



October 28, 2019

Ms. Kelly Fannon
Reuse Coordinator
Florida Department of Environmental Protection
2600 Blair Stone Rd. MS#3540
Tallahassee, Florida 32399-2400

RE: Lake County - DW
Pennbrooke WWTF
Permit No. FLA010570
Annual Reuse Report 2018-2019

Dear Ms. Kelly Fannon:

Enclosed is the completed annual reuse report for the above mentioned facility for the 2018-2019 reporting period.

Below please find the documentation for Part X – Required Attachments for the Pennbrooke wastewater facility.

Inventory of Storage Facilities –

1. There are four rapid infiltration basins described as ponds 1, 2, 3 and 4 and one lined pond where golf course irrigation water is stored.
2. Ponds 1, 2, 3 and 4 are located directly adjacent to the Pennbrooke WWTF at 501 State Road 44 West. The Golf Course irrigation pond is located at the end of Timberwood Drive.
3. Ponds 1 and 2 are used for reject storage and ponds 3 and 4 are used for wet weather storage or during periods when the golf course pond is full. The lined golf course pond is used for storage as irrigation supply water.
4. Ponds 1, 2, 3 and 4 are unlined ponds. The golf course pond is lined.
5. None of the storage facilities discharge to waters of the state nor are they considered a water of the state.
6. Ponds 1 and 2 are approximately 400LF and ponds 3 and 4 are approximately 650LF from the nearest public supply well. The golf course pond is approximately 800LF from the nearest public supply well.
7. There are no known potable water supply wells proximal to either pond location.

Summary of Public Notification Program –

The Utility only provides reuse to the golf course for irrigation purposes within the subdivision limits. Therefore, this summary only addresses the applicable item under advisory signs.

- c. Use of advisory signs – Signage indicating the use of reclaimed water has been placed at both ends of the lined irrigation pond from which the golf course draws its supply. The

a Utilities, Inc. company Utilities, Inc. of Florida

200 Weathersfield Ave. • Altamonte Springs, FL 32714-4027 • P 866-842-8432 • F:407-869-6961 • www.uiwater.com

signs are reuse purple in color and state "Reclaimed Water/No swimming" in both English and Spanish. Signage is also placed at the entrance to the only golf course clubhouse and at the 1st and 10th tees of the course that are reuse purple in color and state "Reclaimed Water/No Drinking" in both English and Spanish.

If you have any questions or require any further information, please do not hesitate to call me at (407) 948.9839.

Sincerely,

Utilities, Inc. of Florida



Domenic Gentilucci
Area Manager

Enclosure

EC: Patrick C. Flynn, Vice President, UIF
Bryan Gongre, Regional Manager, UIF

CC: Ms. Dennise Judy
Program Manager, Domestic Waste
FDEP Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Ms. Tammy Bader
St. Johns River Water Management District
4049 Reid Street
P.O. Box 1429
Palatka, FL 32178-1429



Florida Department of Environmental Protection

Twin Towers Office Bldg., 2600 Blair Stone Road, Tallahassee, Florida 32399-2400

ANNUAL REUSE REPORT

Part I - Instructions

1. This form is to be submitted on or before January 1 following the completion of each fiscal year (October 1 through September 30). Submittal is required by Rule 62-610.870, F.A.C. This report will be used to develop and maintain a reuse inventory. It will not be used for determination of compliance with permit limitations, other than requirements to submit this report. If flow monitoring information is not available for individual reuse types or types of users, please provide your best estimates of flows allocated to individual reuse types or types of users.
2. Submit one copy (including all attachments) to each of the following three addresses:
 - a. DEP Water Reuse Coordinator
Mail Station 3540
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
 - b. The appropriate DEP district office (attention Domestic Wastewater Program).
 - c. The appropriate water management district.
3. Please type or print legibly. Submit all pages of this form.
4. Completion of this report is required for all domestic wastewater facilities having permitted capacities of 0.1 mgd or larger which contribute reclaimed water to one or more reuse systems permitted under Chapter 62-610, F.A.C. This form is to be completed annually for each separate reuse system. For purposes of this form, "reuse system" means a network of pipes, pumping facilities, storage facilities, and appurtenances designed to convey and distribute reclaimed water from one or more domestic wastewater treatment facilities to one or more users of reclaimed water.
5. Use the units specified in the form. For flows, show annual average flows (in mgd). This can be obtained by averaging daily flows over a 365-day period, dividing the total annual volume by 365, or by averaging the 12 monthly average flow values.
6. Be sure to submit the required attachments (see Part X on pages 8 and 9 of this form).
7. The cover sheet of your permit will identify portions of your project classified as "reuse" and portions classified as "effluent disposal." Rule 62-610.810, F.A.C., lists the criteria for classifying projects (or portions of projects) as "reuse" or "effluent disposal."

