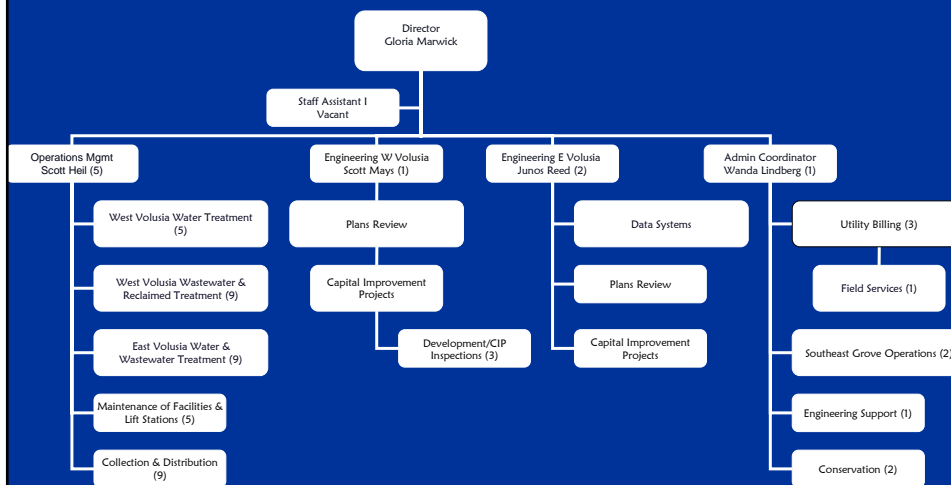


VOLUSIA COUNTY
 PUBLIC WORKS DEPARTMENT
**WATER RESOURCES & UTILITIES
 DIVISION**

GLORIA MARWICK, DIRECTOR



Water Resources & Utilities



Number of Employees = 60 FTE

Water Treatment Plants

❖ Fourteen Water Treatment Facilities

86,000 gpd – 2,500,000 mgd

❖ Two Treatment Processes:

- West Volusia County/Aeration and Chlorination

\$1.71/1,000 gallons

- East Volusia County/Membrane Softening

\$3.23/1,000 gallons

❖ Conservation Rates (Irrigation)

- \$10.00/1,000 gallons over 21,000 gallons

Glen
Abbey
WTP

2-11-2000 09:41

Plant Security

Glen Abbey
WTP

Wastewater Treatment Facilities

- ❖ Fifteen Wastewater Facilities

15,000 gpd – 2,700,000 gpd
(Pine Island – SW Regional WRF)

- ❖ Secondary and Tertiary Treatment level

w/ high level disinfection
No discharge to surface waters

S.E.
Regional
WVTP

- ❖ Reclaimed (Reuse) Water

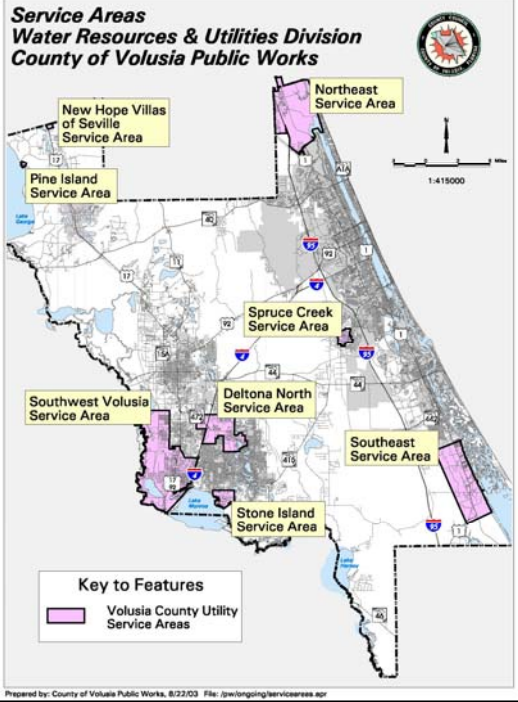
Southwest Regional Reclamation Facility Expansion



