

GROUNDWATER USE IN ALACHUA COUNTY

Stacie Greco

Water Conservation Coordinator

Alachua County Environmental Protection Department

**Northwest Florida
Water Management
District**

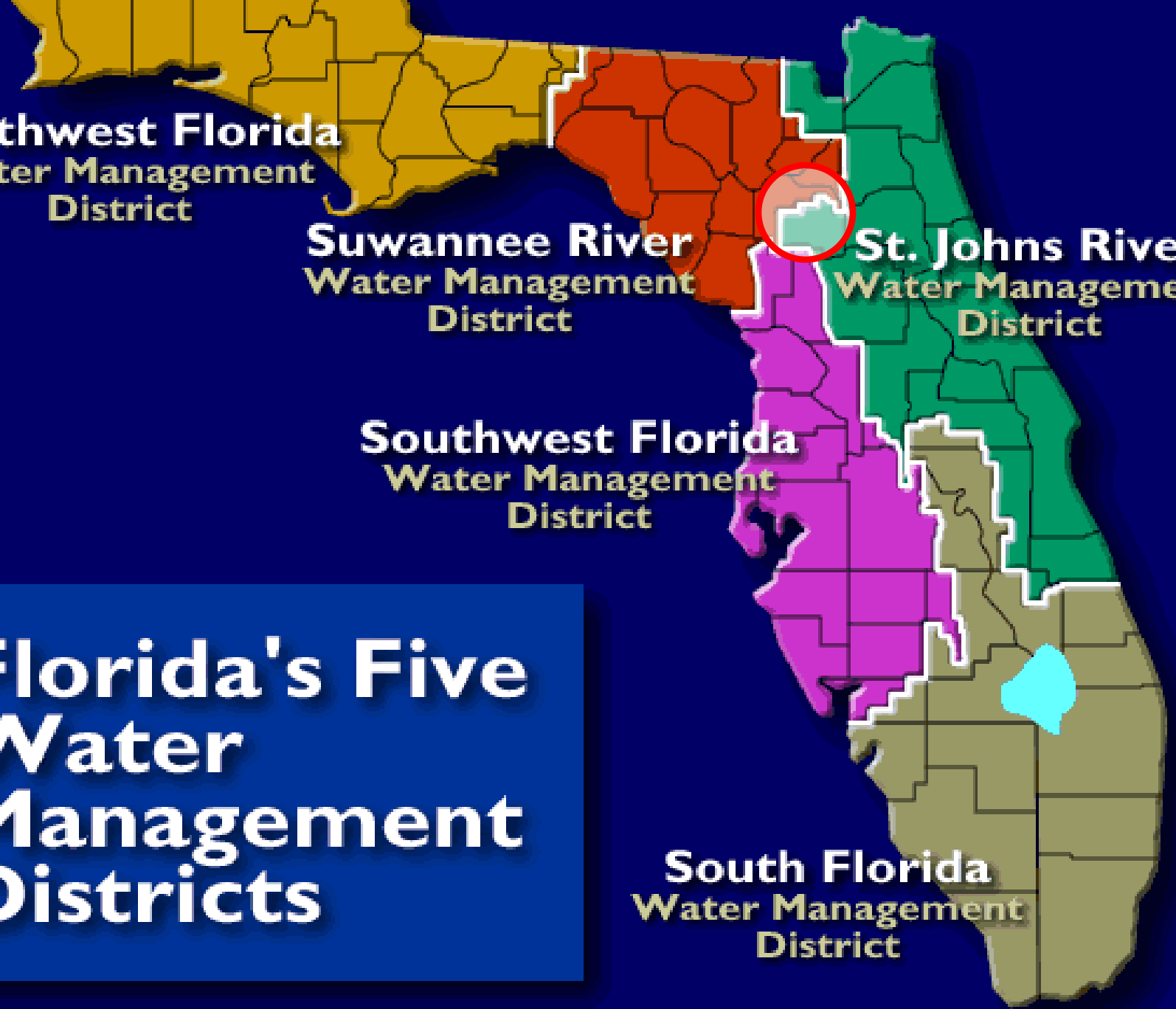
**Suwannee River
Water Management
District**

