

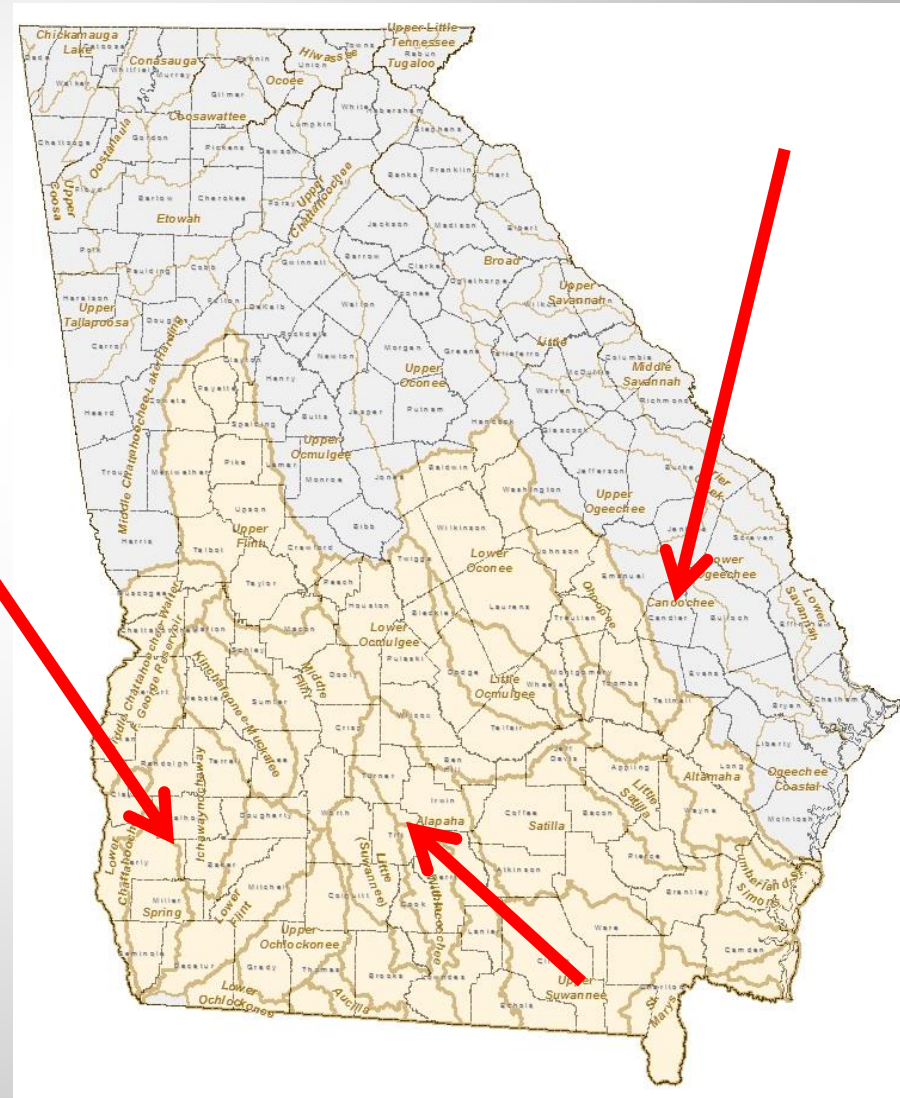
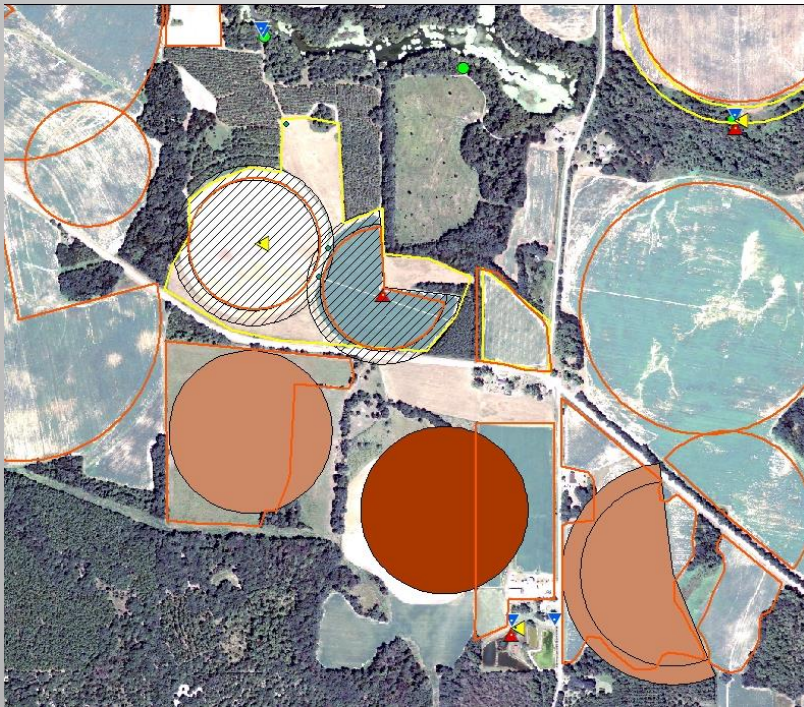
# **AG WATER USE UPDATE AND OTHER STUFF**

