Georgia's

State Water Plan

Savannah-Upper Ogeechee Regional Water Planning Council April 27, 2021

www.georgiawaterplanning.org

Council Business

Bruce Azevedo, Council Chairman

Georgia's
State Water Plan

Virtual Council Meeting
Savannah-Upper Ogeechee Regional Water Council
Draft Agenda – April 27, 2021
10:00 am

https://zoom.us/j/93117328130, *Meeting ID: 931 1732 8130*

9:45 – 10:00 a.m.	Registration for Council Members
10:00 – 10:05 a.m.	Welcome
10:05 – 10:10 a.m.	Council Business, *Chairman Azevedo*
	• Approve draft meeting minutes from October 29, 2020 Council Meeting
	• Approve draft meeting agenda
10:10 – 10:20 a.m.	EPD Updates:
	• Seed Grant Updates - *Haydn Blaize. Georgia EPD*
	• Appointment Updates – *Jennifer Welte, Georgia EPD*
10:20 – 10:35 a.m.	Seed Grant Project Updates– *Tonya Bonitatibus, Savannah River Keeper*
	• Developing a real-time, publicly accessible water monitoring system in the Savannah-Upper Ogeechee Basins
10:35 - 10:45 a.m.	Metro North Georgia Water Planning District Updates – *Danny Johnson, MNGWPD*
10:45 - 10:55 a.m.	South Carolina Department of Natural Resources Updates – *Scott Harder, SCDNR*
	5 MINUTE BREAK
11:00 – 11:15 a.m.	Municipal Forecasting Results, Brian Skeens, Jacobs
11:15 – 11:35 a.m.	Energy and Industrial Demand Forecasting Results– *William Davis, CDM Smith*
11:35 – 11:50 a.m.	Agriculture Demand Updates – *Mark Masters, Georgia Water Planning & Policy Center*
11:50 a.m. - Noon	Public Comments / Wrap Up

waterplanning.georgia.gov

- Welcome and Introductions
- Approve Meeting Summary of October 29,2020 meeting
- Approve today's Draft Agenda

Georgia

Georgia EPD Updates

Haydn Blaize, Georgia EPD
Jennifer Welte, Georgia EPD

SEED GRANT UPDATES

- Seed Grant FY19: In Progress
  - **Initiating and Upgrading Publicly Accessible Water Monitoring for the SUO and Coastal RWPs**
  - Lead Partner: City of Augusta/Savannah Riverkeeper
  - Date: 9/24/2019 – 8/31/2021

SEED GRANT UPDATES

- Seed Grants FY20: In Progress
  - **Historical Analysis of In-stream Water Quantities for the Ogeechee, Savannah, Altamaha and Oconee River Basins**
  - Lead Partner: University of Georgia
  - Date: 4/1/2020 – 3/31/2022

SEED GRANT UPDATES

- Seed Grants FY20: In Progress
  - **High Frequency Monitoring and the Effects of Agricultural Water Withdrawal in the Savannah Upper Ogeechee Watersheds**
  - Lead Partner: City of Augusta
  - Date: 4/1/2020 – 9/30/2022

SEED GRANT UPDATES

- Seed Grants FY21: Selected for Award
  - **Upgrading Publicly Accessible Water Monitoring for the Savannah-Upper Ogeechee RWP –** *(Phase11 of Seed Grant FY19: Initiating and Upgrading Publicly Accessible Water Monitoring for the SUO and Coastal RWPs)*
  - Lead Partner: City of Savannah
  - Date: Contract Anticipated to be executed by 9/1/2021 upon completion of Phase 1

GA EPD UPDATES

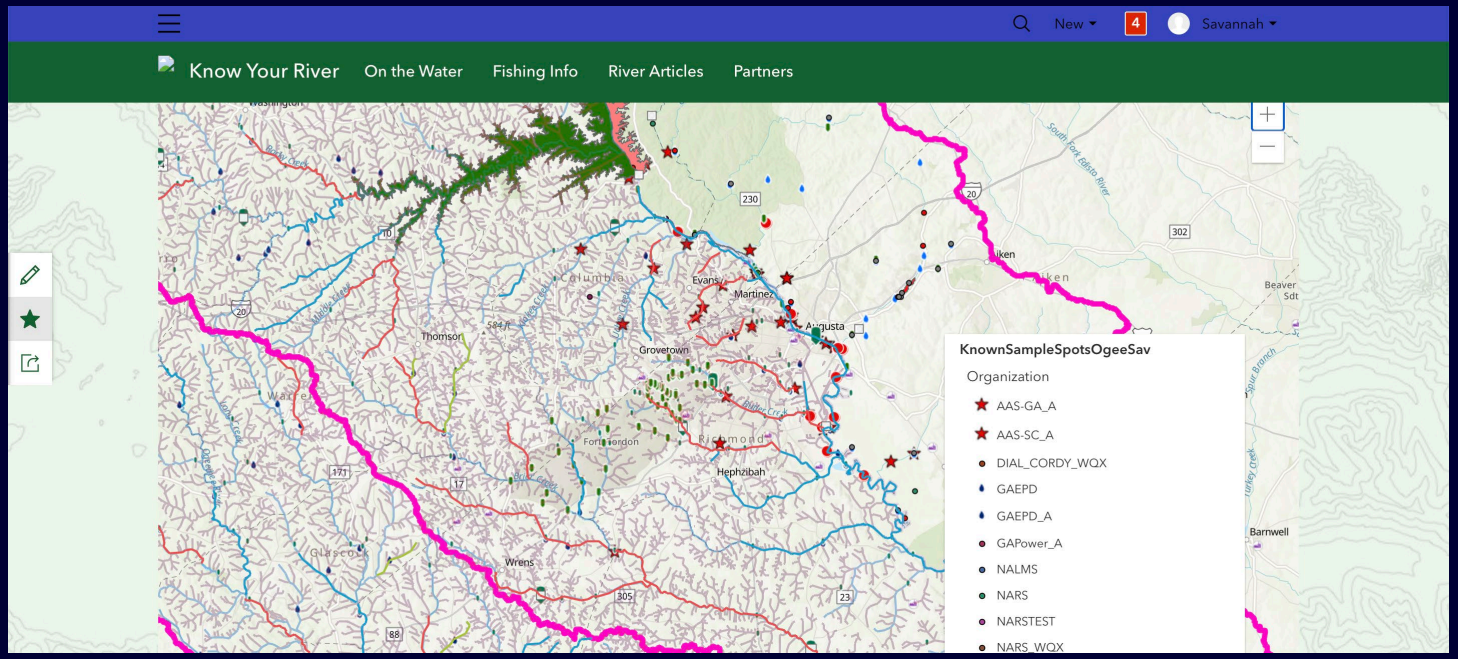
- Seed Grant FY 22
  - Seed Grant announcement in July 2021
    - No anticipated changes
    - Deadline for submissions: end of October 2021
  - Process improvement may be coming (online platform for submissions)
- Appointments

