YOU CAN SAVE BIG BUCKS!

- ☑ Fix leaks as soon as possible.
- ☑ Irrigate between the hours of 4 p.m. and 10 a.m.* This saves water by reducing evaporation. Moisture controls, rain sensors, low volume drip, and drought tolerant plantings help reduce water waste.
- ☑ Consider an irrigation meter. GRU can install a meter to measure the amount of water you use for irrigation. You will pay for the water you use but not for the wastewater charges for water used to irrigate. This could result in large savings for you. Costs for the installation of an irrigation water meter vary according to the size required.
- ☑ Service ice machine regularly.
- ☑ Fix leaky toilets immediately.
- ☑ Call GRU for a **WATER WISE** survey. **334-3400 ext 1460.**

*current St. John's River Water Management District mandate applies to all GRU water customers and the majority of Alachua County.

GRU

IS YOUR BUSINESS PARTNER

Gainesville Regional Utilities offers these services to commercial customers to help conserve resources and lower utility bills.

WATER WISE

A checklist tailored for business providing information and ways for you to save water.

COMMERCIAL ENERGY SURVEY

A checklist, custom letter, or detailed report providing you with the information you need to save energy and money on your utility bill.

COMMERCIAL LIGHTING SERVICE

Lighting audits providing you with the information you need to make lighting improvements that will save energy. Better quality lighting can more than offset the cost of new equipment. The cost of service is recouped by GRU through a service fee on your utility bill.

GRU

Business Partners
334-3400 ext. 1460

Gainesville Regional Utilities, a division of the City of Gainesville, is a municipal enterprise that provides electric power, water, wastewater and natural gas utility service to customers in the greater Gainesville area.

GRU Conservation Services Department, P.O. Box 147117, Station A114, Gainesville, Florida 32614-7117, (904) 334-3400 ext. 1460

File #050168

WHERE DOES THE WATER GO!

Did you know that GRU's commercial customers used more than 28% of all the water billed by GRU in 1993? In contrast, the entire University of Florida used less than 14%.

Did you know that the AVERAGE commercial GRU customer was billed for about 461,000 gallons of water last year? That's about **30 swimming pools** full! The average residential customer was billed for 94,000 gallons last year.

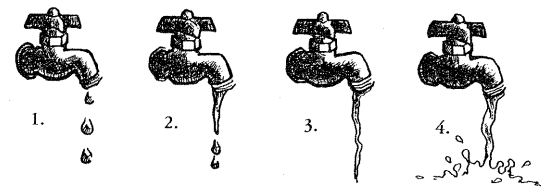
Did you know GRU's commercial water customers used about **1.9 BILLION** gallons of water last year?

If you are a commercial customer on GRU's water and wastewater treatment systems, every 1000 gallons of water costs you about $3.31* for both water and wastewater services. For the average customer that is almost $1525 a year.

SMART BUSINESSES KNOW THE FACTS!

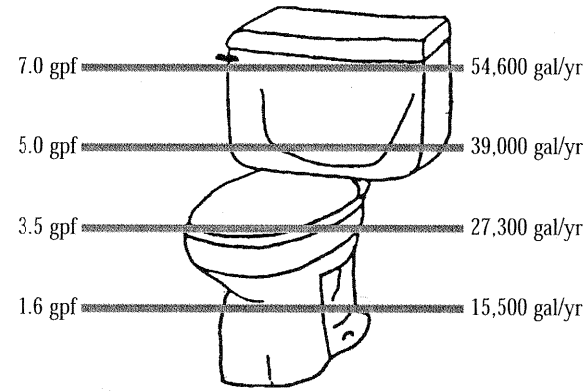
ARE LEAKS WASTING YOUR PROFITS

Faucets are notorious leakers in businesses and tend to be especially bad in restaurants, restrooms and convenience stores. Fixing these leaks can save you BIG BUCKS over the years!



Compare these leaks with the chart below.

ARE YOU FLUSHING MONEY DOWN THE DRAIN?



Flushes in many business settings can be 10 to 50 times that of residential uses. This increases the wear and tear on flush mechanisms which increases the likelihood of leaks.

