

AGRICULTURAL WATER USE FORECAST

Lower Flint-Ochlockonee 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

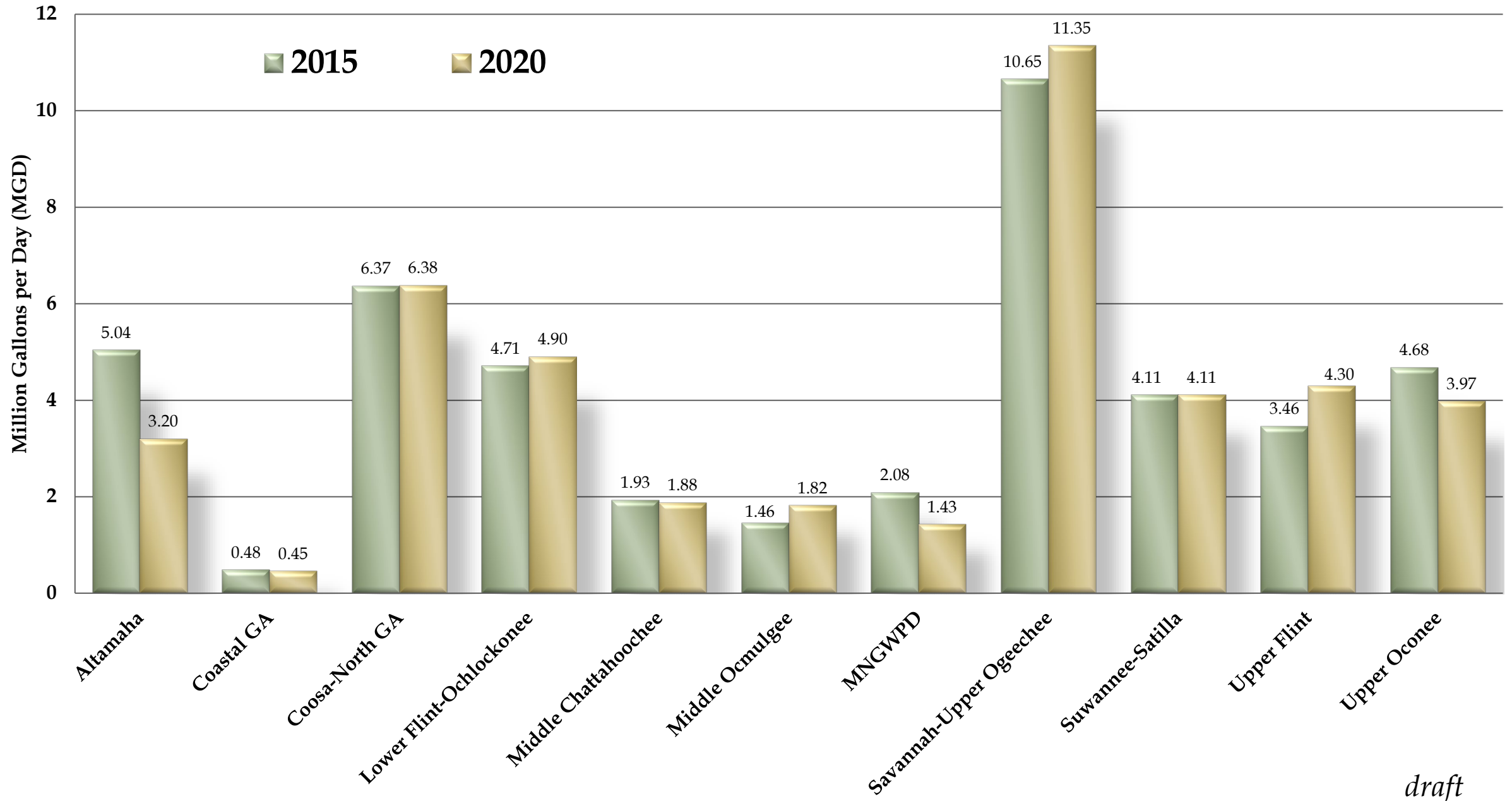


2020-21 Agricultural Water Demand Forecasts - Methods