SEED GRANT PROJECT UPDATE:

Developing a real-time, publicly accessible water monitoring system in the Savannah-Upper Ogeechee Basins

Tonya Bonitatibus, Savannah Riverkeeper

Seed Grant Update



KnowYourRiver.com

SAVANNAH RIVERKEEPER

Quick site visit: www.KnowYourRiver.com live 4/30

Next Steps:

Migrating from Augusta GIS to in-house Esri suite

Roll out, training begins in late May/ Early June

Real Time monitoring added next quarter

Transitioning grant from Augusta to Savannah

Quick site visit: www.KnowYourRiver.com live 4/30

Grant starting in June:

Convert EPA Storet data to visual

Start local municipalities batch uploads

Create manuals for expanding beyond existing basins

Big education push

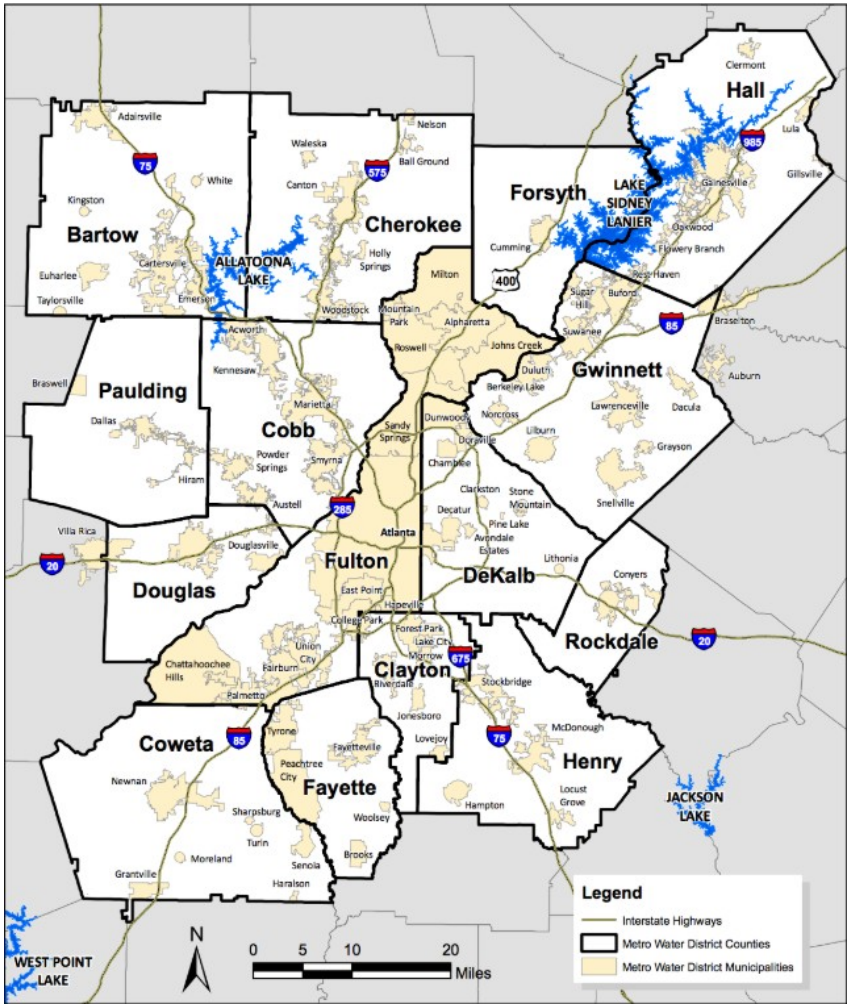
Metro District Updates

Danny Johnson, MNGWPD

Savannah-Upper Ogeechee Meeting

Metro District Update

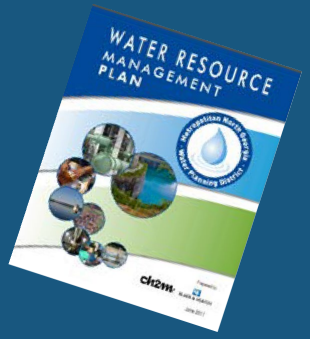
- **Plan and Schedule Updates**
  - Danny Johnson, ARC



Metropolitan North Georgia Water Planning District

Georgia

2022 Plan Update Schedule



	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22
Data Collection/Resource Forecasting		◆		◆						
Action Items Review and Update		◆					◆			
Appendix A - River Basin Profiles			◆			◆				
Appendix B - Facility Planning				◆		◆				
Stormwater Forecasting			◆			◆				
Supporting Efforts										
Localized Demands Drought Response Options Menu Watershed Resilience		◆				◆				
Full Draft Plan for Review								◆	◆	
Public Comment									◆	◆
EPD/Board Approval										◆

