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# WATER RECLAMATION

*Reusing water through  
innovative technology*



Gainesville Regional Utilities (GRU), a division of the City of Gainesville, is a municipal enterprise providing electric, water, wastewater, natural gas, and communication services to customers in the greater Gainesville area. 8/08

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# W E L C O M E

Reclaimed water is wastewater that has been treated to very high standards to remove harmful organisms and pollutants, so that it can be safely reused for a variety of beneficial purposes. Reclaimed water is being used in Gainesville for the irrigation of residential lawns, golf courses and sports fields, industrial cooling, and for water gardens and other aesthetic water features.

As Gainesville continues to grow, it is becoming more and more important to conserve our water resources to ensure adequate water supply for the future. The use of reclaimed water in place of groundwater or GRU drinking water for purposes such as irrigation reduces the demands on our potable water supply, and will help to meet our community's future water supply needs.

In addition to reducing demands on our potable water supply, our reclaimed water customers benefit from having a relatively low cost source of water for irrigation and other purposes. Reclaimed water also provides a small amount of nutrients that reduce the need for fertilizer on lawns and landscaping.

*On the cover: Wetland plants will be used to filter reclaimed water before it is used to restore natural wetlands within Paynes Prairie Preserve State Park.*



*Kanapaha Botanical Gardens demonstrate the safety and beauty of reclaimed water, which has allowed the gardens to flourish.*

## ■ WHAT IS RECLAIMED WATER?

Reclaimed water is wastewater that has undergone advanced treatment and disinfection to remove bacteria and other harmful substances so that it can be beneficially reused. Reclaimed water, often referred to as “reuse,” is safe for uses such as the irrigation of lawns, golf courses or landscaping. It can also be used for aesthetic water features, to recharge the aquifer, and to help restore natural areas.

## ■ ARE THERE PUBLIC SAFETY CONCERNS?

Although reclaimed water is fully disinfected, it is not intended for human consumption or for activities such as swimming or showering. Incidental contact with reclaimed water, such as being splashed or sprayed by a sprinkler, is safe for people and animals. Strict rules are followed to ensure that reclaimed water is disinfected properly and not accidentally consumed or interconnected with the drinking water system.



*Reclaimed water is commonly used to irrigate golf courses, residential landscapes, corporate grounds and sports fields. It provides nutrients that reduce the need for fertilizer.*

## ■ HOW DOES THE USE OF RECLAIMED WATER BENEFIT OUR ENVIRONMENT?

Using reclaimed water for irrigation and other purposes saves our drinking water, which is a precious, limited resource. Because of the small amounts of nutrients contained in reclaimed water, it also decreases the need to fertilize lawns and landscaping. Reclaimed water is also used for water features like fountains, creeks, and lakes, creating wildlife habitats that enhance the public outdoor recreation experience.

## ■ HOW CAN DEVELOPERS AND HOMEOWNERS BENEFIT FROM USING RECLAIMED WATER?

- Provides a reliable source of irrigation water at a lower cost
- Provides nutrients to lawns and landscaping, which reduces the need for fertilizer
- Can be used to create aesthetic water features, such as wetlands, streams, ponds and lakes
- Provides an environmentally sound asset to the community by providing reclaimed water to schools, parks and golf courses