Part II - General Information

1. Reporting Period: October 1, 2018 through September 30, 2019

2. Date Submitted: October 17, 2019

3. Person Completing This Form

Name Thomas Edgar Smitley

Title Lead Operator

Organization Utilities, Inc. of Florida

Mailing Address 200 Weathersfield Ave.

City/State/Zip Code Altamonte Springs, FL 32714

Telephone (866) 842-8432

E-mail: Domenic.Gentilucci (DVGentilucci@uiwater.com)

4. Reuse System Name: Pennbrooke WWTP

5. Domestic Wastewater Treatment Facilities Providing Reclaimed Water to This Reuse System

a. Location of Facilities

City Leesburg

County Lake

DEP District (check one):
Management District (check one):

Water

Northwest (Pensacola)
 Northwest Florida (Havana)

Northeast (Jacksonville)
Suwannee River (Live Oak)

Southwest (Tampa)
Southwest Florida (Brooksville)

Central (Orlando)
St. Johns River (Palatka)

Southeast (West Palm Beach)
South Florida (West Palm Beach)

South (Ft. Myers)

b. Domestic Wastewater Treatment Facility Information

Enter the name of the facility, the DEP identification number, disinfection level,^a permitted capacity, and annual average flow for each treatment facility providing reclaimed water to this reuse system.

Facility Name	DEP Identification Number	Disinfection Level ^a	Permitted Capacity (mgd)	Average Flow (mgd)
Pennbrooke WWTP	FLA010570	HI	0.180	0.059
Total Treated Wastewater				0.059

^a Enter one of the following codes for disinfection level for each treatment facility:

- HI = High-level disinfection, as described in Rule 62-600.440(5), F.A.C.
- IM = Intermediate disinfection, as described in Rule 62-600.440(6), F.A.C.
- BA = Basic disinfection, as described in Rule 62-600.440(4), F.A.C.
- LL = Low-level disinfection, as described in Rule 62-600.440(7), F.A.C.
- HB = High-level disinfection & basic disinfection for portions of the treated flow.
- FT = Full treatment disinfection, as described in Rule 62-610.563(3)(b), F.A.C.

Part III - Reclaimed Water and/or Effluent Available for Reuse or Disposal

Source of Water	Average Flow (mgd)
Treated Wastewater [Enter the total from bottom of table in Part II]	0.059
Supplemental Water Supplies (Enter the flow for each supplemental water source added by the utility)	
Surface Water	N/A
Stormwater	N/A
Ground Water	N/A
Drinking Water	N/A
Demineralization Concentrate (Blended with final reclaimed water only)	N/A
Water Recovered from ASR ^b	N/A
Total Water Available for Reuse or Disposal [Should equal the total in Part VI of this form]	0.059

^b Aquifer Storage and Recovery (ASR) - This activity is described in Rule 62-610.466, F.A.C. If you have an ASR system included in your permit for the reuse system, please make separate entries in both Part III (for the total average flow withdrawn from the ASR well) and in Part VI (for the total average flow injected into the ASR well).

Part IV - Reuse

For each reuse activity, enter the permitted capacity, average flows, and acreage. Do not duplicate any of these entries in Part V of this form. Using available flow records, other available information, and your best judgment, please allocate the average flows for all treatment facilities among the reuse types listed in this part. Make discrete entries (do not show ranges). Show totals at the bottom of the table.