Moving Forward on Conservation Action Items

Improve our region's drought resilience and maintain our national leadership on water conservation by:

- Reducing long-term per capita demands by requiring use of proven water efficiency technology (Nov 2020 TCC)
- Preparing a menu of optional programs utilities can use to implement EPD's drought rule (Feb 2021 TCC)
- Promoting the voluntary, early adoption of new water efficiency technologies (Feb 2021 TCC)

Concepts for Potential Action Item Updates - Efficient Technologies and Water Waste

Codes for New / Renovated Buildings to require More Efficient Technologies

- Plumbing Fixtures
- Landscape Irrigation System Design
- Water-Efficient Appliances
- HVAC Cooling Towers

Adjust Premise Plumbing Sizing Requirements to Account for Efficiency

Update Water Waste Model Ordinance

Concepts for Potential Action Item Updates- Beyond Mandatory Codes

Rebate Programs to promote leading efficient technologies

- Smart Irrigation Controller rebate program
- Smart Leak Detector rebate program

Promoting whole home water efficiency

- HERS H2O Whole House Water Efficiency Rating

South Carolina DNR Updates

Scott Harder, SC DNR

SC Water Planning Update

Scott Harder

Hydrology Section Chief

Land, Water and Conservation Division

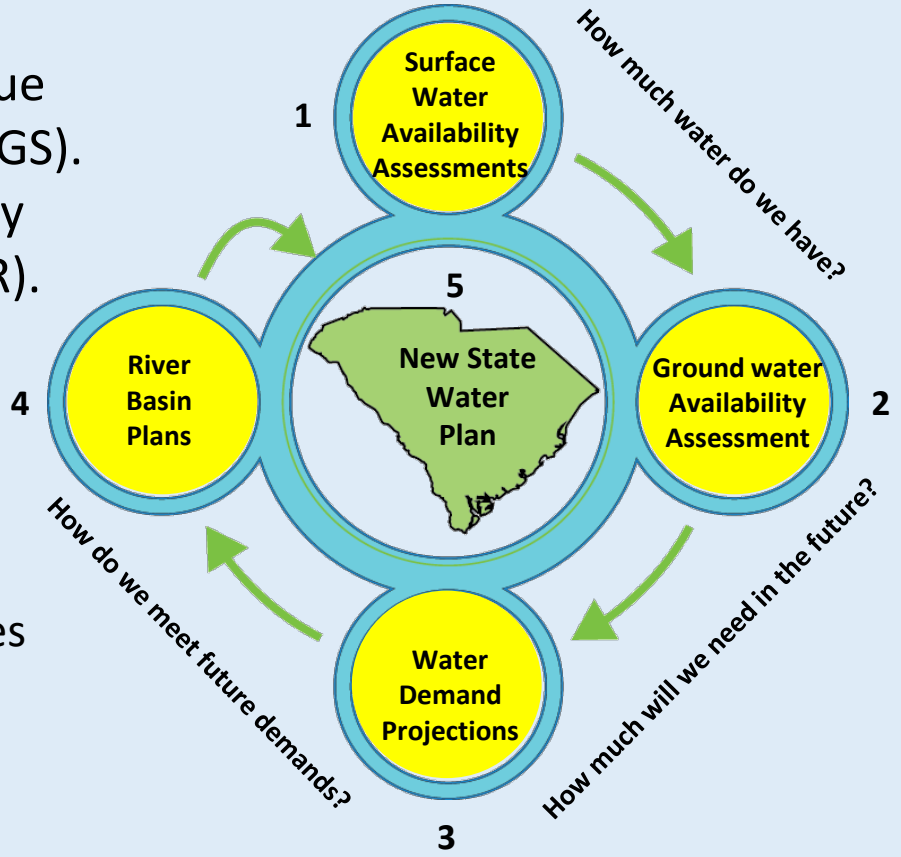
S.C. Department of Natural Resources

Savannah-Upper Ogeechee Council Meeting (Virtual)

April 27th, 2021

Five-step Process…

1. ***Surface Water Assessments*** – completed in 2017 (CDM Smith, Inc).
2. ***Groundwater Assessment*** – final report due in 2021, but model ready for planning (USGS).
3. ***Water Demand Projections*** – methodology report completed in October 2019 (SCDNR).
   - Projections for Edisto basin completed in 2020 and currently being applied.
4. ***River Basin Plans***
   - Publication of South Carolina State Water Planning Framework (2019).
   - Initiation of Edisto basin planning activities (2019).
5. ***State Water Plan*** – River Basin Plans will form the foundation of a new State Water Plan.



Cooperators: dhec Healthy People. Healthy Communities. · US Army Corps of Engineers · CDM Smith · USGS science for a changing world · CLEMSON UNIVERSITY

Planning Process Advisory Committee (PPAC)

- Convened by SCDNR in March 2018.
- Purpose - formulate a guidance document (Planning Framework) for developing River Basin Plans (Step 4) and for updating the State Water Plan (Step 5).
- *South Carolina State Water Planning Framework (Planning Framework)* was published in October 2019.
- PPAC will continue to have a long-term role in overseeing the State and river basin planning process.

PPAC Vision Statement:

"Reflecting our values of water as a shared resource with a shared responsibility, we will work together to develop and maintain an actionable State Water Plan balancing economic, environmental and social needs of South Carolina for generations to come"

Edisto River Basin Planning Update

- First basin selected for implementing Planning Framework.
- Public kick-off meetings held in November 2019.
  - Introduced Planning Framework.
  - Solicited RBC applications.
- RBC membership finalized in Spring 2020.
- First RBC meeting - June 2020 currently meeting every 3-4 weeks (11 meetings to date)
- Due to Covid, meetings are currently held virtually.
- Attendance:
  - 19 to 22 RBC members or their alternates attended each meeting.
  - Between 40 and 100 total attendees at each meeting.