**Lower Flint-Ochlockonee Regional Water  
Planning Council  
Albany, GA - December 10, 2019**

**Mark H. Masters  
Georgia Water Planning & Policy Center  
Albany State University**

# 2015–16 Current Agricultural Water Use Estimates – Methods

- Wetted Acreage Mapping
  - Detailed mapping
  - Desktop survey
  - Review source assumptions





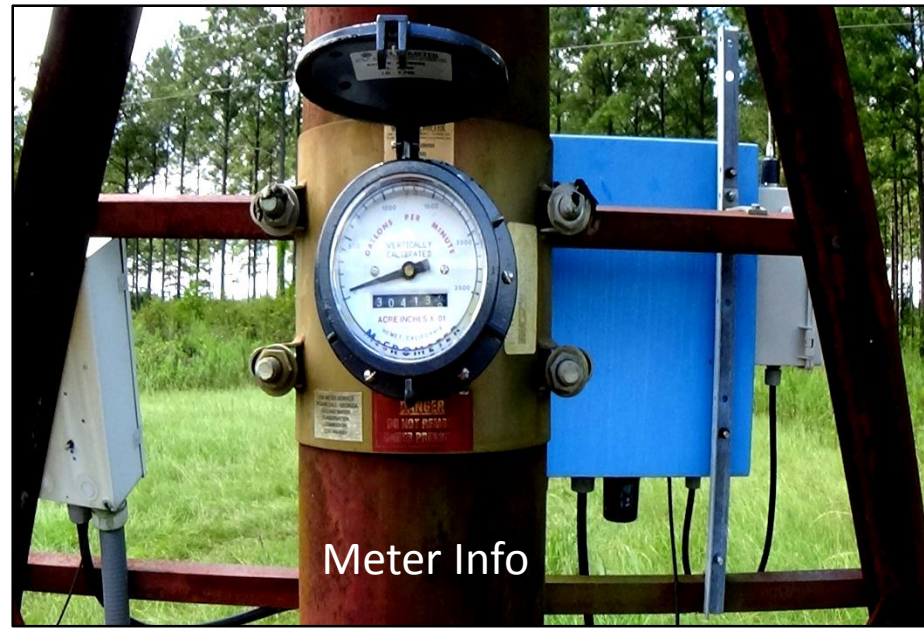
Source



Hardware and Acreage



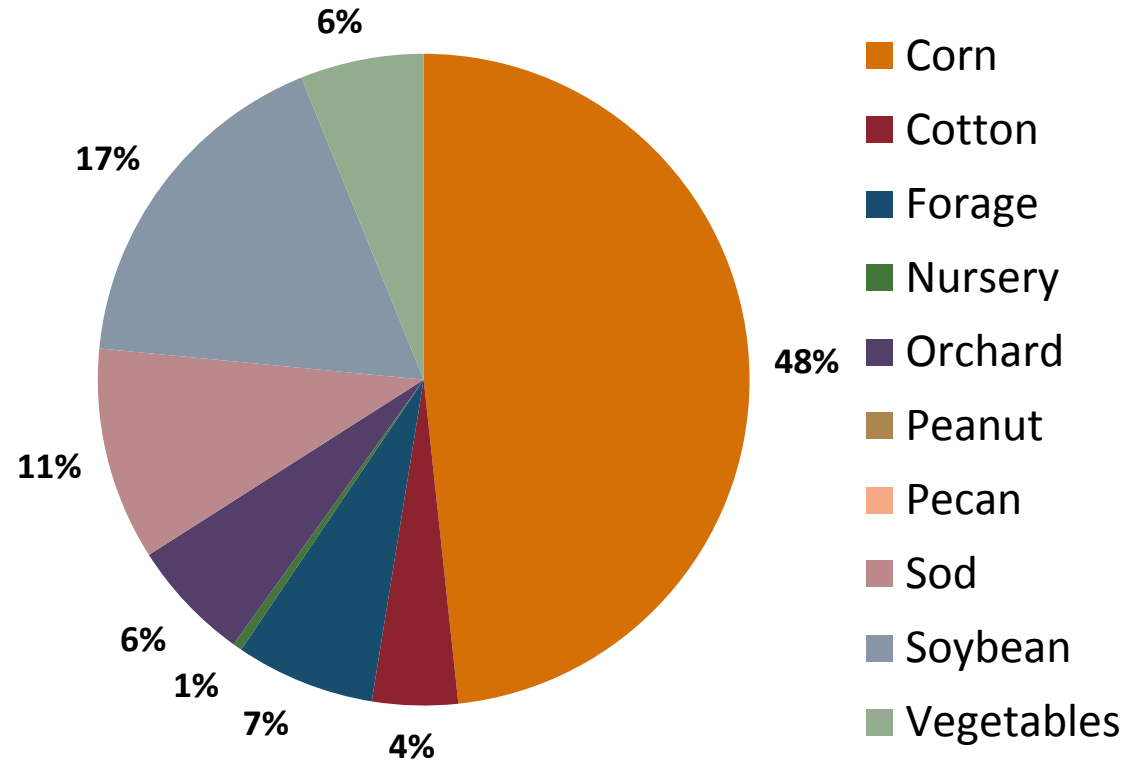
System Characteristics



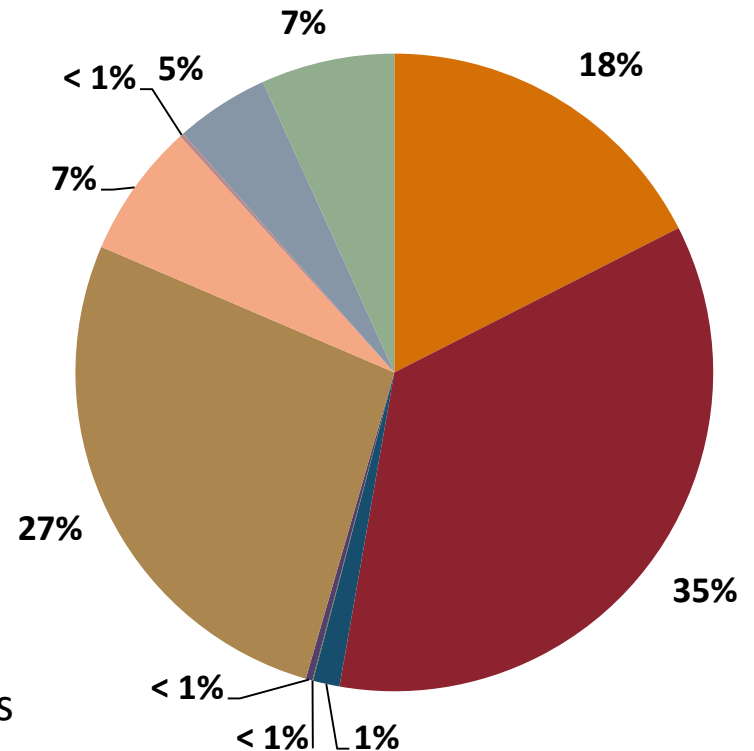
Meter Info

