

AGRICULTURAL WATER USE FORECAST

Altamaha 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

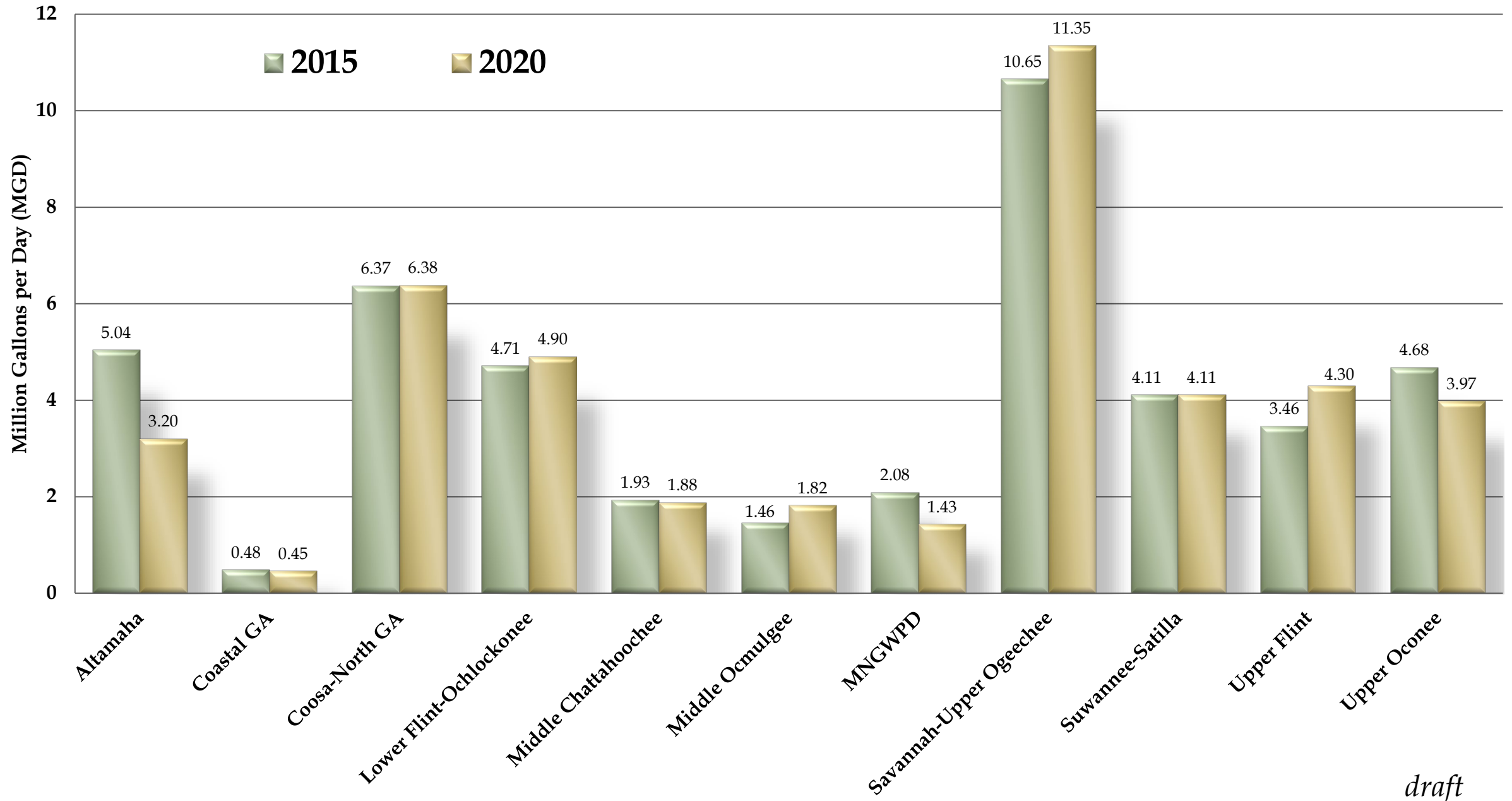


2020-21 Agricultural Water Demand Forecasts - Methods

