



**Upper Oconee Regional Water Planning Council  
December 8, 2021**

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Upper Oconee Council Meeting



**Objectives:**

- 1) Receive updates from EPD on current planning timeline and Seed Grants
- 2) Receive update from EPD on BEAM effort
- 3) Receive update from Contractor on agriculture forecasting
- 4) Provide Q&A opportunity for Council Members concerning all forecasting efforts

1:15-1:30 PM	Online Check-in/Roll Call	Laura Hartt, Jacobs
1:30-1:35 PM	Welcome and Council Business <ul style="list-style-type: none"><li>• Approve Draft Meeting Summary (4/21/21)</li><li>• Approve Draft Meeting Agenda (12/8/21)</li></ul>	Chairman Melvin Davis
1:35-1:40 PM	EPD Updates <ul style="list-style-type: none"><li>• Appointments</li><li>• Current Efforts/Plan Timeline</li><li>• Seed Grants</li></ul>	Ania Truszczynski, EPD
1:40-1:50 PM	Basin Environmental Assessment Model (BEAM) Update	Wei Zeng, EPD
1:50-2:10 PM	Agriculture Forecast	Mark Masters, GWPPC
2:10-2:25 PM	Other Forecasts Q&A <ul style="list-style-type: none"><li>• Municipal, Industrial, Energy</li></ul>	EPD/Contractors
2:25-	Wrap Up <ul style="list-style-type: none"><li>• Public Comments/Local Elected Official Comments</li><li>• Adjourn</li></ul>	Chairman Melvin Davis

- Welcome, Council Business
- Approve Meeting Summary from April 21, 2021
- Approve Today's Draft Agenda

# Planning Updates from Georgia EPD

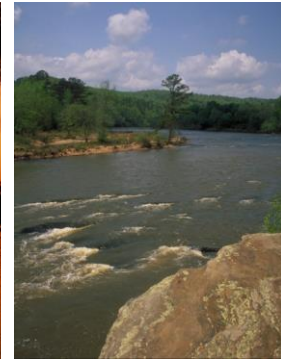
Anna Truszczyński, Georgia EPD



# Regional Water Plan Review and Revision Process

The 5-Year Review Process will focus on:

- Updated water demand and wastewater return forecasts
- Updated Surface Water and Ground Water Availability Resource Assessments (Quantity)
- Updated Surface Water Quality (Assimilative Capacity) Resource Assessment
- Refine Management Practices, if needed, to address water resource conditions or Council vision/goals



# Plan Updates Schedule

## Regional Water Plan Review and Revision Schedule

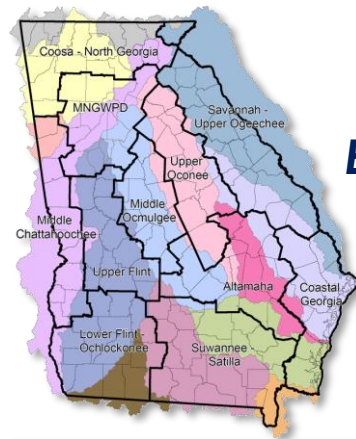
Council Meeting  
4th Quarter 2021

Council Meeting  
1st Quarter 2022

Council Meeting  
2nd Quarter 2022

Council Meeting  
3rd Quarter 2022  
Draft Plan

Council Meeting  
4th Quarter 2022  
Final Plan



***EPD targeted date of  
adoption of revised  
Regional Water Plans by  
December 2022***

# Regional Water Plan Seed Grants

- Active Seed Grants in the Upper Oconee region:
  - UGA: ArcGIS toolbox for Automating Digitization of Septic Systems
  - GA Water Planning & Policy Center: Flow-dependent benefits and values of water resources in the Upper Oconee Region
  - City of Madison: GIS Mapping (completed in 2021)
- Applications submitted and currently under evaluation:
  - Athens-Clarke County: Stormwater Infrastructure Improvements
  - Union County Extension: Soil Erosion Reduction on North Georgia Terrain

**Anna Truszczyński**  
Georgia Environmental Protection Division

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Oconee-Ocmulgee-Altamaha (OOA)  
Basin Environmental Assessment Model (BEAM)  
Dr. Wei Zeng, GA EPD



