

AGRICULTURAL WATER USE FORECAST

Middle Ocmulgee Regional Water Planning Council

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Project Team

- ▣ Albany State University – Georgia Water Planning and Policy Center (Lead)
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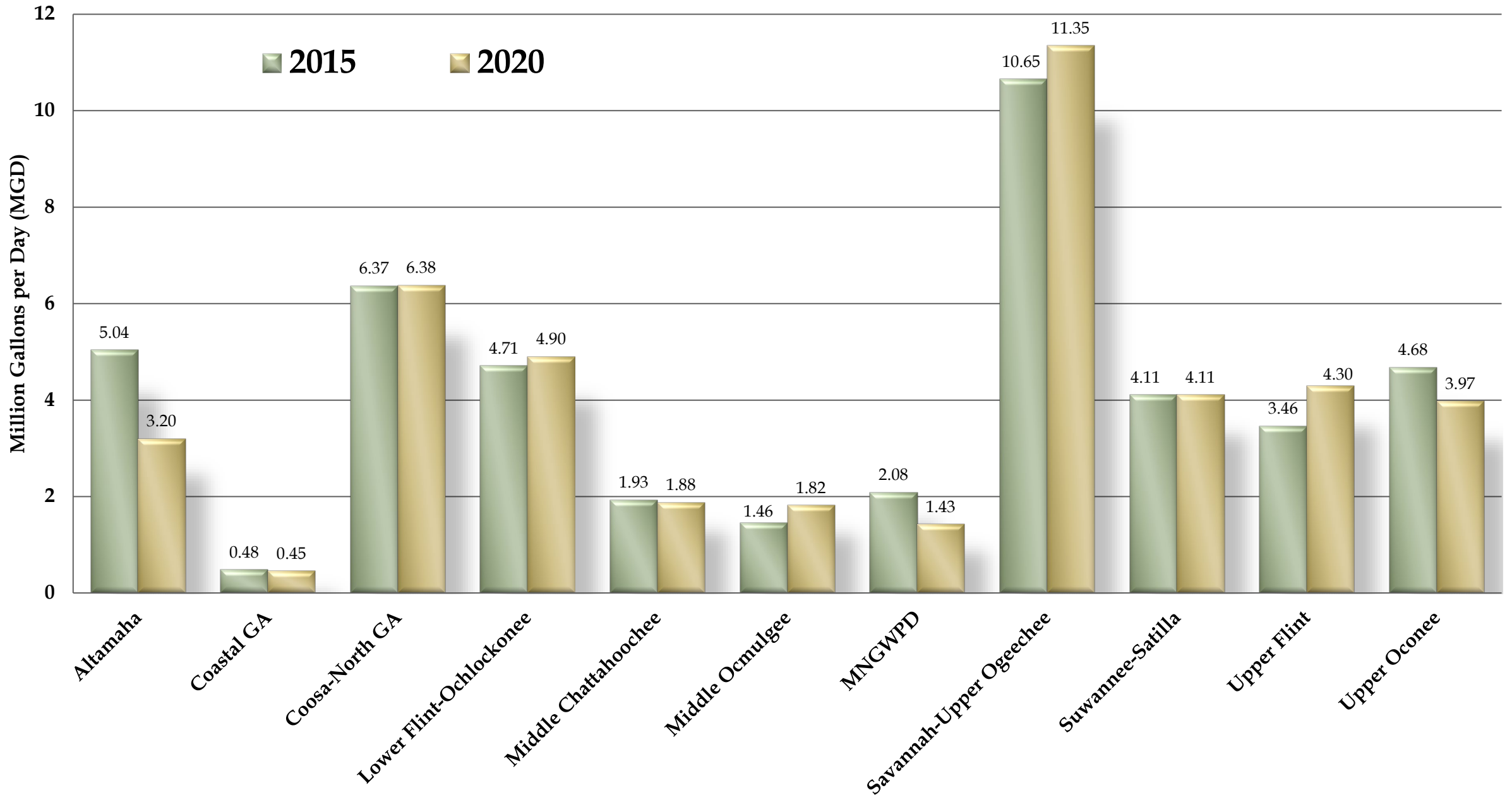