# Baseline Crop Mix by RWPC

## Coosa-North Georgia RWPC



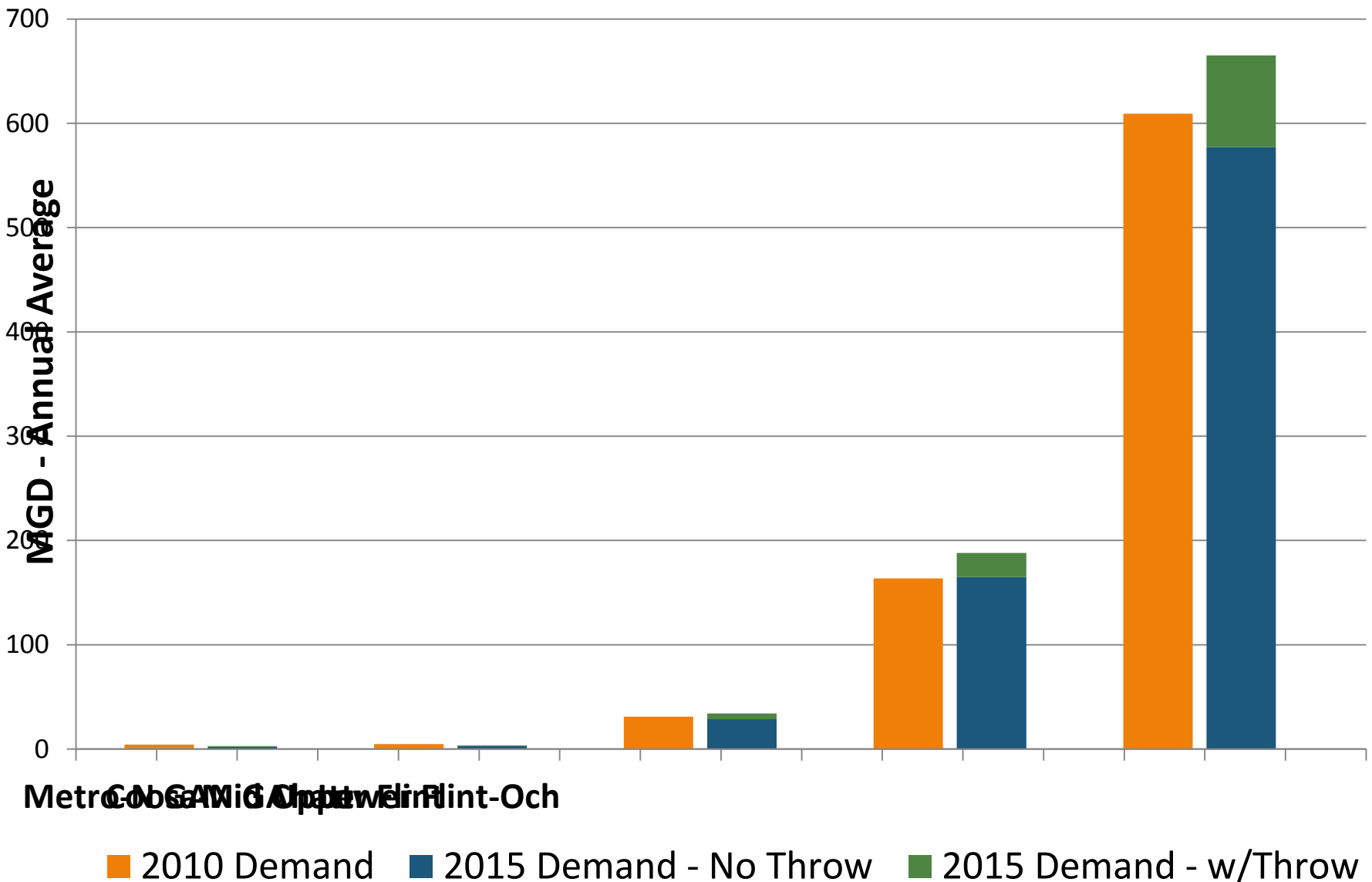
## Lower Flint-Ochlockonee RWPC



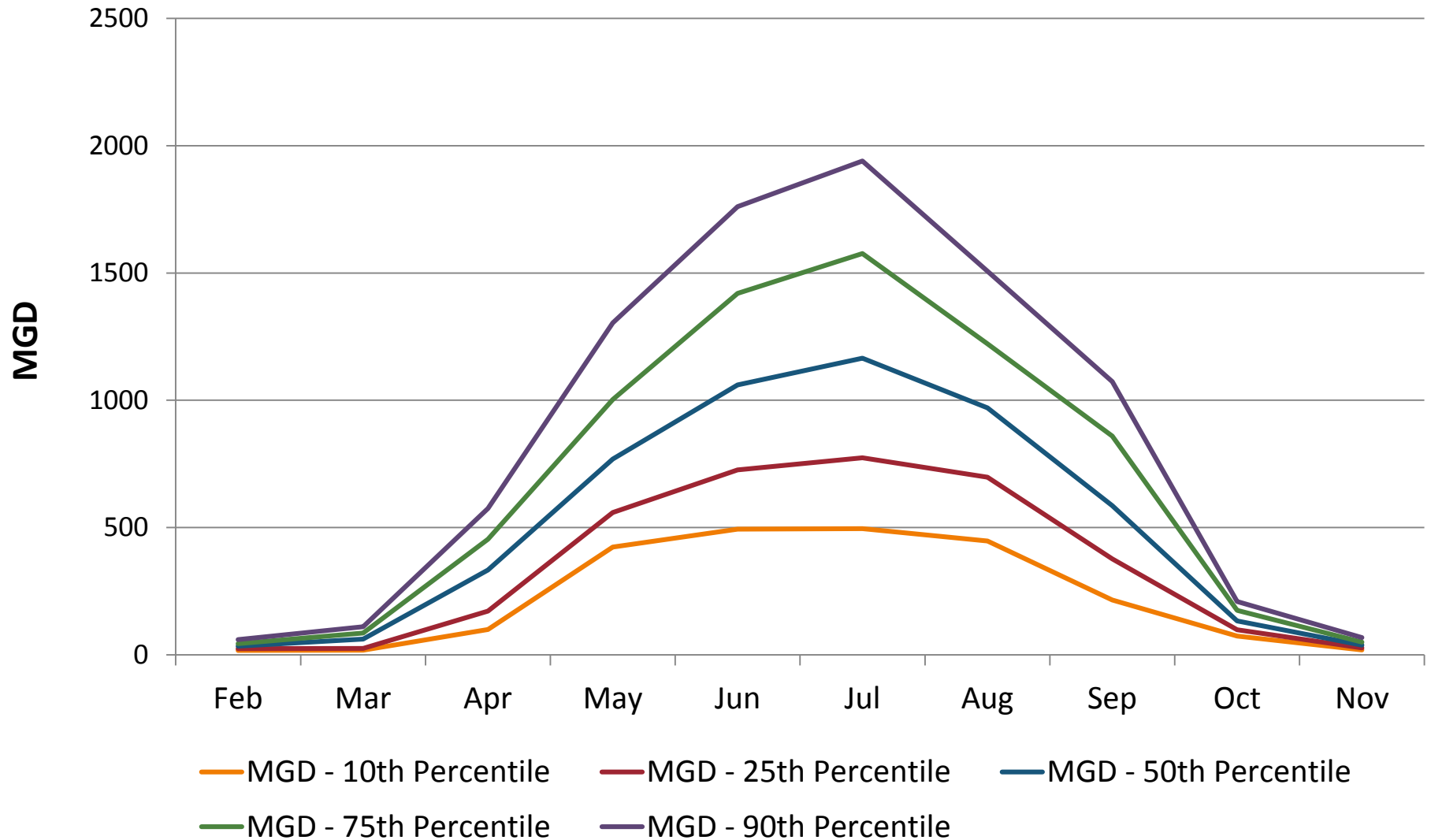
- Wet, normal and dry year estimates by crop/soil/county (e.g. 10th – 50th – 90th percentiles) – Incorporate meter data
- Aggregated spatially to 2015 irrigated acreage

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

## Round 1 (2010) and Round 2 (2015)



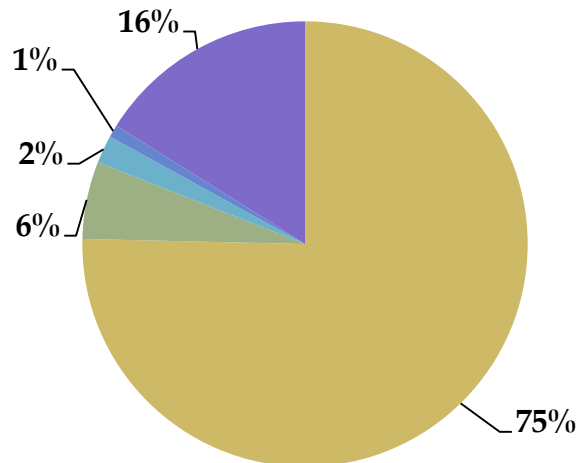
# Lower Flint-Och. RWPC – Monthly (2015, without throw)