**St. Johns River
Water Management
District**

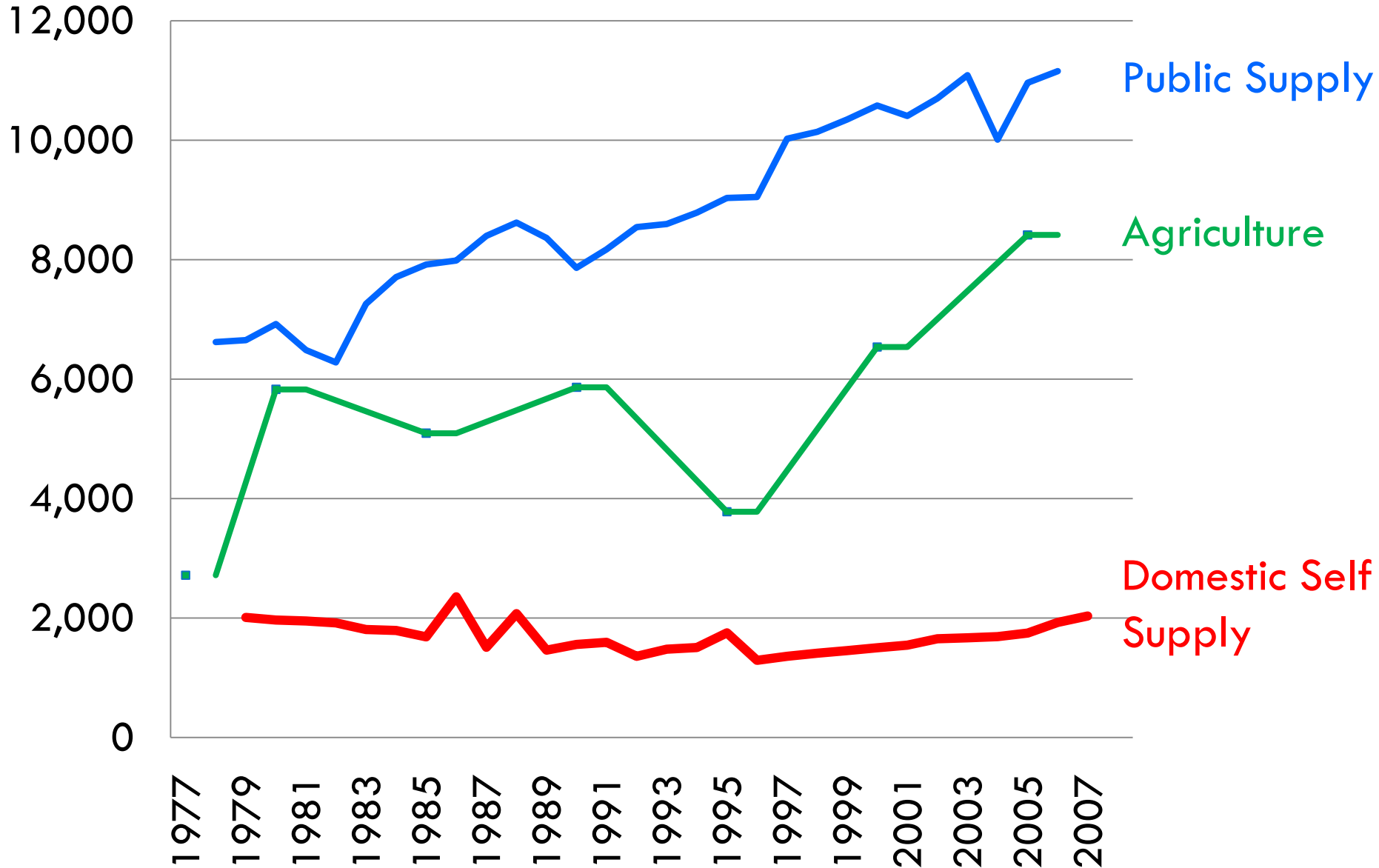
**Southwest Florida
Water Management
District**