- ▣ **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**

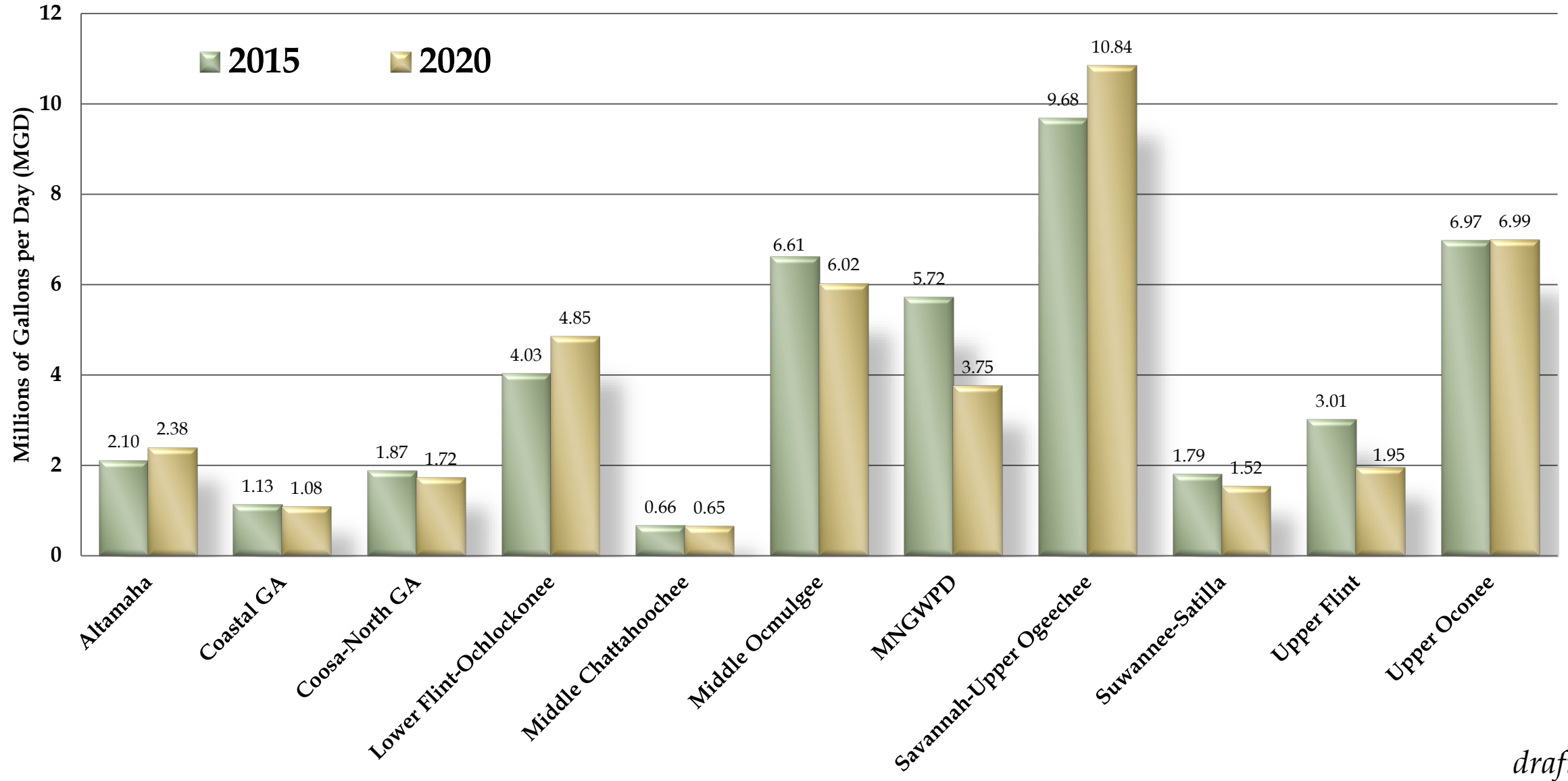
Animal Agriculture - Daily Water Use by Water Planning Region

