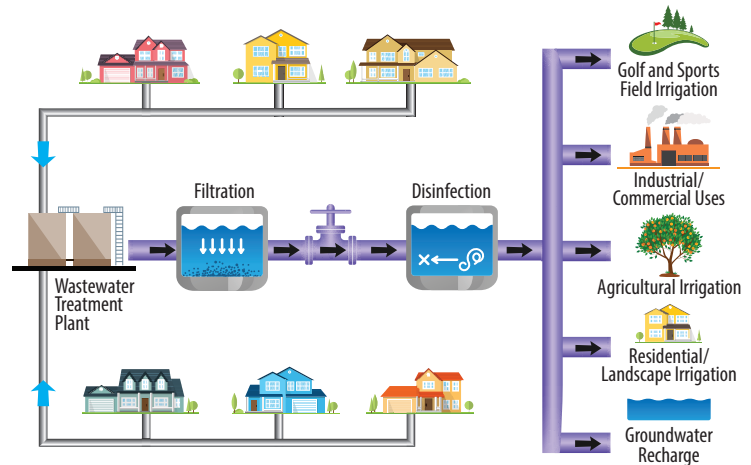
**Reclaimed water** is a dependable source of water even during times of drought because its availability is not dependent on rainfall. The use of reclaimed water is currently exempt from year-round landscape irrigation conservation measures and emergency water shortage restrictions.

## Is it safe to use reclaimed water?

**Yes.** Reclaimed water can be used for irrigation, industrial uses and many other water purposes. Continuous monitoring of reclaimed water, required by the Florida Department of Environmental Protection, ensures excellent water quality for protection of the public and the environment.

## How water is reclaimed

The diagram below follows the process of turning domestic wastewater into reclaimed water for reuse. Separate pipes carry wastewater to the treatment plant where it undergoes treatment, including filtration and disinfection, before it can be distributed. Reuse eliminates the dependence on potable water, surface water or ground water for these uses.



## Reuse on a regional level

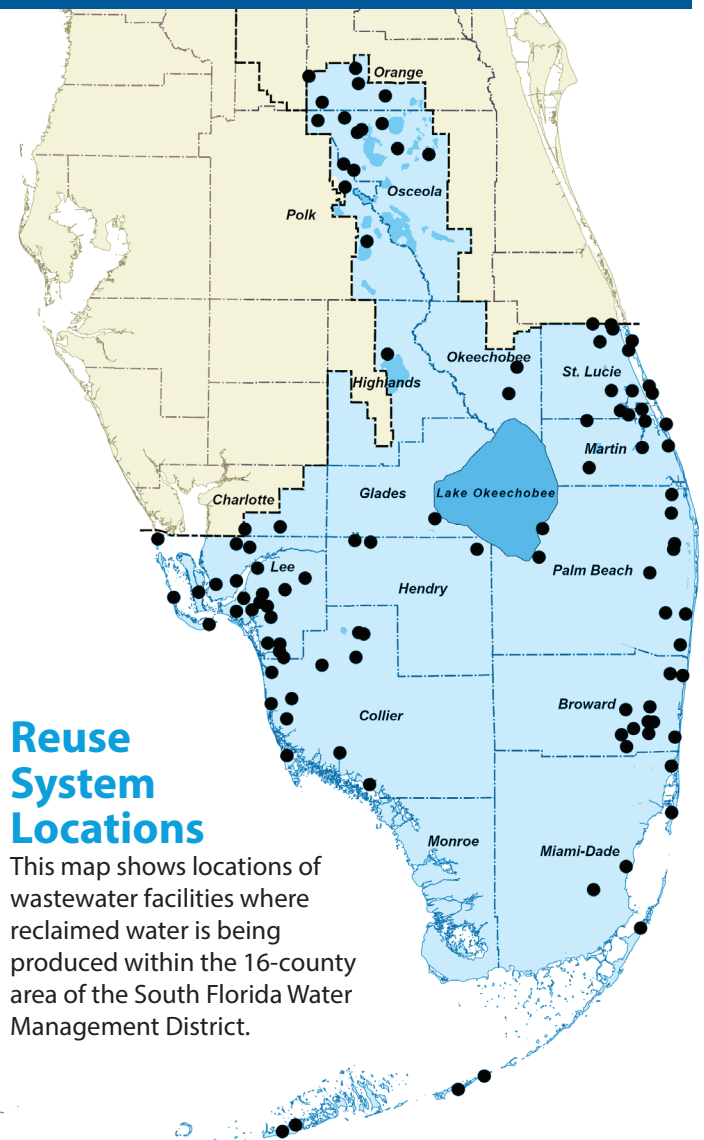
**Kissimmee/Orlando Area** – This area has a high percentage of water reuse. The District is working with utilities in Orange, Osceola and Polk counties to optimize the use of reclaimed water to reduce withdrawals from the Floridan aquifer.

