

# **Water Reuse**

## A safe and effective way to save water



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.



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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.

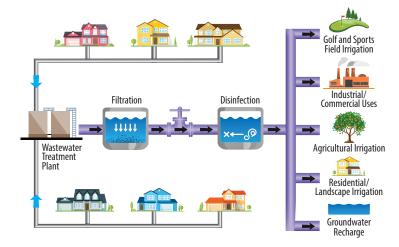
**Reclaimed water is** a dependable source of water even during times of drought because its availability is not dependent on rainfall. The use of reclaimed water is currently exempt from year-round landscape irrigation conservation measures and emergency water shortage restrictions.

### 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 aguifer.

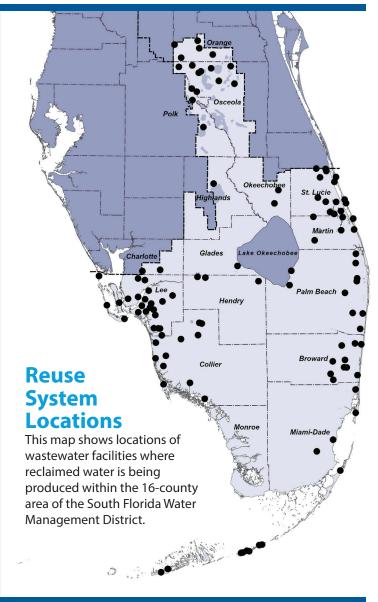
**Collier, Lee, and Martin Counties** – These counties have a high percentage of reuse. The demand, especially for irrigation, has grown beyond what can reasonably be supplied by traditional groundwater sources and reclaimed water sources. There is a waiting list of users for reclaimed water. Utilities 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, Coconut Creek and Deerfield Beach residents will receive up to 5.5 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 \$140 million to 284 reclaimed water projects since 1997.





## 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 almost 90% of it locally for irrigating residential lawns, parks and golf courses.
- Cape Coral A reclaimed water irrigation system serves more than 63,000 residences, 37 parks, and 18 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 close to 50 mgd reclaimed water to almost 30,000 residences, more than 200 parks, 25 schools and 20 golf courses – in addition to recharging the aquifer through rapid infiltration basins.
- Loxahatchee River District This system in Jupiter provides approximately 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 more than 12 mgd of reclaimed water to more than 29,000 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

Boca Raton, City of

Bonita Springs - East

Bonita Springs - West

Broward County - North Regional

Cape Coral - Everest Parkway

Cape Coral - Southwest

**Charlotte Correctional Institution** 

Citrus Park - North

Clewiston, City of

Collier County - Golden Gate

Collier County - Northeast Collier County - North

Collier County - South

**Coral Springs Improvement District** 

Cross Creek Davie, Town of

Del Prado (aka North Ft. Myers)

Eagle Ridge

East Central Regional (WPB)

**Everglades City** 

Fiddlesticks Country Club

Florida Keys Aqueduct Auth. - Big Coppitt

Florida Keys Aqueduct Auth. - Duck Key

Forest Utilities

Fort Myers - Central

Fort Myers - South

Ft. Pierce Utility Auth. - Island

Gasparilla Island

**Glades County Correctional** 

**Gold Coast Utility** 

Good Samaritan Retirement Village

Harbour Ridge

Hollywood, City of

Homestead, City of

**Hunters Ridge** 

Immokalee, City of Indiantown

Island Dunes

**Key Colony Beach** 

**Key West Resort** 

LaBelle, City of

Lake Fairways

Lee County - Fiesta Village

Lee County - Fort Myers Beach

Lee County - Gateway

Lee County - Pine Island Lee County - Three Oaks

Lehigh Acres

Loxahatchee River District

Marathon - Area 3

Marathon - Area 4

Marathon - Area 5

Marathon - Area 7

Marco Island

Martin Correctional Institution Martin County - North

Martin County - Tropical Farms Miami-Dade - Central

Miami-Dade - North

Miami-Dade - South Meadowood

Miramar, City of

Naples, City of

North Key Largo

Orange County Utility - South

Okeechobee, City of

Okeechobee Correctional Institution

Orlando, City of - McLeod Road

Orlando, City of - Water Conserv I

Palm Beach County - Central Region

Palm Beach County - Southern Region

Palm Beach County - Western Region

Palm Beach County - Western Region North

Plantation, City of

Pompano Beach

Port LaBelle, City of

Port of The Islands

Port St Lucie - Glades

Port St Lucie - Westport

Reedy Creek Improvement District

Sailfish Point

Sanibel - Donax

Savanna Club

Seacoast Utilities

South Central Regional

South Martin Regional Utility

South Seas Plantation

Spanish Lakes Country Club

Spanish Lakes Fairways

St. Lucie County - N. Hutchinson Island

St. Lucie County - North (Holiday Pines)

St. Lucie County - South Hutchinson Island

St. Lucie West

Stuart, City of

Sunrise - Sawgrass

Sunrise - Southwest

Tindall Hammock

Town and Country (Babcock Ranch)

Toho Water Auth. - Camelot

Toho Water Auth. - Cypress West

Toho Water Auth. - Harmony

Toho Water Auth. - Lake Marion

Toho Water Auth. - Parkway

Toho Water Auth. - Sandhill Road

Toho Water Auth. - South Bermuda Toho Water Auth. - St.Cloud - Southside

Toho Water Auth. - Sunbridge Toho Water Auth. - Walnut Drive

Wellington, City of







## **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?**

- Approximately 955 million gallons of reclaimed water is used every day in Florida.
- Around 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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