- ▣ **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**

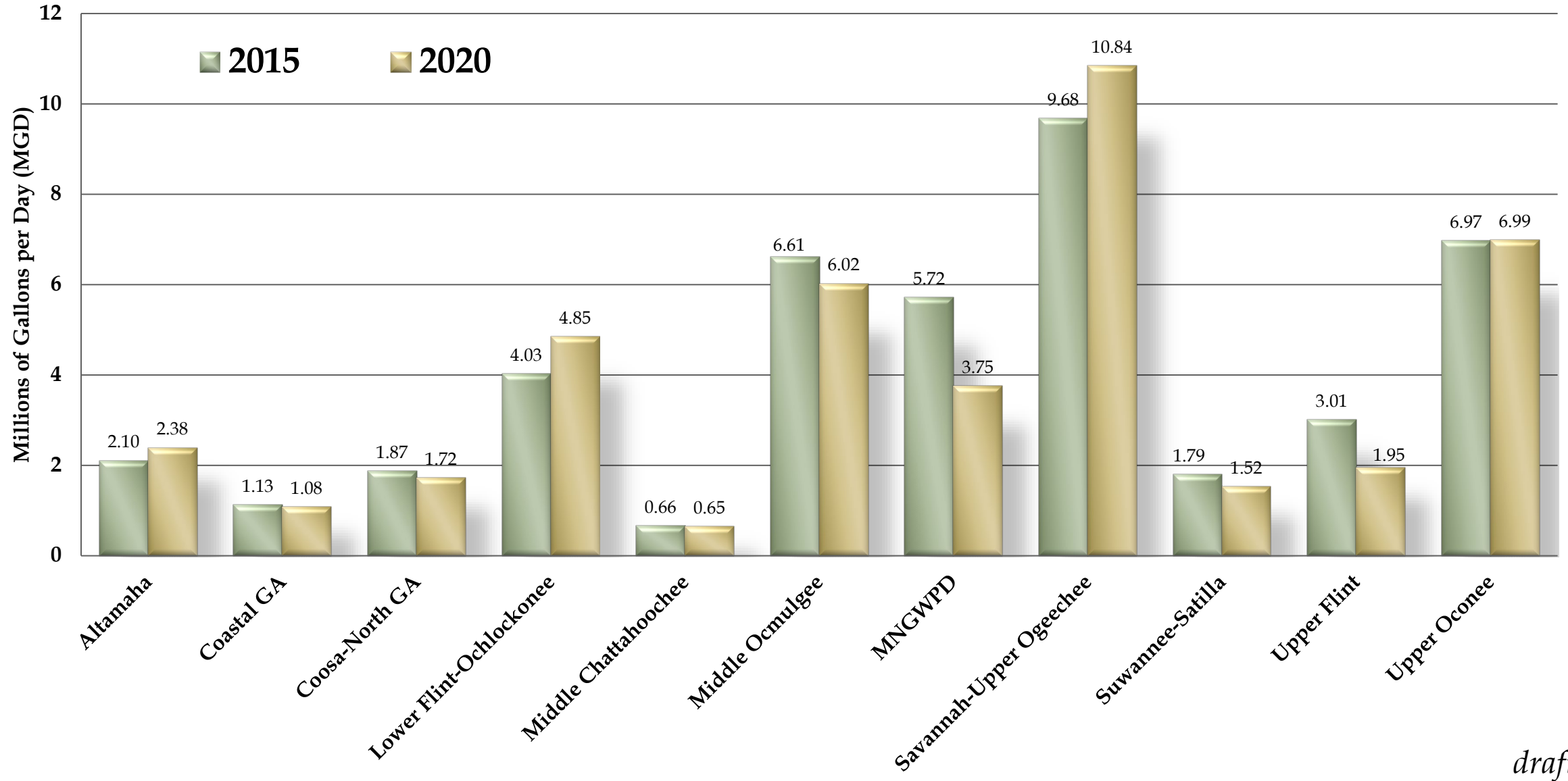
Animal Agriculture - Daily Water Use by Water Planning Region