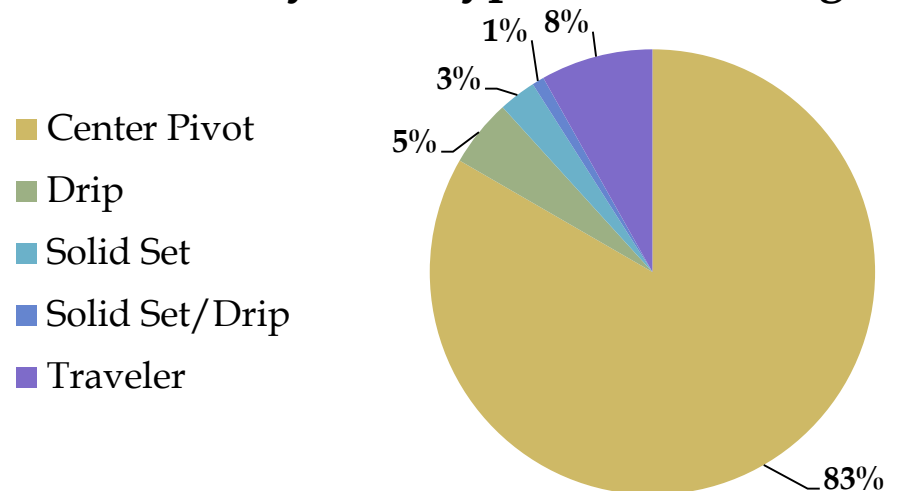
# Lower Flint–Ochlockonee RWPC

	2009	2015	% Change
Total # of Fields	10,683	11,742	+ 9.9%
Total Acreage	613,816	647,145	+ 5.4%
Total GW Acreage	482,711	532,569	+ 10.3%