**South Florida
Water Management
District**

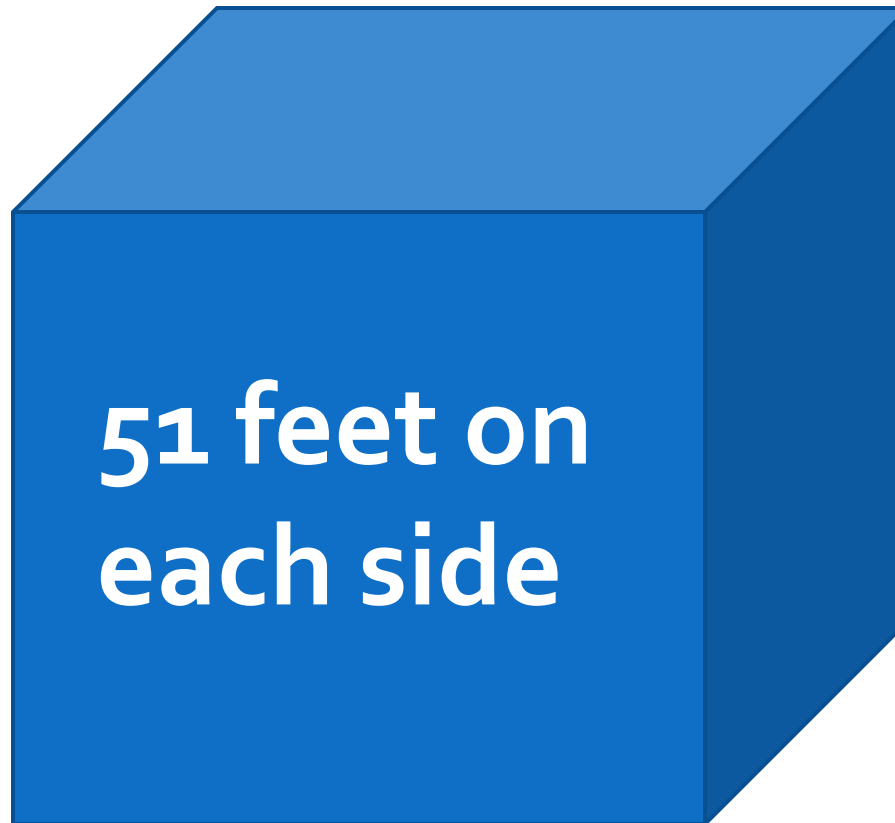
Florida's Five Water Management Districts



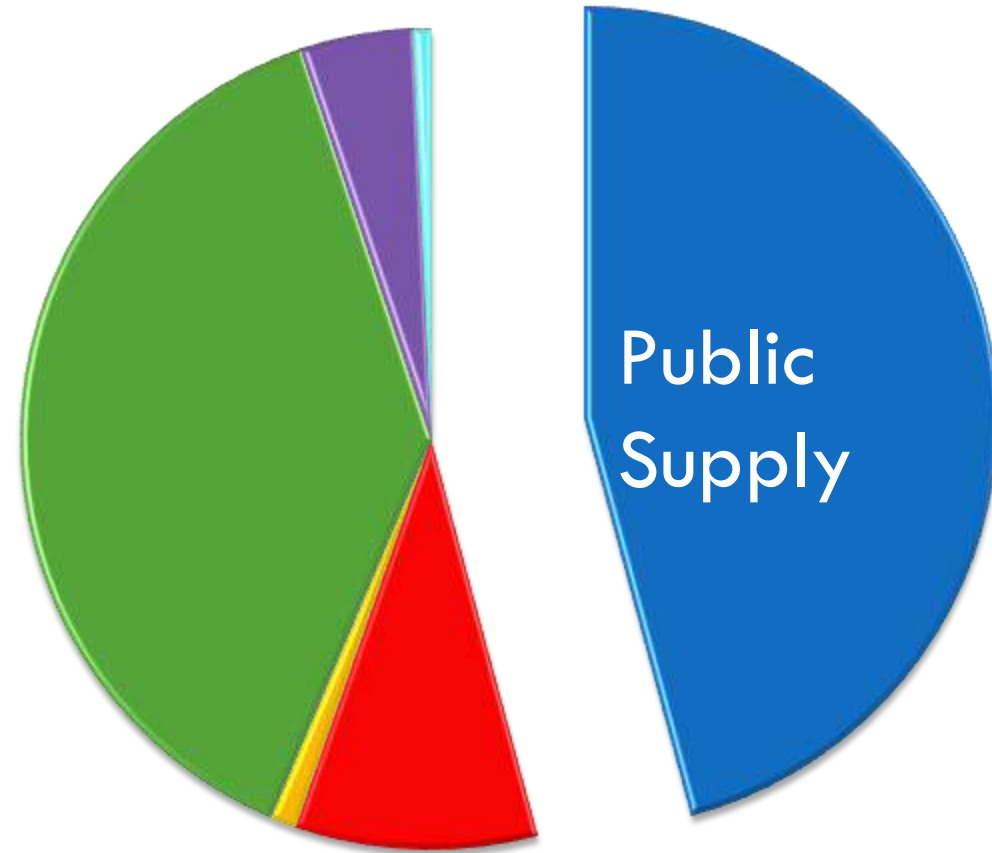
Alachua County (million gallons/year)



How much water is 1 Million Gallons Per Day (MGD)?