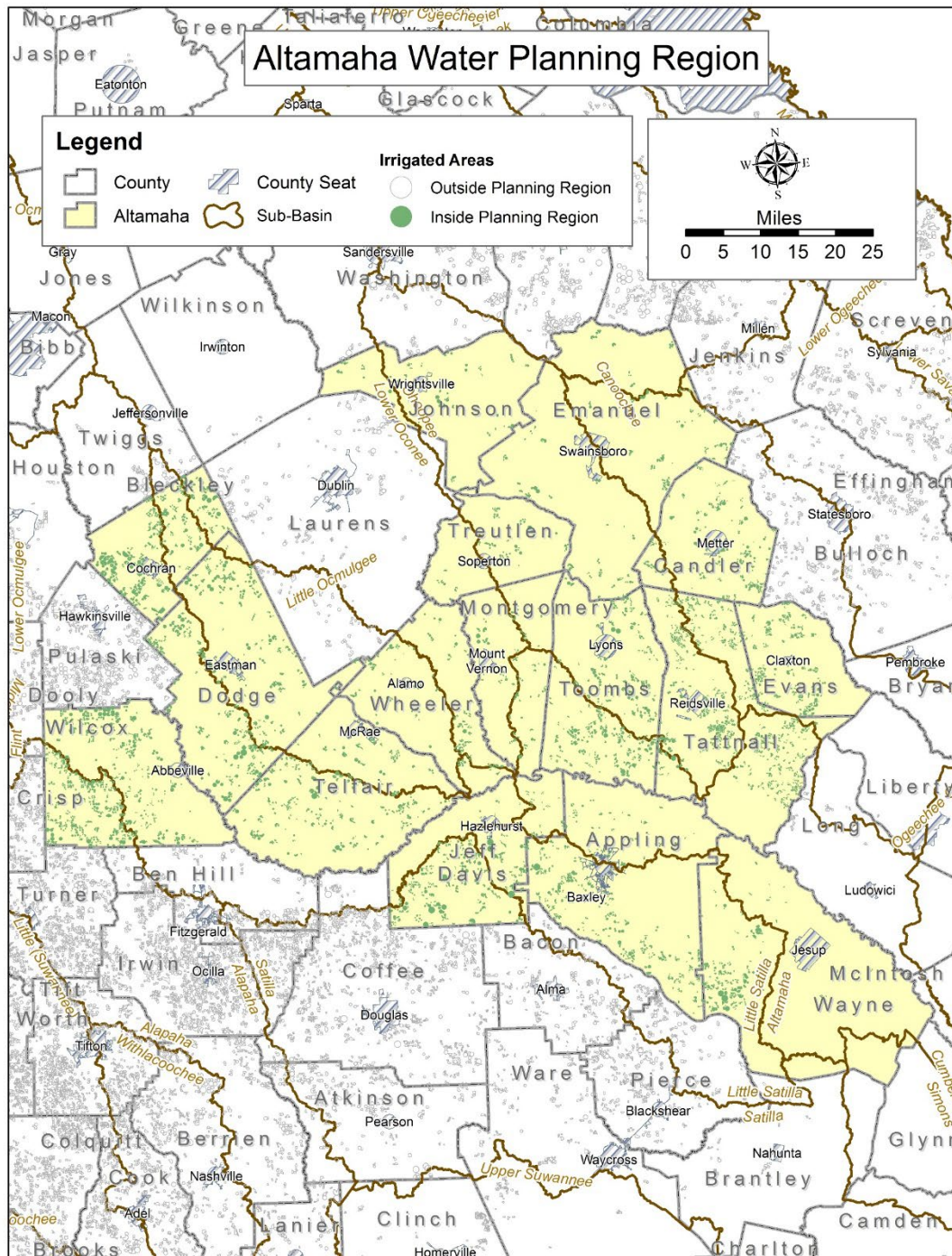
Statewide Total: 43.8 MGD



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

Statewide Total: 41.76 MGD - *draft*





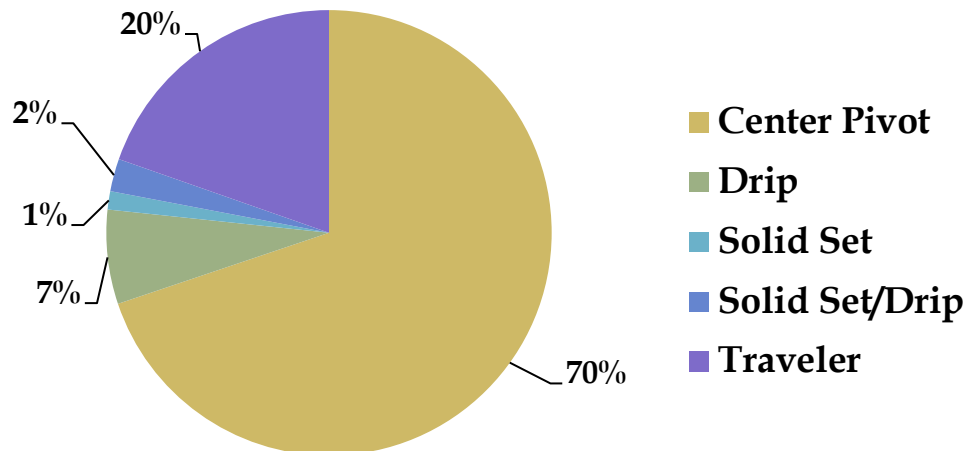
Irrigated Acres

County	2015	2020
Appling	11,233	12,855
Bleckley	16,160	18,025
Candler	7,045	7,240
Dodge	19,404	20,506
Emanuel	6,582	6,992
Evans	6,902	7,156
Jeff Davis	13,865	14,477
Johnson	3,850	3,992
Montgomery	3,826	3,985
Tattall	20,235	21,258
Telfair	11,871	12,897
Toombs	15,651	16,124
Treutlen	2,427	2,676
Wayne	6,922	7,916
Wheeler	5,604	5,791
Wilcox	23,728	25,243

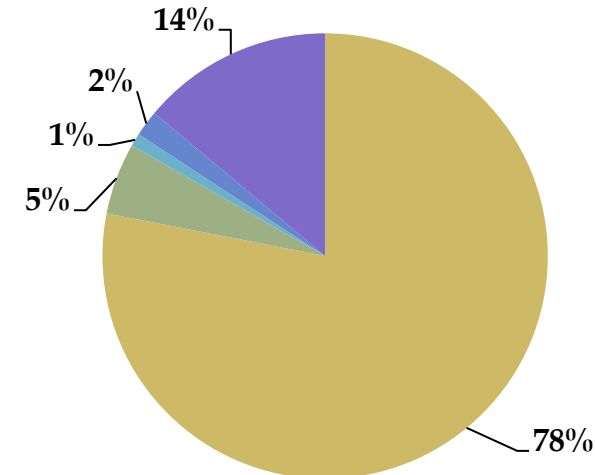
Altamaha River RWPC

	2015	2020	% Change
Total # of Fields	4,590	4,899	+ 6.7%
Total Acreage	175,302	187,134	+ 6.7%
Total GW Acreage	113,767	125,654	+ 10.4%
Total SW Acreage	61,535	61,480	- 0.1%
Total Center Pivots	3,190	3,421	+ 7.2%
Center Pivot Acreage	136,722	146,091	+ 6.9%