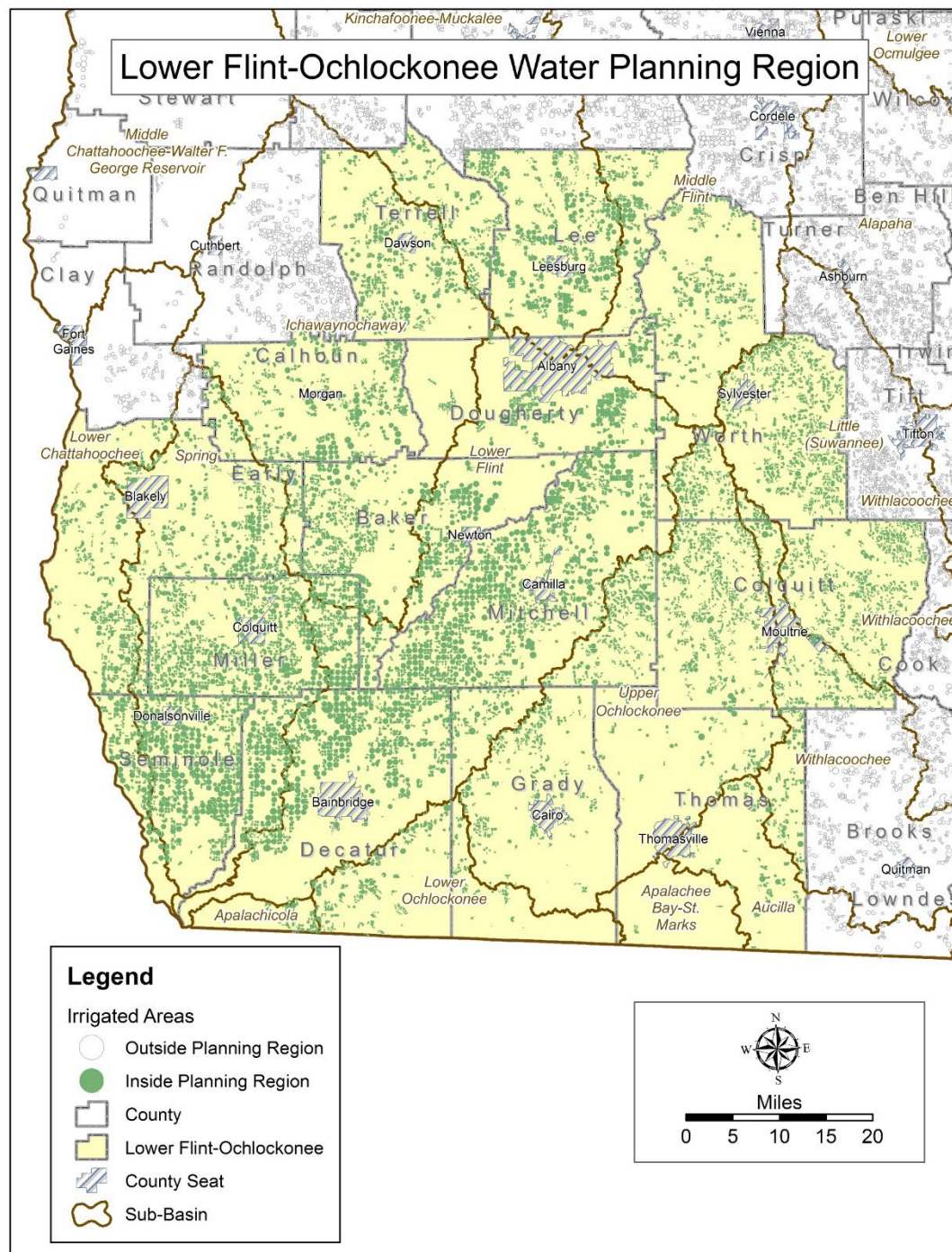
Statewide Total: 43.8 MGD



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

Statewide Total: 41.76 MGD - *draft*





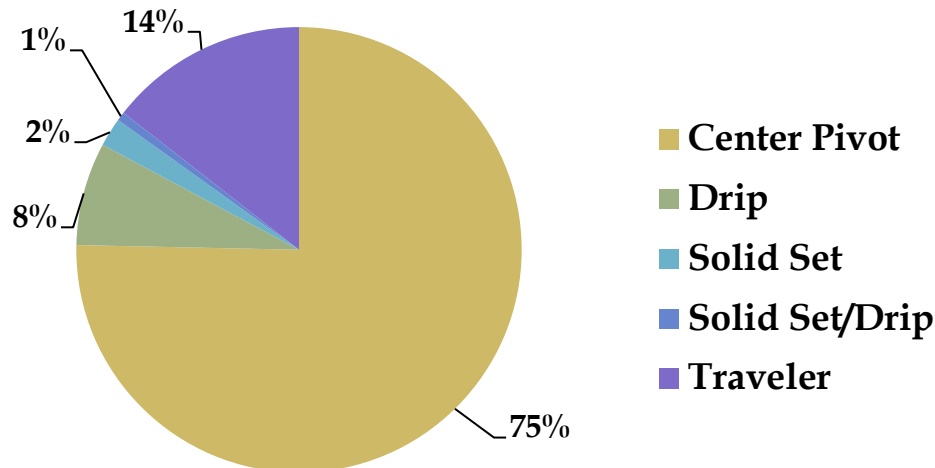
Irrigated Acres

County	2015	2020
BAKER	42,273	42,218
CALHOUN	29,402	29,281
COLQUITT	54,622	56,045
DECATUR	76,391	77,751
DOUGHERTY	21,046	20,620
EARLY	48,973	49,909
GRADY	18,736	19,349
LEE	45,610	46,344
MILLER	60,840	61,955
MITCHELL	91,475	91,754
SEMINOLE	56,816	57,621
TERRELL	30,572	32,201
THOMAS	15,468	16,137
WORTH	54,923	56,503

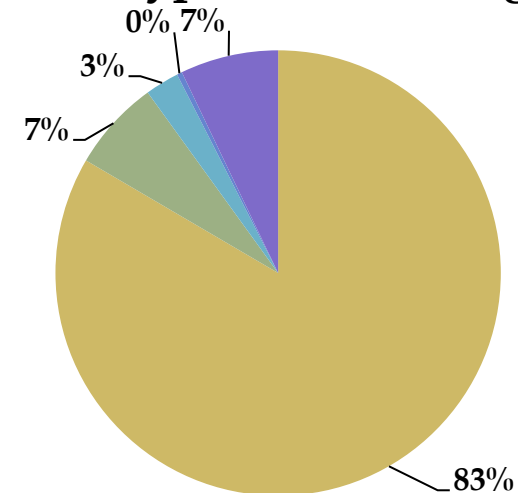
Lower Flint-Ochlockonee RWPC

	2015	2020	% Change
Total # of Fields	11,742	12,233	+ 4.2%
Total Acreage	647,145	658,229	+ 1.7%
Total GW Acreage	532,569	548,459	+ 3.0%
Total SW Acreage	114,576	109,770	- 4.2%
Total Center Pivots	8,823	9,216	+ 4.5%
Center Pivot Acreage	539,059	549,189	+ 1.9%