2020-21 Agricultural Water Demand Forecasts - Methods

- ▣ **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**

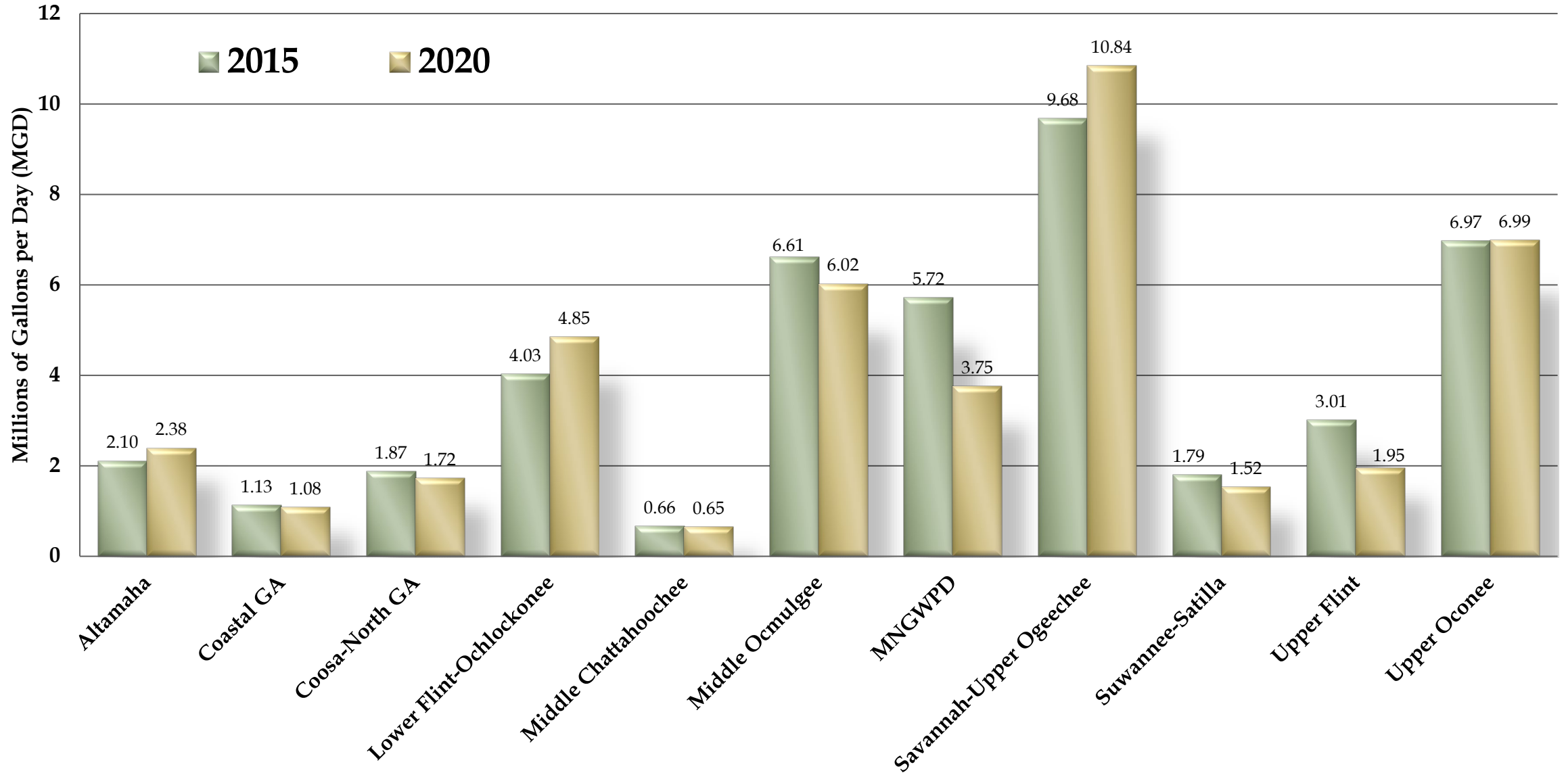
Animal Agriculture - Daily Water Use by Water Planning Region