Public Supply in Alachua County



- 27 Million Gallons per Day (MGD) supplied in 2005
 - 35 MGD permitted
 - Gainesville 30 MGD
 - Micanopy 0.09 MGD
- ↕

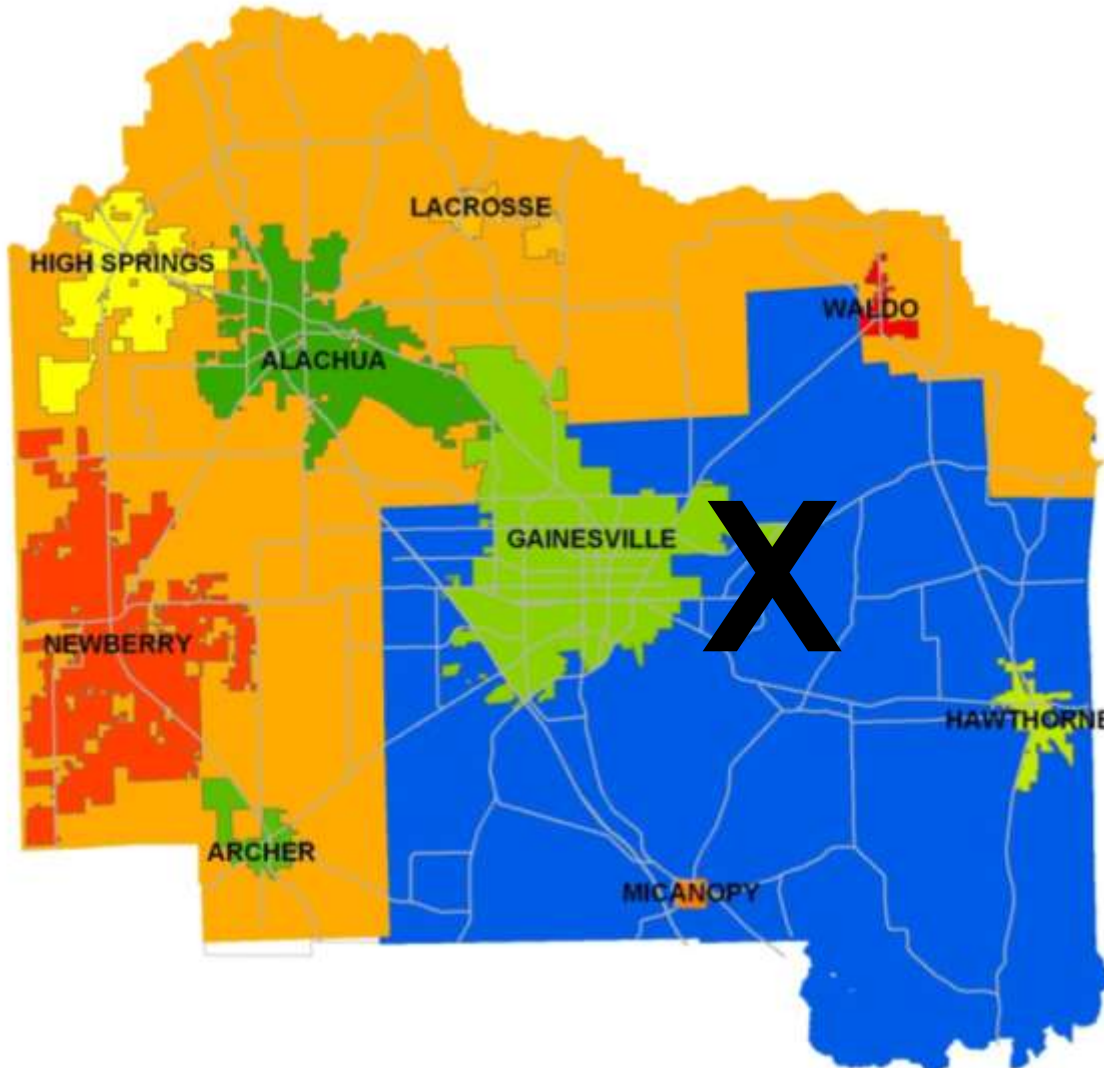
Public Supply Example: Greco's Water Utility

