Rainwater Harvesting and Water Reuse

Water Conservation: half-empty or half-full?

Regional Webinar Series

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PASCO’S PURPLE PLAN FOR PURPLE RAIN

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Pasco County
Reclaim Water System

- System began in 1986
- Producing 20 MGD
- From 8 wastewater treatment plants
- Serving 12,000 residential users
- Several hundred miles of pipeline
- Supplemental groundwater and storm water
- Existing 100 MG reservoir
Pasco County began supplying reclaimed water in 1986. Today the County serves:

- Residential Customers .................. 10,000
- Golf Courses .................. 15
- Schools .................. 15
- Agricultural (acres) ... 700

This program currently saves approximately 6 billion gallons of potable water every year.

The County’s Reclaimed Water program could not have been accomplished without the $17 million of cooperative funding provided by the Southwest Florida Water Management District.

Southwest Florida Water Management District
System Customer Base

- Residential ~ 7 MGD ~ 38 %
- Industrial ~ 1 MGD ~ 3 %
- Agricultural ~ 0.1 MGD ~ 1 %
- Golf Courses ~ 1.9 MGD ~ 15 %
- Common Areas ~ 1.9 MGD ~ 9 %

Remaining 34% is recharged via RIBs
The existing Reclaimed Water System consists of:

• 8 Reclamation Facilities
• Several Hundred Miles of Transmission and Distribution Pipelines
• 9 Supplemental Supplies
• 25 Pump Stations and Storage Tanks
• 79 Rapid Rate Infiltration Basins (RIBs)
• 100 million gallon Reservoir
Reclaimed Water Quality

- For new areas, public perception is key
- High quality disinfection standards
- Effluent quality - continuous monitoring
- FDEP permit requires sampling numerous parameters to ensure public safety
Disposal may not be needed

- Reclaimed water can be disposed of via surface water discharge or deep well injection
- Pasco County reuses 100% of reclaimed water
- The use of RIBs is not considered disposal because it provides a benefit to the surficial aquifer by augmenting water levels
- Initially systems do dispose periodically
Wet Weather Management

- Management strategy required
- Never have it “just right”
- Unless overcommitted,
  - Rapid Rate Infiltration Basins
- Undercommitted, augment with potable during high use periods
- Cost is always a factor
Reservoirs and Processing best near development
Meter Reading and Billing

- Early on customers must "take or pay" as incentives
- Base rate
- Separate metering for potable and reclaimed
- Volumetric rates
Reclaimed Water Reuse Restrictions

- Pasco views reclaimed as a valuable resource
- Reclaimed water customers may irrigate from 12:01 AM to 8:00 AM OR 6:00 PM to 11:59 PM on their designated reclaimed water irrigation days
- Two days / week schedule
Reclaimed water uses

- Outdoor irrigation
- Agricultural irrigation
- Industrial uses
- Graywater uses
- Harder: aesthetic, graywater, etc.
QUESTIONS?

For more information, contact
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Questions

Audio Setup Wizard

Steps:
1. Select Audio Output Device
   - Speaker Setup
   - Speaker Setup Confirmation
2. Select Audio Input Device
   - Microphone Setup
   - Microphone Playback
   - Microphone Setup Confirmation
3. Setup Complete