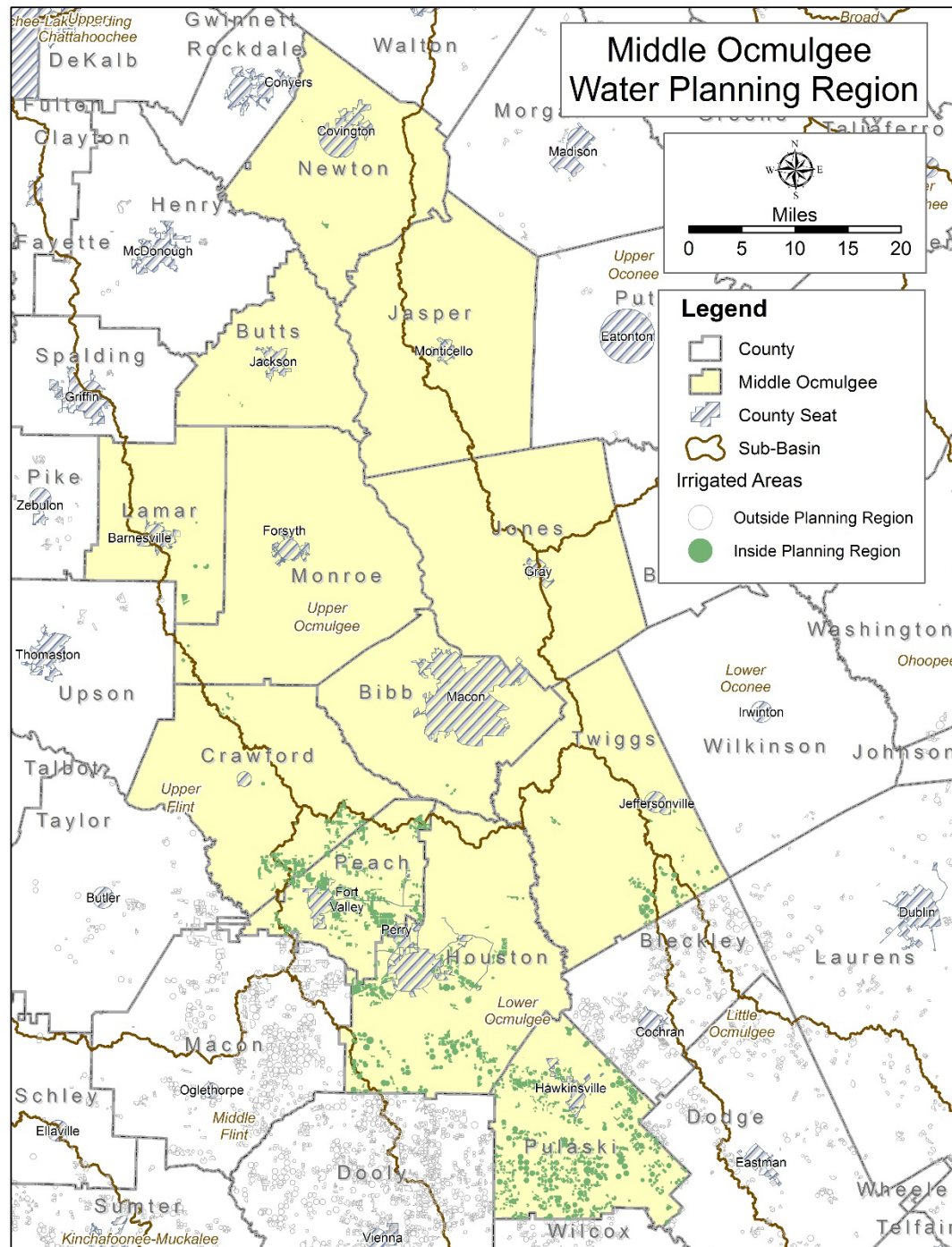
Statewide Total: 43.8 MGD



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

Statewide Total: 41.76 MGD - *draft*





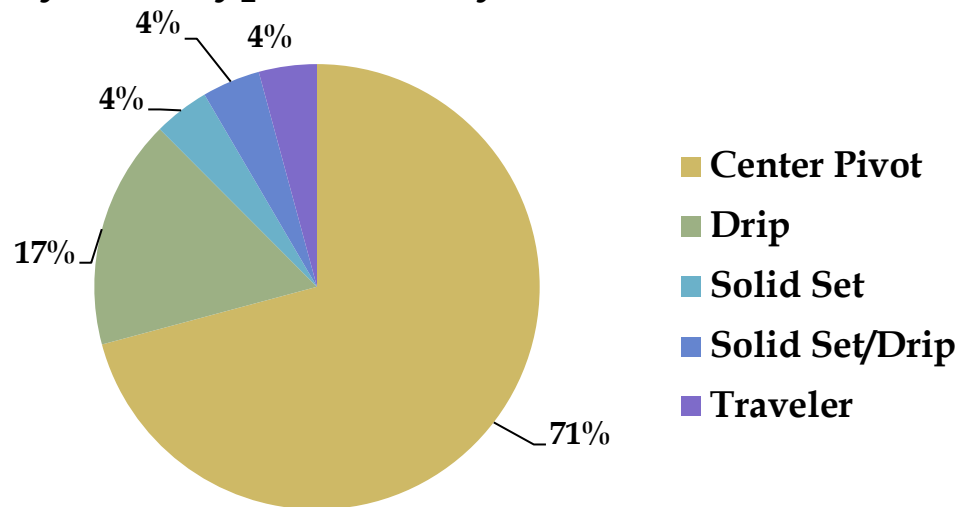
Irrigated Acres

County	2015	2020
BIBB	0	131
BUTTS	47	47
CRAWFORD	5,386	5,593
HOUSTON	14,649	15,263
JASPER	0	0
JONES	0	0
LAMAR	486	486
MONROE	116	116
NEWTON	212	212
PEACH	13,657	13,796
PULASKI	27,118	29,093
TWIGGS	2,765	3,705

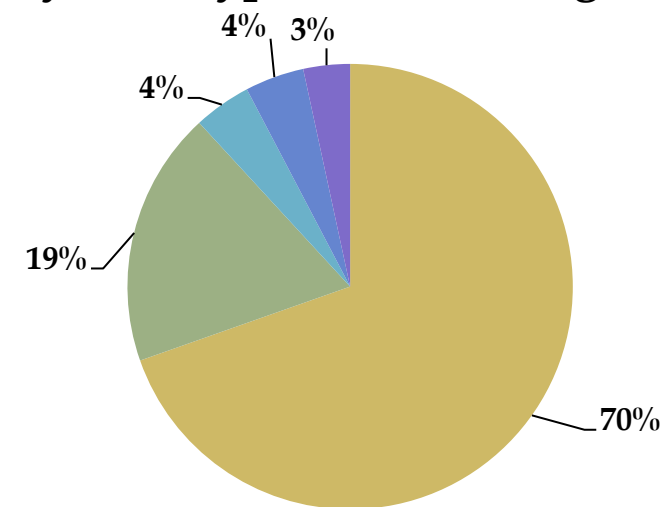
Middle Ocmulgee RWPC

	2015	2020	% Change
Total # of Fields	1,107	1,186	+ 7.1%
Total Acreage	64,437	68,444	+ 6.2%
Total GW Acreage	56,635	60,620	+ 7.0%
Total SW Acreage	7,802	7,824	+ 0.3%
Total Center Pivots	727	840	+ 15.5%
Center Pivot Acreage	41,657	47,645	+ 14.4%