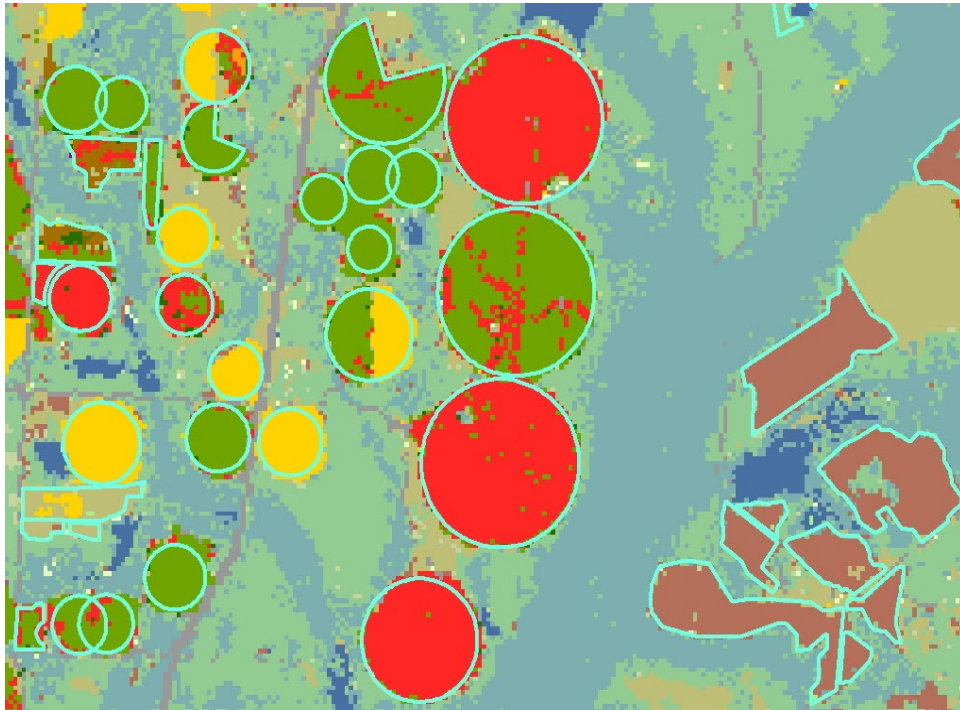
System Type - % of Systems



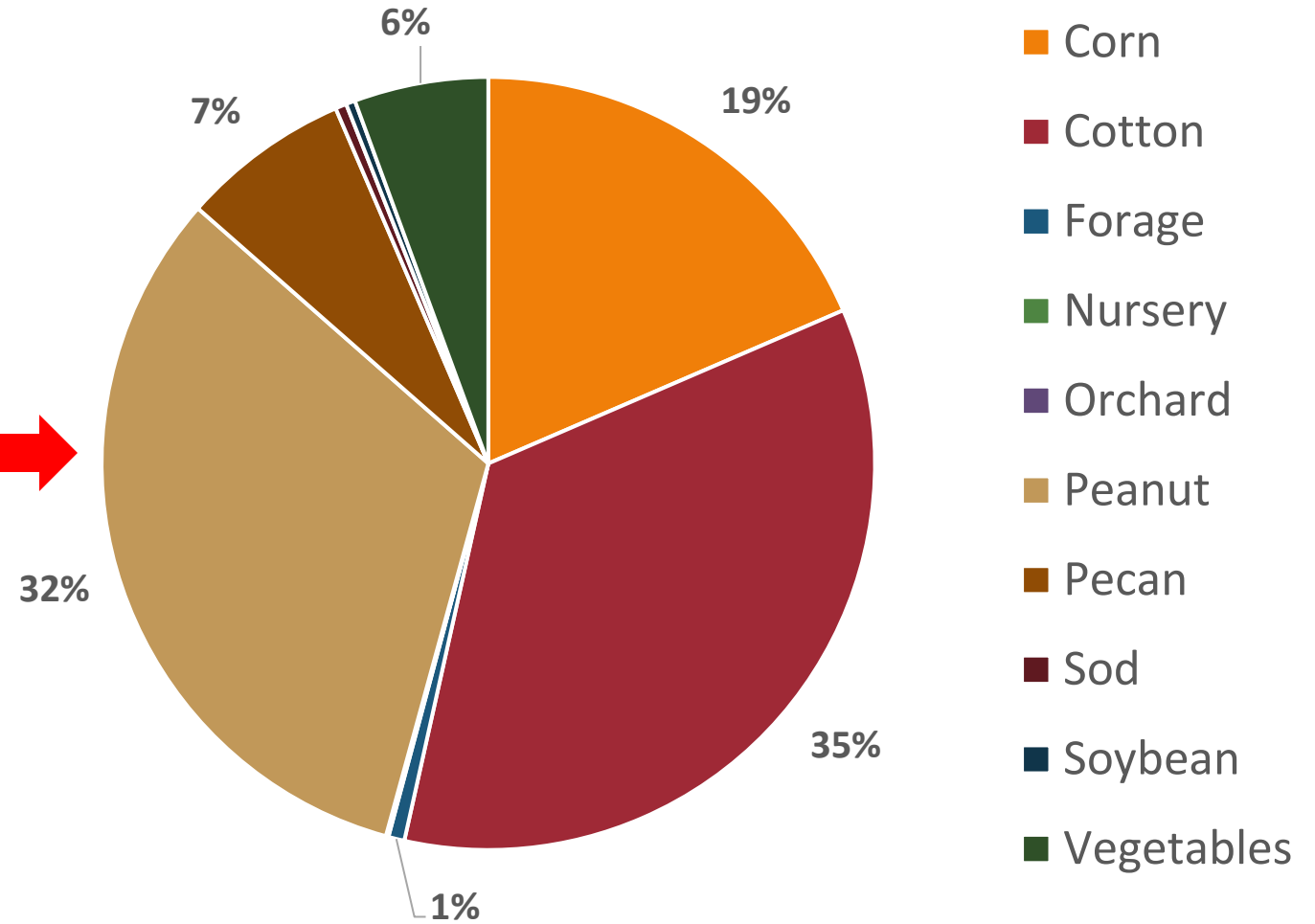
System Type - % of Acreage

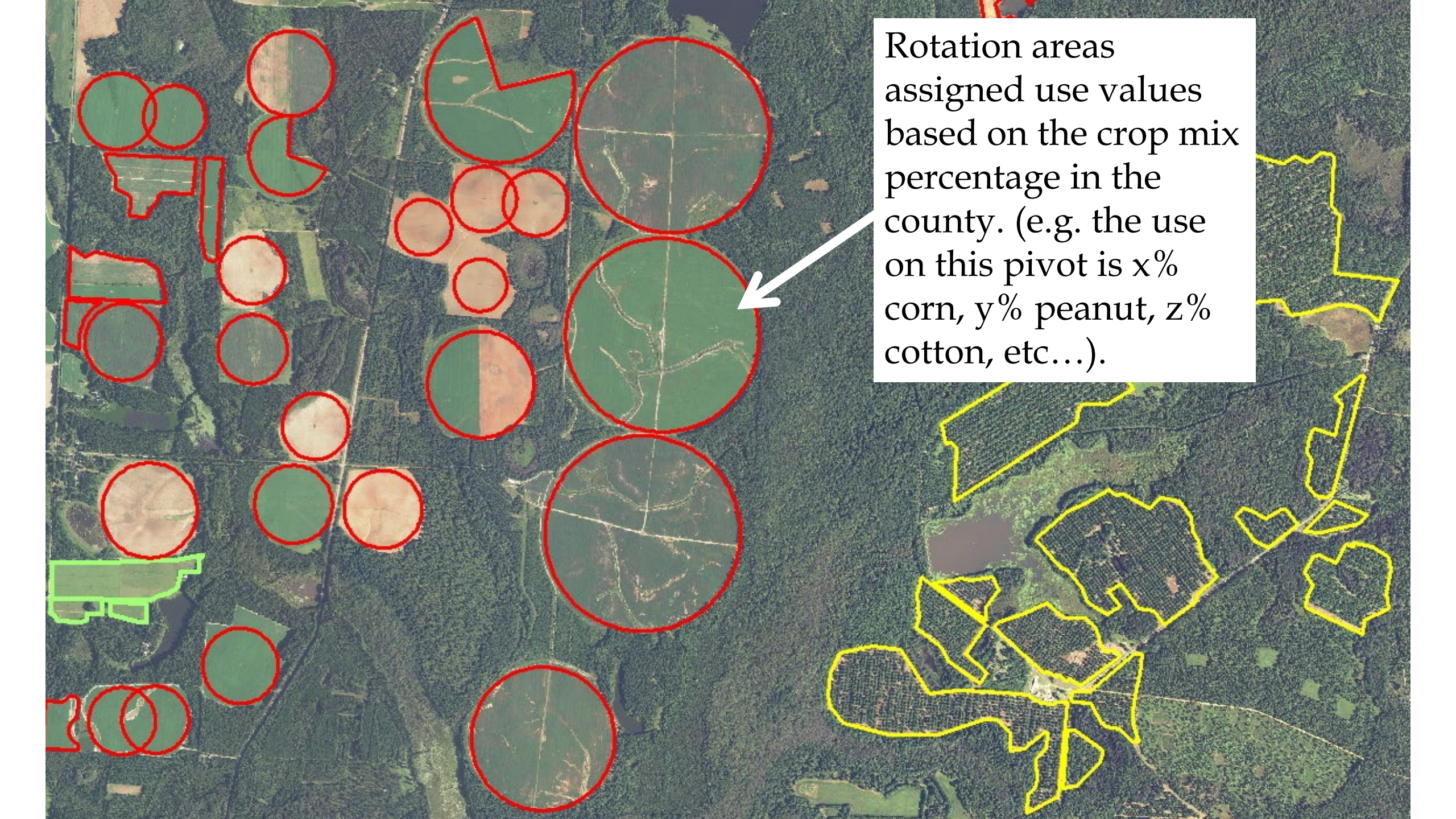


Baseline Crop Mix by RWPC