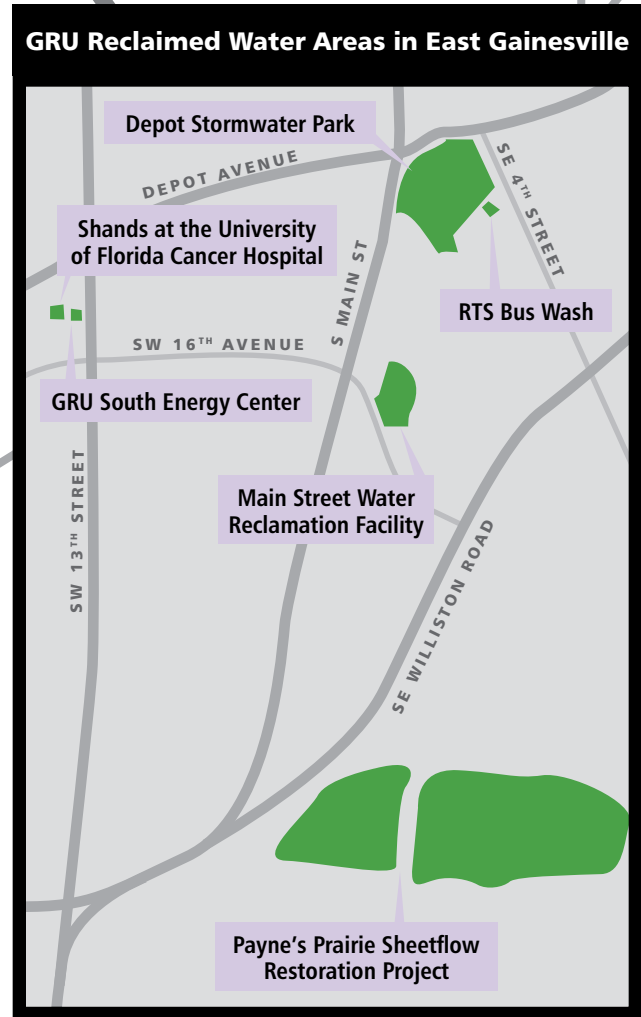
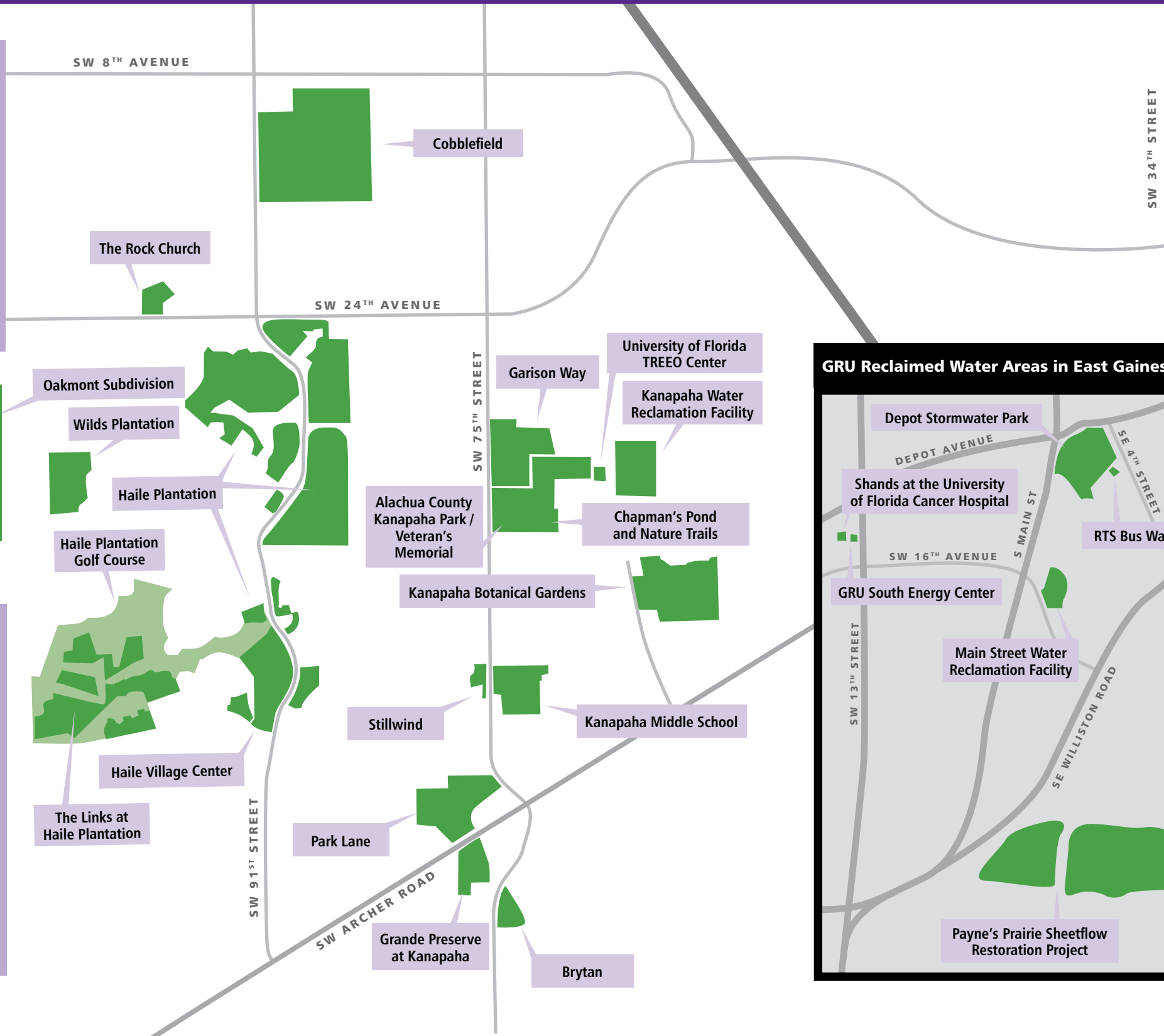
# GRU RECLAIMED WATER SITES

Using reclaimed water today helps ensure a high quality supply of drinking water for future generations.

GRU supplies reclaimed water to irrigate many areas, including school grounds, ball fields, parks, golf courses, and residential neighborhoods.

Reclaimed water can also be used for the creation of aesthetic water features, aquifer recharge and in helping to restore natural areas. GRU uses reclaimed water for industrial cooling, infiltrating wetlands, and environmental restoration.