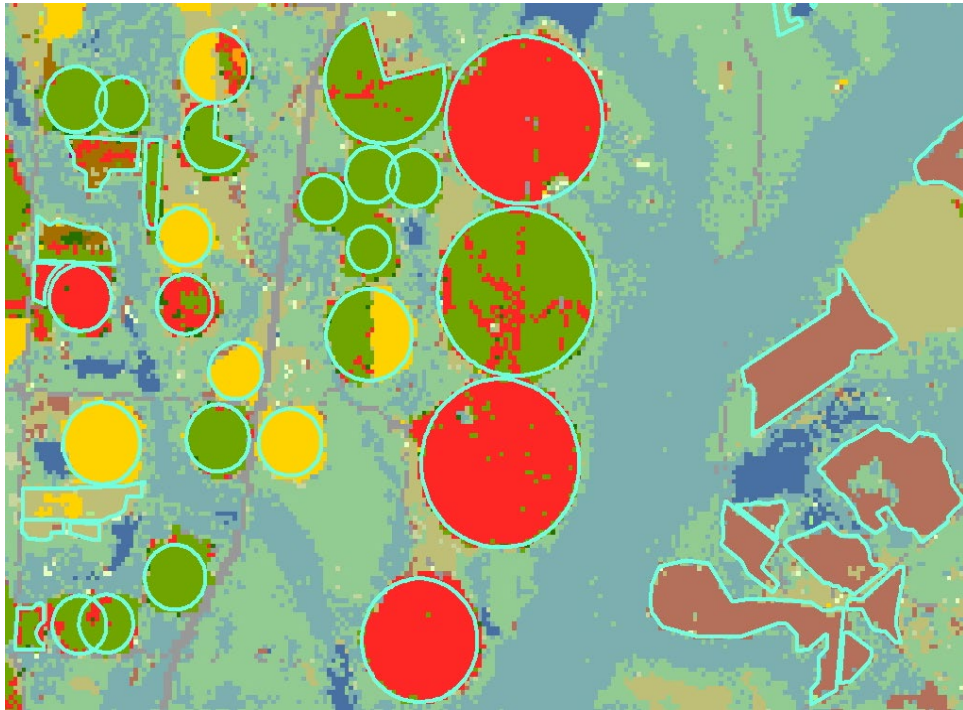
System Type - % of Systems



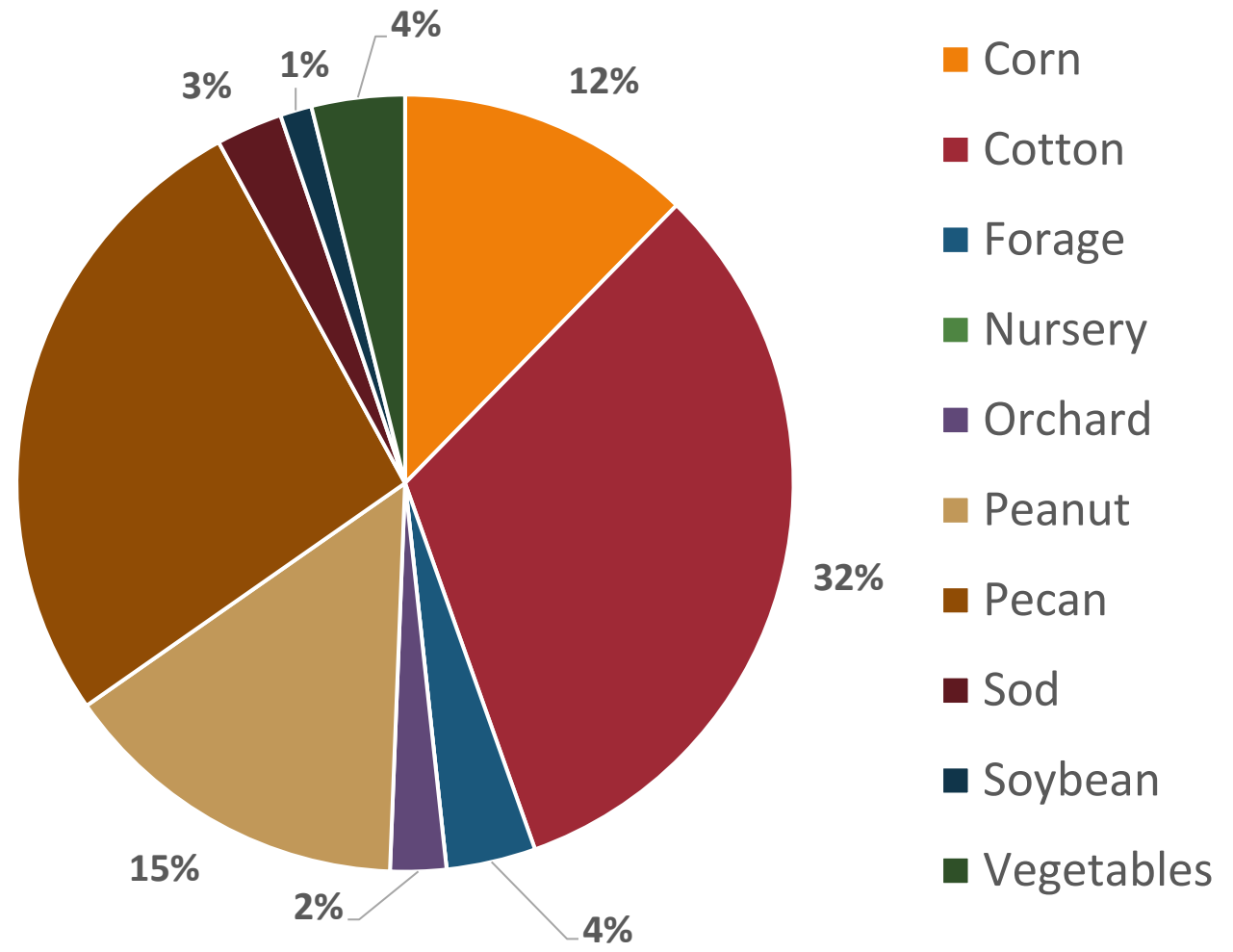
System Type - % of Acreage