Edisto RBC Representation

Interest Categories

Agriculture, Forestry, and Irrigation
At-Large
Electric-Power Utilities
Environmental
Industry and Economic Development
Local Governments
Water and Sewer Utilities
Water-based Recreational

Organizations Represented

Aiken County
Aiken Soil & Water Conservation District
Bamberg Soil and Water District
Charleston Water System
City of Denmark
Clemson University Extension Service
Dominion Energy South Carolina
Dorchester County
Friends of the Edisto & Edisto Riverkeeper
Lowcountry Oyster Company, LCC
Orangeburg Country Club
Orangeburg County
Orangeburg Department of Public Utilities
Palmetto Realty and Land Co.
RBM Forestry LLC
Retired/Public
The Nature Conservancy
Town of Edisto Beach
Walther Farms
Weathers Farms/ Circle W Farms
Western SC Economic Development Council

Planning Team

CDM Smith
Facilitation and Surface Water Technical Support

CLEMSON UNIVERSITY
Meeting Coordination and Public Outreach

USGS science for a changing world
Groundwater Technical Support

dhec Healthy People. Healthy Communities.
Oversight and Education

Progress to Date

- Phase I – Orientation and Educational Information – *completed in December 2020*.
- Topics Covered:
  - River Basin Planning and Guiding Principles
  - Planning Framework
  - RBC Bylaws
  - Water Legislation and Permitting
  - Basin Hydrology and Monitoring
  - Surface Water-Groundwater Connection
  - Low Flow Characteristics
  - FOIA Rules
  - SCDHEC Water Atlas Demo
  - Current Water Use
  - Water Demand Projections
  - Edisto Basin Climatology
  - SC Drought Response Act
  - Coastal Aquatic Resources
  - Freshwater Aquatic Resources
  - Cultural Resources
  - Water Law
  - Surface Water and Groundwater Models
  - Environmental Flows Study

Progress to Date – RBC Actions

- Developed Mission and Vision Statements:

Mission Statement

To develop, update, and support implementation of a River Basin Plan for sustainable management of water resources in the Edisto.

Vision Statement

A resilient and sustainably managed Edisto River Basin where stakeholder and ecosystem needs are recognized, balanced and protected.

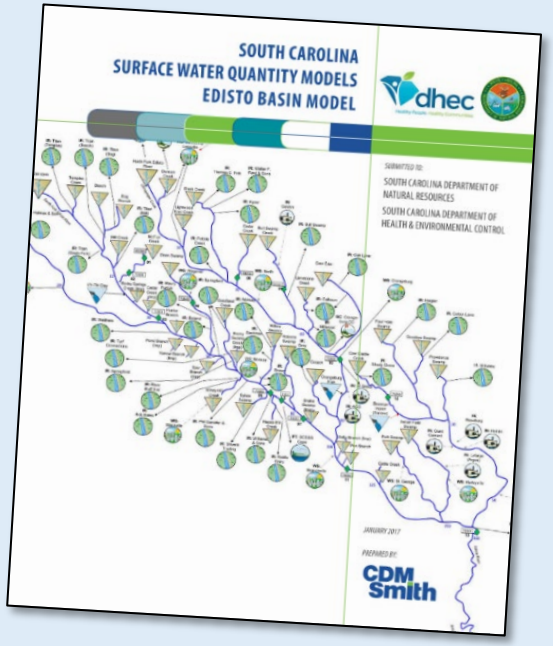
Progress to Date – RBC Actions

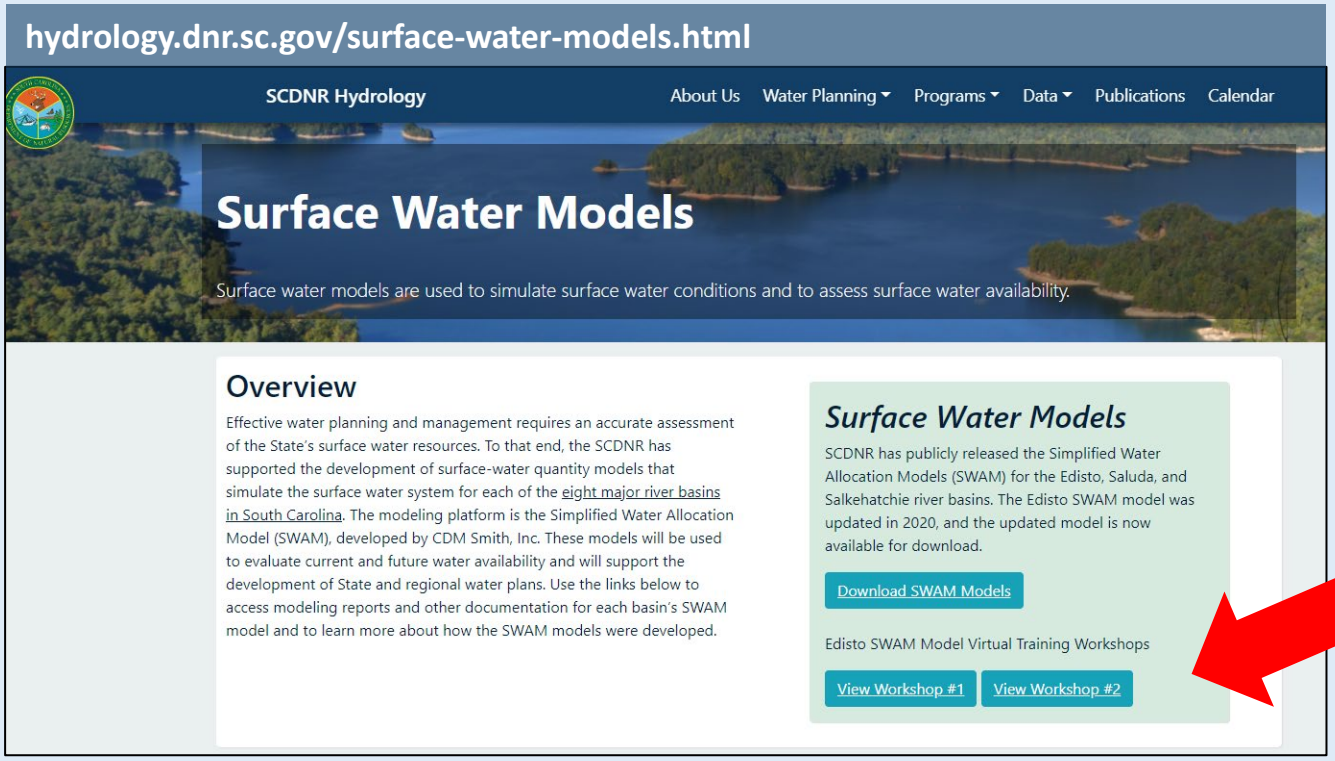
- Developed Goals:

