

# AGRICULTURAL WATER USE FORECAST

Savannah-Upper Ogeechee Regional Water  
Planning Council

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# Project Team

- ▣ Albany State University – Georgia Water Planning and Policy Center (Lead)
- ▣ University of Georgia Agricultural and Applied Economics

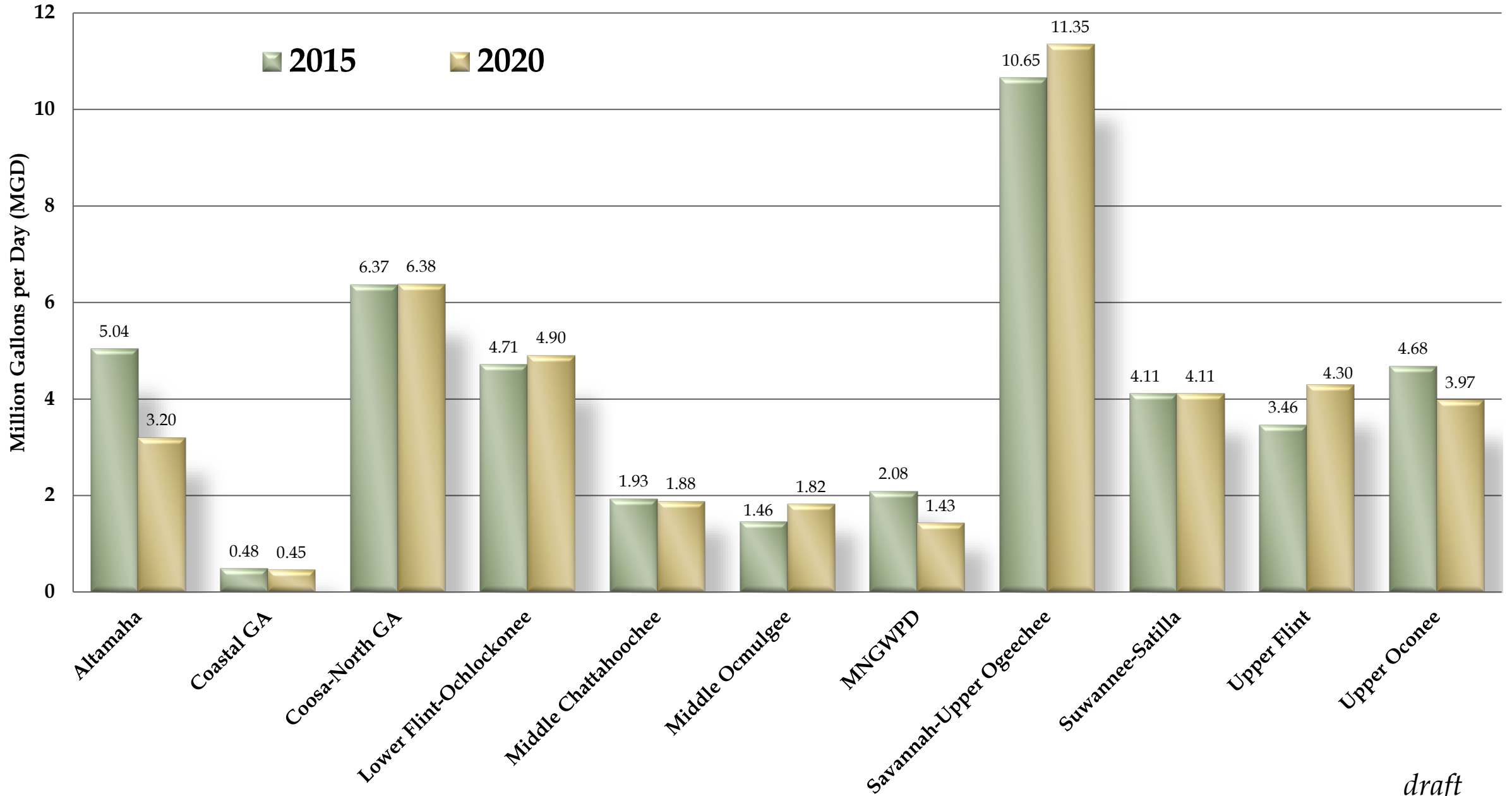


# 2020-21 Agricultural Water Demand Forecasts - Methods

- ▣ **Acreage** – Updated 2020 wetted acreage data
  - Field observation and aerial survey
- ▣ **Crop projections through 2060** - modeled based on multiple data sources:
  - Remote sensing and field data
  - USDA Projections, Southeast Model, Georgia Model, Data Trends
- ▣ **Crop water needs** - wet, normal, dry years
  - Expanded use of meter data
  - Review estimates used in 2015-2016 and revise if needed
    - ▣ Surface water method revised to remove “70% assumption”
- ▣ **Animal Ag/Nursery**