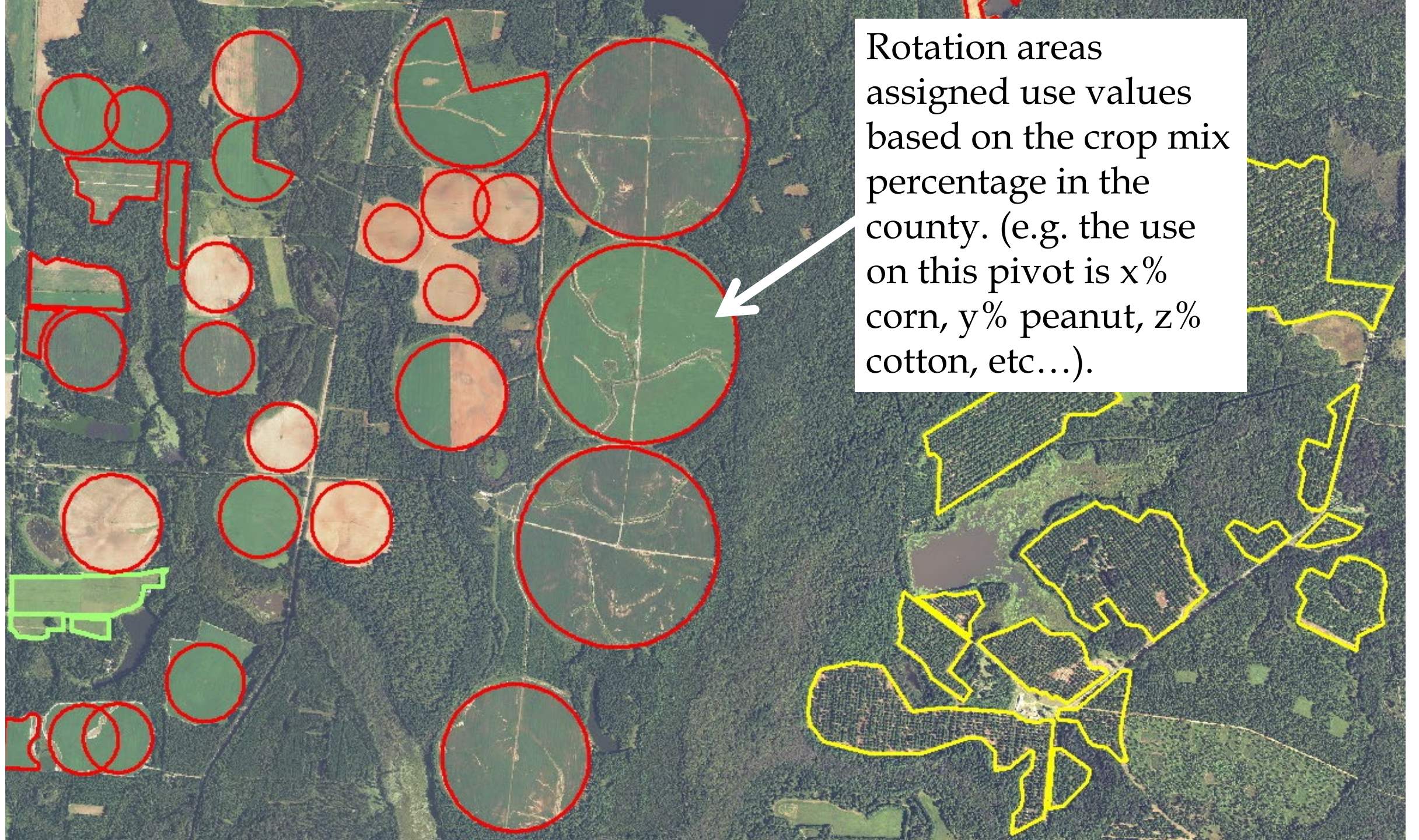


Baseline Crop Mix by RWPC



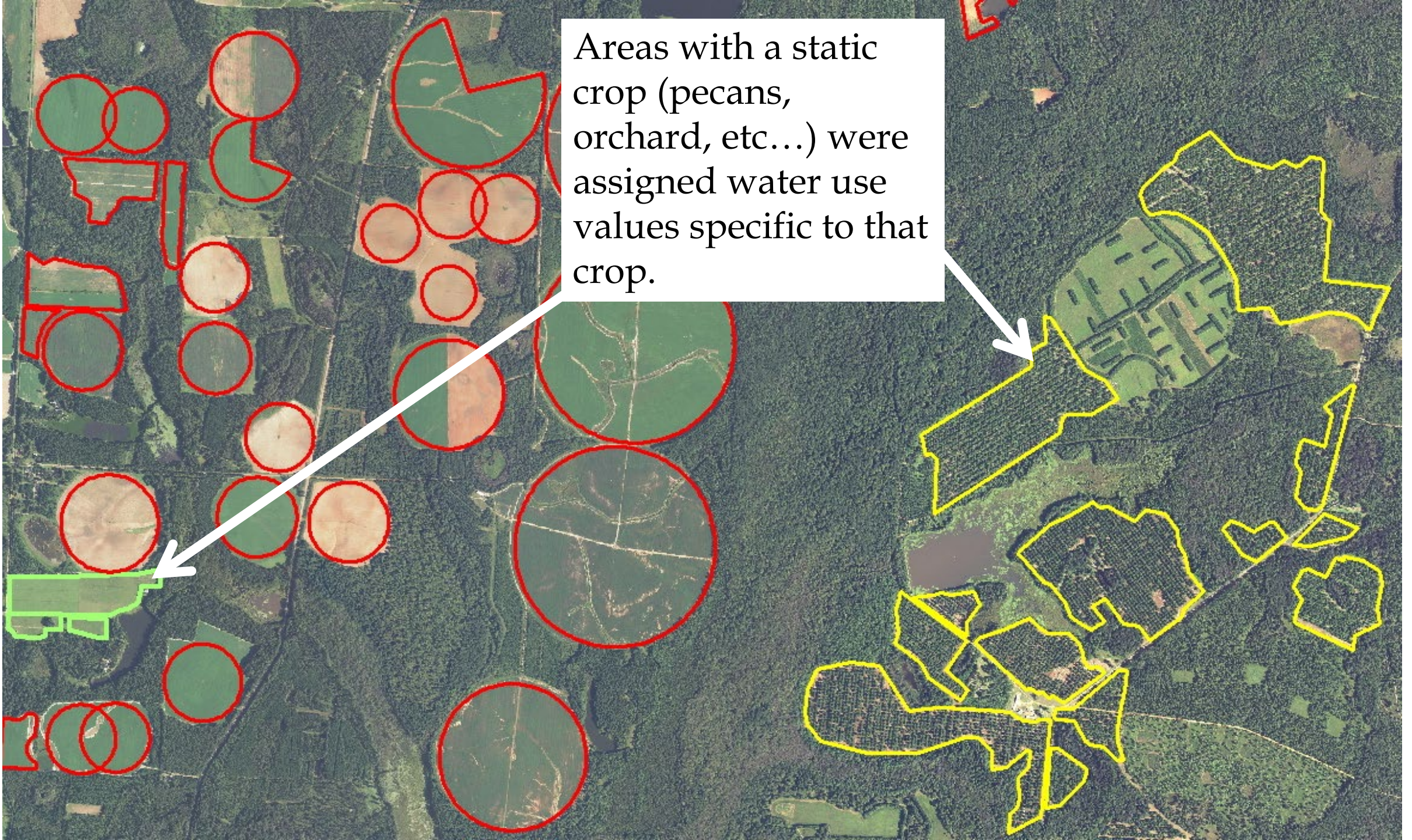
Middle Ocmulgee RWPC





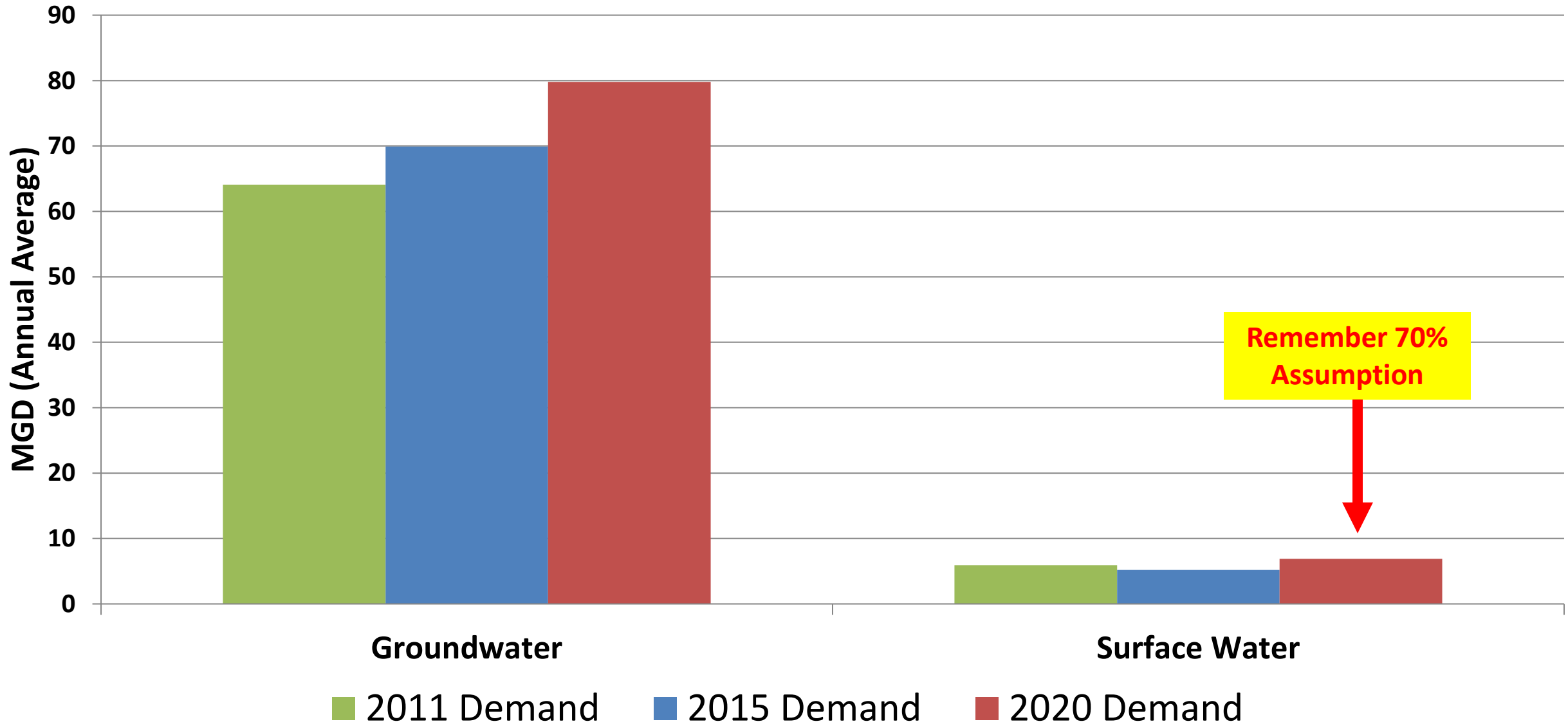