Service Areas

Water Connections

- Northeast 1,873
- Spruce Creek 1,651
- Southeast 1,599
- Southwest 7,421
- Deltona North 1,482
- Enterprise 118
- Stone Island 300
- Pine Island 98
- New Hope 66
- Pine Run 38
- Blue Springs 26
- Cassadaga 124
- Total 14,796**



Rate Comparisons

East
Volusia
Cities
(Outside
City Rates)

Gallons per month (water only)

Utility	5,000	10,000	20,000
Volusia Cty	\$24.95	\$41.66	\$78.42
Daytona B.	\$30.47	\$52.12	\$95.42
Edgewater	\$34.23	\$65.68	\$150.98
Holly Hill	\$31.93	\$63.08	\$131.63
Ormond B.	\$24.32	\$49.17	\$63.81
Pt Orange	\$29.70	\$55.35	\$119.45

Gallons per month (water only)

Utility	5,000	10,000	20,000
Volusia Cty	\$17.80	\$26.49	\$47.73
DeLand	\$17.33	\$25.08	\$51.43
Deltona	\$13.77	\$20.12	\$32.82
Lk Helen	\$19.24	\$40.54	\$72.54
Orange City	\$20.45	\$35.13	\$69.80

West
Volusia
Cities

The Challenge of Alternative Water Supplies

❖ Surface Water Supply

- Seminole County's St. Johns River Water Plant @ Yankee Lake
- Coquina Coast Seawater Desalination Plant

❖ Potential Water Supply and Water Resource Management Techniques

- Redistribution of pumping
- Indirect potable reuse
- Recharge augmentation
- Impact mitigation
- Reclaimed water augmentation
- Conservation – reduce per capita demand

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Reclaimed Water Expansion \$12,110,703

Southwest Volusia (DeBary, Orange City)

- Alternative Water Demand 4.00 MGD
- Activate existing dry reclaimed water lines and require all new development to install reclaimed lines 1.60 MGD
- Reduce Demand for River or Seawater to 2.40 MGD

Deltona North

- Alternative Water Demand 3.50 MGD
- Activate existing dry reclaimed lines and require all new development to install reclaimed lines 1.40 MGD
- Reduce Demand for River or Seawater to 2.10 MGD

Total Reduction from 7.5 MGD to 4.5 MGD

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Water Authority of Volusia

Water Authority of Volusia (WAV)

- Created October 1, 2003
- Members: 13 cities and the county
- Dissolved: September 30, 2009

Spin-off Organizations

- West Volusia Utilities (DeLand, Deltona, Orange City, Volusia County)
- East Volusia Regional Water Alliance (Daytona Beach, South Daytona, Holly Hill)

Conservation Projects

- ❖ Rain Gauge Workshops
- ❖ Low Flow Shower Head Giveaway
- ❖ Low Volume Toilet Rebate
 - Flapperless Toilet Program
- ❖ Waterwise Landscaping
- ❖ Rain Barrel Coupons
- ❖ Rain Garden Demonstration Project
- ❖ Irrigation Audits
- ❖ Low Volume Washing Machines
- ❖ Enforcement - Ticketing



Cross-trained Staff

- ✓ Treatment Plant Operators with dual licensing
- ✓ Maintenance Team (water distribution and wastewater collection)
- ✓ Incentive Programs; employees remain knowledgeable & well trained
- ✓ Lorick Study; Innovative Best Practices

Elimination of Package Plants

- ✓ Meadowlea, Stone Island, Tiffany Condominiums, Spanish Waters, Cassadaga

Contracted Services and Programs

- ✓ Meter Reading
Automated Meter Reading (AMR)
- ✓ Fire Hydrant Maintenance
- ✓ SCADA – remote monitoring
- ✓ Ground Penetration Radar

Questions?