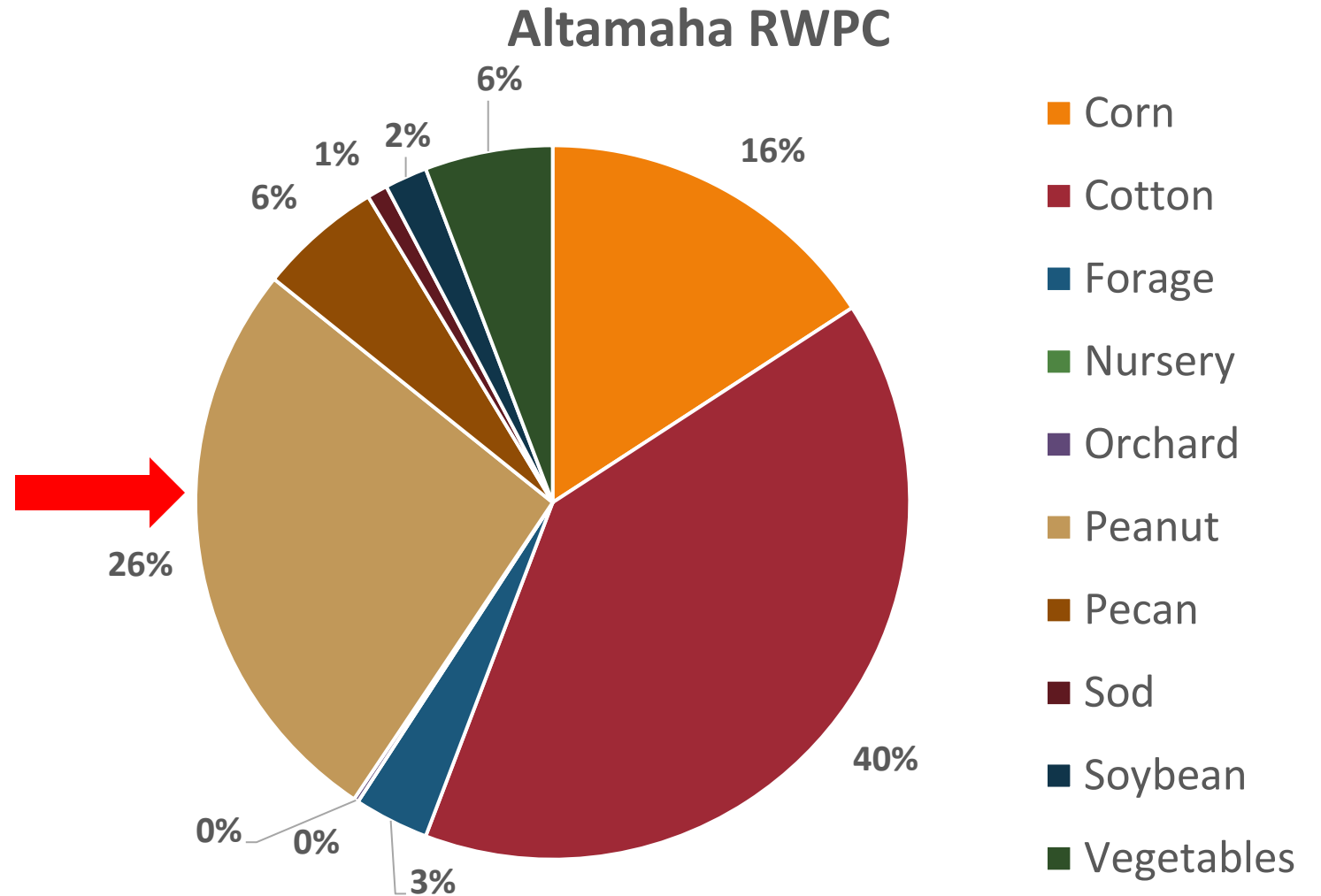
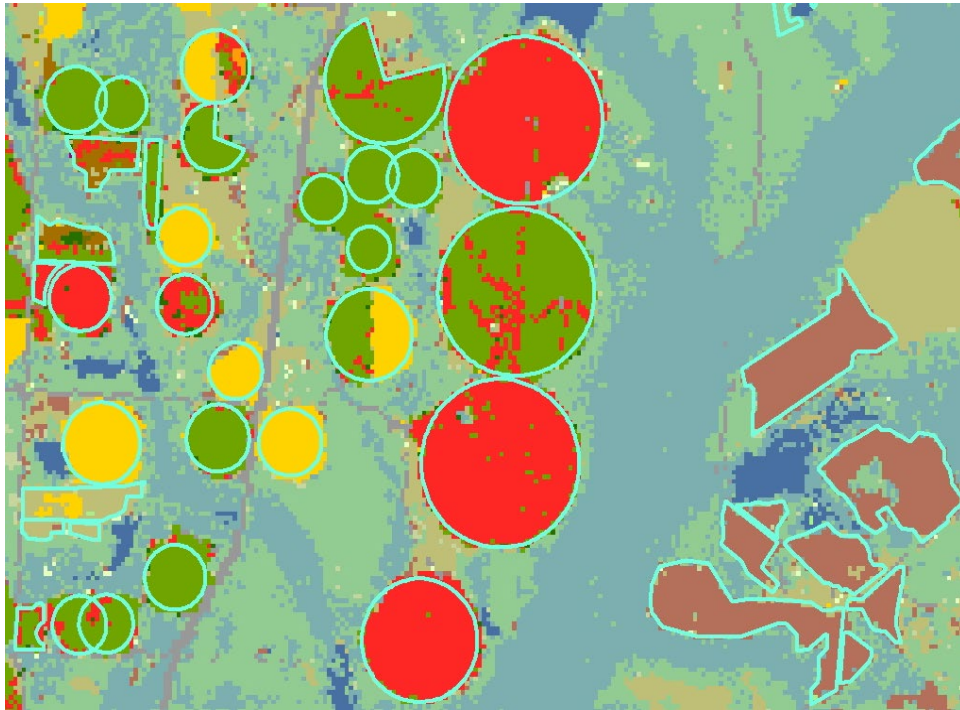
System Type - % of Systems