Rotation areas assigned use values based on the crop mix percentage in the county. (e.g. the use on this pivot is x% corn, y% peanut, z% cotton, etc...).

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



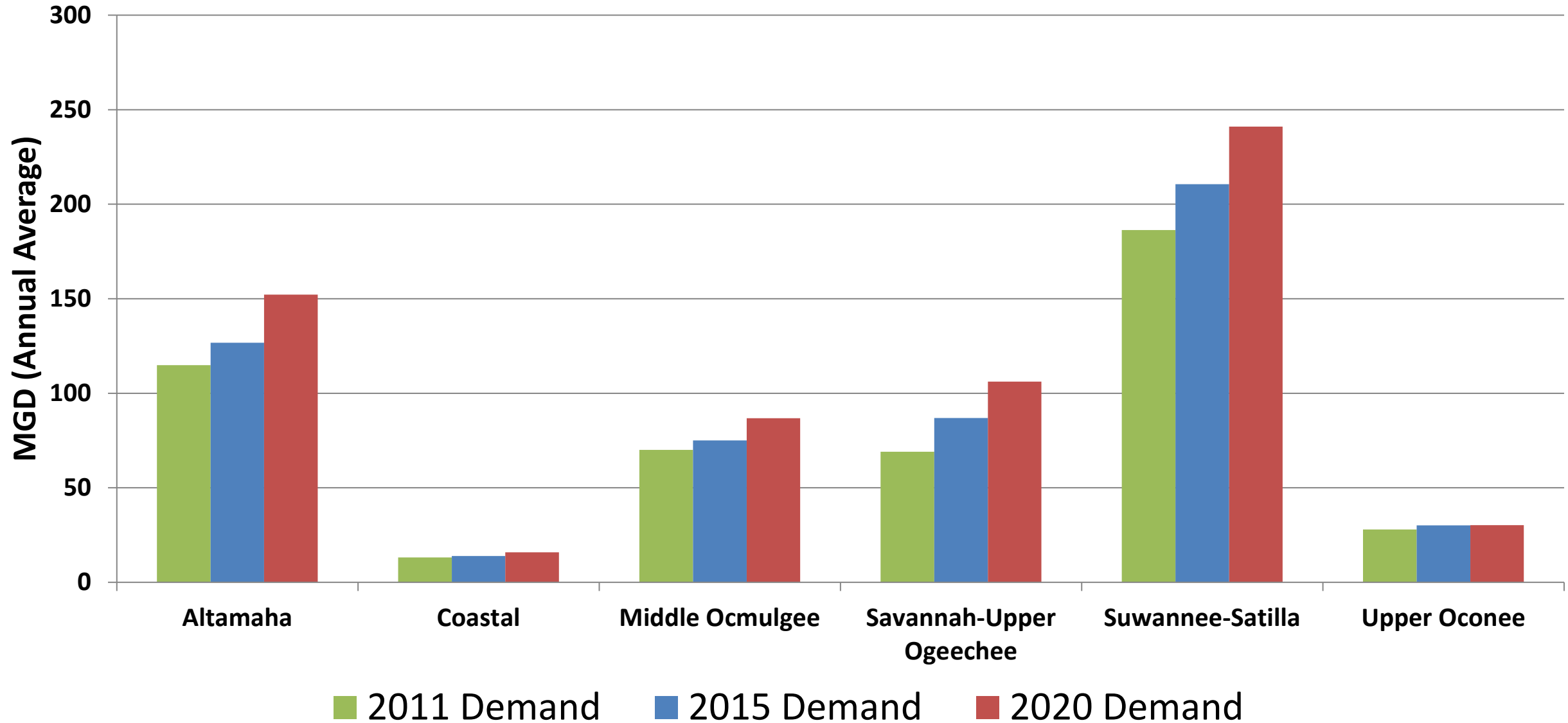
MO Council – Ag Demand – 75th Percentile