# AGRICULTURAL WATER USE FORECAST

Upper Oconee Regional Water Planning Council  
December 8, 2021

Mark Masters  
Albany State University  
Georgia Water Planning & Policy Center

# Project Team

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

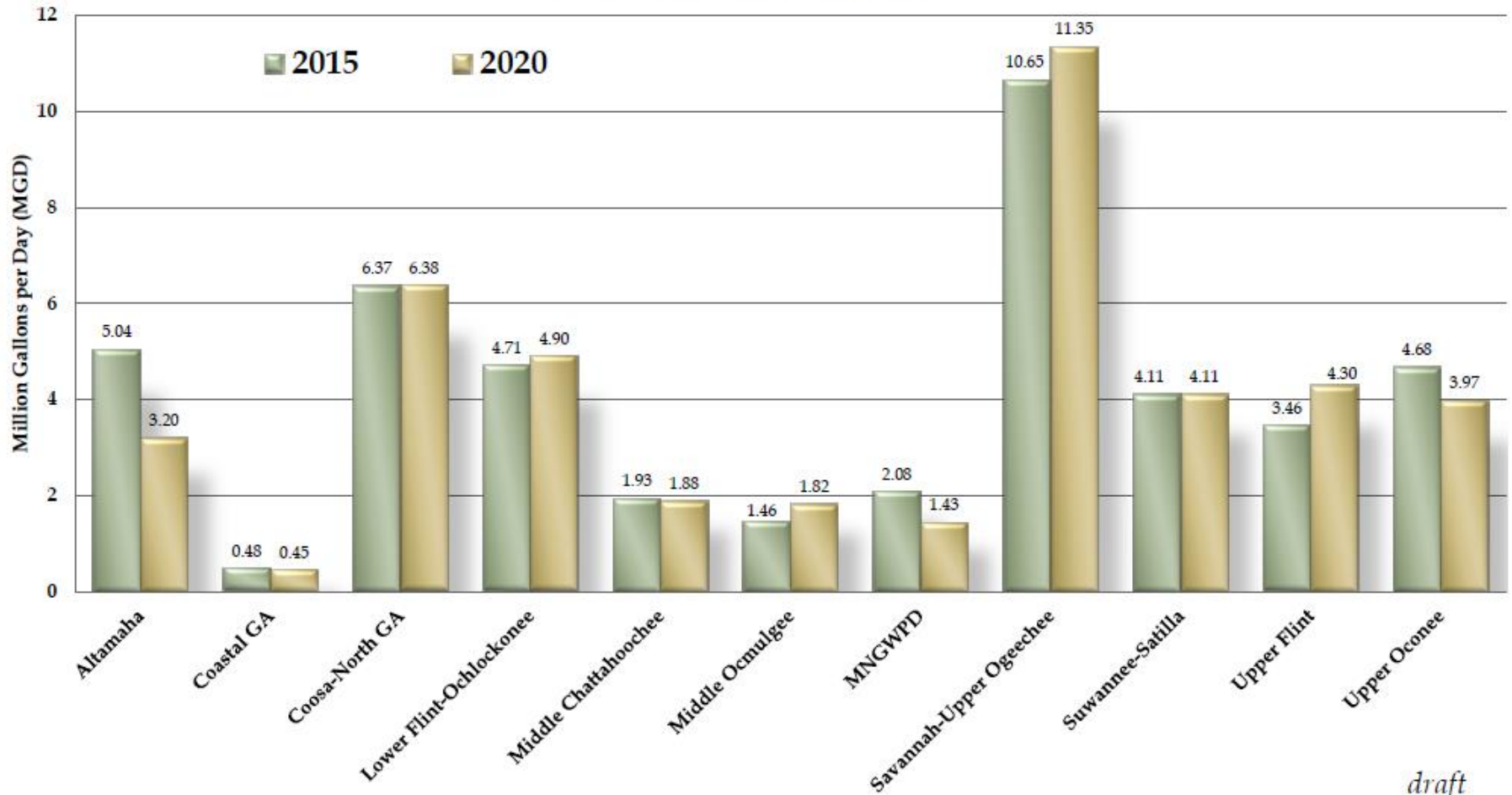


# 2020-21 Agricultural Water Demand Forecasts - Methods

- ▣ **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

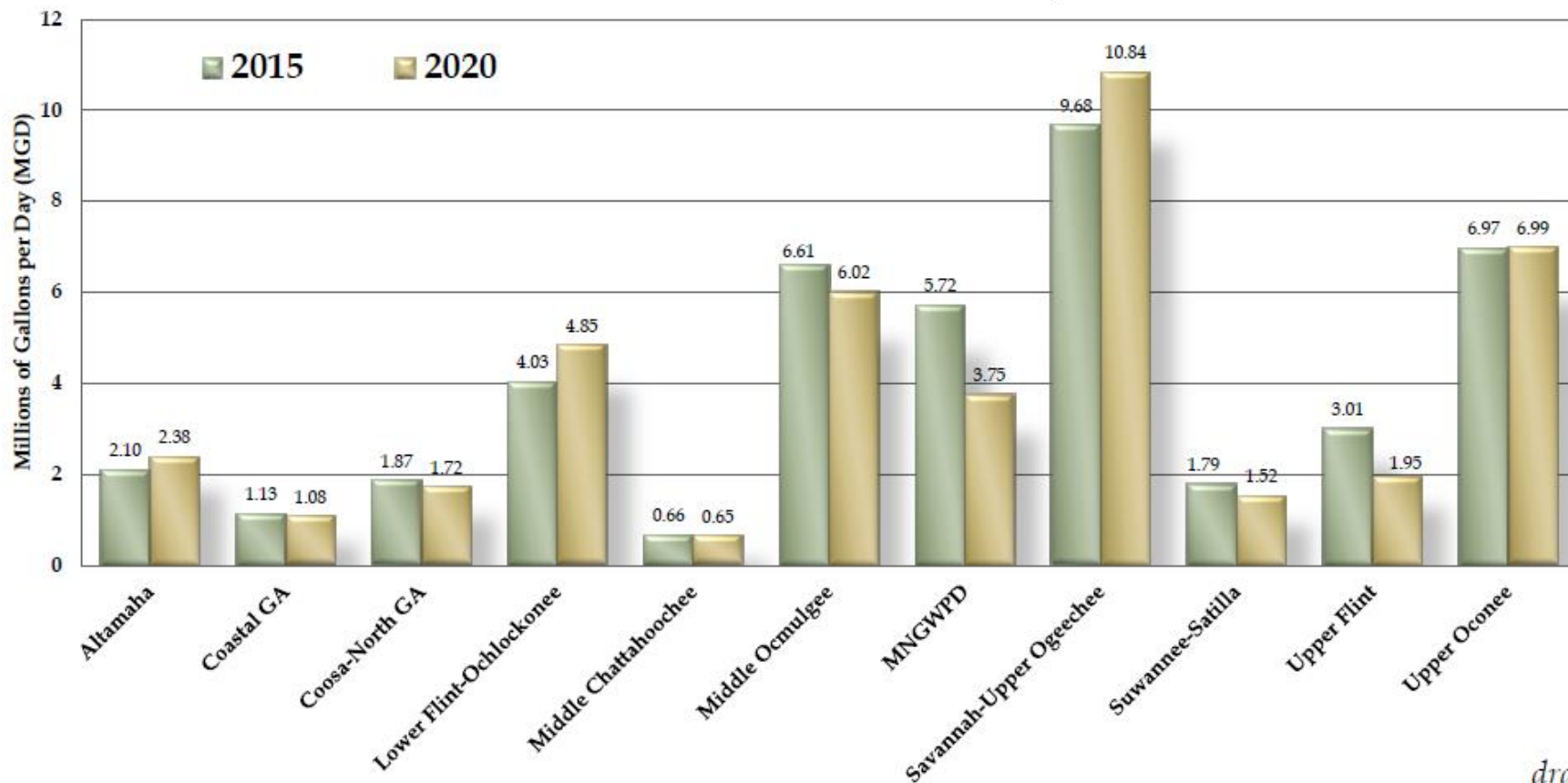
Statewide Total: 43.8 MGD



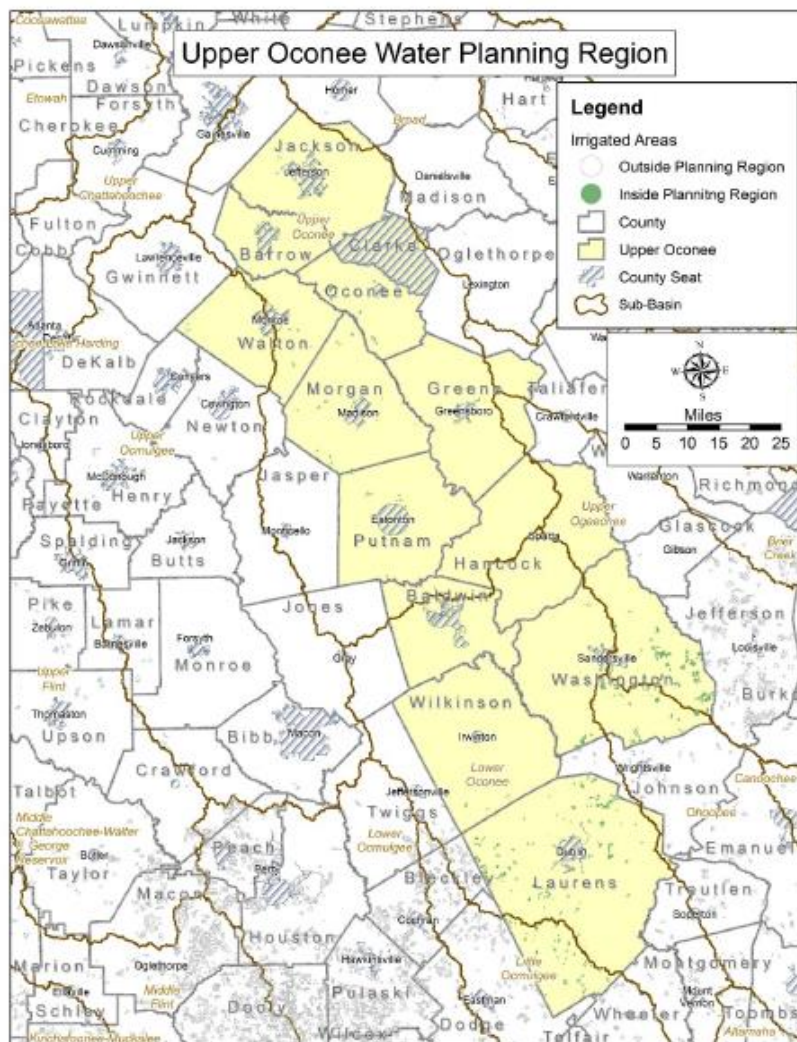
*draft*

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

Statewide Total: 41.76 MGD - *draft*