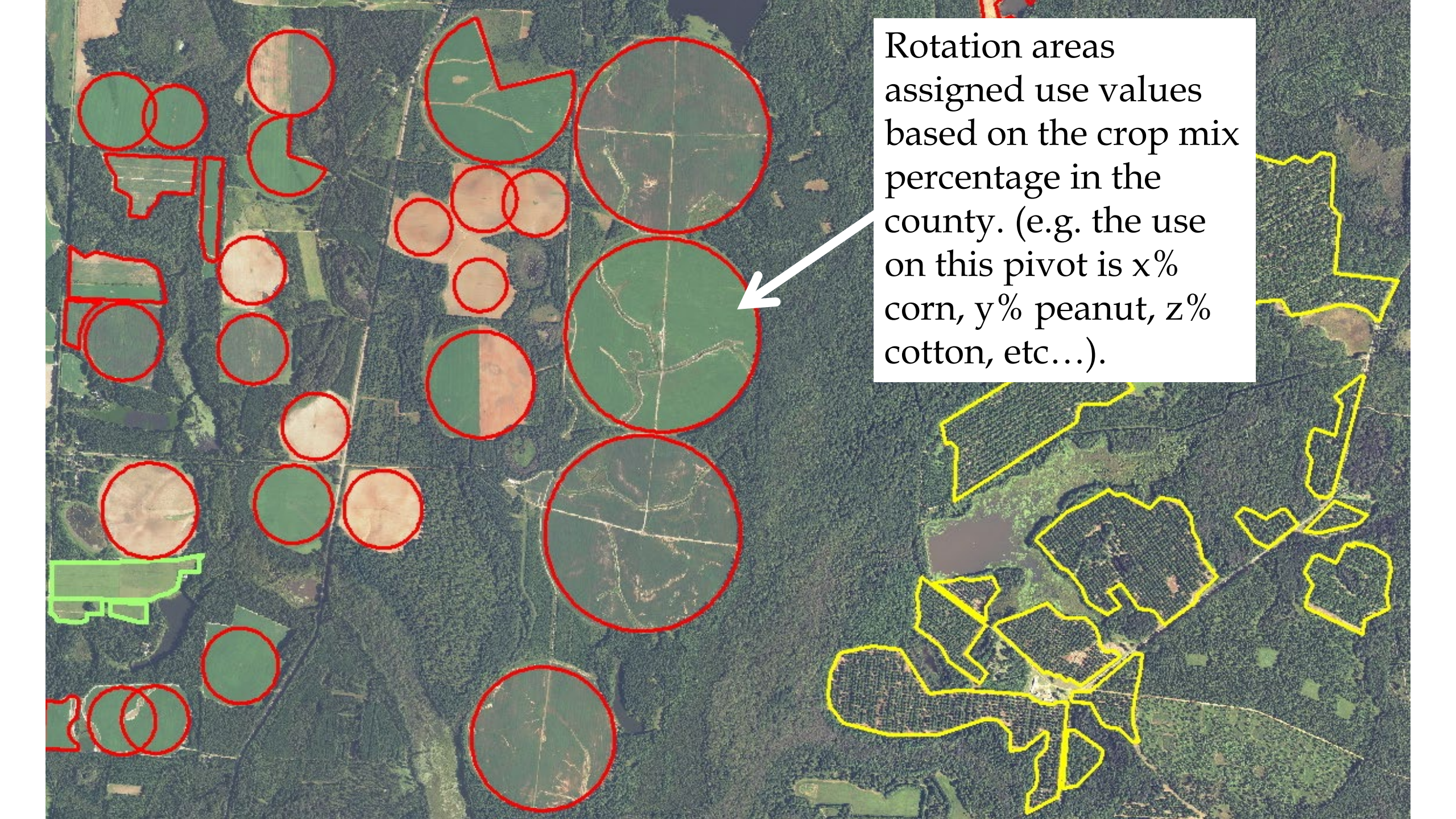


System Type - % of Acreage



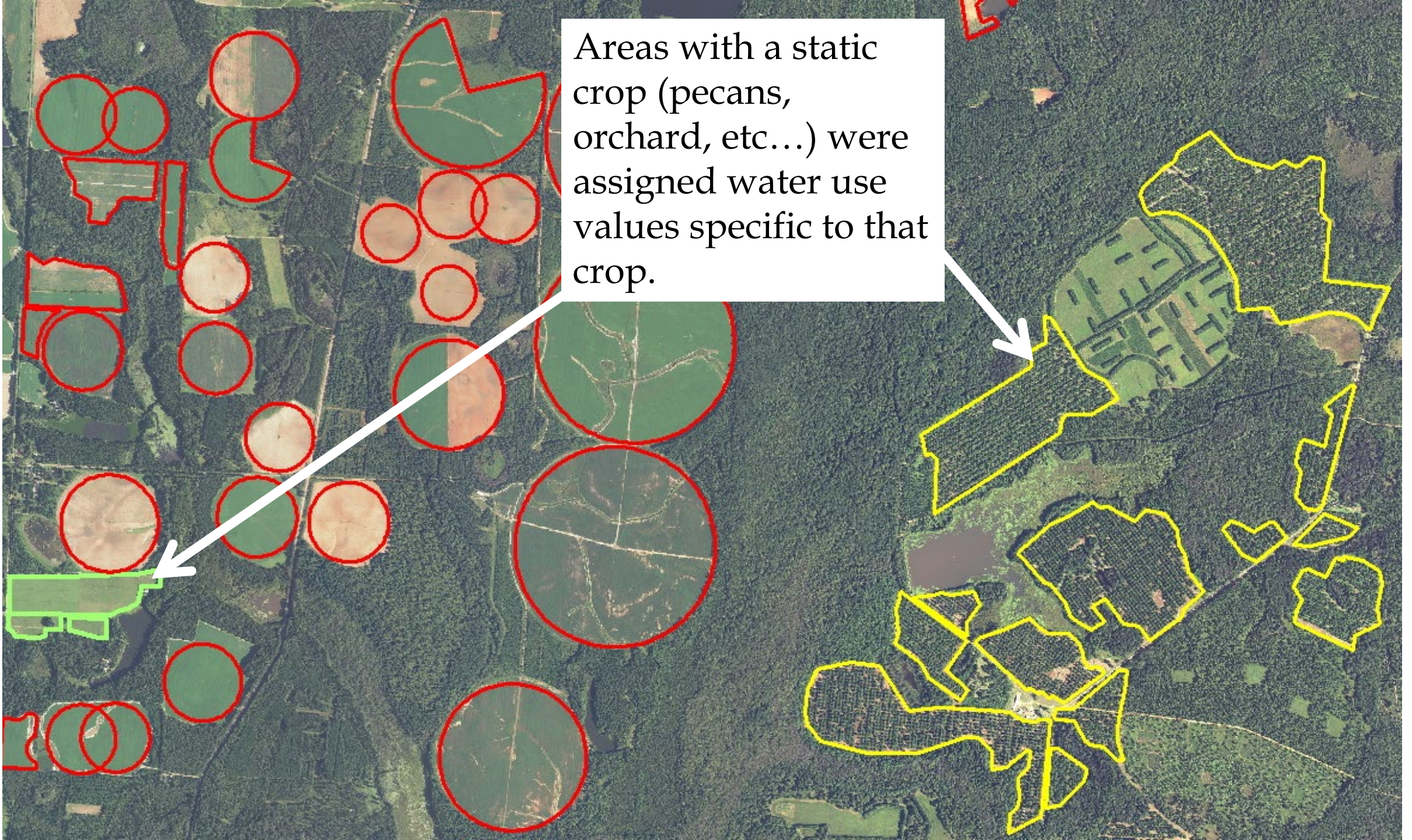
Baseline Crop Mix by RWPC



An aerial photograph of a rural landscape. The land is divided into various agricultural plots. Numerous circular and irregular shapes are outlined in red, representing 'rotation areas'. These areas are filled with different colors: some are solid green, some are solid brown/tan, and some are split vertically (half green, half brown). A white arrow points from the text box to one of the green-filled circular areas. In the lower right portion of the image, there is a cluster of irregular shapes outlined in yellow. The background is a mix of green fields and dark, forested areas.