- Applying for a Consumptive Use Permit (CUP) to install a new public supply well in Alachua County



Greco's Water Utility

Suwannee
River WMD



St Johns River
WMD

SJRWMD Staff Review

- Reasonable and beneficial use
- Environmental or economic harm
 - ▣ Visit site and review wetland water level data
 - ▣ Use a computerized groundwater model to evaluate drawdown of the aquifer
 - ▣ Santa Fe River and Lake Wauberg Minimum Flows and Levels (MFLs)

SJRWMD Staff Review

- Water Conservation is sufficient
 - ▣ Conservation rate structure
 - ▣ Indoor and outdoor conservation programs



SJRWMD Staff Review

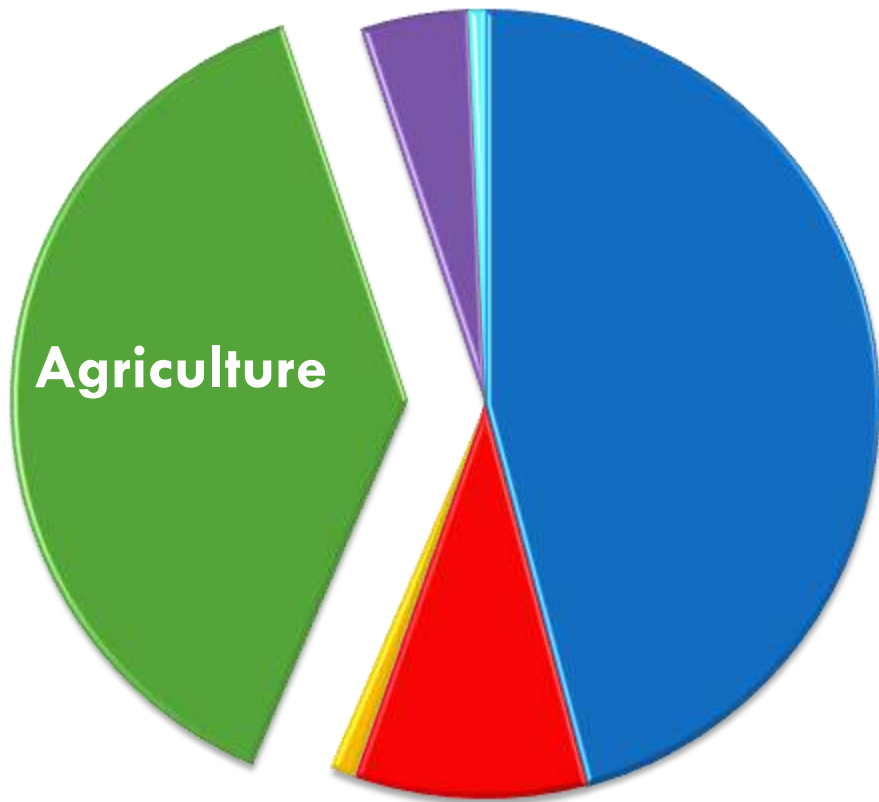
- Interference with existing legal uses
 - If unanticipated impacts occur- Greco Utilities must mitigate (install new pump, connect to utility, etc)

SJRWMD Staff Review

□ Permit Duration

- Greco requested 20 year permit, but only 10 year permit issued
- possible impacts on the Santa Fe River with projections past 10 years.

Agricultural Water Use in Alachua County



- 23 MGD used in 2005
 - estimated
- 36 MGD Permitted
 - St. Johns ~ 4.2
 - Suwannee ~ 32