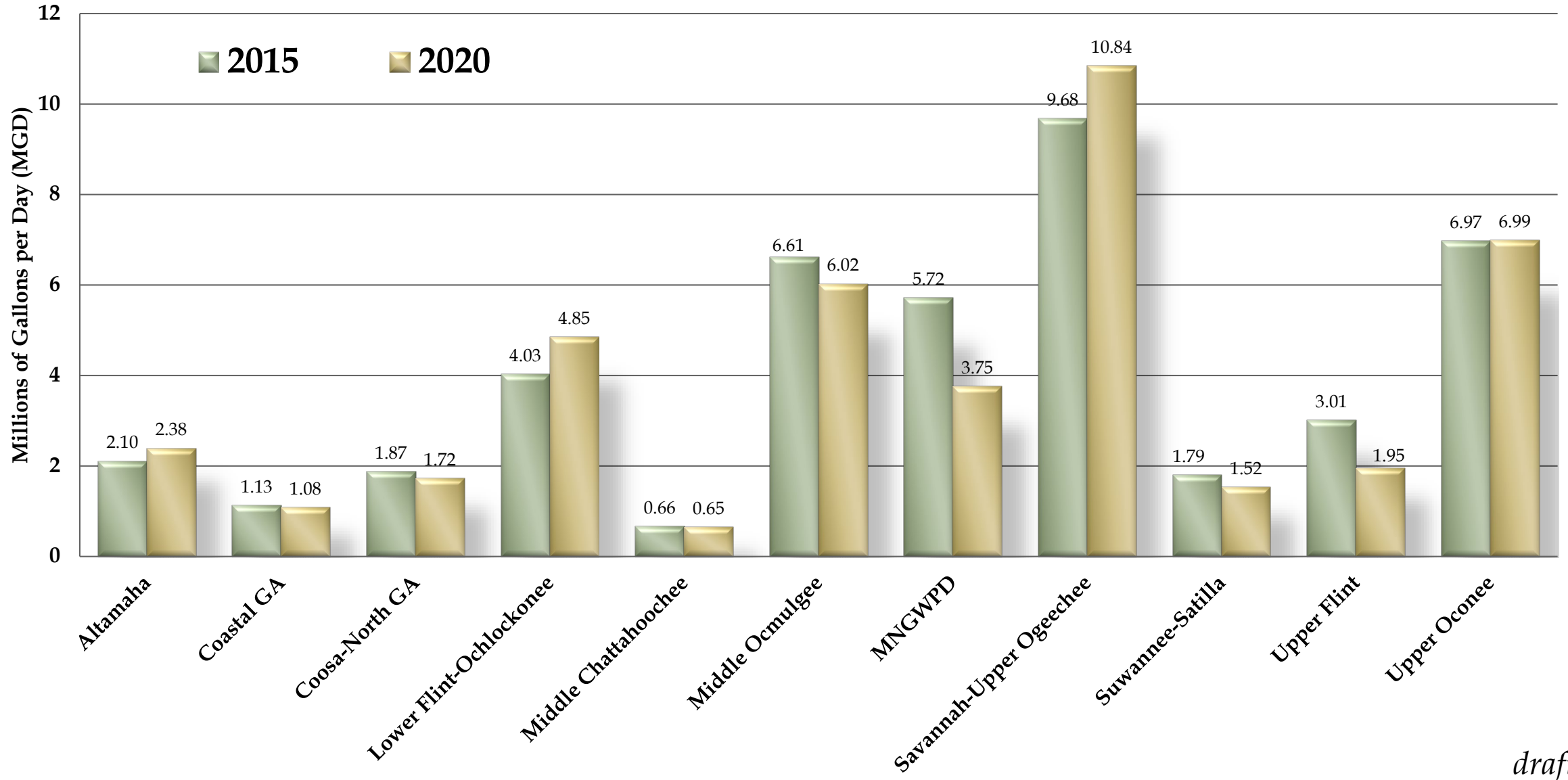
# Animal Agriculture - Daily Water Use by Water Planning Region