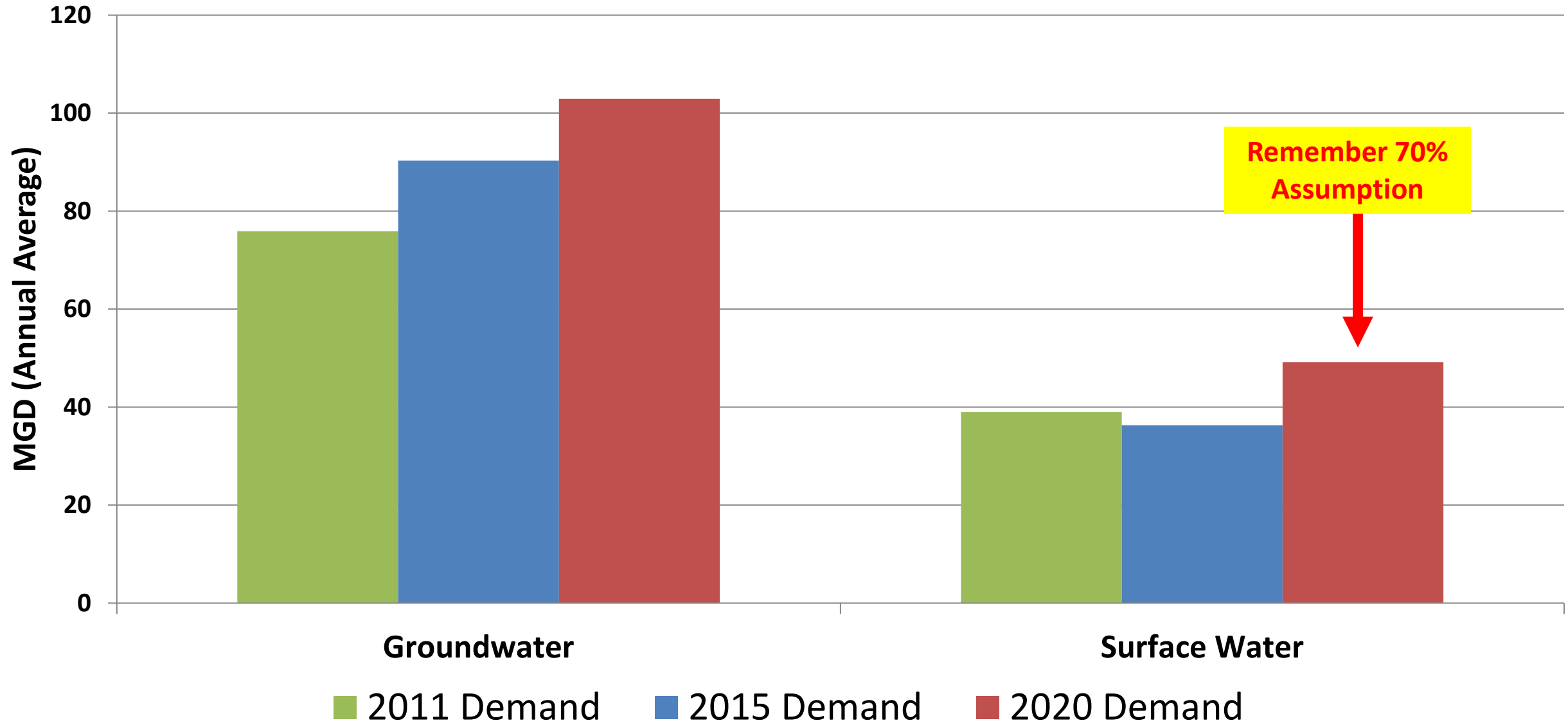
Rotation areas
assigned use values
based on the crop mix
percentage in the
county. (e.g. the use
on this pivot is x%
corn, y% peanut, z%
cotton, etc...).

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



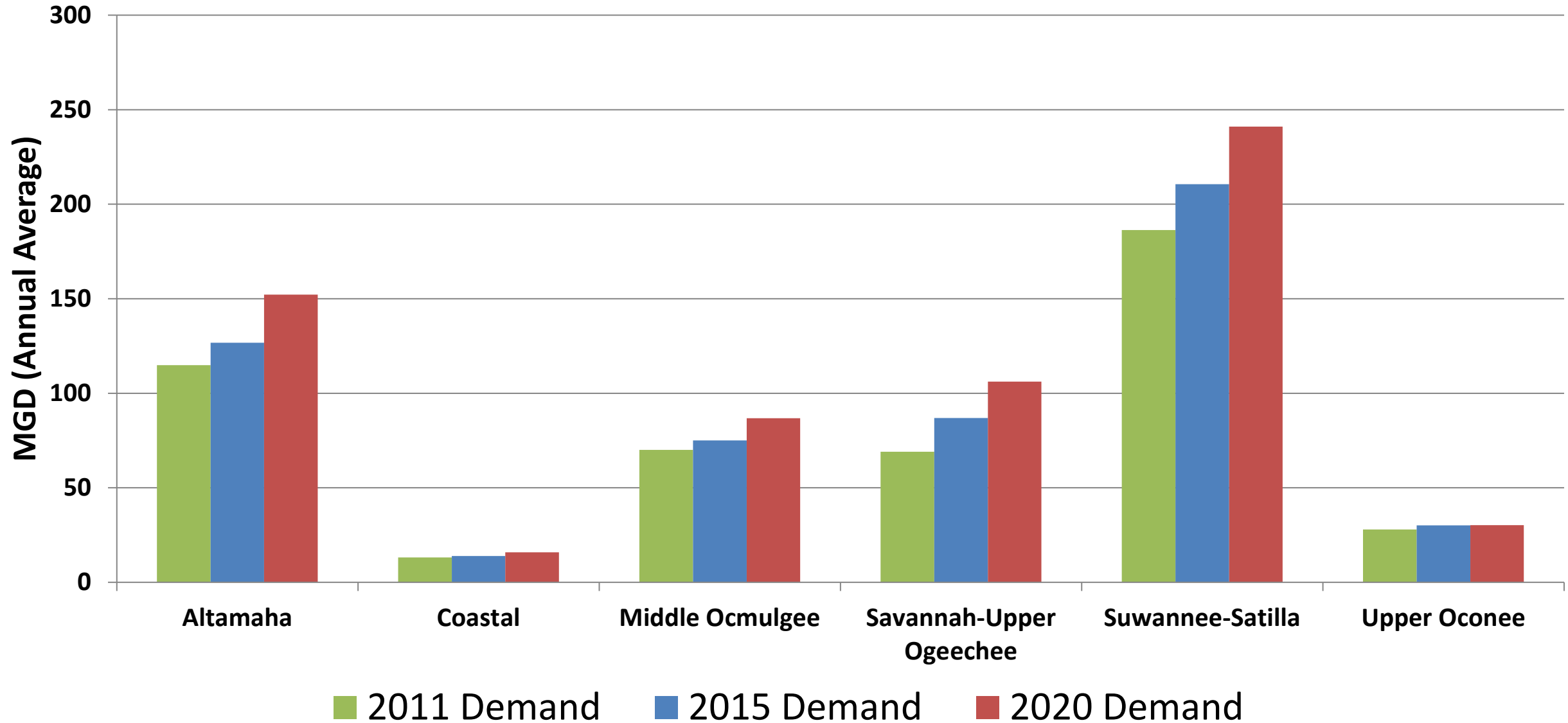
Altamaha Council – Ag Demand – 75th Percentile