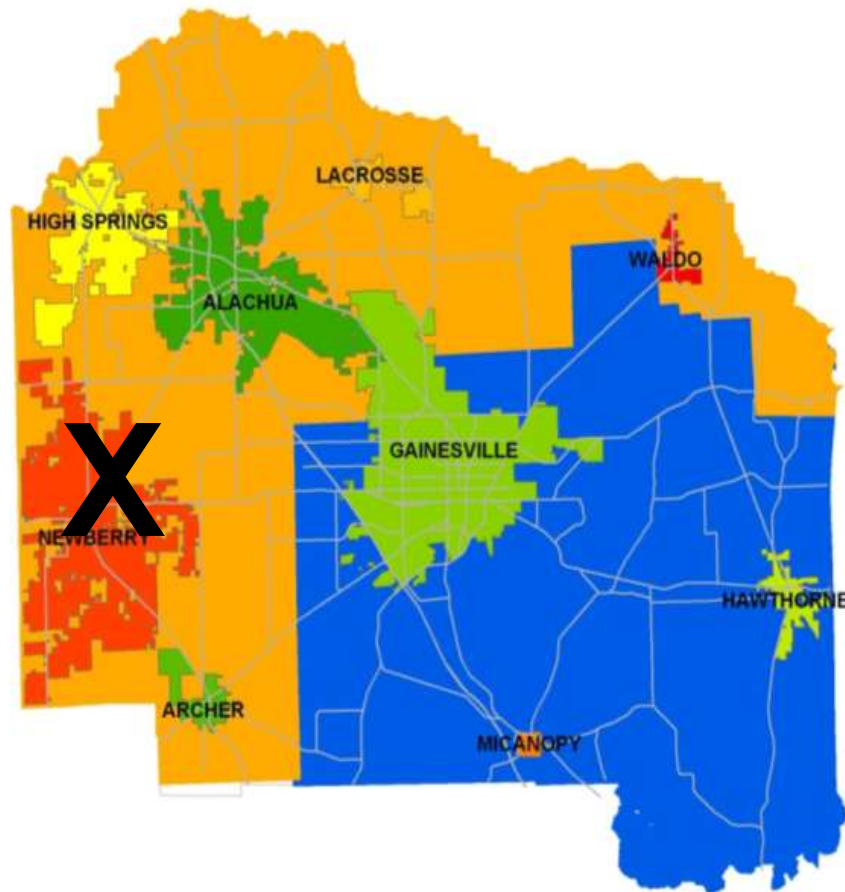
Agricultural Water Use: McKee's Watermelon Farm

- Proposes to install new wells for a watermelon farm
 - .02 MGD (20,000 gallons per day) for 40 acres



Scenario 2- McKee's Watermelon Farm

Suwannee River
WMD



St Johns River
WMD

SRWMD Permit Review

- Calculated water use based on acreage of her watermelon crops
- Reviewed McKee's water conservation plans
 - ▣ SRWMD provides worksheets

SRWMD Permit Conditions (short list)

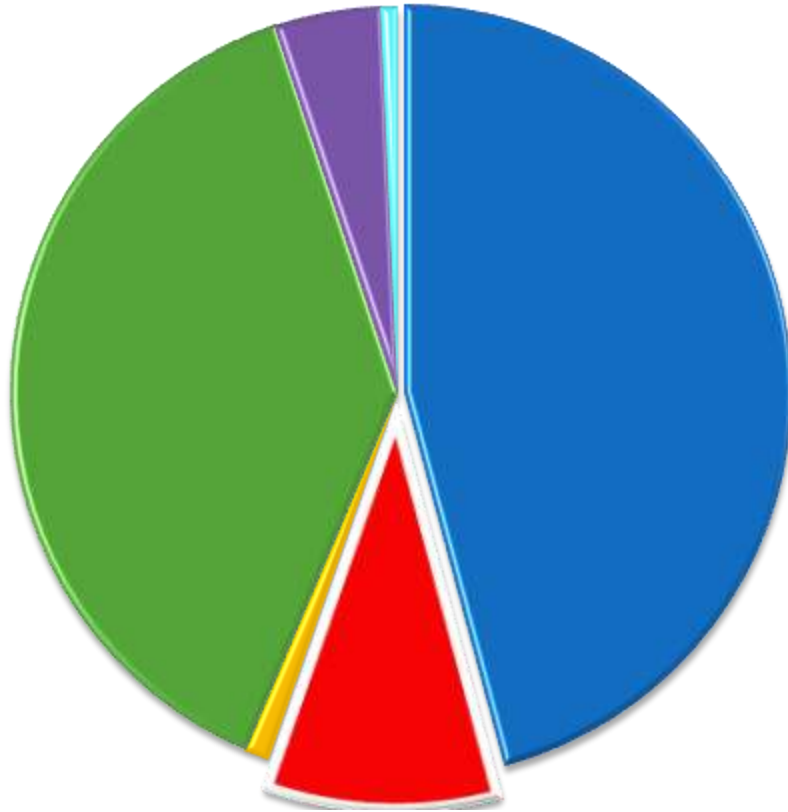
- Permit may be modified if Minimum Flows & Levels are tripped
- McKee must notify if she changes water use (acreage, crops, etc).
 - ▣ Not required to meter water use (unless above 1.0 MGD)

In 2003, Georgia passed HB579 creating an extensive metering program to understand agriculture water use in the state.