## Statewide Total: 43.8 MGD

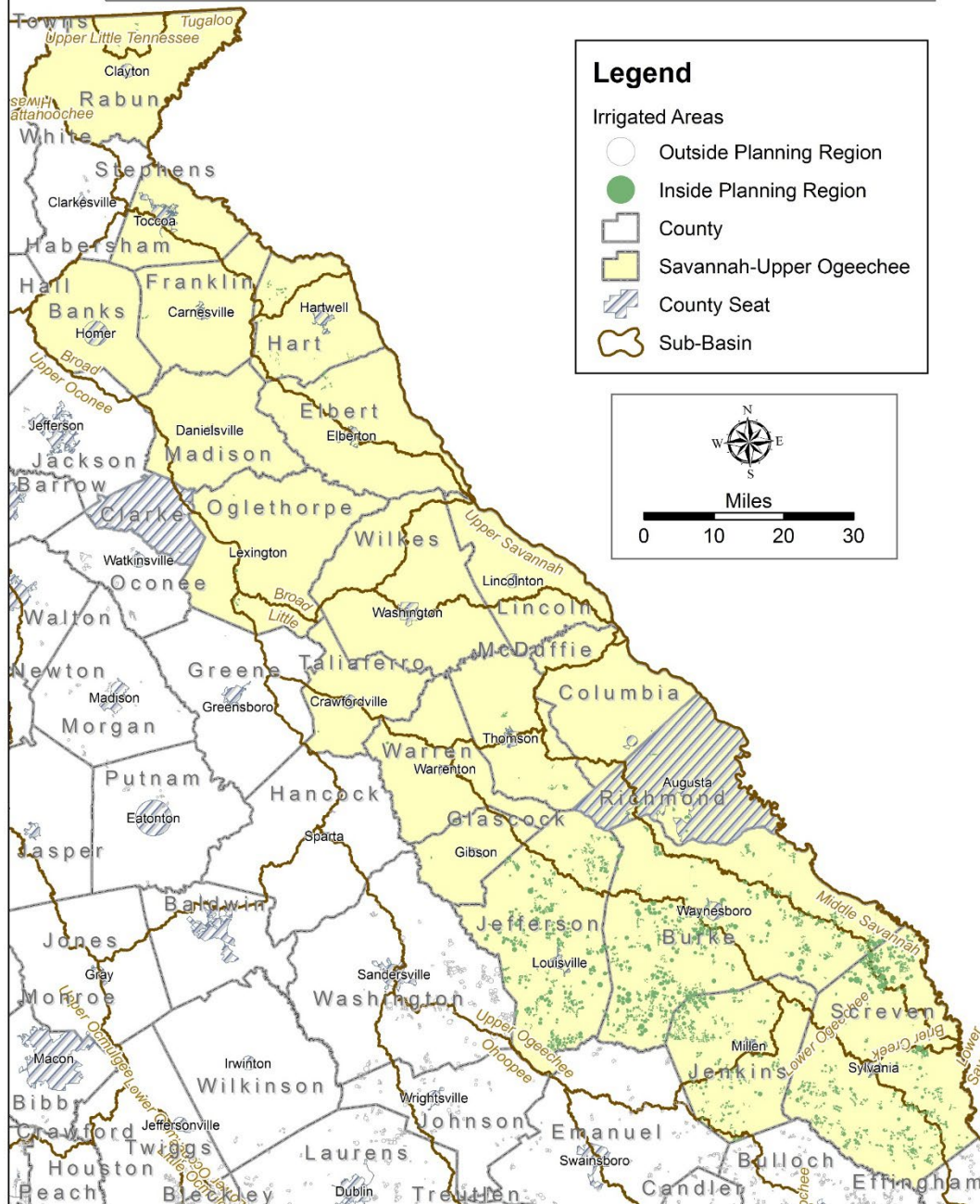


# Daily Water Use by Horticultural Nurseries (Container, In-Ground, and Greenhouse), Millions of Gallons Per Day

## Statewide Total: 41.76 MGD - *draft*



# Savannah-Upper Ogeechee Water Planning Region



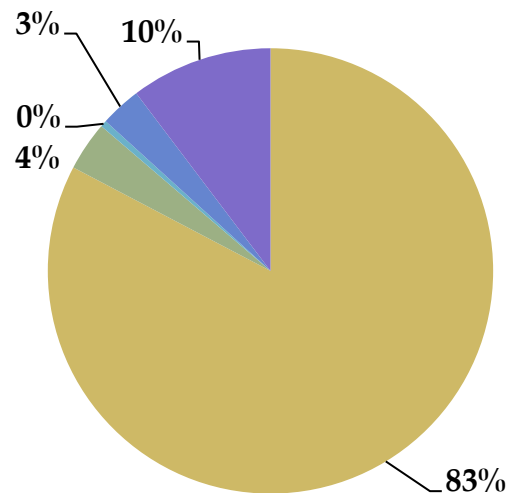
# Irrigated Acres

County	2015	2020
Banks	6	42
Burke	40,244	44,054
Columbia	141	141
Elbert	311	311
Franklin	161	161
Glascok	294	294
Hart	911	1,059
Jefferson	26,688	28,228
Jenkins	13,084	14,770
McDuffie	793	794
Oglethorpe	341	367
Rabun	0	183
Richmond	851	888
Screven	27,117	31,263
Taliaferro	33	33
Warren	99	99
Wilkes	0	0

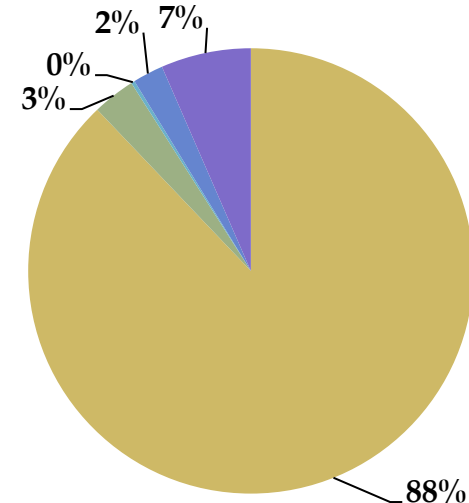
# Savannah-Upper Ogeechee RWPC

	2015	2020	% Change
Total # of Fields	1,876	2,126	+ 13.3%
Total Acreage	111,075	122,688	+ 10.5%
Total GW Acreage	87,466	98,705	+ 12.8%
Total SW Acreage	23,609	23,984	+ 1.6%
Total Center Pivots	1,525	1,758	+ 15.3%
Center Pivot Acreage	96,999	107,823	+ 11.2%