*draft*



## Irrigated Acres

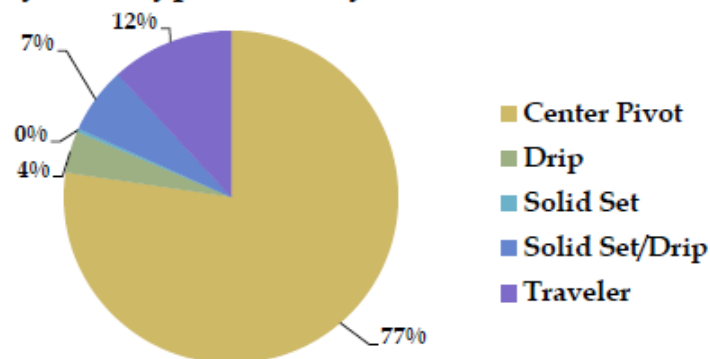
County	2015	2020
Clarke	114	115
Greene	0	4
Hancock	47	77
Jackson	113	113
Laurens	10,774	11,651
Morgan	1,272	1,272
Oconee	1,304	1,304
Putnam	391	654
Walton	930	930
Washington	10,924	12,050
Wilkinson	244	299



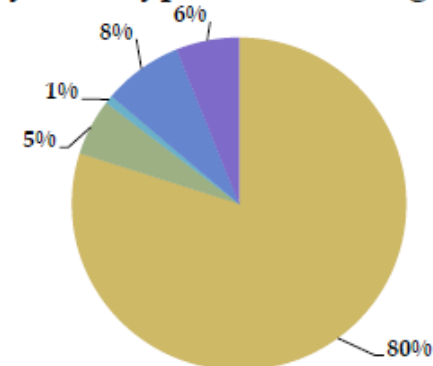
# Upper Oconee RWPC

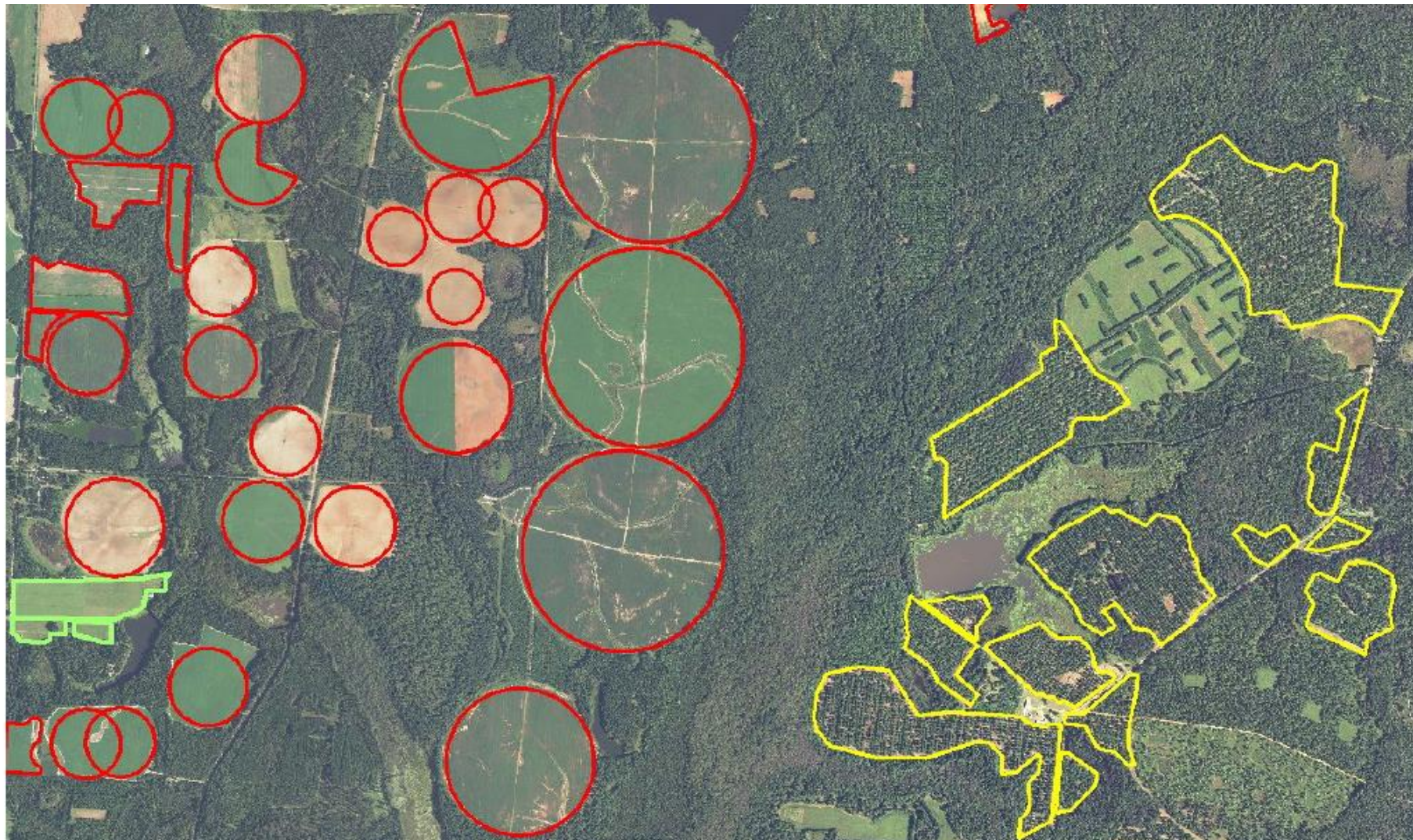
	2015	2020	% Change
Total # of Fields	542	592	+ 9.2%
Total Acreage	26,113	28,468	+ 9.0%
Total GW Acreage	19,624	21,475	+ 11.5%
Total SW Acreage	6,489	6,723	+ 3.6%
Total Center Pivots	368	458	+ 24.5%
Center Pivot Acreage	19,307	22,753	+ 17.8%