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

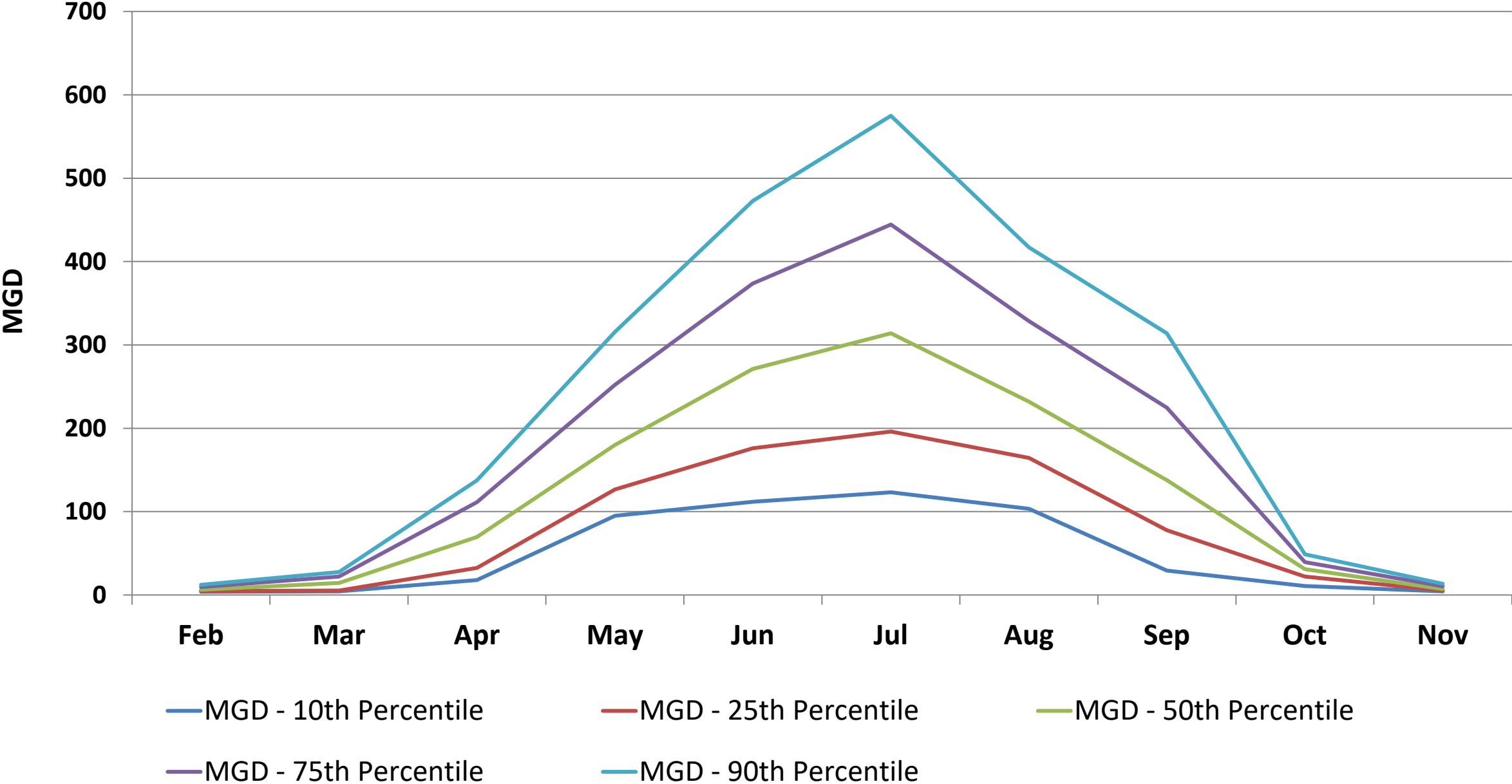


Ag Demand – 75th Percentile

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



Altamaha RWPC - Monthly



Ag Demand – Forecast – 75th Percentile

Totals (2020 & 2060)