**System Type - % of Systems**

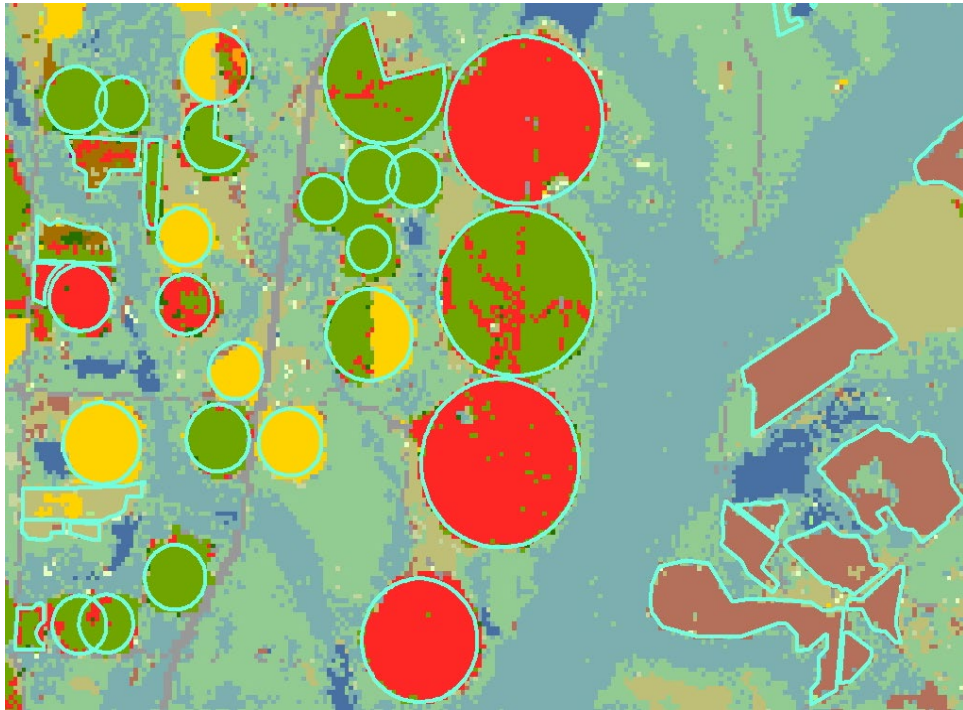


**System Type - % of Acreage**

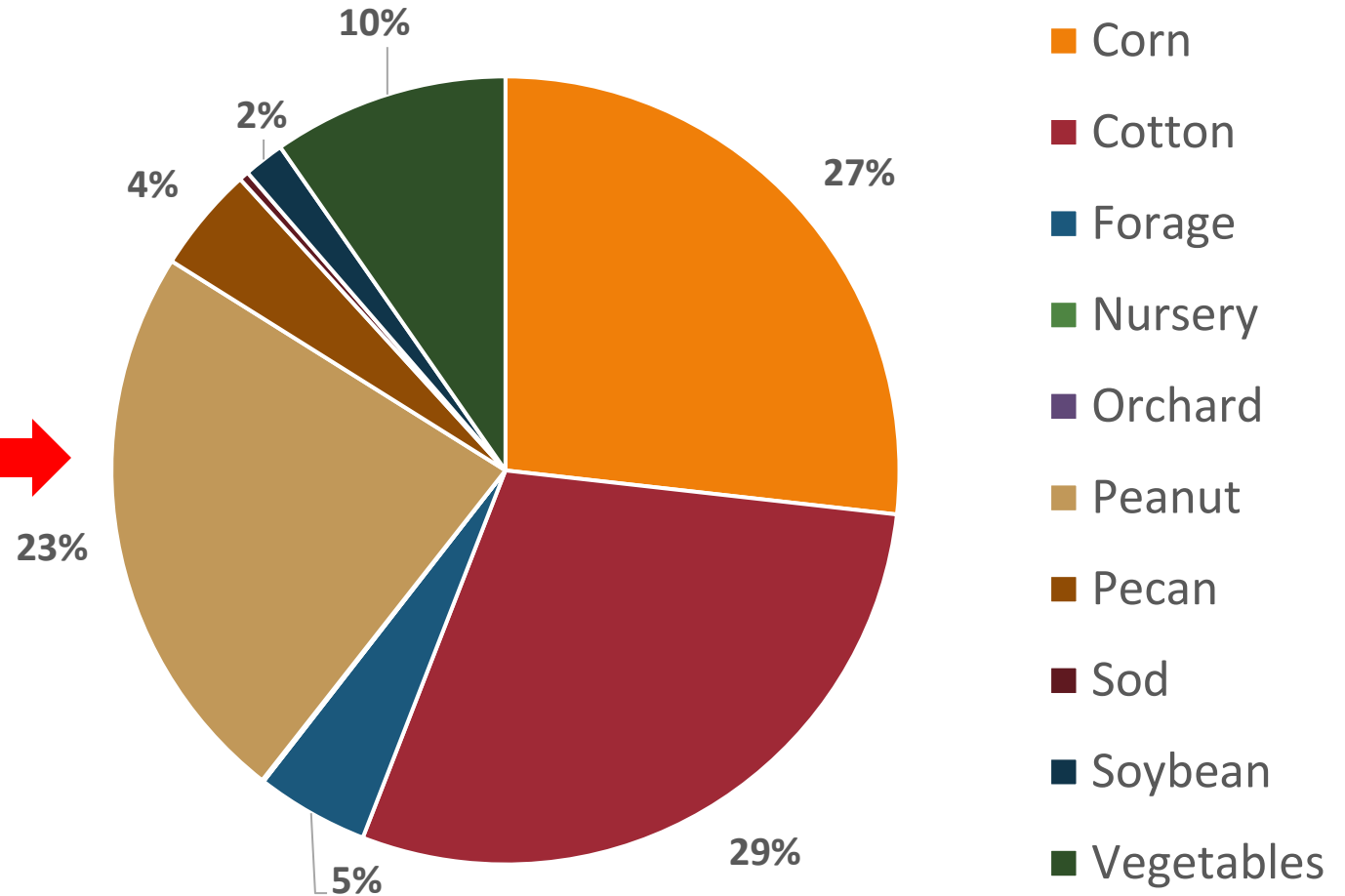


- Center Pivot
- Drip
- Solid Set