System Type - % of Systems



System Type - % of Acreage

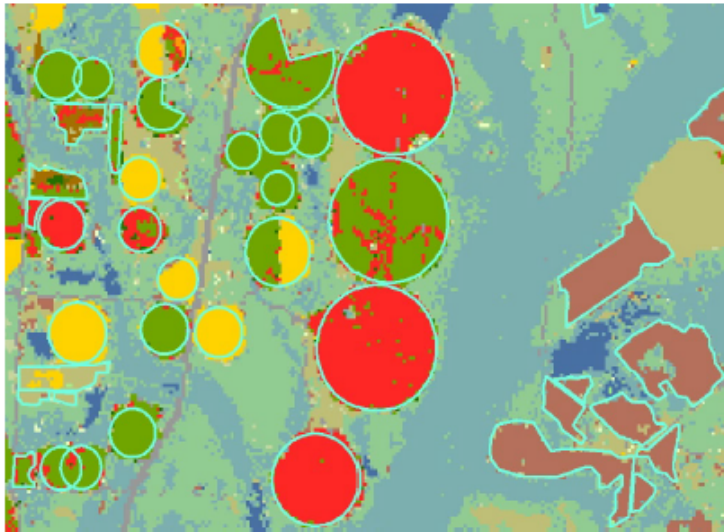




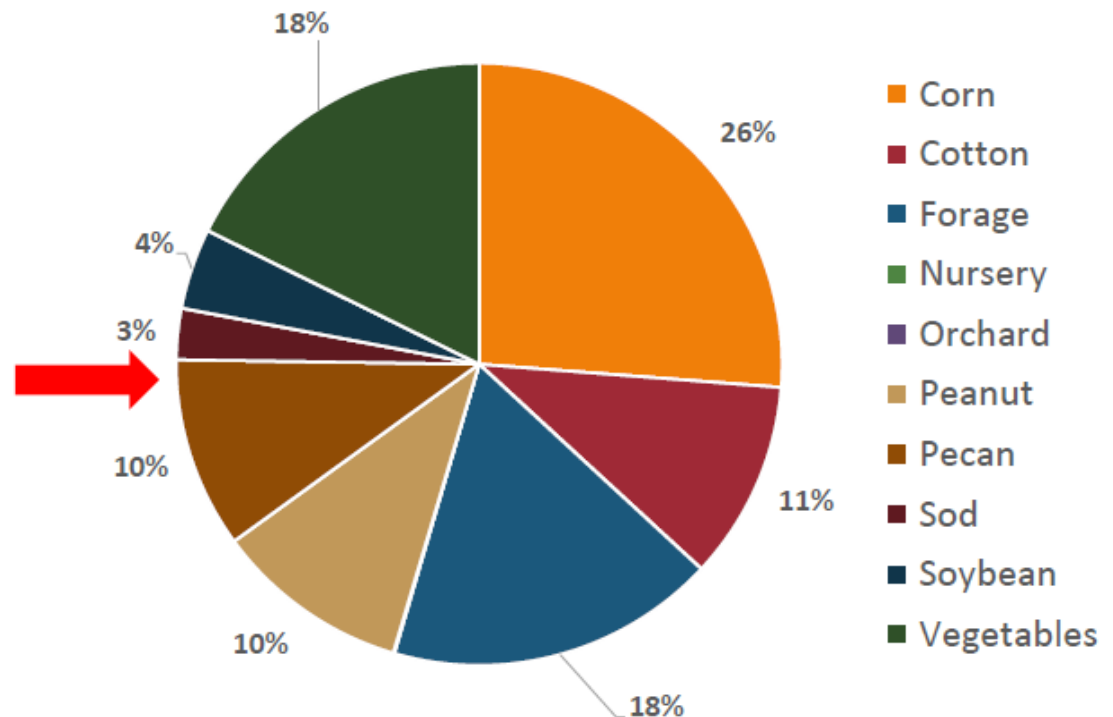




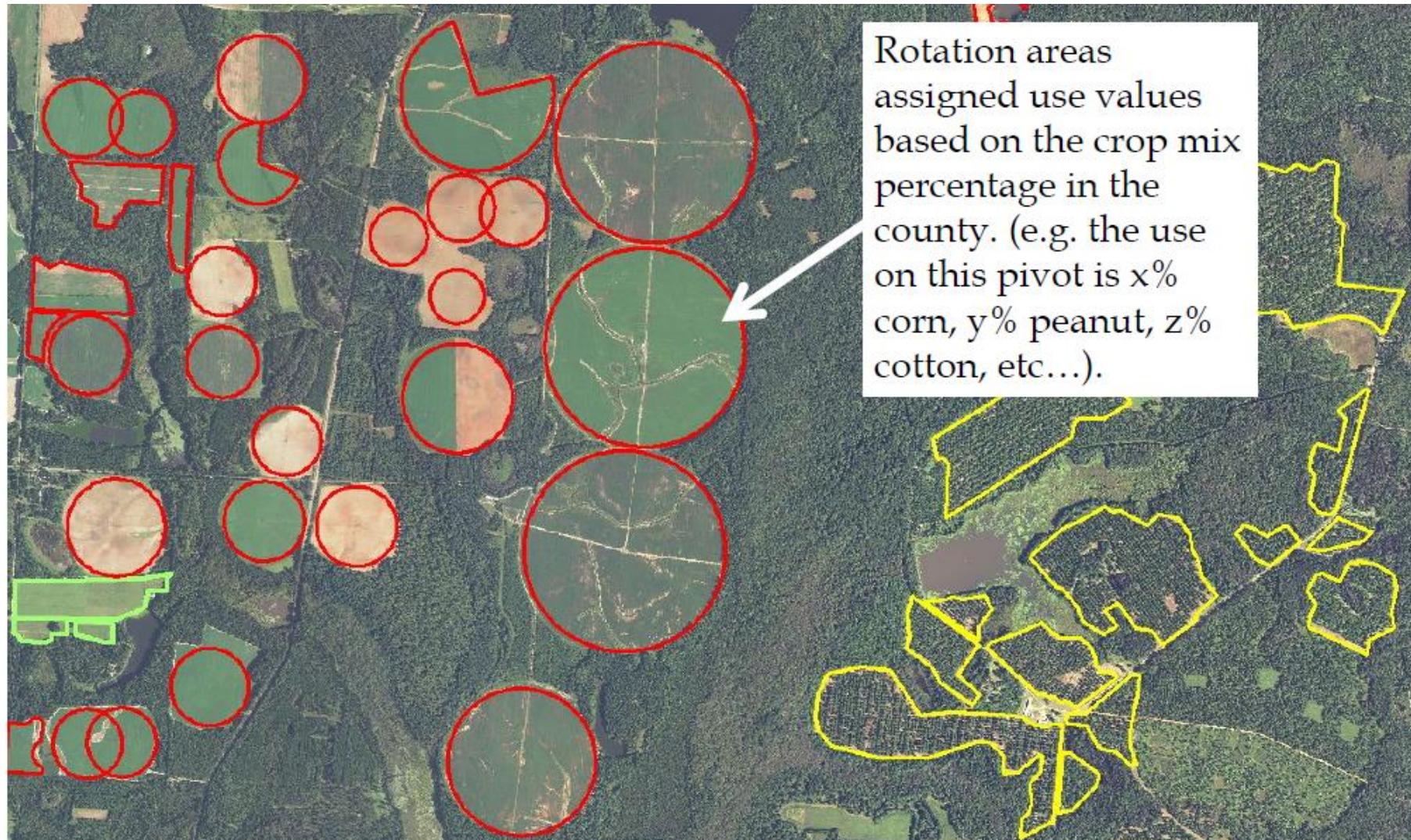