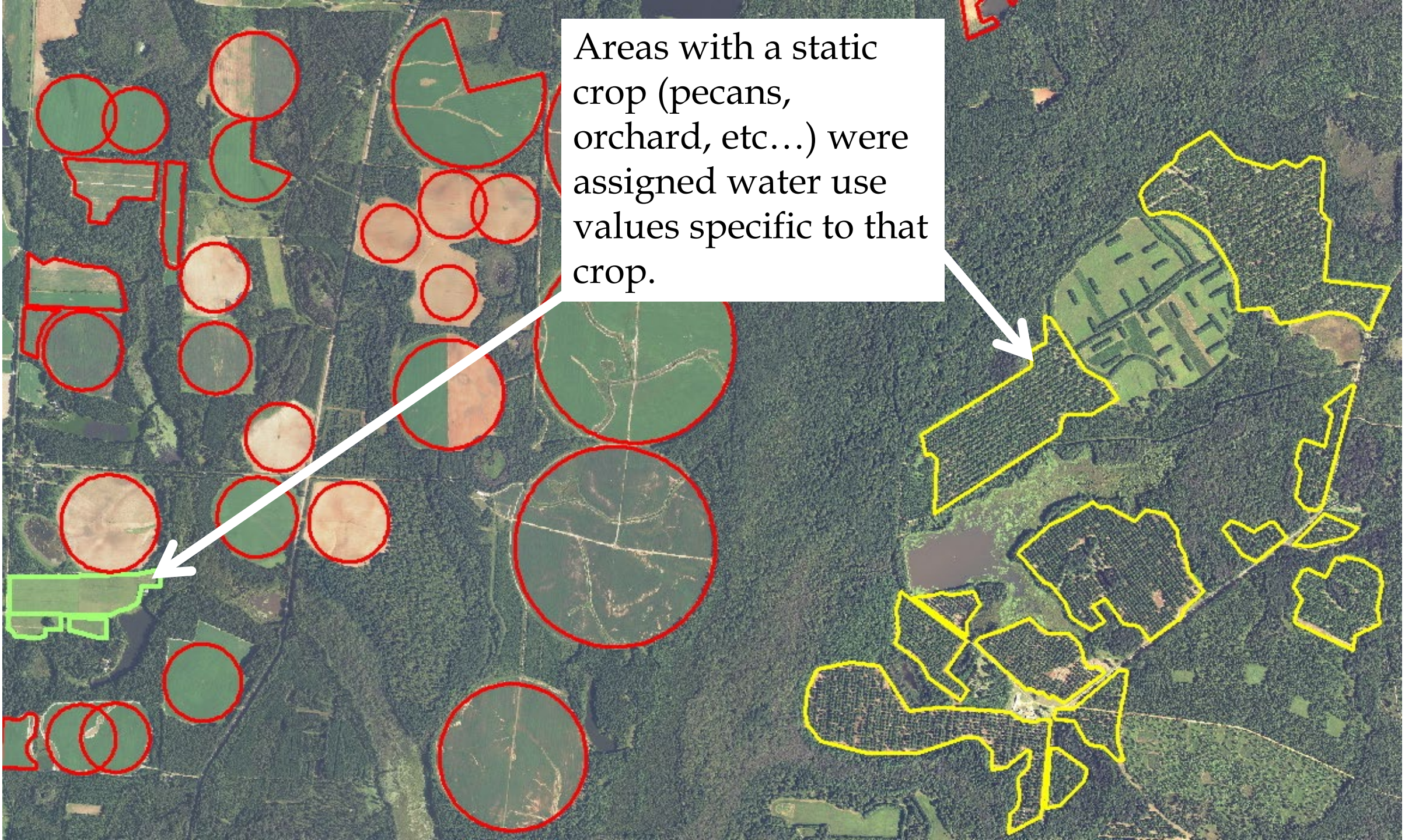
Lower Flint-Ochlockonee RWPC



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, and some are split vertically (green on the left, brown on the right). A white arrow points from the text box to one of these red-outlined areas. In the lower right portion of the image, there are several irregular shapes outlined in yellow. The background is a mix of green fields and dark, forested areas.