Reuse Type	Reuse Sub-Type	Part	Capacity (mgd)	Flow (mgd)	Area (acres)
Public Access Areas & Landscape Irrigation	Golf Course Irrigation	III	0.180	0.033	72.3
	Residential Irrigation	III			
	Other Public Access Areas	III			
Agricultural Irrigation & Spray fields	Edible Crops (Be sure to attach the inventory of edible crop irrigation. See Part X of this form.)	III			
	Grass, Pasture, Other Crops	II			
Ground Water Recharge & Indirect Potable Reuse	Rapid Infiltration Basins (Including Some Perc Ponds) ^c	IV	0.030	0.026	0.75
	Absorption Fields ^c	IV			
	Surface Water Augmentation (Discharge to Class I Waters)	V			
	Injection to Potable Aquifers	V			
Industrial	At Treatment Plant	VII			
	At Other Facilities	VII			
Toilet Flushing		III			
Fire Protection		III			
Wetlands					
Other (Specify)					
Total Reuse [Enter total flow on Line 1 in Part VI of this form.]			0.210	0.059	73.05

^c To be considered "reuse," either of the following conditions must exist:

* There are multiple basins or absorption fields that are routinely wetted, dried, and maintained in accord with Part IV of Chapter 62-610, F.A.C., or

* Continuously-loaded ponds must meet the higher treatment/disinfection requirements in Rule 62-610.525, F.A.C. If neither condition is met, the perc pond or absorption field is "effluent disposal" and should be recorded in Part V in this form (under "Other").

Part V - Effluent Disposal

For each effluent disposal activity, enter the permitted capacity and average flow. Do not duplicate any of these entries in Part IV of this form. Using available flow records, other available information, and your best judgment, please allocate the average flows for all treatment facilities among the effluent disposal types listed in this part. Make discrete entries (do not show ranges) for capacity and flow. Show totals at the bottom of the table.

Disposal Type	Disposal Sub-Type	Permitted Capacity (mgd)	Average Flow (mgd)
Surface Water Discharges	Ocean Outfall		
	To Coastal or Estuarine Waters		
	To Wetlands		
	To Other Surface Waters		
Deep Well Disposal			
Other (specify)			
Total Flow Disposed {Enter total flow on Line 2 in Part VI of this form.}			N/A

Part VI - Summary of Reuse and Disposal

Reuse or Disposal Activity	Average Flow (mgd)
1. Reuse (From bottom of Part IV of this form)	0.059
2. Effluent Disposal (From bottom of Part V)	N/A
3. Flow Stored in ASR (See note ^b on ASR in Part III.)	
Total (Should equal the total in Part III of this form.) ^d	0.059

^d The totals in Parts III and VI will not be equal if one of the following conditions exists (check as appropriate):

- The reuse system includes an ASR system and the amounts injected and withdrawn during the year differ.
- The reuse system includes one or more reuse activities in which reclaimed water is returned to the treatment facility after its use, where it is then available for reuse or disposal.

Part VII – Reuse Activities, Numbers of Customers, and Backup Discharges

1. How many single-family residences have reclaimed water service? None
2. How many golf courses are irrigated using reclaimed water? One
3. How many parks or playgrounds are irrigated using reclaimed water? None
4. How many schools are irrigated using reclaimed water? None
5. Is reclaimed water used to flush toilets? Yes No

If yes, list locations where reclaimed water is used for toilet flushing. N/A

6. Is reclaimed water used for fire protection? No Yes, in sprinkler systems
 Yes, in fire hydrants Yes, other (please describe) N/A

7. How many cooling towers use reclaimed water from this reuse system? None

8. List or describe any unique or unusual uses of reclaimed water. None

9. Is there a surface water discharge that serves as a backup discharge for the reuse system?

No
610.860, F.A.C.

Yes, a Limited Wet Weather Discharge permitted under Rule 62-

Yes, permitted under the APRICOT Act [Section 403.086(7), F.S.]

Yes, permitted under other rules governing surface water discharges

10. Do you require construction of reclaimed water piping in new residential or other developments?

Yes

No

11. Do you require connection to the reclaimed water system when reclaimed water service becomes available?

Yes

No

Part VIII – Cross-Connection Control Activities

Rule 62-610.469, F.A.C., imposes cross-connection control requirements on reuse systems permitted under Part III of Chapter 62-610, F.A.C. This includes requirements for the implementation of cross-connection control programs by all public water supply systems serving areas that are within the general reclaimed water service area. Color-coding, labeling, and separation distance requirements are included. In addition, inspections within the reclaimed water service area are required. For purposes of this form, “cross-connection” means a pipe-to-pipe connection between drinking water pipes and reclaimed water pipes.