1. **Develop water use strategies, policies, and legislative recommendations for the Edisto River Basin in order to:**
   a. Ensure water resources are maintained to support current and future human and ecosystem needs.
   b. Improve the resiliency of the water resources and help minimize disruptions within the basin.
   c. Promote future development in areas with adequate water resources.
   d. Encourage responsible land use practices.
2. **Develop and implement a communication plan to promote the strategies, policies and recommendations developed for the Edisto River Basin.**

Progress to Date

- Two training sessions covering basics of the Edisto Basin SWAM Model were completed

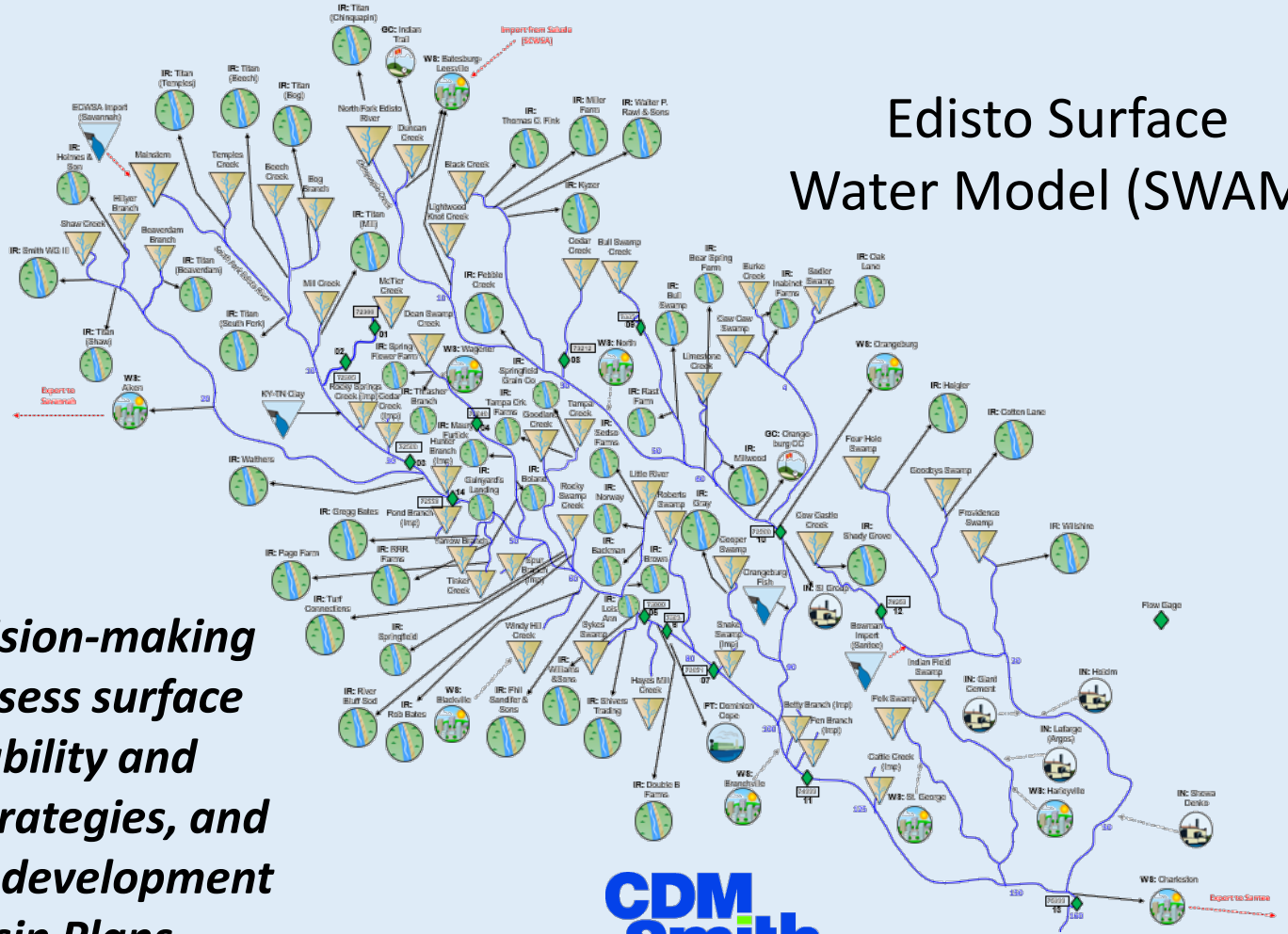




Video recordings of training sessions

Progress to Date

- Currently in Phase II – Evaluating current and future water availability – initially focusing on surface water resources



Edisto Surface Water Model (SWAM)

SWAM is a decision-making tool used to assess surface water availability and management strategies, and will support the development of River Basin Plans