# Baseline Crop Mix by RWPC



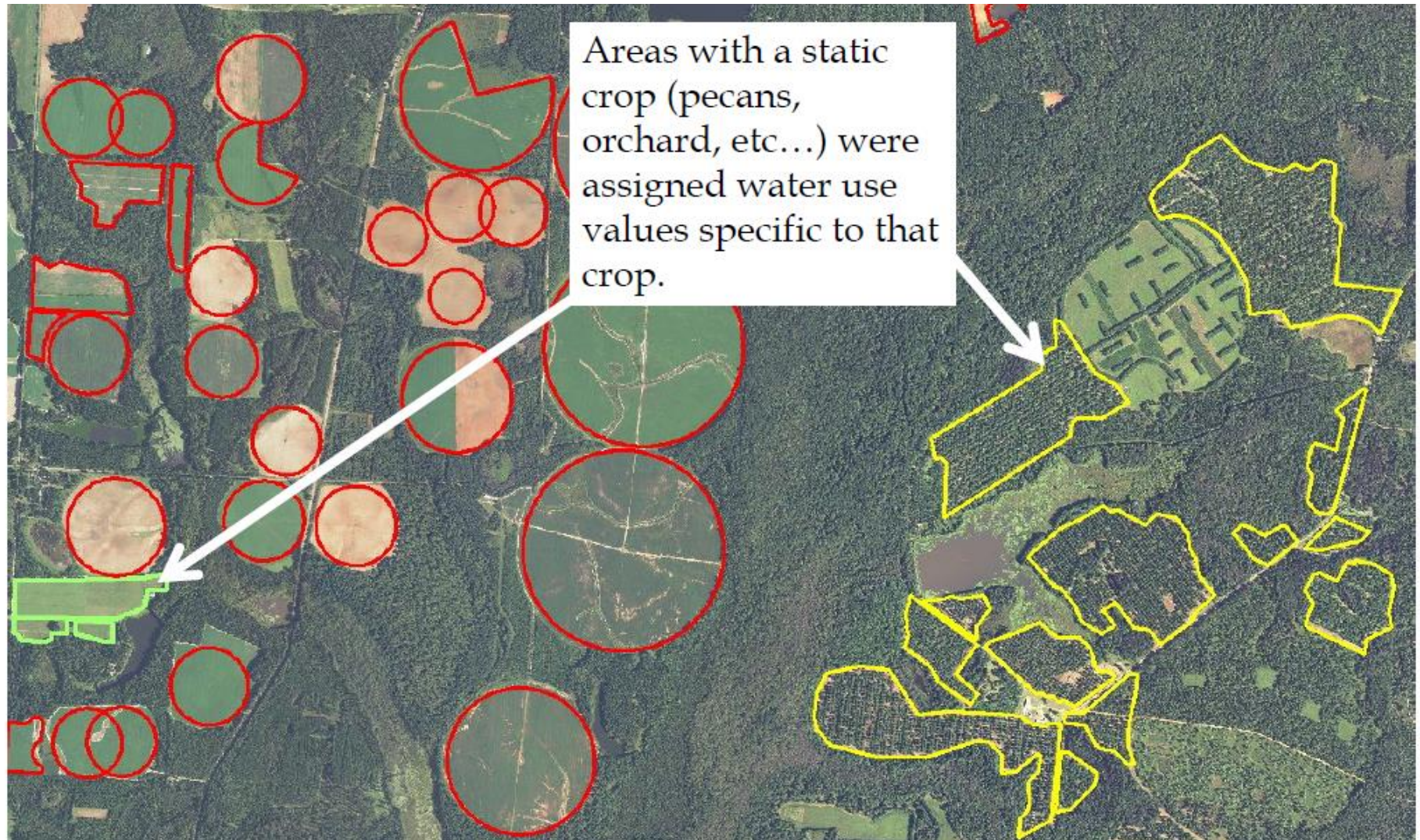
Upper Oconee RWPC





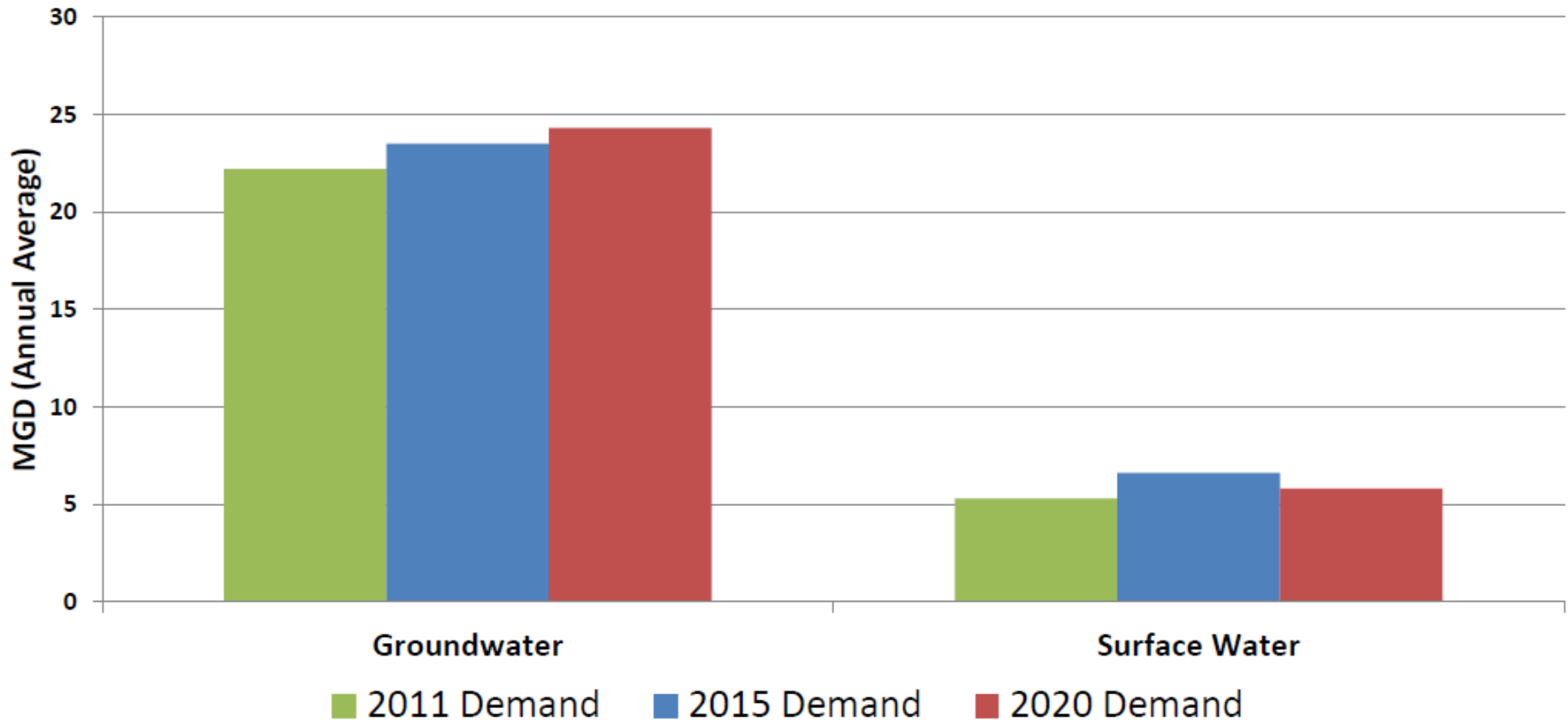




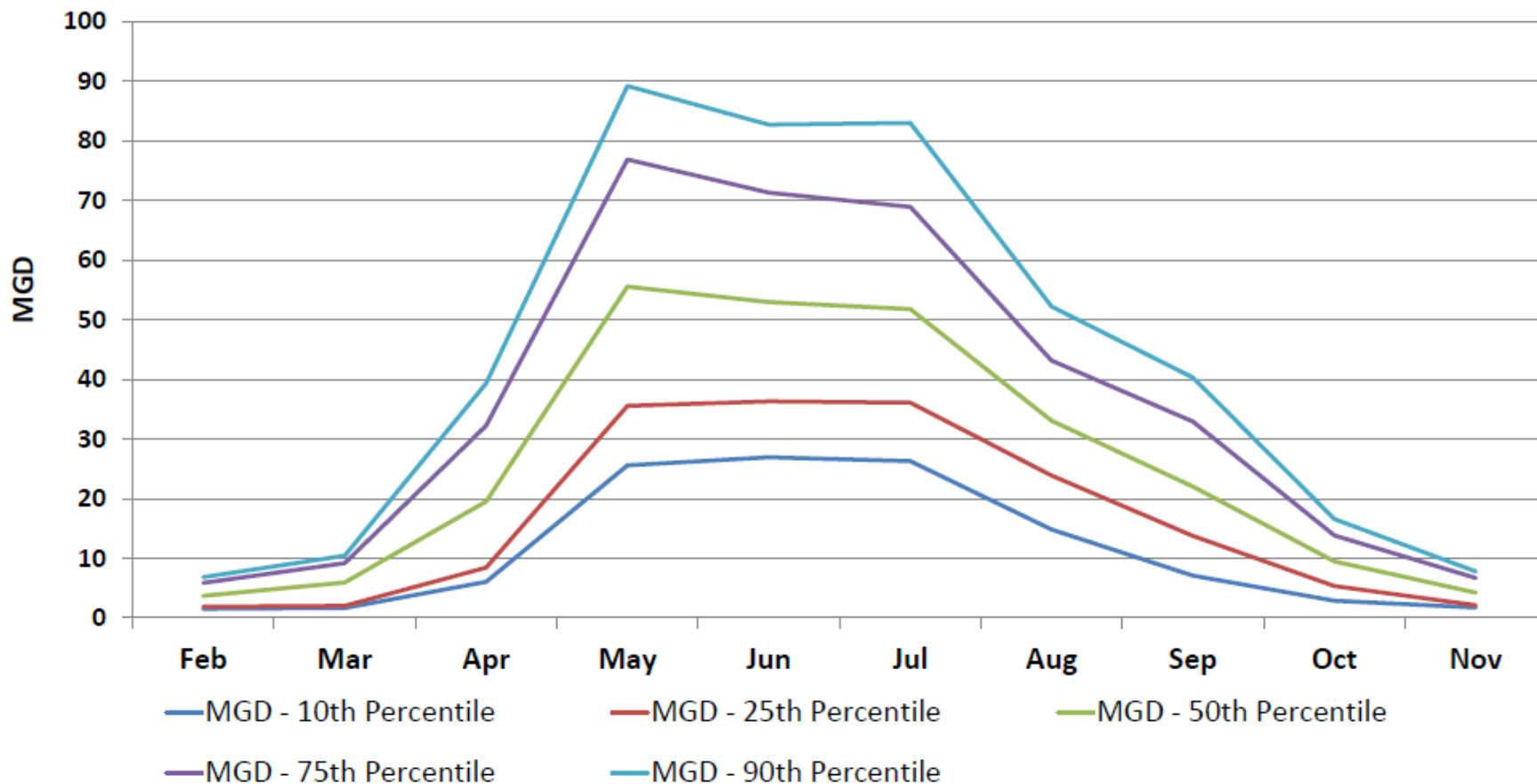