1. Are all public water supply systems serving areas that are within the general reuse service area actively implementing and enforcing their cross-connection control programs? Yes No
2. Have all of these cross-connection control programs been accepted by the DEP or the approved county health department? Yes No
 1. How many illegal cross-connections have been identified during the reporting period? None

How many of these cross-connections have been eliminated? None

Please, attach a description of identified cross-connections and efforts taken to eliminate them.

3. How many new connections were made to the reclaimed water system during the reporting period? None

How many of the new reclaimed water connections were inspected at the time of initial connection? None
4. How often are the reclaimed water connections of existing residential reclaimed water customers inspected (i.e., daily, weekly, monthly, annually)? N/A

How often are the reclaimed water connections of existing non-residential reclaimed water customers inspected (i.e., daily, weekly, monthly, annually)? Daily
5. In addition to the number of new connections inspected in Item 3 above, how many existing connections were inspected during the reporting period? N/A

Part IX - Rates Charged for the Use of Reclaimed Water

Please, list the fees charged for the use of reclaimed water. Please do not enter wastewater or sewer charges. If reclaimed water is provided at no cost, enter zeroes in both blanks. If the fee structure includes both flat rate and gallonage charge components, make a positive entry in both spaces. Make all entries in the units shown.

1. How much do you charge a single-family residential customer (assume a 0.2-acre lot) for the use of reclaimed water?

Flat rate (\$/month/connection) N/A

Gallonage charge (cents/1000 gal.) N/A

2. How much do you charge non-residential customers, such as golf courses, (assume 0.1 mgd on a 50-acre site) for the use of reclaimed water?

Flat rate (\$/month/connection) \$0.00/month/connection

Gallage charge (cents/1000 gal.) \$0.00/1000 gal.

Part X - Required Attachments

Check, as appropriate, and attach the required documentation.

- Inventory of Edible Crop Irrigation** - If reclaimed water is used to irrigate edible crops at commercial agricultural sites, attach a copy of the current edible crop irrigation inventory as required by Rules 62-610.475 and 62-610.870, F.A.C. The inventory shall include the following information:

- a. Name of the agricultural operation.
- b. Name and telephone number of the owner or operator of the agricultural operation.
- c. Address of the agricultural operation.
- d. Edible crops irrigated using reclaimed water.
- e. Type of application (irrigation) method used.
- f. Approximate area (acres) under irrigation using reclaimed water on which edible crops are grown.

- Inventory of Storage Facilities** - If this reuse system was permitted under Part III of Chapter 62-610, F.A.C., attach a copy of the current inventory of storage facilities, as required by Rules 62-610.464, 62-610.830, and 62-610.870, F.A.C. The inventory shall include the following information:

- a. Name or identifier for the storage system.
- b. Location.
- c. Function of the storage system (system storage or reject storage).
- d. Type of facility (covered tank, uncovered tank, lined pond, unlined pond).
- e. Indication of whether or not the storage facility is a water of the state or discharges to a water of the state.
- f. Distance to the nearest public water supply well.
- g. Distance to the nearest potable water supply well, which is not a public water supply well.
- h. Volume of each storage tank/pond and the total storage volume of all storage tanks and ponds (in units of million gallons).

- Summary of Public Notification Program** - If this reuse system was permitted under Part III of Chapter 62-610, F.A.C., attach a summary of the public notification program activities during the reporting period, as required by Rule 62-610.468(6), F.A.C. The summary shall include the following:

- a. Details of written public notification activities (include copies of written notices).
- b. Summary of activities involving the news media.
- c. Use of advisory signs.
- d. Other public notification activities.

- Summary of Metering and Rate Structure** - As noted in 403.064(16), Florida Statutes, utilities implementing reuse projects are encouraged to meter use of reclaimed water by all end users and to charge for the use of reclaimed water based on the actual volume used when such metering and charges can be shown to encourage water conservation. Metering and the use of volume-based rates are effective water management tools for the following reuse activities: residential irrigation, agricultural irrigation, industrial uses, landscape irrigation, irrigation of other public access areas, commercial and institutional uses such as toilet flushing, and transfers to other reclaimed water utilities. As required by 403.064(16),

F.S., if this reuse system provides reclaimed water for any of the uses listed above, attach a summary of the utility's metering activities and the rate structure that the utility currently employs or plans to employ. The summary shall include the following:

- a. Number of meters employed to monitor volume of reclaimed water used by customers.
- b. If information is available, please provide per capita reclaimed water use for areas that meter and for unmetered areas. If available, please provide historical per capita usage data for before and after the utility began metering reclaimed water.
- c. Provide information on the type of rate structure (i.e., inclining or declining block rates) for reclaimed water employed by the utility.
- d. Provide a description of the utility's use of master meters (i.e., for a subdivision) or the use of individual meters (i.e., for single-family residential customers).
- e. Provide a summary of the utility's plans for metering reclaimed water customers.