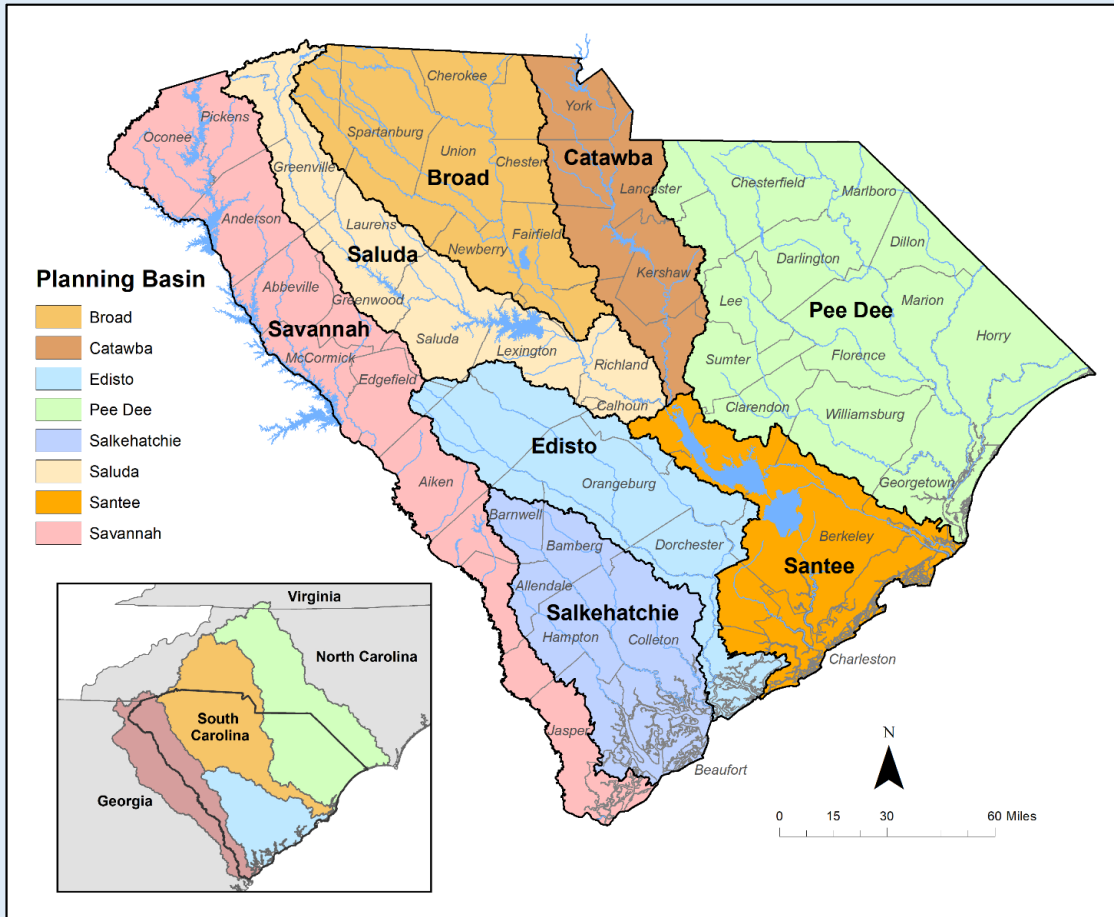
CDM Smith

Future Schedule

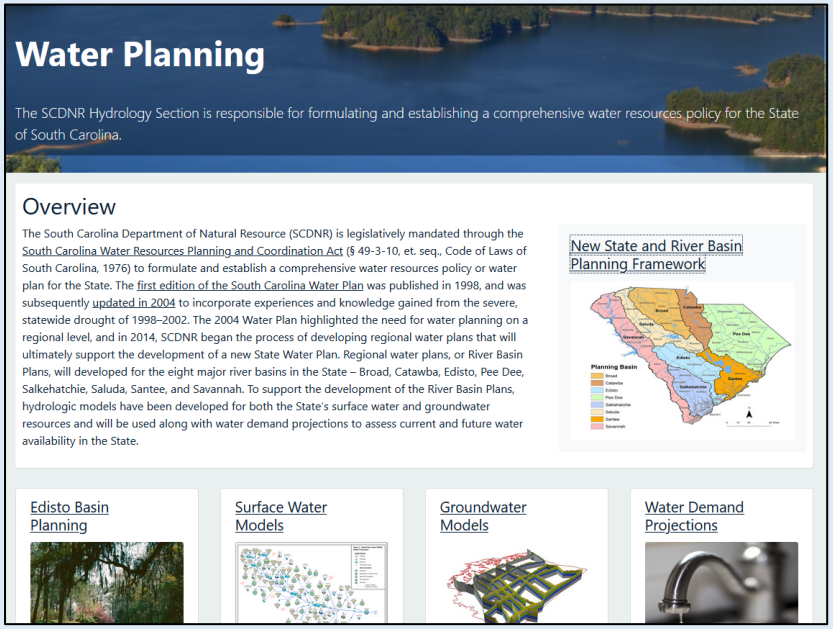
- Currently in a 2-month pause in planning activities, which was needed to:
  - Complete an ecological flow study, which will be included in the surface water availability analyses. (Clemson/TNC/SCDNR/Research Triangle Institute)
  - Complete a groundwater model update.
  - Prepare for in-person meetings beginning in the Spring.
- April 28th: RBC field trip to an agricultural facility and a groundwater monitoring site in the basin.
- May 26th: next regular RBC meeting – *will be first formal in-person meeting*.
  - Resume surface water availability analyses and begin groundwater availability analyses.