Total SW Acreage	131,105	114,576	- 12.6%
Total Center Pivots	6,783	8,823	+ 30.1%
Center Pivot Acreage	464,524	539,059	+ 16.0%

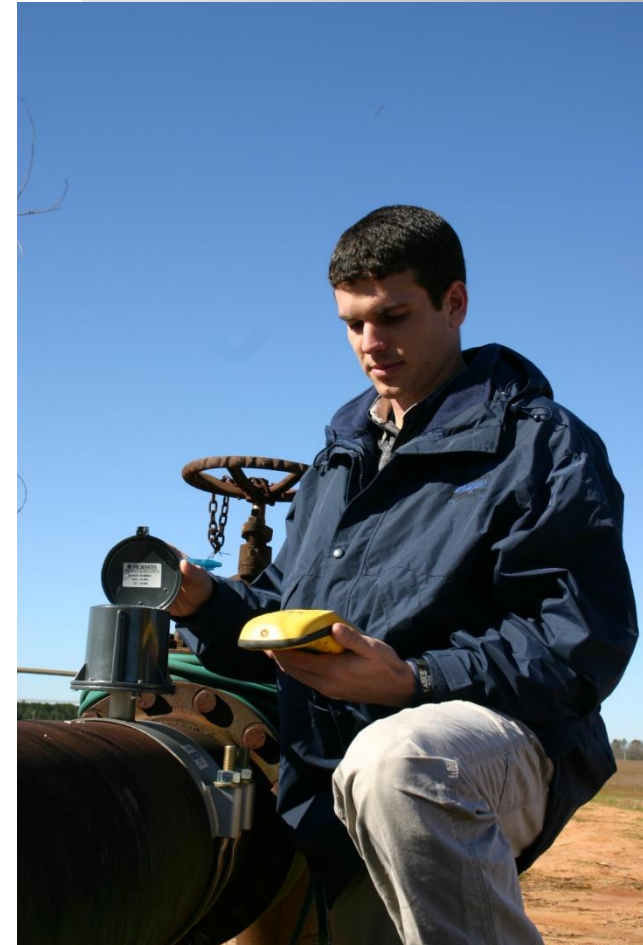
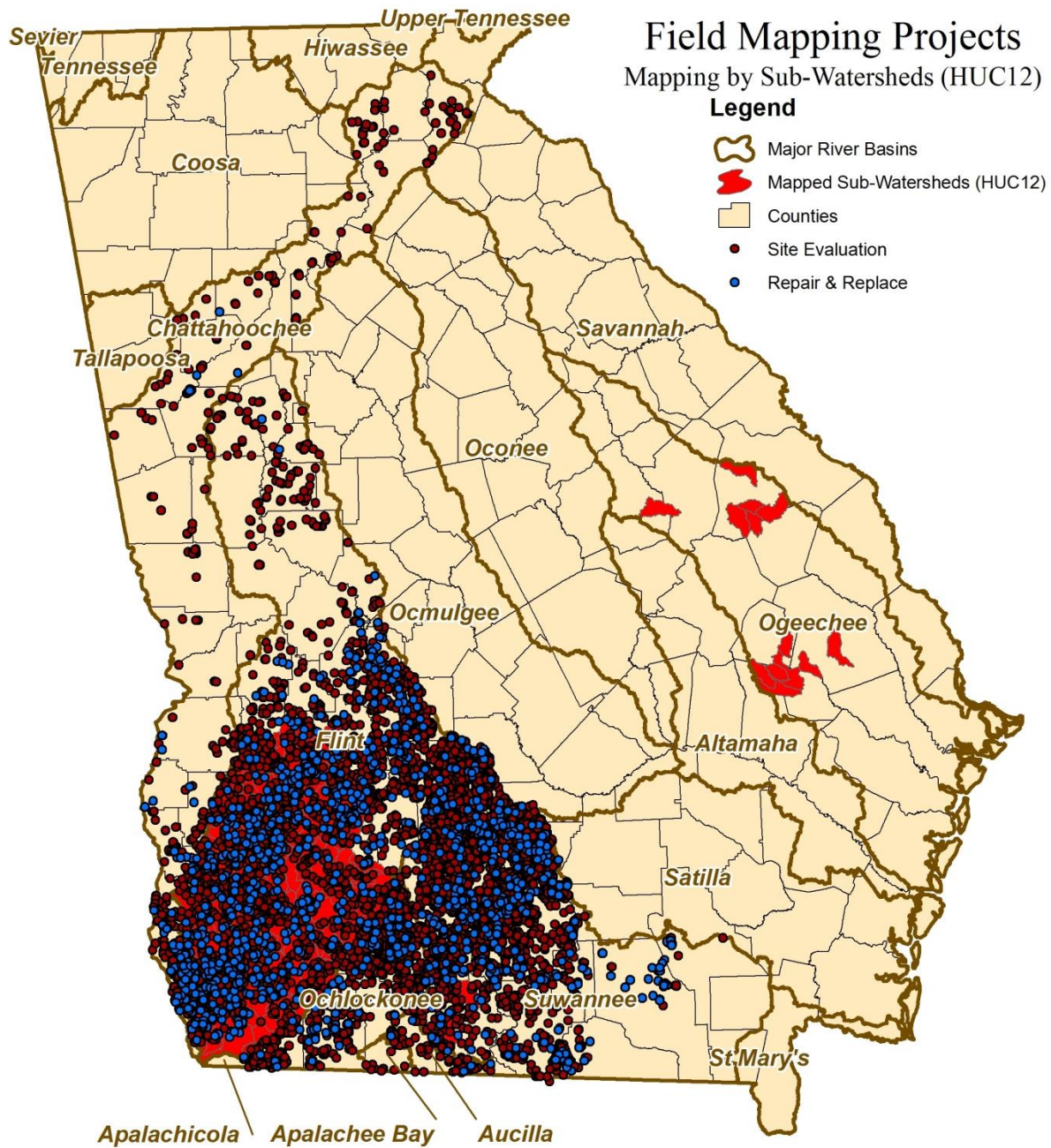
**System Type - % of Systems**