- Solid Set/Drip
- Traveler

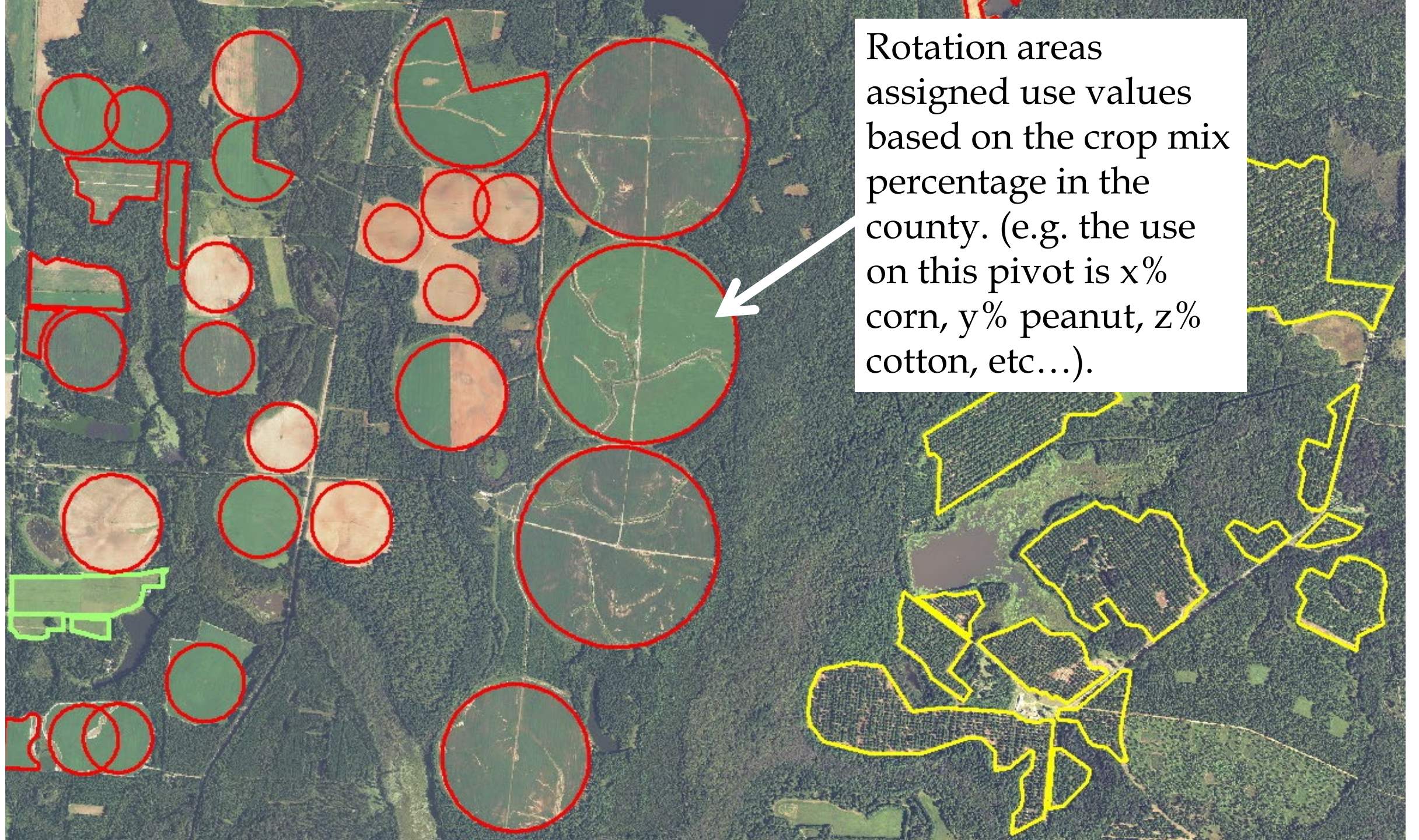
# Baseline Crop Mix by RWPC



## Savannah-Upper Ogeechee RWPC

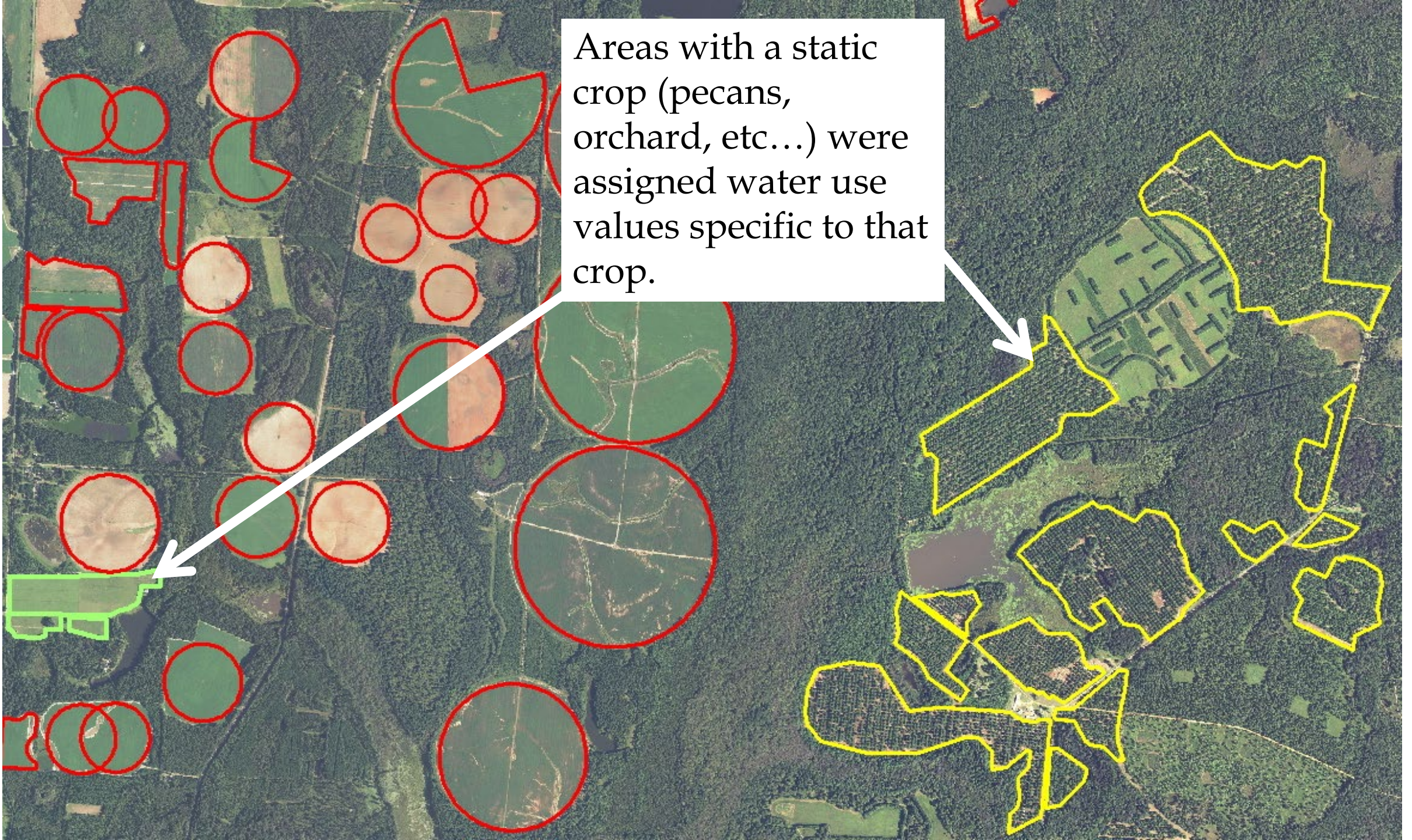