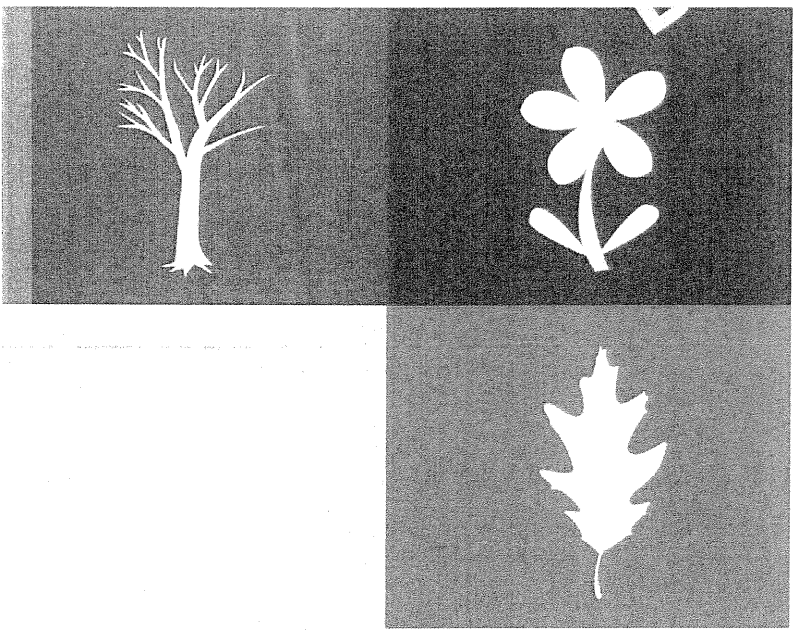
Average annual water consumption composite of valves and tanks is based on an average 7.5 people per fixture with 4 flushes per person per day, 260 business days/year.
gpf = gallons per flush

HOW MUCH DO YOU LOSE THROUGH COMMON LEAKS AND WASTEFUL PRACTICES?

		Illustration # above	Approx GAL/Month	Approx* Cost/Month	Cost/Year*
"Drippy" faucet (see above illustration)	slow	1.	300	$ 1.00	$ 12.00
	fast	2.	600	$ 2.00	$ 24.00
	small stream	3.	2,000	$ 7.00	$ 79.00
	large stream	4.	4,000	$ 13.00	$ 159.00
Toilets	tank/bowl seal leaks		2,000	$ 7.00	$ 79.00
	sticks sometimes		10,000	$ 33.00	$ 397.00
	runs until jiggled		20,000	$ 66.00	$ 794.00
	runs constantly		100,000	$331.00	$3970.00
Ice machines	valve sticks when running		28,000	$ 93.00	$1112.00
	valve sticks open		86,000	$285.00	$3414.00
	(if water cooled add:)		23,000	$ 76.00	$ 913.00
Irrigation	sprinkler head broken		4,000	$ 13.00	$ 159.00
	sprinkler head missing		8,000	$ 26.00	$ 318.00
	sprinklers run daily		17,000	$ 56.00	$ 675.00
Swimming pools	splash outs from overfilling		4,000	$ 13.00	$ 159.00

*Cost basis assumes customer is on GRU water/wastewater system and includes sewer charges. State, City & County taxes, fees, and surcharges are not included. Rates effective 3/94.

Save water by irrigating wisely



Watering tips

- Irrigating only when needed saves money
- Lawns need only 1/2 to 3/4 inch of water from rain or irrigation twice per week to stay healthy. To determine how long it takes your irrigation system to put out half an inch of water, place tuna cans around the yard and measure the water collected in a half an hour
- Set your automatic sprinkler system to irrigate between midnight and 4 AM. This reduces losses from evaporation that can occur during the middle of the day. Watering early also reduces the potential for plant disease
- Odd number houses should irrigate only on Wednesdays and Saturdays. Even numbered houses should irrigate on Thursdays and Sundays

GRU℠
More than Energy™

- St. Johns River Water Management District's permanent rule forbids watering between the hours of 10 AM and 4 PM
- If you water your lawn between 10 AM and 4 PM, the hottest time of day, the water is wasted - 65 percent of the water will evaporate
- The average GRU residential customer uses 97 gallons of drinking water per day
- Landscaping accounts for up to 50 percent of all residential water use

Backflow prevention

- All customers with automatic irrigation systems or private wells must have a backflow prevention device installed to protect the drinking water supply
- It is the customers' responsibility to maintain the backflow device on an annual basis
- Maintenance must be done by a certified backflow device tester
- For specific information on backflow prevention contact GRU Water/wastewater Engineering at (352) 393-1698

Rain Sensors

- Florida law requires all owners of new automatic sprinkler systems to install, operate and maintain a rain sensor that will shut off the irrigation system when rainfall has occured

This information is provided by a company that has successfully attended a workshop on effective irrigation practices held by GRU and UFIFAS.

HOME LAWN Irrigation

Written by Alys A. Brockway and Linda B. Landrum • Produced by IFAS and the St. Johns River Water Management District

Home lawn irrigation is often necessary due to Florida's climate. An easy and efficient watering program can be established by deciding when to water, how much water to apply and how the water will be applied.

WHEN DO I IRRIGATE?

Two ways to determine when to water your lawn are 1) visual inspection and 2) direct measurement of soil moisture.

Visual inspection — The most efficient way to water your lawn is to irrigate when it shows signs of stress from a lack of water. Visual signs of water stress include the lawn turning a bluish-gray color; footprints lingering after being made; leaf blades folding in half; and/or soil from the rootzone feeling dry.