**Collier, Lee, and Martin Counties** – These counties have a high percentage of reuse. The demand, especially for irrigation, has grown beyond what can reasonably be supplied by traditional groundwater sources and reclaimed water sources. There is a waiting list of users for reclaimed water. Utilities and the District work together to maximize the use of reclaimed water. This includes interconnecting reclaimed water systems, developing supplemental sources of water and increasing storage.

**Palm Beach and Broward County Interconnect** – These two counties have formed a partnership whereby Broward County will deliver up to 10.5 mgd of reclaimed water to southern Palm Beach County for irrigation reuse. North Springs Improvement District residents will receive up to 3 mgd as well. Any remaining reclaimed water capacity will be provided to local users along the pipeline route.

## Does the State of Florida help fund reuse projects?

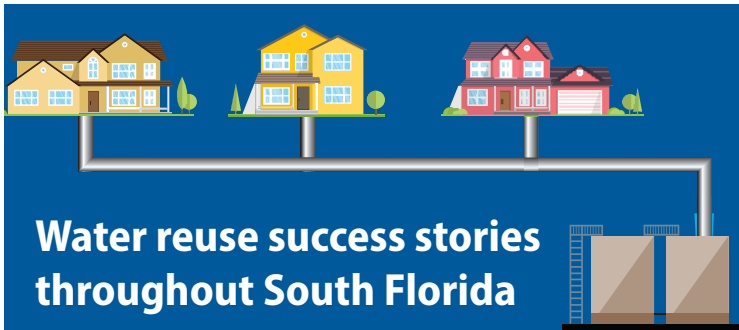
**Yes.** The State has provided financial assistance through the Alternative Water Supply (AWS) grant program to local entities in developing local reuse initiatives. With support from the state, SFWMD has contributed more than \$136 million to 283 reclaimed water projects since 1997.



## Reuse System Locations

This map shows locations of wastewater facilities where reclaimed water is being produced within the 16-county area of the South Florida Water Management District.





## Water reuse success stories throughout South Florida

- ▶ **Pompano Beach** – The city takes wastewater previously piped to the ocean, treats it to a higher standard and reuses more than 70% of it locally for irrigating residential lawns, parks and golf courses.
- ▶ **Cape Coral** – A reclaimed water irrigation system serves more than 62,000 residences, 25 parks, and 11 schools as part of the city's Water Independence for Cape Coral (WICC) campaign. Canal water is used to supplement reclaimed water to meet the demand.
- ▶ **Collier County** – More than 25 mgd of reclaimed water is provided to over 12,000 residences, 29 golf courses, 21 parks, and 10 schools.
- ▶ **Orlando and Orange County** – The DC, Conserv I, Conserv II, and Orange County South reuse systems provide more than 50 mgd reclaimed water to over 30,000 residences, more than 200 parks, 24 schools and 20 golf courses – in addition to recharging the aquifer through rapid infiltration basins.
- ▶ **Loxahatchee River District** – This system in Jupiter provides more than 7 mgd of reclaimed water to irrigate 12 golf courses, 14 parks, 3 schools, and more than 5,800 residential lawns.
- ▶ **Palm Beach County** – The county's Water Utilities Department provides approximately 12 mgd of reclaimed water to more than 28,000 residences, 7 golf courses, 2 parks, 1 schools, and the Wakodahatchee and Green Cay wetlands. In addition, approximately 17 mgd of reclaimed water is sent to FPL's West County Energy Center for industrial plant cooling.
- ▶ **Central Florida Tourism District** – This utility provides reclaimed water for irrigation of the landscaped areas in a resort complex. Four golf courses, hotels, highway medians and parks are irrigated with reclaimed water. A network of rapid infiltration basins is used for groundwater recharge. More than 5 mgd of reclaimed water is used for groundwater recharge and another 5 mgd is used for irrigation.