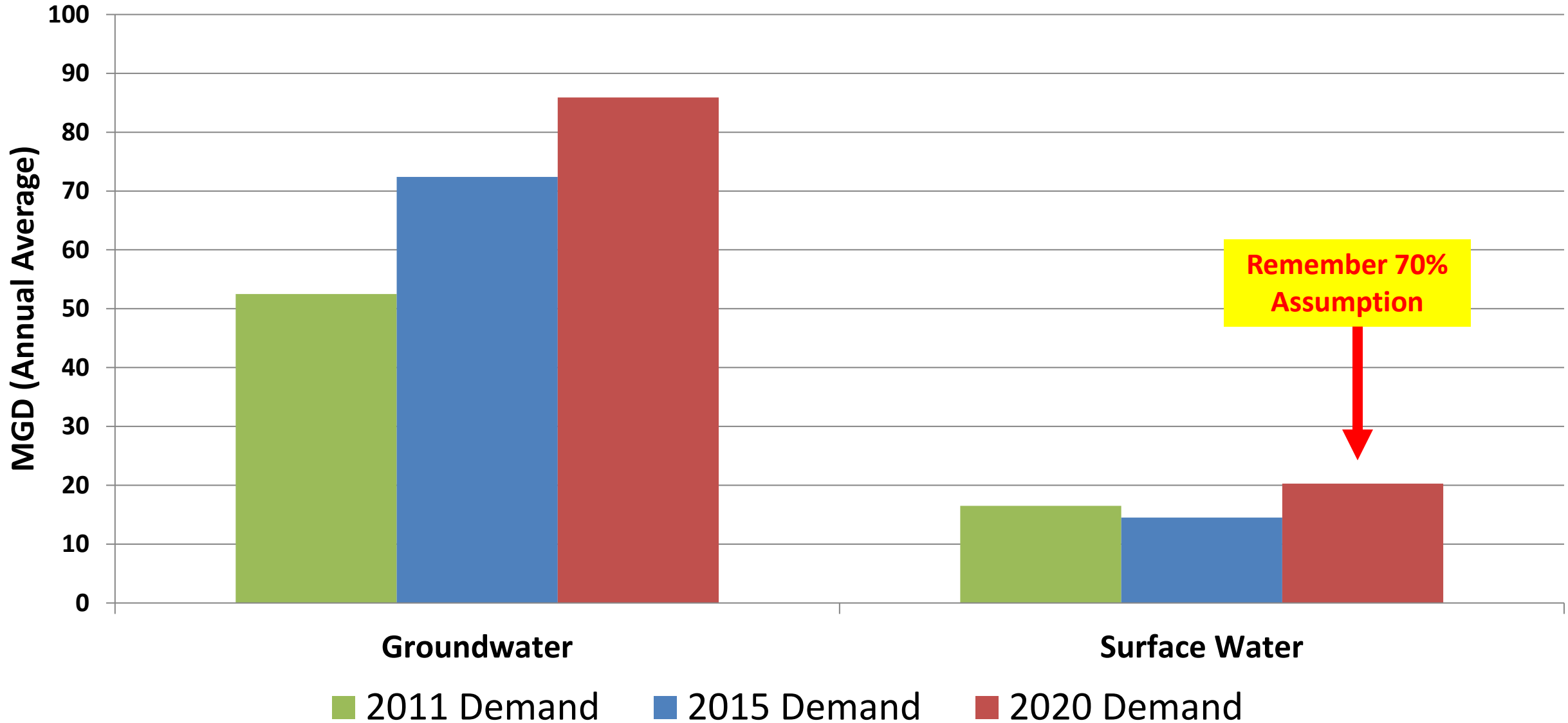
Rotation areas assigned use values based on the crop mix percentage in the county. (e.g. the use on this pivot is x% corn, y% peanut, z% cotton, etc...).