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

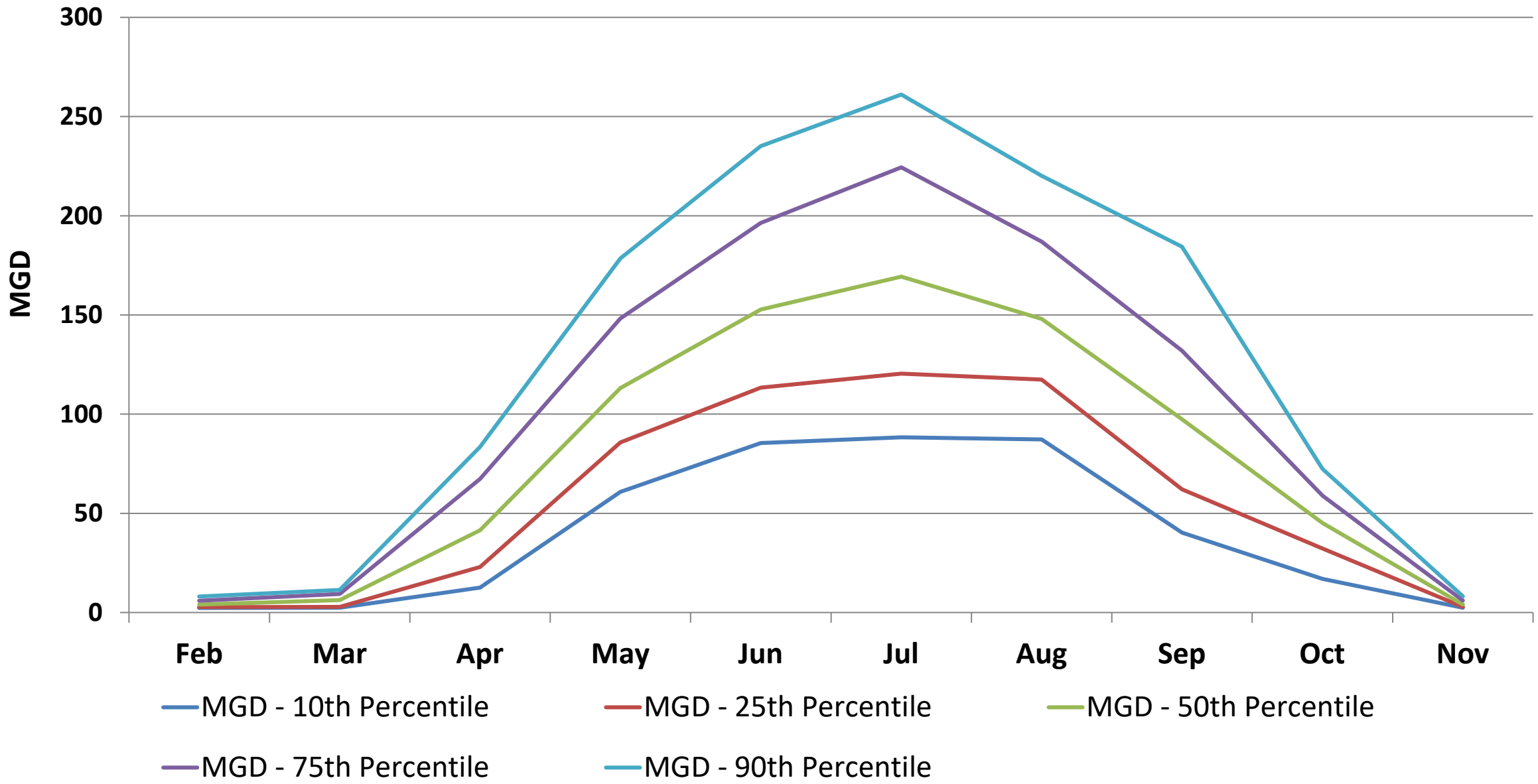


Ag Demand – 75th Percentile

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



Middle Ocmulgee RWPC - Monthly



Ag Demand – Forecast – 75th Percentile

Totals (2020 & 2060)