# UO Council – Ag Demand – 75<sup>th</sup> Percentile

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

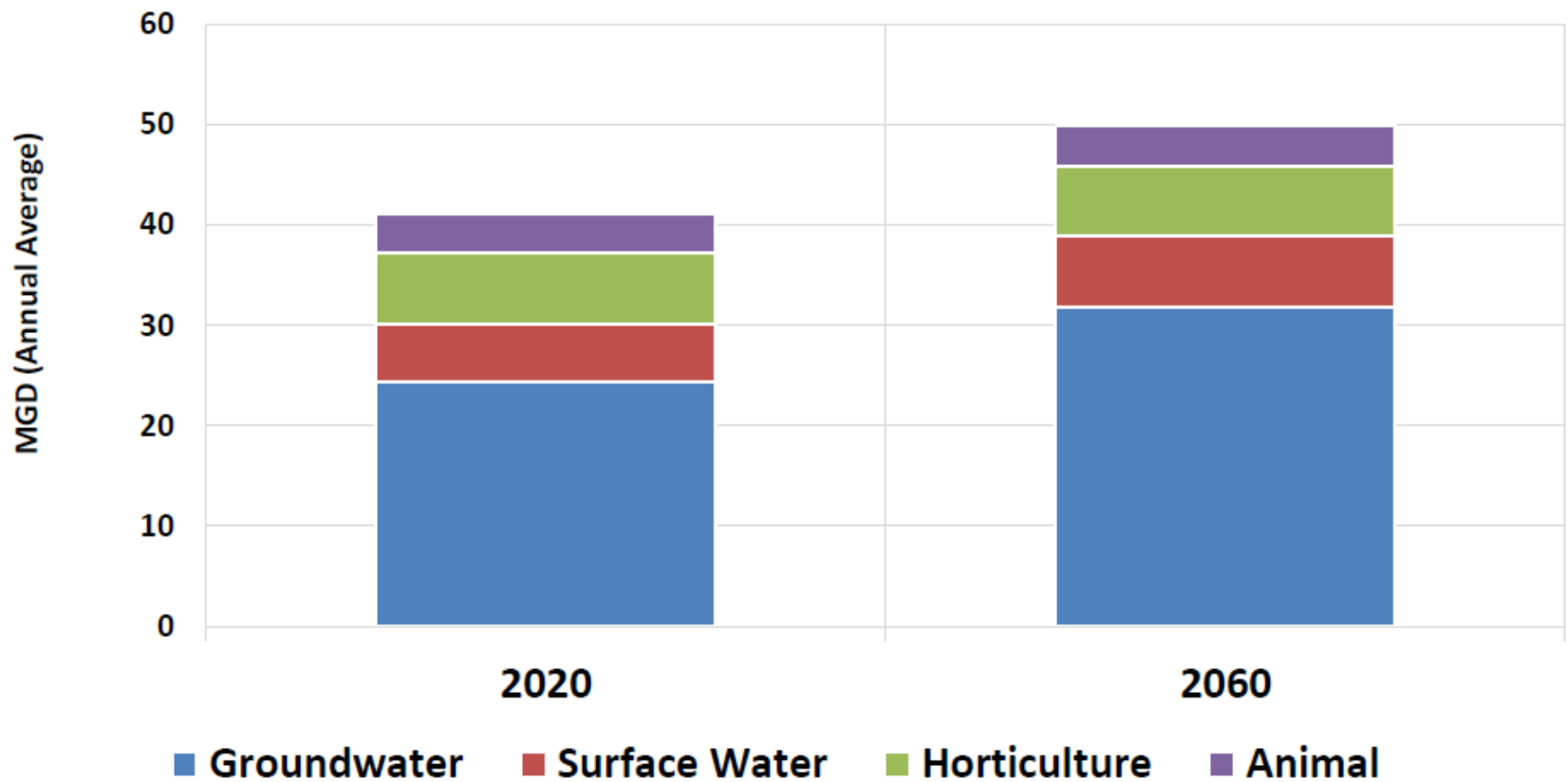


# Upper Oconee RWPC - Monthly

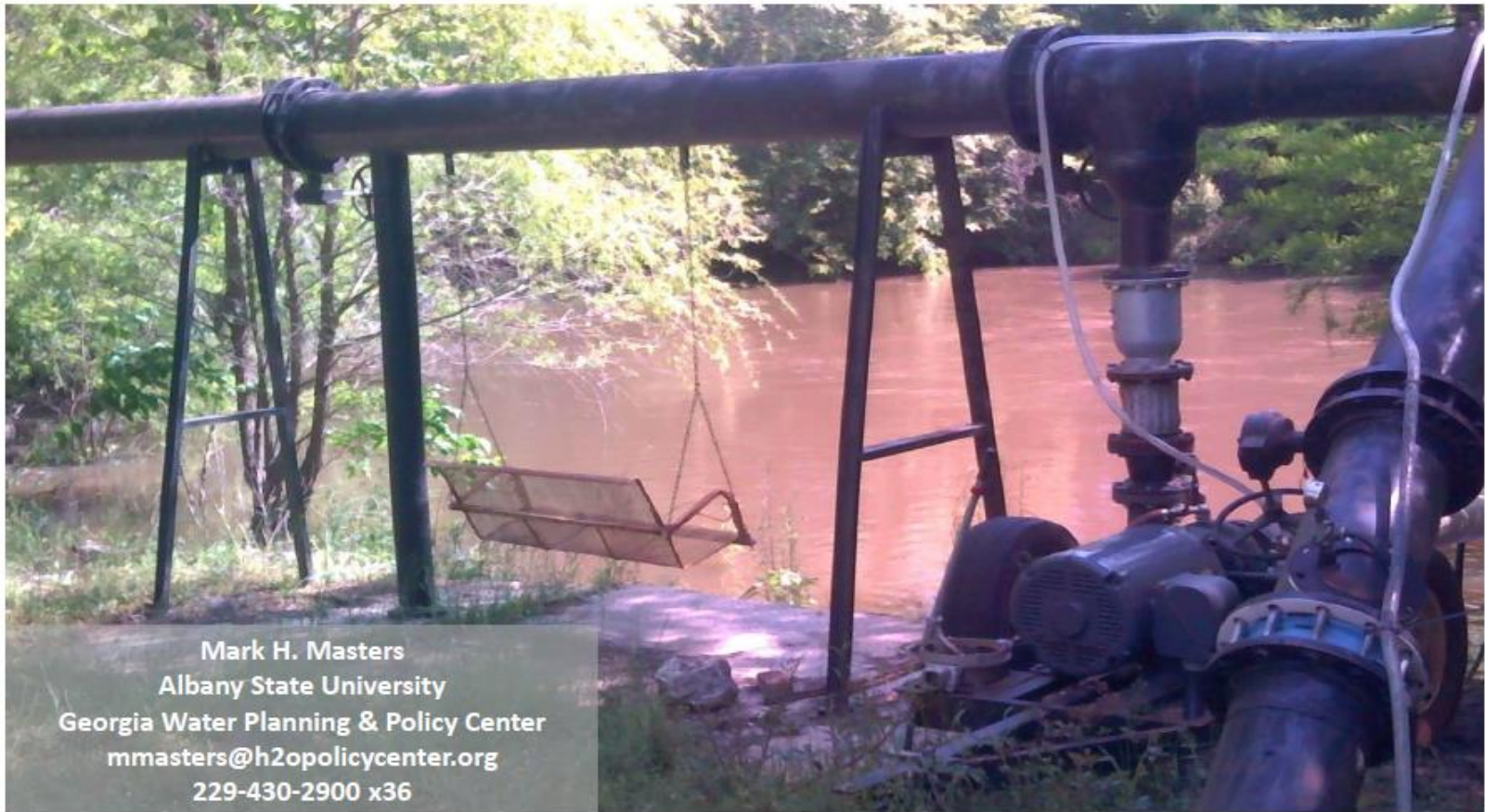