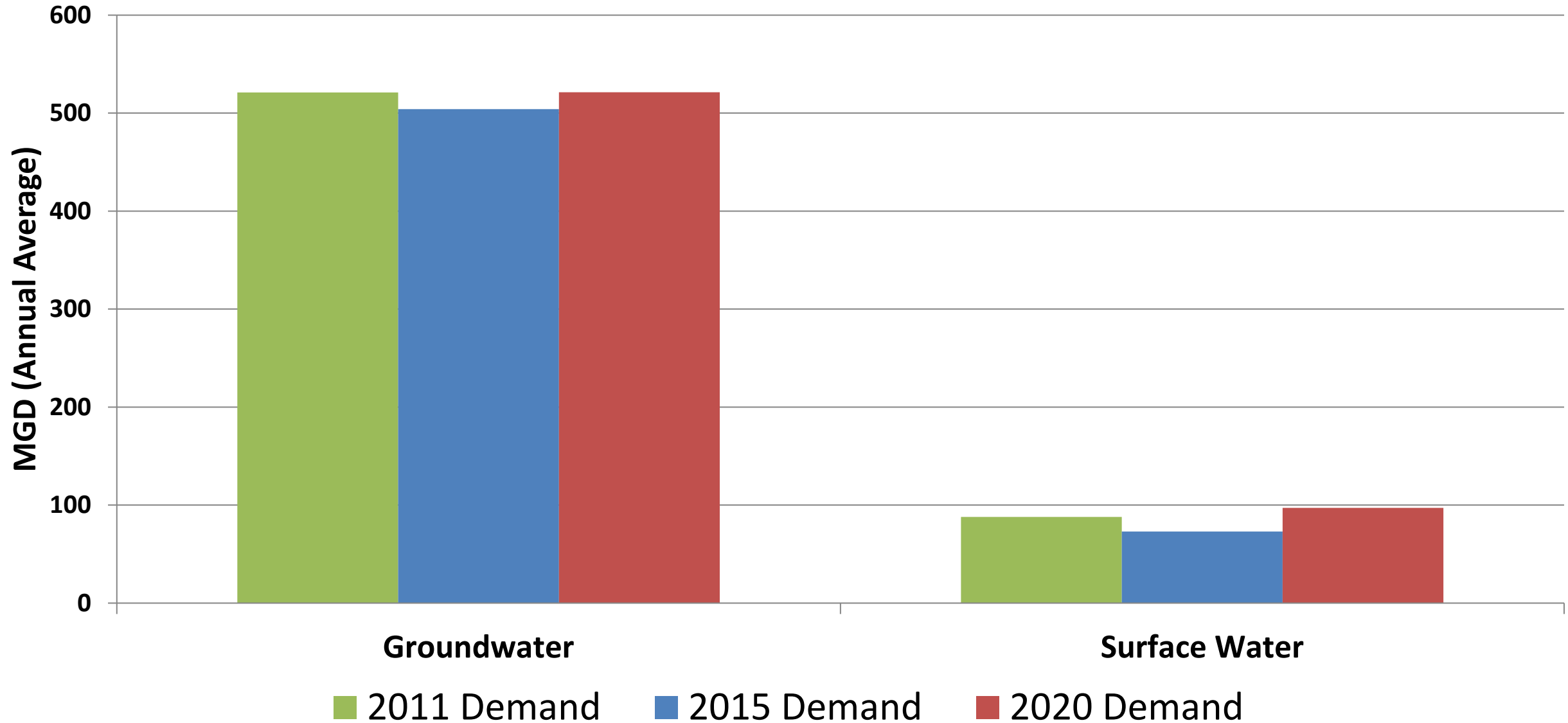
Rotation areas
assigned use values
based on the crop mix
percentage in the
county. (e.g. the use
on this pivot is x%
corn, y% peanut, z%
cotton, etc...).

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



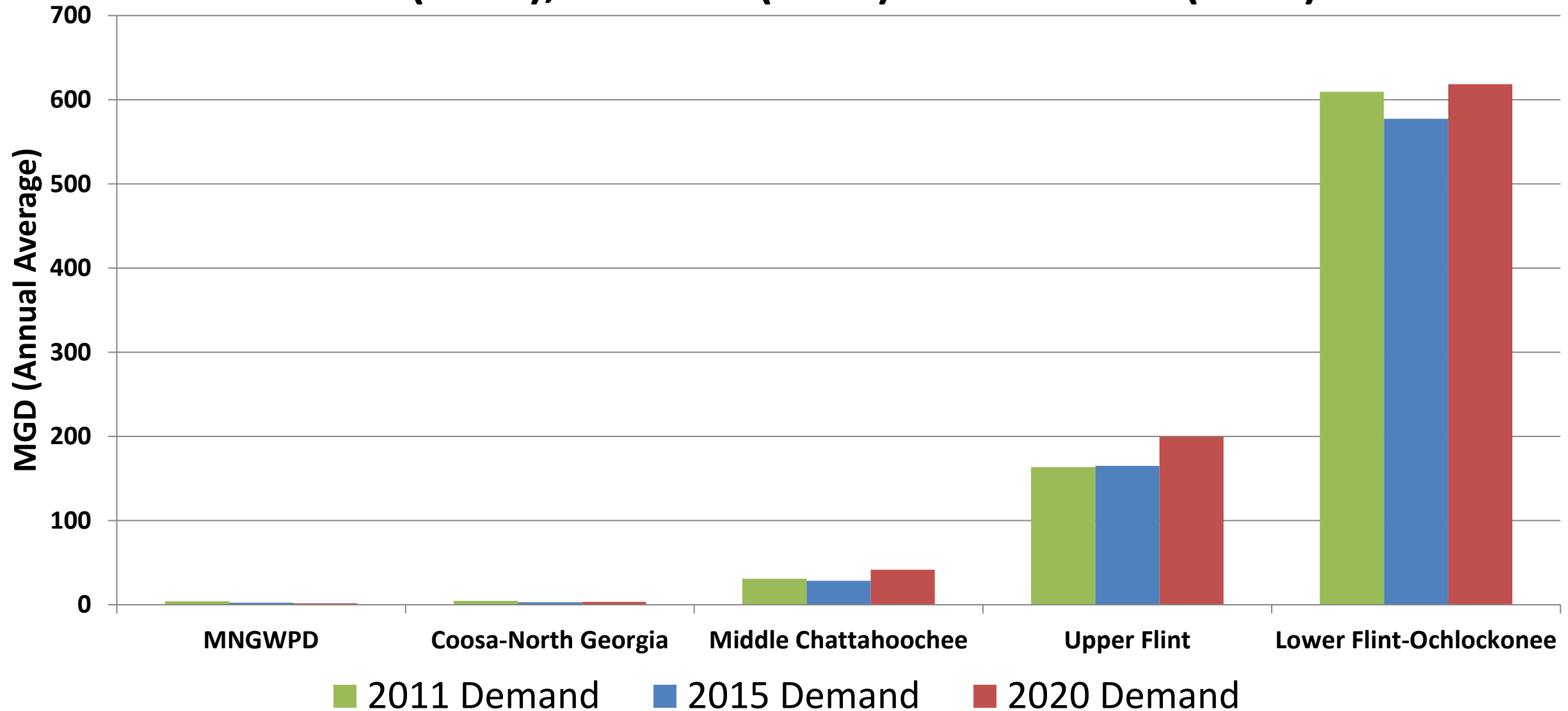
LFO Council – Ag Demand – 75th Percentile