Public Participation

- State Legislators and Governor's Office
- Monthly meetings of the WMDs' Governing Boards (appointed)
- SJRWMD.com
 - Can sign up for permitting notifications
 - Can look up permits, applications, and staff reports
- SRWMD.org
 - View applications

Domestic Self Supply in Alachua County



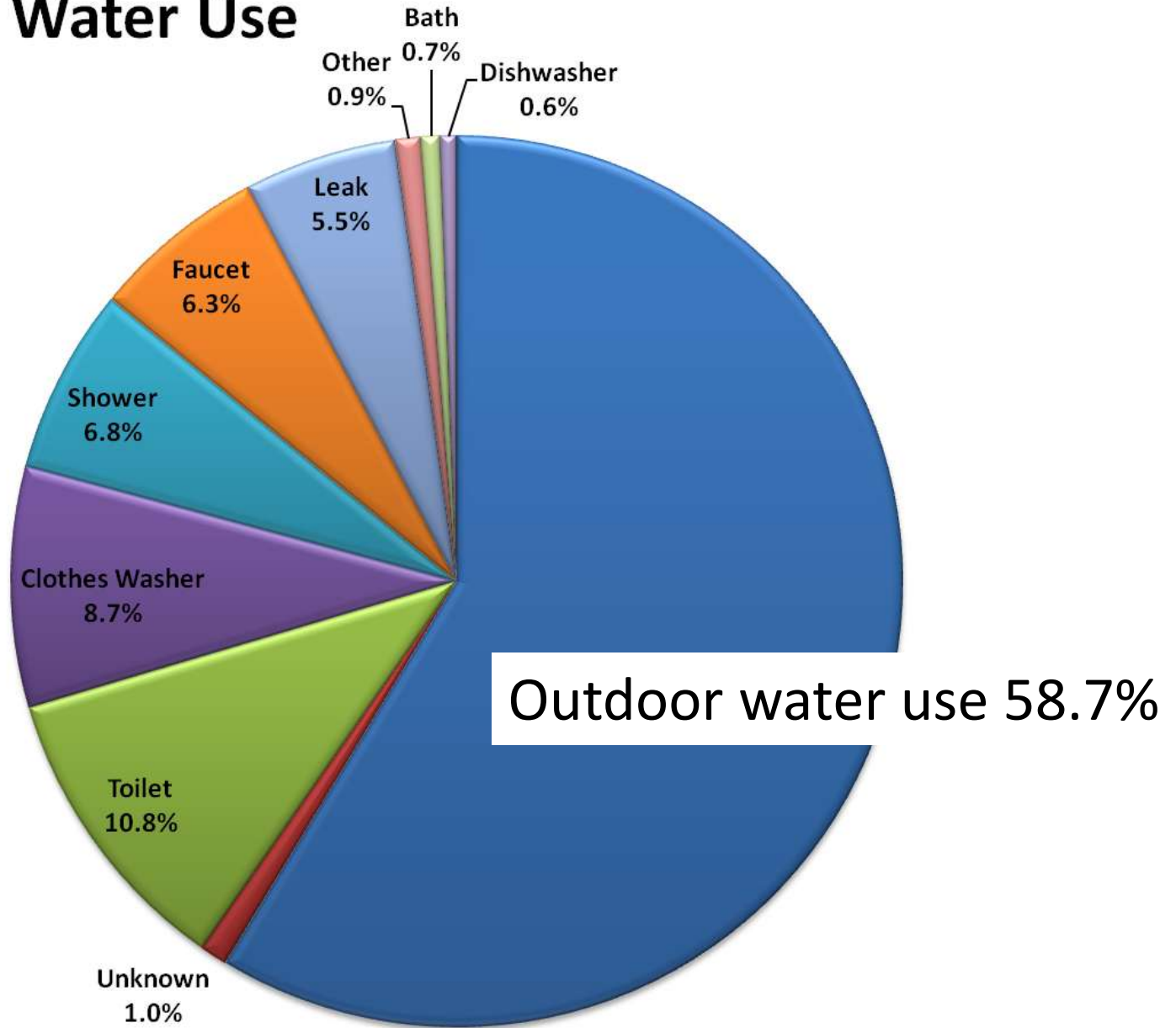
**Domestic Self
Supply**

- 6 MGD used in 2005
 - Estimated
 - Assumes 95 gallon per person per day
 - Does not include irrigation wells for residents that also have public supply

Take Home Message

- Water use is driven by the users
 - ▣ As residents use more water, utilities pump more, and WMDs permit more use
- Permits are rarely denied
 - ▣ Conditions are modified
- It is up to all of us to learn to use less water

Residential Water Use



Source: Residential End Uses of Water, 1999 AWWARF Study

Thank You!