South Carolina's Eight Planning Basins

- River Basin Plans will be developed for the State's 8 major river basins using a ***"bottom-up"*** approach where stakeholders in each basin lead the development of their basin plan.
- *Collectively, the River Basin Plans will form the foundation of a new State Water Plan.*
- Funding for two additional basins currently under consideration in State Legislature:
  - Pee Dee and Broad basins
  - If funded, planning activities would begin in late summer/early fall of 2021.



Hydrology Section – Planning Website



http://hydrology.dnr.sc.gov/water-planning.html

Contact Information:
Scott Harder, harders@dnr.sc.gov

- Meeting announcements
- Access to water planning documents (Planning Framework/technical reports)
- RBC meeting materials/agendas

http://hydrology.dnr.sc.gov/edisto-basin-planning.html

BREAK TIME

Five Minute Break

Georgia™

Forecasting Updates

Municipal Forecasting Results
Brian Skeens, Jacobs

Industrial and Energy Forecasting
Bill Davis, CDM Smith

Agricultural Demand Updates
Mark Masters, GWPCC

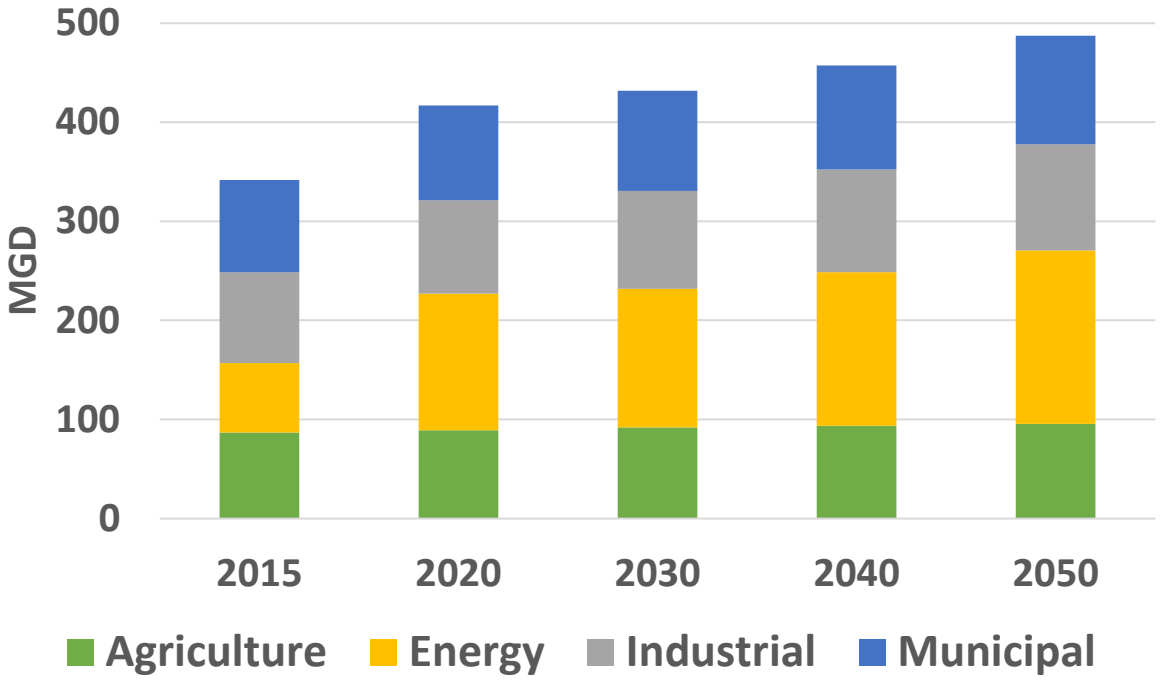
Georgia's State Water Plan

Updates on Demand Forecasting for the 2020-2022 Regional Water Plan Update Cycle

Georgia
ExploreGeorgia.org

Review of 2017 Demand Forecast for SUO

- Total demand increases 43% from 342 MGD to 487 MGD
- Municipal demand increases from 93 MGD to 109 MGD
- Industrial demand increases from 92 MGD to 107 MGD
- Energy demand increases from 70 MGD to 138 MGD as Voglte 3&4 come on-line
- Agricultural demand increases from 87 MGD to 96 MGD