## Permitted Reuse Facilities

Ave Maria	Martin Correctional Institution
Boca Raton, City of	Martin County - North
Bonita Springs - East	Martin County - Tropical Farms
Bonita Springs - West	Miami-Dade - Central
Broward County - North Regional	Miami-Dade - North
Cape Coral - Everest Parkway	Miami-Dade - South
Cape Coral - Southwest	Meadowood
Charlotte Correctional Institution	Miramar, City of
Citrus Park - North	Naples, City of
Clewiston, City of	North Key Largo
Collier County - Golden Gate	Orange County Utility - South
Collier County - Northeast	Okeechobee, City of
Collier County - North	Okeechobee Correctional Institution
Collier County - South	Orlando, City of - McLeod Road
Coral Springs Improvement District	Orlando, City of - Water Conserv I
Cross Creek	Palm Beach County - Central Region
Davie, Town of	Palm Beach County - Southern Region
Del Prado (aka North Ft. Myers)	Palm Beach County - Western Region
Eagle Ridge	Palm Beach County - Western Region North
East Central Regional (WPB)	Plantation, City of
Everglades City	Pompano Beach
Fiddlesticks Country Club	Port LaBelle, City of
Florida Keys Aqueduct Auth. - Big Coppitt	Port of The Islands
Florida Keys Aqueduct Auth. - Duck Key	Port St Lucie - Glades
Forest Utilities	Port St Lucie - Westport
Fort Myers - Central	Reedy Creek Improvement District
Fort Myers - South	Sailfish Point
Ft. Pierce Utility Auth. - Island	Sanibel - Donax
Gasparilla Island	Savanna Club
Glades County Correctional	Seacoast Utilities
Gold Coast Utility	South Central Regional
Good Samaritan Retirement Village	South Martin Regional Utility
Harbour Ridge	South Seas Plantation
Hollywood, City of	Spanish Lakes Country Club
Homestead, City of	Spanish Lakes Fairways
Hunters Ridge	St. Lucie County - N. Hutchinson Island
Immokalee, City of	St. Lucie County - North (Holiday Pines)
Indiantown	St. Lucie County - South Hutchinson Island
Island Dunes	St. Lucie West
Key Colony Beach	Stuart, City of
Key West Resort	Sunrise - Sawgrass
LaBelle, City of	Sunrise - Southwest
Lake Fairways	Tindall Hammock
Lee County - Fiesta Village	Town and Country (Babcock Ranch)
Lee County - Fort Myers Beach	Toho Water Auth. - Camelot
Lee County - Gateway	Toho Water Auth. - Cypress West
Lee County - Pine Island	Toho Water Auth. - Harmony
Lee County - Three Oaks	Toho Water Auth. - Lake Marion
Lehigh Acres	Toho Water Auth. - Parkway
Loxahatchee River District	Toho Water Auth. - Sandhill Road
Marathon - Area 3	Toho Water Auth. - South Bermuda
Marathon - Area 4	Toho Water Auth. - St.Cloud - Southside
Marathon - Area 5	Toho Water Auth. - Walnut Drive
Marathon - Area 7	Wellington, City of
Marco Island	



Nursery using reclaimed water in Fort Myers



Reclaimed water for golf course irrigation in Palm Beach Gardens





## OUR MISSION

To **SAFEGUARD** and **RESTORE** South Florida's water resources and ecosystems, **PROTECT** our communities from flooding, and **MEET** the region's water needs while **CONNECTING** with the public and stakeholders.

## DID YOU KNOW?

- ▶ An average of 885 million gallons of reclaimed water is used every day in Florida.
- ▶ Close to 300 million gallons per day of this reuse occurs within the 16-county area of the South Florida Water Management District.
- ▶ Residences, golf courses, parks and schools are using reclaimed water for irrigation within the boundaries of the South Florida Water Management District.
- ▶ Reclaimed water doesn't stain sidewalks and driveways.
- ▶ Nature is the ultimate re-user of water. Through what is called the "hydrologic cycle," today's rainfall is the same water recycled over millions and millions of years.
- ▶ Users of reclaimed water are currently exempt from year-round irrigation measures and restrictions imposed during water shortages.
- ▶ As the population grows, wastewater flows will increase and so will the ability to produce more reclaimed water.
- ▶ Putting reclaimed water to beneficial use is "Recycling at its Best."

Ron DeSantis, Governor

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Robert Wanvestraut ☎ 561-682-6615  
 ✉ Rowanves@sfwmd.gov

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 LinkedIn and YouTube.



3301 Gun Club Road  
 West Palm Beach, FL 33406  
 SFWMD.gov