## Ag Demand – Forecast – 75th Percentile Totals (2020 & 2060)



# Questions & Discussion



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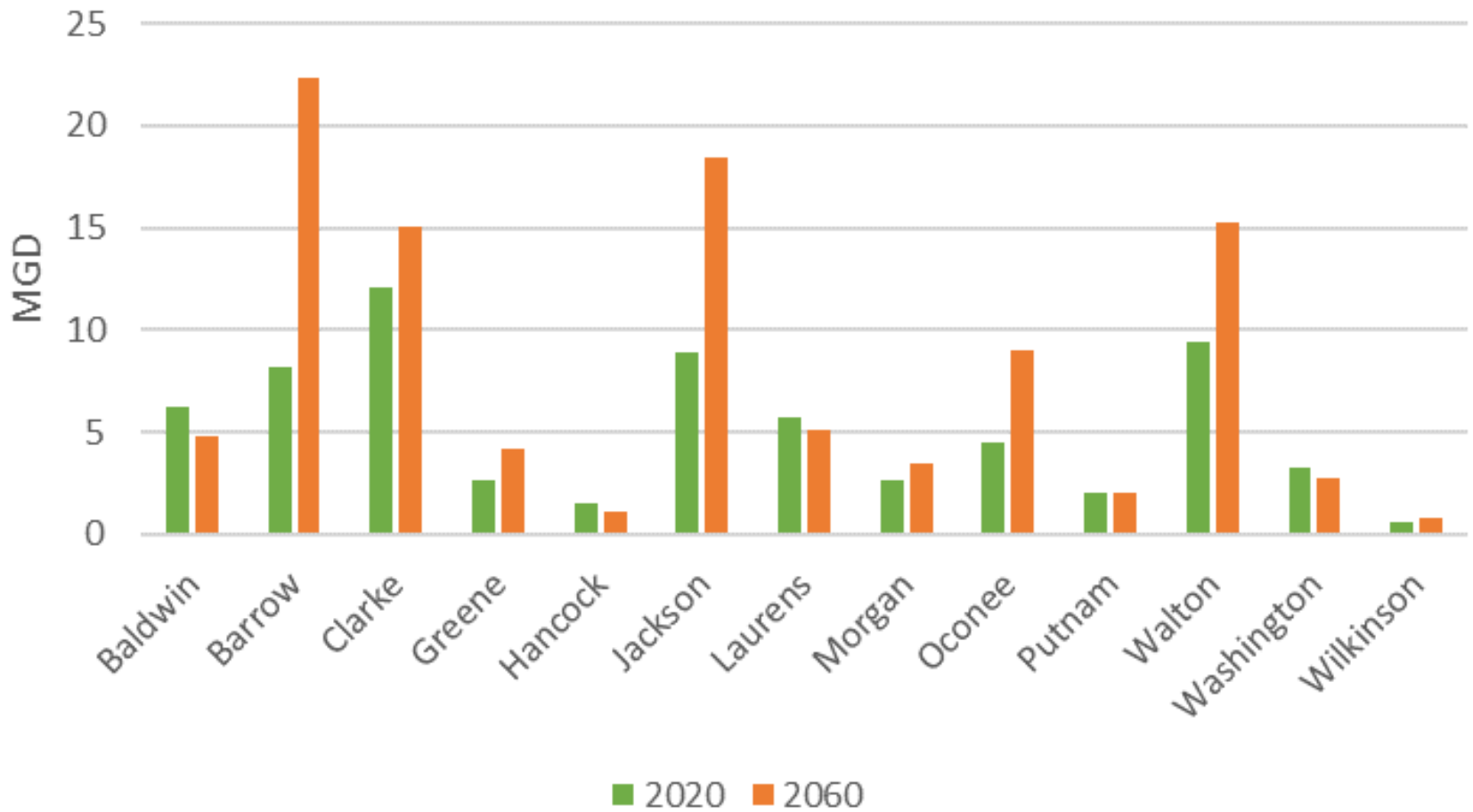