None of these items are required for this reuse system.

Part XI - Permittee's Certification

I certify that the statements made in this report of reclaimed water utilization are true, correct, and complete to the best of my knowledge and belief.

Date: 10/28/18


Signature

Phone: (321) 972-0359

Patrick C. Flynn, Vice President
Name and Title (please print/type)

Company Name: Utilities, Inc. of Florida

Address: 200 Weathersfield Ave.

City/State/Zip Code: Altamonte Springs, FL. 32714

E-Mail: Domenic Gentilucci (DVGentilucci@uiwater.com)

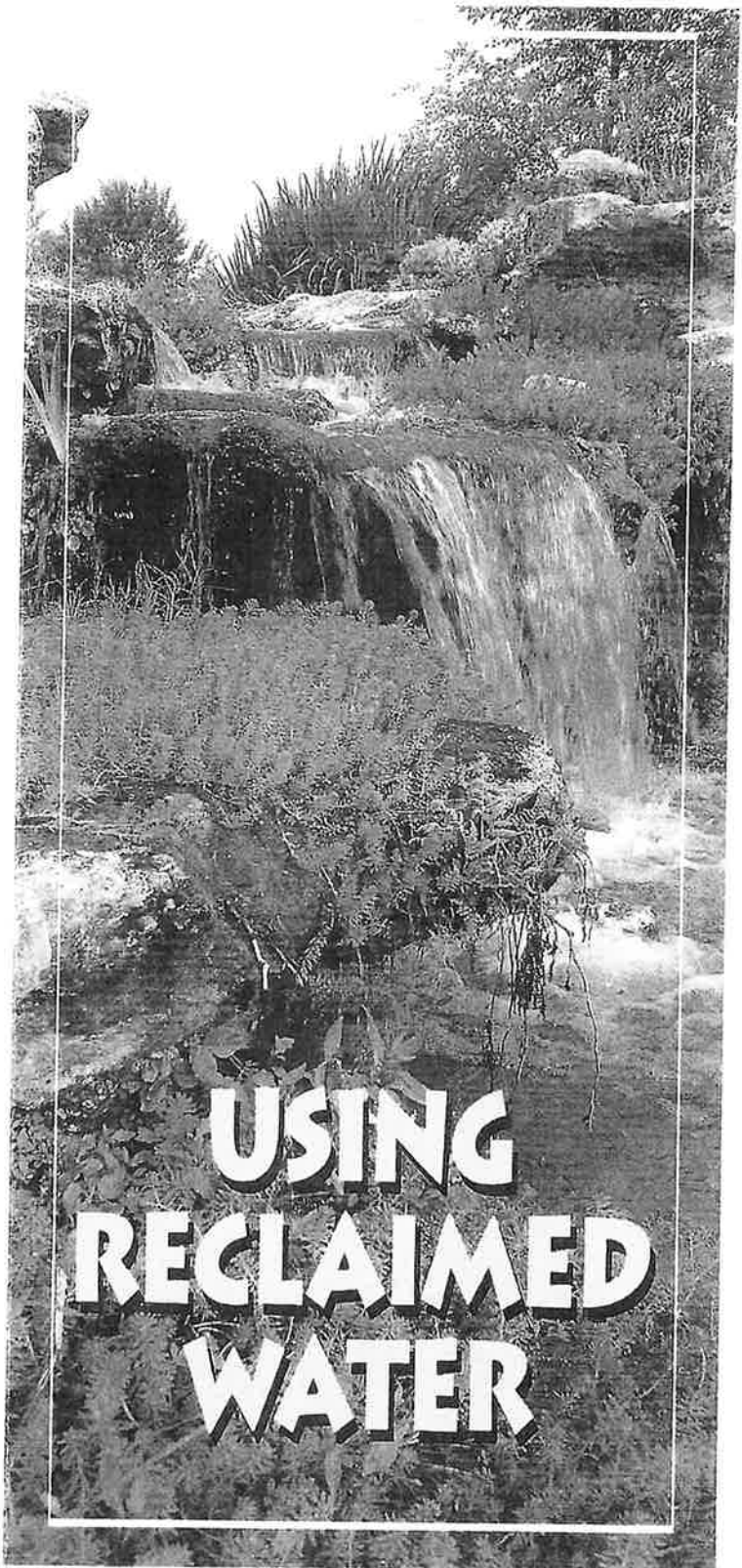
PENNBROOKE WASTEWATER FACILITY
ANNUAL AVERAGES FOR THE MONTH OF

PERMIT NUMBER - FLA 010570-008-DW2P
Jul-19

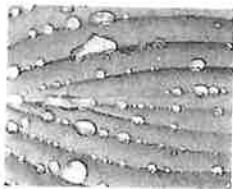
DATE	EFF - MGD AVG FLOW	REUSE - MGD AVG	POND # 3 & 4 - MGD	POND # 1 & 2 - MGD	TSS AVG EFF	BOD AVG EFF	FECAL GEO MEAN	TOTAL - N AVG EFF	TOTAL - P AVG EFF
Oct-18	0.047	0.030	0.000	0.017	2.6	8.5	0.5	1.5	4.5
Nov-18	0.051	0.046	0.000	0.005	5.4	8.0	0.5	1.7	5.1
Dec-18	0.059	0.026	0.010	0.023	1.0	8.0	0.5	13.0	4.7
Jan-19	0.062	0.004	0.030	0.032	1.1	8.0	0.5	15.0	5.5
Feb-19	0.063	0.000	0.016	0.047	2.6	8.3	0.5	4.3	3.8
Mar-19	0.070	0.060	0.000	0.010	1.0	9.0	0.5	8.5	5.8
Apr-19	0.064	0.048	0.000	0.014	3.1	9.0	0.5	17.0	6.7
May-19	0.054	0.041	0.009	0.002	1.9	9.0	0.5	15.0	6.1
Jun-19	0.051	0.027	0.016	0.008	1.7	7.5	0.5	5.9	9.1
Jul-19	0.054	0.043	0.004	0.007	1.4	8.0	0.5	1.7	7.3
Aug-19	0.072	0.017	0.048	0.009	0.7	9.0	0.5	1.3	0.7
Sep-19	0.059	0.047	0.000	0.012	3.0	9.0	0.5	6.5	5.0
TOTAL	0.706	0.389	0.000	0.186	25.5	101.3	6.0	91.4	64.3
AVG	0.059	0.032	0.011	0.016	2.1	8.4	0.50	7.6	5.4