For more information on reclaimed water, visit our website at [www.gru.com](http://www.gru.com).



## ■ WHAT ARE THE USES OF RECLAIMED WATER?

### IRRIGATION

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Using reclaimed water for irrigation reduces the amount of new ground water withdrawn from the Floridan Aquifer. GRU supplies reclaimed water as a source of quality irrigation throughout our community.

- **Local Businesses and Institutions:** GRU supplies reclaimed water for irrigation at local businesses and institutions, including: Haile Plantation Golf and Country Club, Haile Village Center, Kanapaha Middle School and The Rock Church.
- **Local Neighborhoods:** GRU supplies reclaimed water for home irrigation to several local neighborhoods including Cobblefield, Wilds Plantation, Garison Way, Brytan, Park Lane, Oakmont, the Grand Preserve, sections of Haile Plantation and the common area at Stillwind.
- **Alachua County Kanapaha Park:** Irrigated with reclaimed water, this park features a playground area, wildlife habitat, Veterans Memorial and multipurpose field.

*GRU supplies reclaimed water as a source of quality irrigation throughout our community in areas like Haile Plantation Golf and Country Club.*



### WATER FEATURES

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- **Kanapaha Botanical Gardens:** The second largest botanical gardens in Florida, Kanapaha Botanical Gardens is located on 62 acres in southwest metropolitan Gainesville, and is the site of GRU's first water reuse project specifically designed to demonstrate the safety and beauty of reclaimed water. GRU not only provides the entire gardens with reclaimed water for irrigation, but also partnered with the North Florida Botanical Society to design a reclaimed water garden that simulates a "spring to sink" Florida ecosystem. The water garden consists of an upper pond, a 600-foot meandering stream and four waterfalls, providing beauty for visitors and a habitat for wildlife.
- **Chapman's Pond and Nature Trails:** Chapman's Pond and Nature Trails is GRU's largest reclaimed water project, built on approximately 66 acres in southwest metropolitan Gainesville. It is a passive recreation park with approximately 1.8 miles of trails developed for community use. The park's beautiful water features include ponds, streams, waterfalls and fountains, all supplied by reclaimed water.
- **TREEO Center Ecosystem:** At UF's Center for Training, Research and Education for Environmental Occupations (TREEO), GRU designed a reclaimed water reflecting pond and stream to provide wildlife habitat and enhance the natural beauty of the environmental teaching center.
- **The City of Gainesville Depot Park:** GRU is partnering with Gainesville Public Works, the Gainesville Community Redevelopment Agency and the Florida Department of Environmental Protection to clean up a former industrial site and create a new public park. Depot Park will include walking paths, boardwalks, and an outdoor amphitheatre. Native vegetation will be used to create a natural North Florida wetland landscape. Reclaimed water will augment the park's ponds that will naturally treat stormwater from the downtown Gainesville area.



*Wetland plants enhance aesthetic water features by providing a native habitat for local wildlife.*

### INFILTRATING WETLANDS STUDY

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GRU is developing two projects to demonstrate and evaluate the use of man-made "infiltrating" wetlands to achieve additional nutrient removal and aquifer recharge.

- **Kanapaha Water Reclamation Facility:** GRU is constructing an infiltrating wetlands demonstration project on approximately five acres of property located at the Kanapaha Water Reclamation Facility.
- **Kanapaha Middle School:** GRU has constructed a series of man-made wetlands and ponds at Kanapaha Middle School. This constructed wetland has grown into a beautiful ecosystem, offering an interactive study site for local students.

### ENVIRONMENTAL RESTORATION

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- **Paynes Prairie Sheetflow Restoration Project:** GRU is partnering with Gainesville Public Works, Florida Department of Environmental Protection, Florida Department of Transportation, St. John's River Water Management District and Alachua

County to develop the Paynes Prairie Sheetflow Restoration Project. The project will utilize man-made wetlands to cleanse the flow from Sweetwater Branch, and will re-establish the natural “sheetflow” of Sweetwater Branch onto Paynes Prairie. This project will restore more than 1,300 acres of wetlands on Paynes Prairie, improve the water quality in Alachua Sink, provide protection for the Floridan Aquifer, and offer outstanding wildlife habitat and opportunities for public recreation and wildlife study.

## INDUSTRIAL USES/COOLING

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- **GRU South Energy Center:** The GRU South Energy Center, which provides all of the energy needs of the Shands at UF Cancer Hospital, uses reclaimed water in its cooling towers. The energy center is a highly efficient “combined heat and power” system fueled by natural gas. It provides up to 4.2 megawatts of electricity and chilled water for air conditioning and steam for heating, meeting 100 percent of the hospital’s needs. The GRU South Energy Center is the first campus-hospital energy center of its kind east of the Mississippi, and only the second in the nation.

*Kanapaha Botanical Gardens is GRU’s first water reuse project and features plants, trees and a wildlife sanctuary.*