Stacie Greco

Water Conservation Coordinator

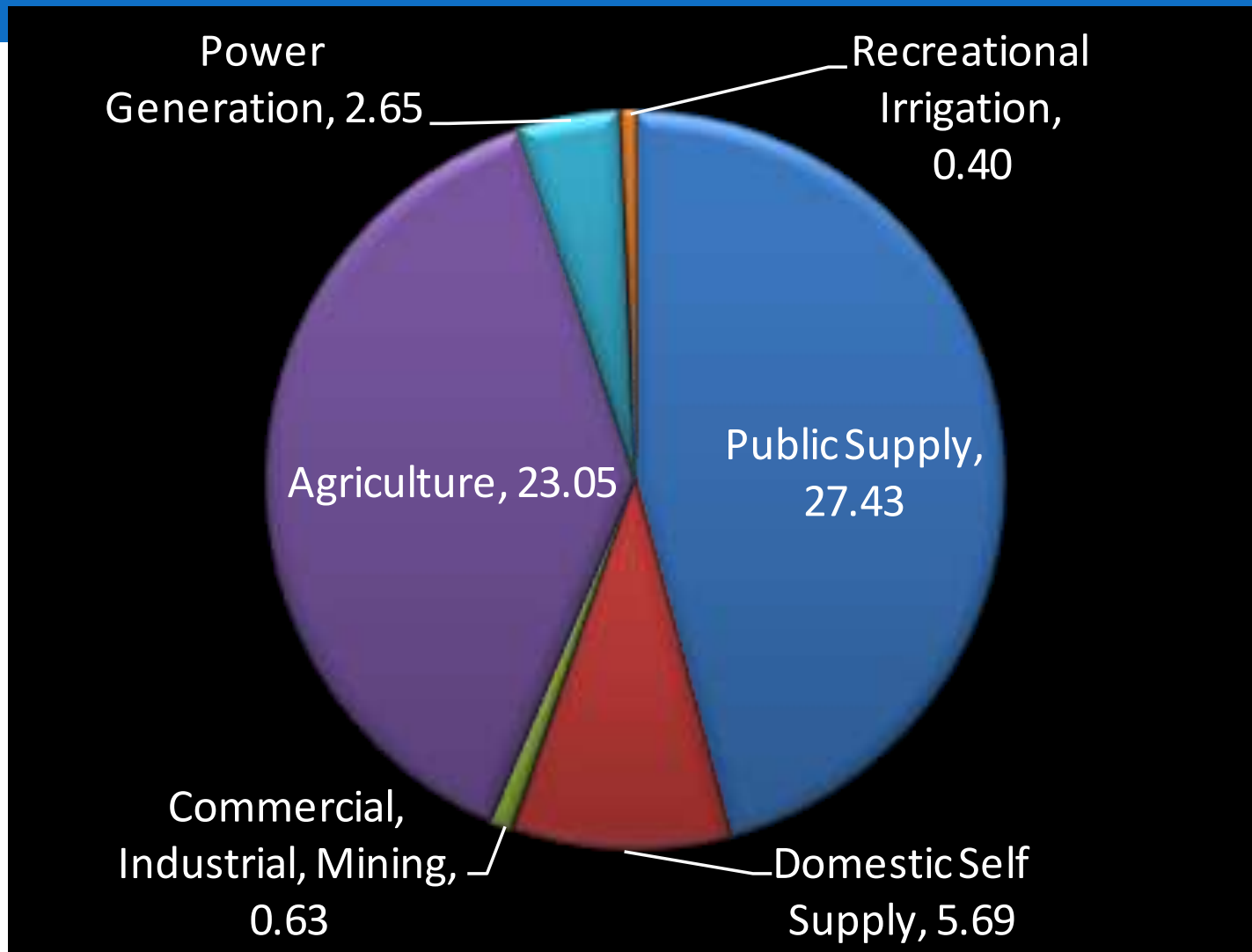
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www.AlachuaCountyWater.org

2005 Water Use in Alachua County



Source: USGS