THREE MONTH AVG		0.062					PLANT CAP		
		34%					0.180		

NOTE: 0.5 = <1 ON FECAL NOTE: 1.0 = <2 ON BOD AND TSS

Permit Revised 12 - 1 -2015 Total-N / Total-P Report (An.Avg.) and (Mo.Avg.)



USING RECLAIMED WATER



St. Johns River
Water Management District
Department of
Resource Management
P.O. Box 1429
Palatka, FL 32178-1429





WHAT IS RECLAIMED WATER?

Reclaimed water is wastewater which has been thoroughly treated to remove harmful organisms and substances, such as bacteria, viruses and heavy metals, so it can be reused.

WHY USE RECLAIMED WATER?

Water use to supply Florida's growing population and economy has increased significantly during the past several decades. Increasing water use has made the development of naturally occurring high quality water more and more difficult and costly.

At the same time, it has become more difficult to dispose of increasing quantities of treated wastewater in an environmentally sound manner. Reusing reclaimed water —such as domestic (household) wastewater —addresses both of these problems.



On the cover: Kanapaha Botanical Gardens, Gainesville, uses reclaimed water.

RECLAIMED WATER IS ALL AROUND US



Reclaimed water is commonly used to irrigate golf courses, residential landscapes, corporate grounds, agricultural fields and sports fields where our children and grandchildren play. It can be used for industrial heating and cooling, for car washes and to replenish wetlands during times of drought. Using reclaimed water where it is appropriate leaves us with greater supplies of fresh, pure drinking water.