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

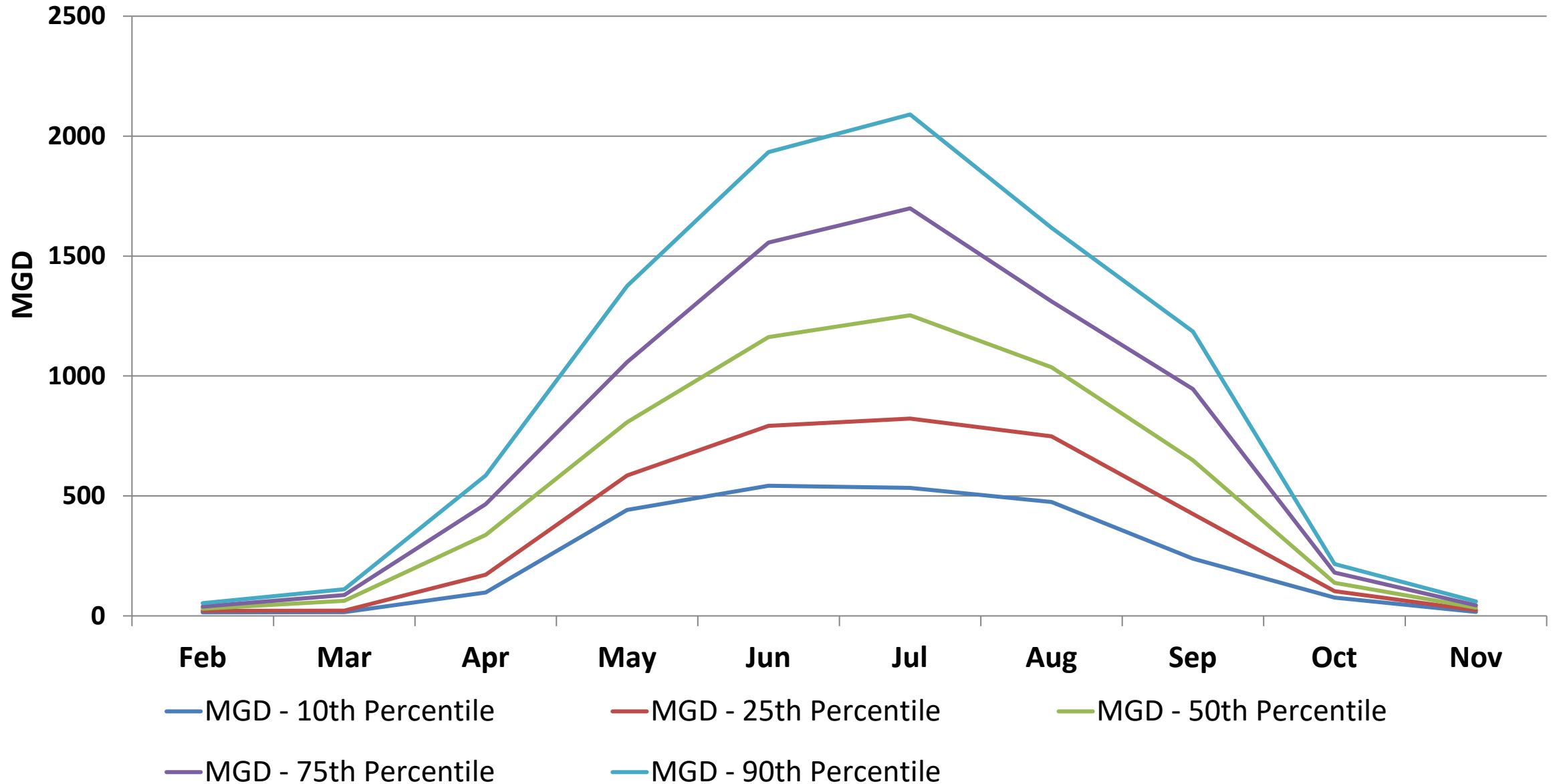


Ag Demand – 75th Percentile

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



Lower Flint-Ochlockonee RWPC - Monthly



LFO – Ag Demand – Forecast – 75th Percentile

Totals (2020 & 2060)