**System Type - % of Acreage**









# FACETS

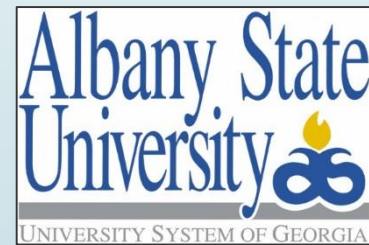
Floridan Aquifer Collaborative Engagement for Sustainability

The [Floridan Aquifer Collaborative Engagement for Sustainability \(FACETS\)](#) project is funded by the USDA National Institute of Food and Agriculture.



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture

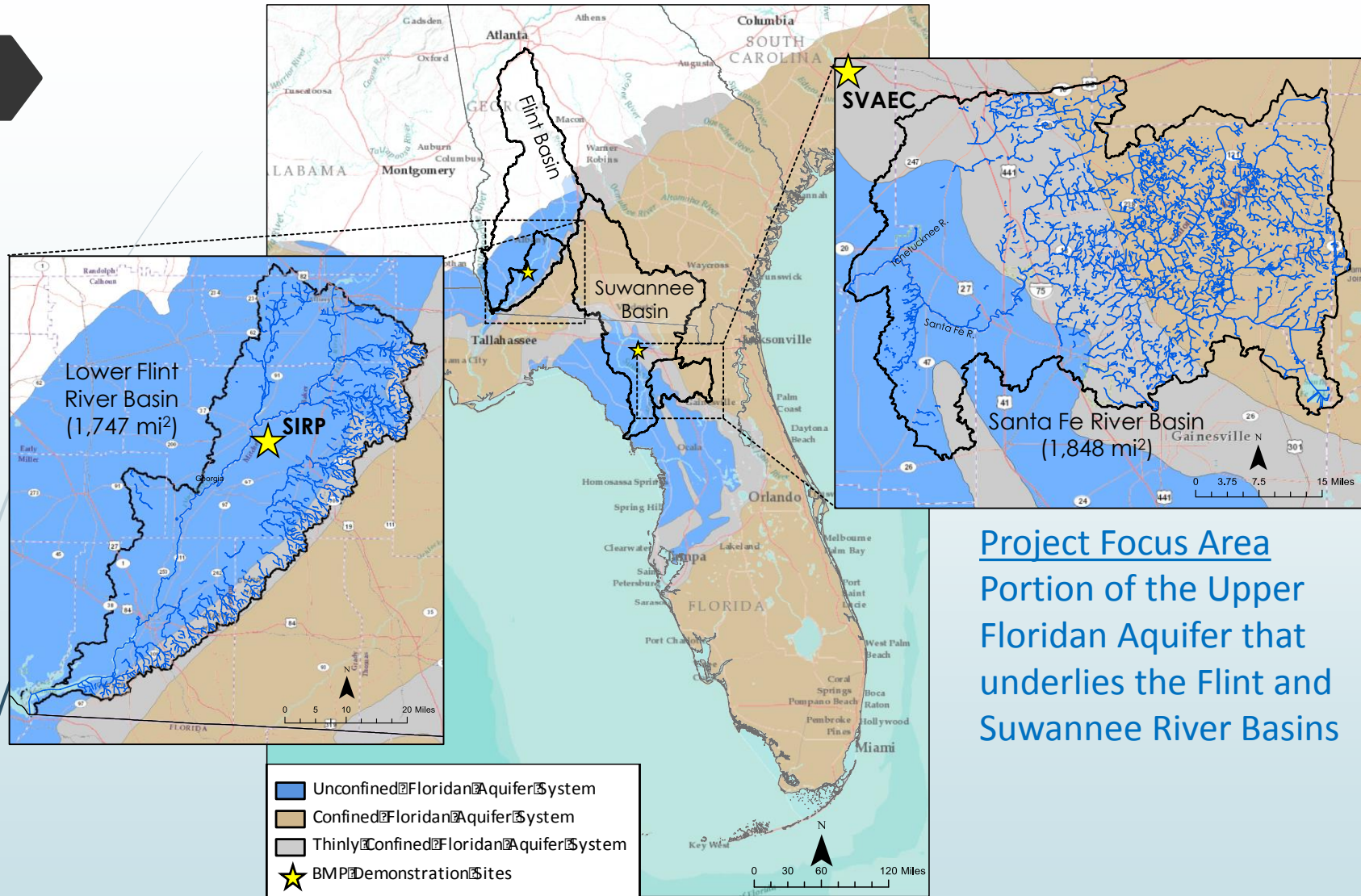


USDA NIFA Program Director: Jim Dobrowolski



## PROJECT VISION

Promote economic sustainability of agriculture and silviculture in N Florida and S Georgia while protecting water quantity, quality, and habitat in the Upper Floridan Aquifer and the springs and rivers it feeds.



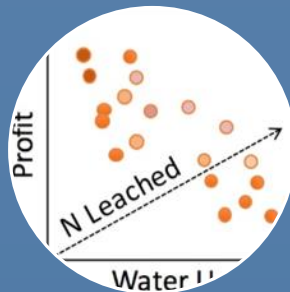


# PROJECT ACTIVITIES AND OUTPUTS



## BMP Research

- Water use, quality, yield impacts of alternative irrigation & nutrient practices



## Modeling Platform

- Land use/mgmt. impacts
- Water quantity and quality, farm and forest yield, net return, and regional economy



## Stakeholder Engagement

- Baseline & future scenarios
- Tradeoffs
- Social Learning
- Communication tools



## Extension and Outreach

- On-farm BMP demos
- In-Service Training for Extension
- Water Schools for decision makers

collaborative research and outreach

# Cropping Systems & BMPs

- Initial focus: farm scale
  - corn, cotton, peanut, carrot (FL only), hay, pasture
- BMPS
  - Nutrient Management: Application rates and timing
  - Irrigation Management: Calendar, soil moisture probe, apps
  - Winter cover crops
  - Conservation tillage
  - Conversion to less intensive rotational production systems
  - Conversion to silviculture



For more information  
<http://Floridanwater.org>

# FACETS

Floridan Aquifer Collaborative Engagement for Sustainability

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The Floridan Aquifer Collaborative Engagement for Sustainability (FACETS) project is a Coordinated Agricultural Project funded by the USDA National Institute of Food and Agriculture. The FACETS project brings scientists and stakeholders together in a participatory process to develop new knowledge needed to explore tradeoffs between the regional agricultural economy and environmental quality; understand changes needed to achieve agricultural water security and environmental protection; and to implement desired changes.