Areas with a static crop (pecans, orchard, etc...) were assigned water use values specific to that crop.



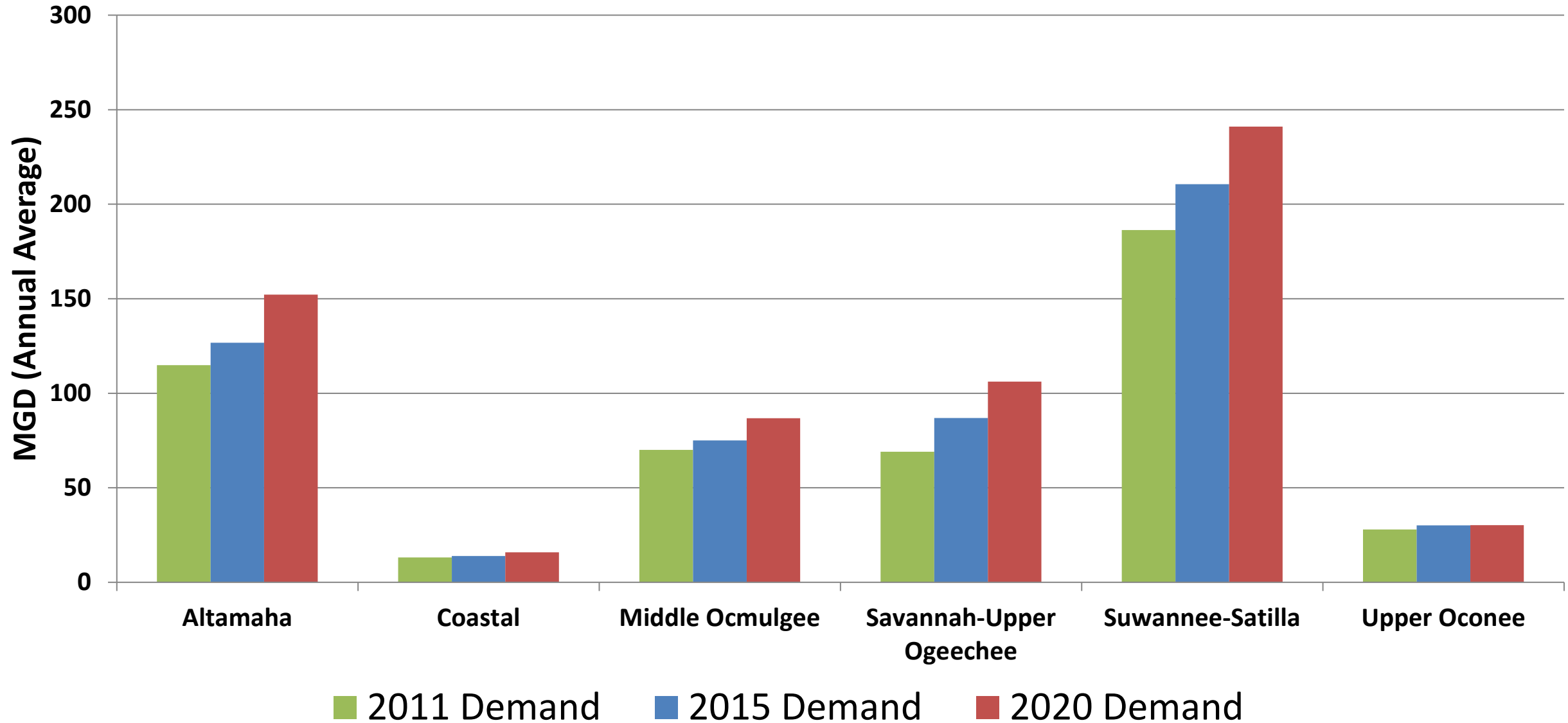
# SUO Council – Ag Demand – 75<sup>th</sup> Percentile