USING RECLAIMED WATER:

- Saves fresh drinkable water for use in our homes and businesses
- Provides a safe, environmentally responsible alternative to wastewater disposal
- Reduces the need to construct new drinking water facilities
- Reduces the need to transport water from other places
- Offsets costs of wastewater treatment



SETTING GOOD EXAMPLES

The St. Johns River Water Management District requires wastewater treatment utilities to make

reclaimed water available to potential users when it is economically, technically and environmentally feasible.

Currently, 64 percent of the wastewater treatment facilities in the District provide reclaimed water for reuse. About 35 percent of the 286 million gallons of wastewater treated every day is reused.

Irrigation is the most common type of reuse. Reuse for irrigation was practiced in Europe as early as 1559, in Bunslau, Prussia. Similar systems were in place about the same time in Germany and Scotland and others appeared in England, France, Mexico and Australia by 1900.

The first major reuse system in this country was built in 1872 in Augusta, Maine. Other locations in Texas and California followed by the 1900s. The National Park Service has been using reclaimed water at the Grand Canyon since 1928 for toilet flushing, landscape irrigation and dust control.

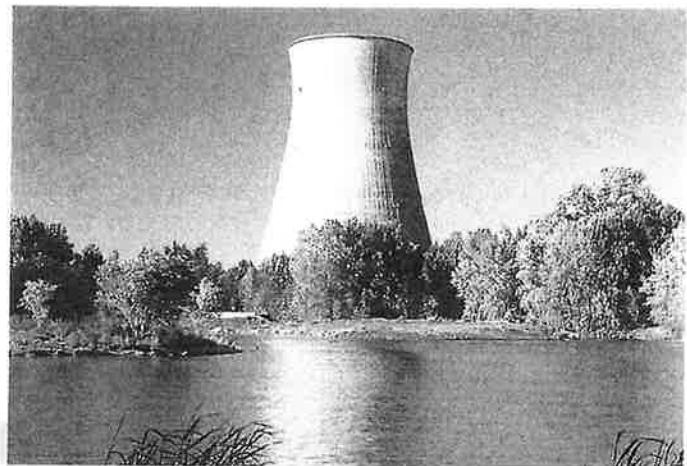


The water applied to those early irrigation sites had little or no treatment or disinfection as we

practice today. With the advent of modern forms of treatment and disinfection, Florida moved into reuse in the 1970s. Since then, reuse has been established as a major component of water resource management policy by the state of Florida and the St. Johns District.