## Forecasting Q&A: Municipal

### Laura Hartt, Jacobs

## UOC Municipal MGD

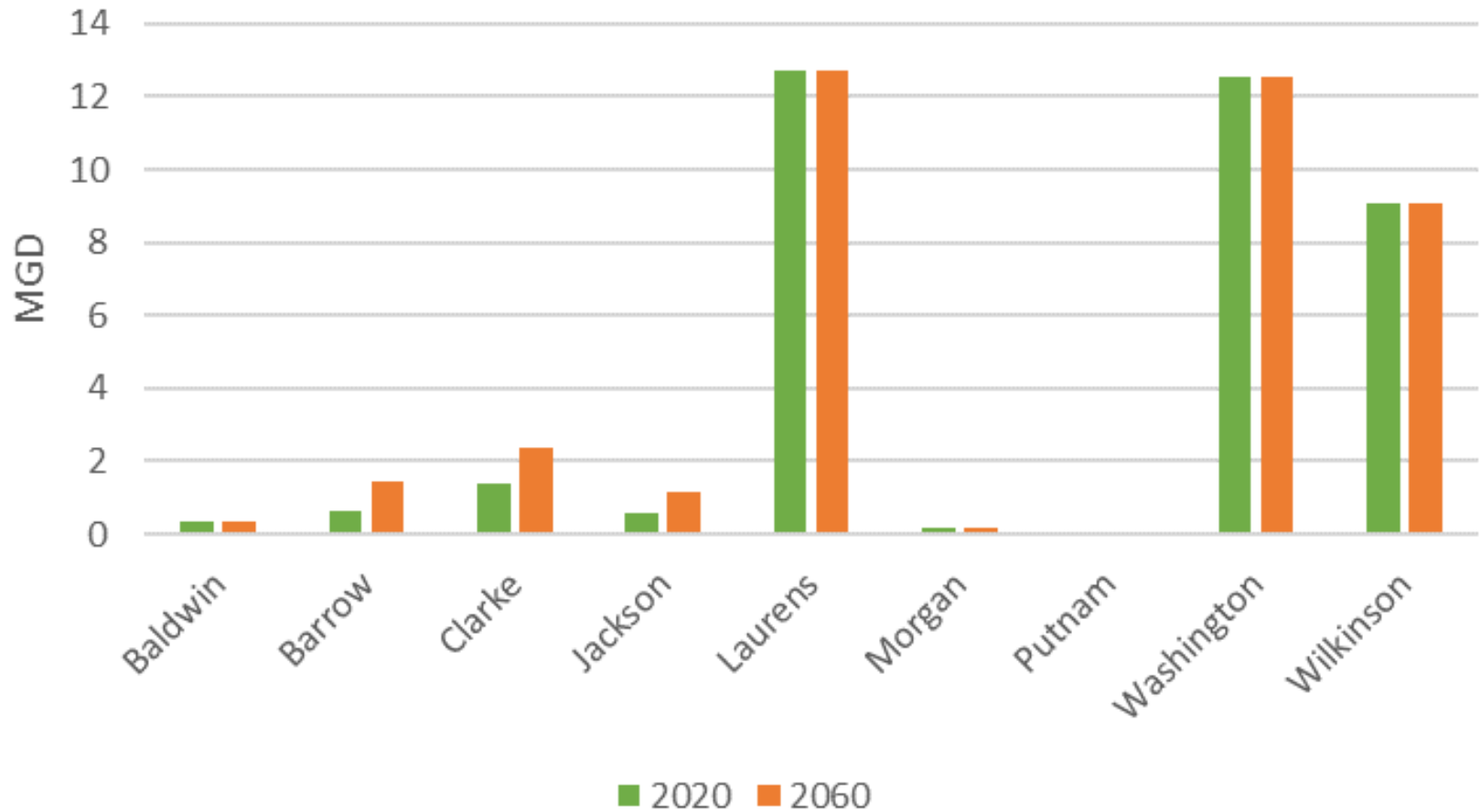




## Forecasting Q&A: Industrial

### Bill Davis, CDM Smith

## UOC Industrial MGD





## Forecasting Q&A: Energy

Bill Davis, CDM Smith

**Table 17. Water Withdrawal and Consumption Forecast in mgd: Upper Oconee**

Upper Oconee	2020	2030	2040	2050	2060
Withdrawals - High Demand Scenario	0.72	0.72	1.10	1.21	1.32
Withdrawals - Expected Demand Scenario	0.72	0.72	0.94	1.05	1.15
Consumption - High Demand Scenario	0.63	0.63	0.96	1.06	1.16
Consumption - Expected Demand Scenario	0.63	0.63	0.83	0.92	1.01

- All facilities are natural gas facilities that use very small amounts of water
- 3 facilities are on municipal water supply
- 2 facilities have groundwater permits
- Energy generation with natural gas is expected to increase in the future

# Upper Oconee Council Meeting



## Georgia's State Water Plan

### **Public Comment Period**

- Please limit comments to 3 minutes total
- Council encourages written submission of comments as well

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# Upper Oconee Council Meeting

## Wrap Up

### – Next Council Meeting

- Potential dates (March 2022)
- In person location(s)? Hybrid?
- Contact Laura with any ideas for topics or speakers



# Thank You!

Questions? Comments? Need  
More Information?

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[Anna.Truszczyński@dnr.ga.gov](mailto:Anna.Truszczyński@dnr.ga.gov)