Round 1 (2011), Round 2 (2015) and Round 3 (2020)

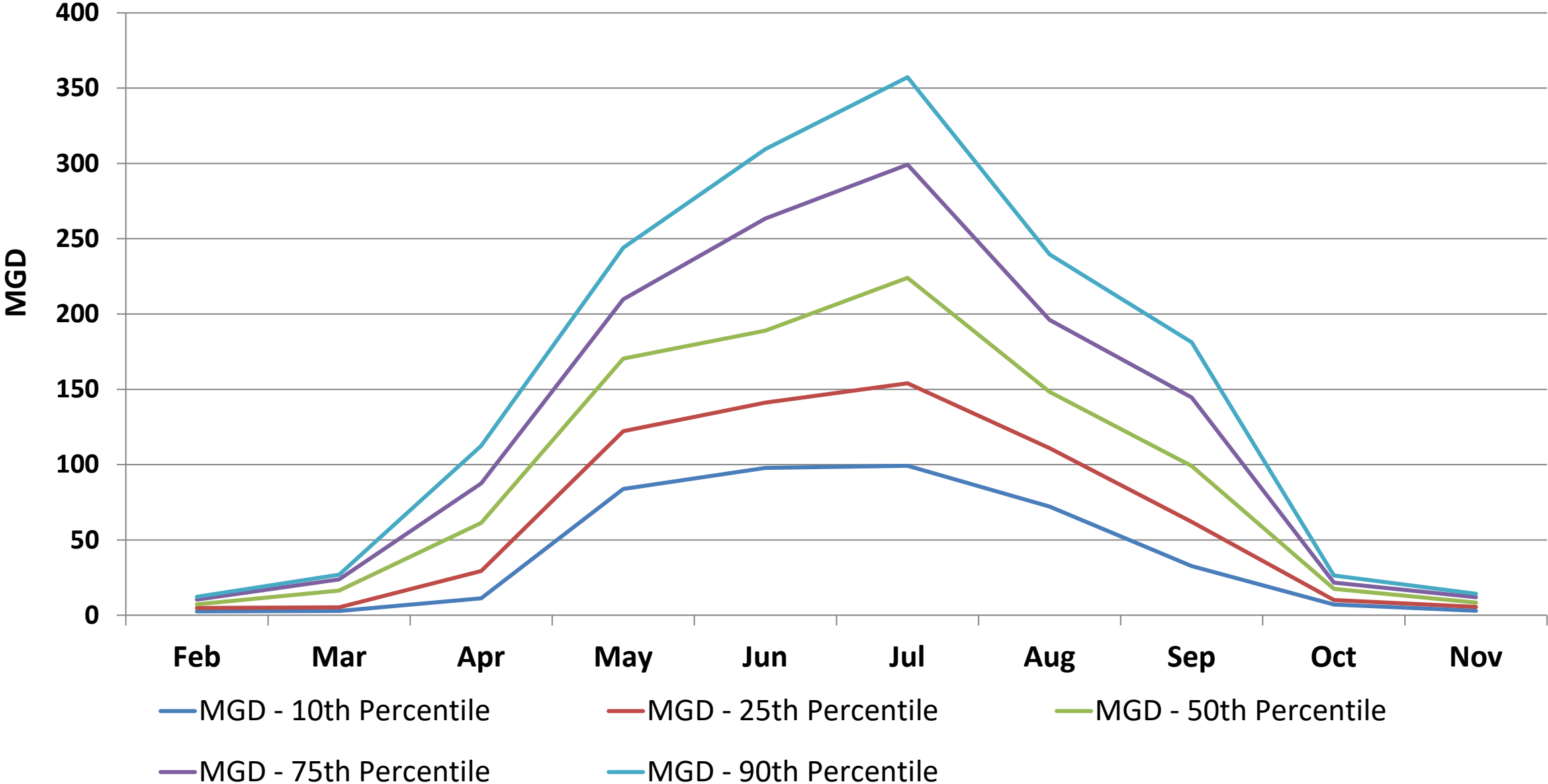


# Ag Demand – 75<sup>th</sup> Percentile

Round 1 (2011), Round 2 (2015) and Round 3 (2020)



# Savannah-Upper Ogeechee RWPC - Monthly



# Ag Demand – Forecast – 75th Percentile

## Totals (2020 & 2060)