Direct measurement of soil moisture — One way to measure soil moisture is with a soil moisture sensor. There are sophisticated sensors which will activate your irrigation system when water is needed. The more basic soil moisture sensors turn off your irrigation system when water is adequate.

General Lawn Irrigation Guide

An irrigation schedule may vary because it depends upon the time of year, the type of soil you have and your location. For example: Are you in North or South Florida? Is your lawn oceanside or is it under an inland oak hammock?

Considering these factors, the following table is a GENERAL guide to lawn watering:

Your Lawn Needs Rain or Irrigation:

Jan:	Once every 10 - 14 days	July:	Once every 3 - 5 days
Feb:	Once every 7 - 10 days	Aug:	Once every 3 - 5 days
Mar:	Once every 5 - 7 days	Sept:	Once every 5 - 7 days
Apr:	Once every 3 - 5 days	Oct:	Once every 5 - 7 days
May:	Once every 3 - 5 days	Nov:	Once every 7 - 14 days
June:	Once every 3 - 5 days	Dec:	Once every 7 - 14 days

Also, you must adjust your irrigation schedule to account for rainfall. Do not rely on one rigid irrigation schedule.

HOW MUCH WATER SHOULD I APPLY?

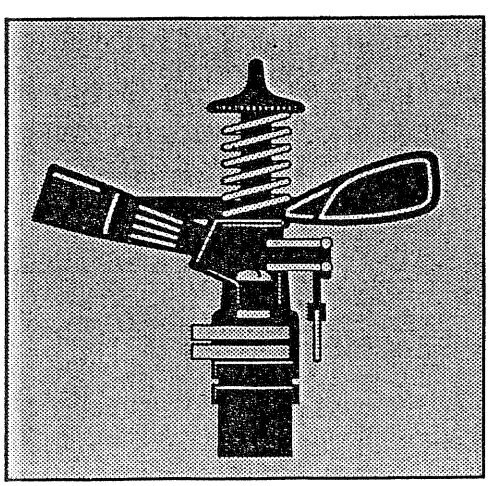
A single standard measurement to fit every situation is difficult because of different soil types. However, for most Florida soils, an average of 2/3 to 3/4 of an inch of water per application is sufficient to replenish the grass' water needs. Apply only enough water to wet the grass' root system. Do not saturate the soil so fast that runoff occurs.

You have several options to help determine how much water

(Please see other side...)

to apply to your lawn. Choose the one best suited for your yard. You may:

- Use a water meter which is permanently installed in the irrigation line. This will indicate the number of gallons applied per minute, allowing you to accurately determine the number of minutes necessary to apply the correct volume.
- Use a rain shut off device on your automatic timed sprinkler system. This device overrides a sprinkler system in the event of a specific amount of rain. It also resets the sprinkler system for normal operation when the turf requires more water.
- Use a soil moisture sensor. The sophisticated sensors will activate your irrigation system when water is needed. The more basic soil moisture sensors turn off your irrigation system when water is adequate.
- Use the in-place measurement of watering by the "can method." Place five to seven wide-mouthed, flat-bottom cans on diagonals throughout the irrigated area. Water for 15 minutes, then measure the depth of water in each can. Average the measurements and use this to determine how long you need to irrigate to apply 2/3 to 3/4 of an inch of water.



WHICH IRRIGATION METHOD SHOULD I CHOOSE?

- A hose-and-sprinkler system. Place the sprinkler in the area which is driest. (Avoid placing the sprinkler in low or wet areas.) Allow the calibrated sprinkler to run the proper length of time to wet the root zone with 2/3 to 3/4 of an inch of water. When that area is complete, move the sprinkler to another dry area. Place your sprinkler to allow overlap between areas: ideally, the spray from one sprinkler should reach adjacent sprinklers to assure this overlap.
- Underground irrigation system. An irrigation system can be automatic, manual or a combination of both. Manual systems rely on you to turn them on when your turf needs supplemental irrigation. The automatic system is set for a pre-determined time of day and day(s) of the week.

Regardless of which system you choose, uniformity of application is essential. If in doubt about this, seek the help of a competent lawn professional.

Additional Watering Tips

- Water early in the morning. This reduces evaporation by the hot sun and takes advantage of less wind. Also, watering early reduces the potential for disease development.
- Do not mow the lawn too short. This puts additional water stress on the grass. Most St. Augustine and Bahia grasses should be mowed to a minimum height of three inches.
- Avoid over-fertilization. This requires more watering and mowing.
- Inspect your sprinkler system frequently. Look for breaks, a uniform spray pattern and proper timing.

For more technical information on this subject, request extension bulletin, "Turf Irrigation for the Home," by F.S. Zazueta, A. Brockway, L. Landrum and B. McCarty. This document is available at most county cooperative extension service offices.

SJR St. Johns River Water Management District

IFAS UNIVERSITY OF FLORIDA

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