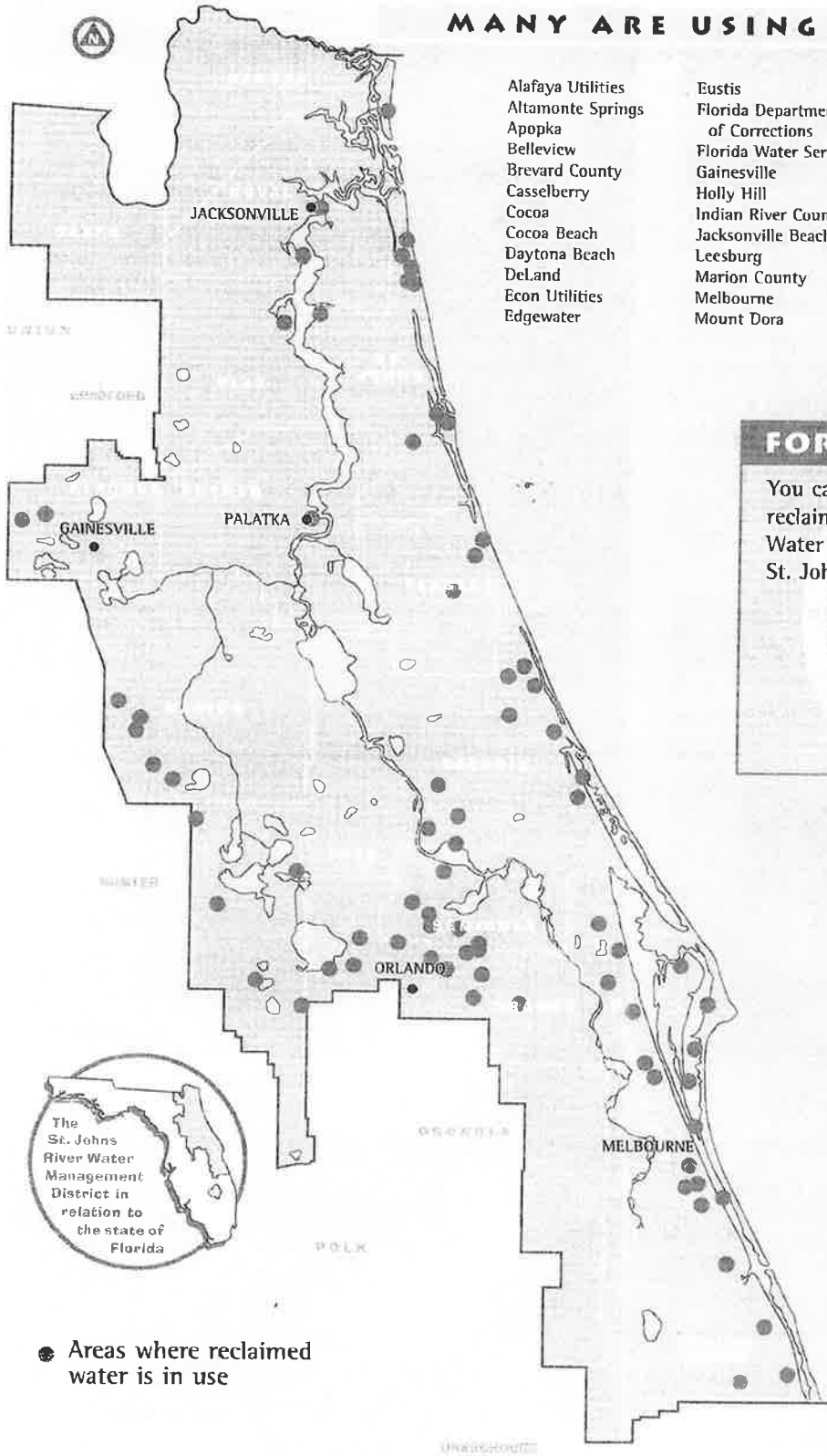
Large-scale reuse in Florida began in St. Petersburg, which has become a nationally known model reuse system. Following the success of the St. Petersburg system, other Florida utilities began to reclaim wastewater instead of discharging effluent into surface waters.

The cities of Altamonte Springs, Daytona Beach and Sanford each provide 5 to 6 million gallons of reclaimed water daily to irrigate residential and public area landscaping. CONSERV II, a partnership between the city of Orlando and Orange County, distributes 30 million gallons per day to irrigate citrus groves and recharge groundwater supplies in western Orange County. Many other examples of these can be found throughout the District.



MANY ARE USING RECLAIMED WATER!

- | | | | |
|-------------------|-----------------------------------|-----------------------|-------------------------------|
| Alafaya Utilities | Eustis | New Smyrna Beach | Sanford |
| Altamonte Springs | Florida Department of Corrections | North Beach Utilities | Seminole County |
| Apopka | Florida Water Services | Ocala | Southern States Utilities |
| Bellevue | Gainesville | Orange County | Sunbelt Utilities |
| Brevard County | Holly Hill | Orlando | Titusville |
| Casselberry | Indian River County | Ormond Beach | Umatilla |
| Cocoa | Jacksonville Beach | Palm Bay | University of Central Florida |
| Cocoa Beach | Leesburg | Palm Coast | Vero Beach |
| Daytona Beach | Marion County | Port Orange | Village Center |
| DeLand | Melbourne | Rockledge | Winter Garden |
| Econ Utilities | Mount Dora | St. Johns County | Winter Park |
| Edgewater | | St. Johns Service Co. | |



FOR MORE INFORMATION

You can learn more about using or supplying reclaimed water by calling Katherine Pordeli, Water Conservation Program Manager at the St. Johns River Water Management District, at:

(386) 329-4292
 e-mail address:
kpordeli@sjrwmd.com



St. Johns River
 Water Management District
 Office of Communications
 and Governmental Affairs

P.O. Box 1429
 Palatka, FL 32178-1429

Phone: (386) 329-4540

Publications order line:
 (800) RALLY-22

Visit us on the Internet at
sjrwmd.com

January 2002

● Areas where reclaimed water is in use