Review of 2017 Water Demands by County

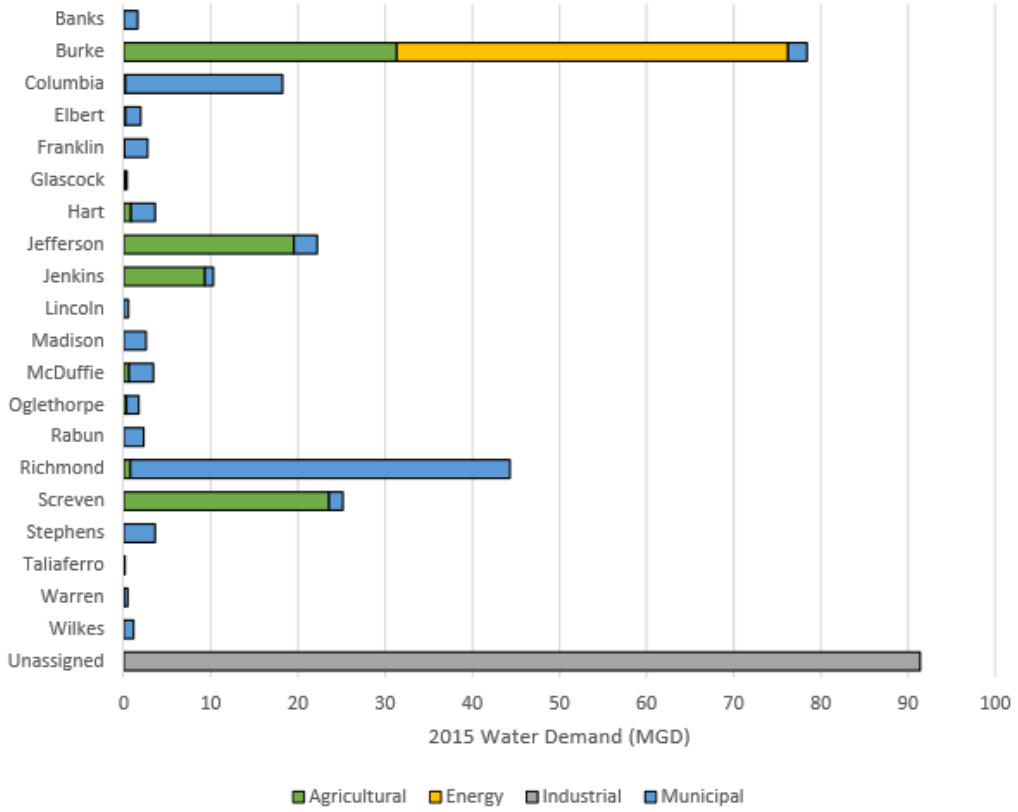


Figure 7-3
County Water Demand by Sector for 2015

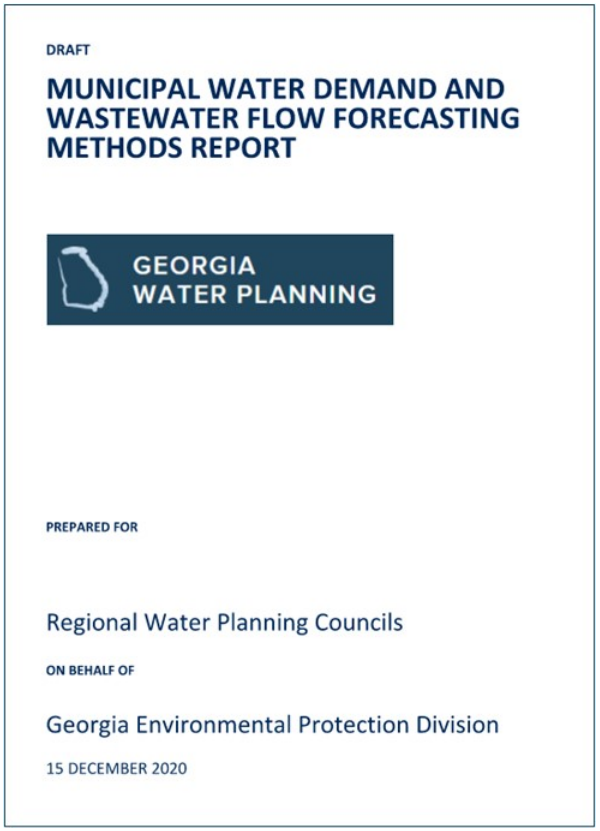
Georgia's State Water Plan

Municipal Water Demand Forecast

Municipal Demand Forecast Update

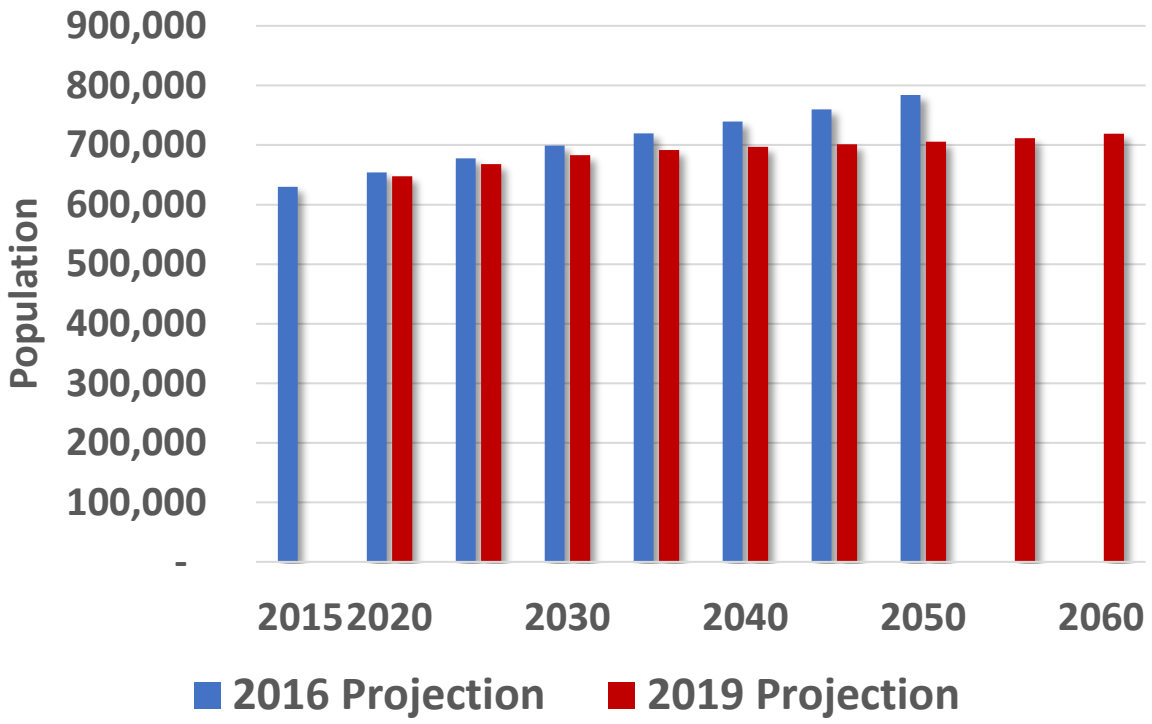
- Forecast prepared by Black & Veatch team https://waterplanning.georgia.gov/forecasting/municipal-water-use
- Revised population projections by county*
- Updated GPCD by county*
- Forecast was reviewed by Municipal Forecasting Stakeholder Group with representative from each Council

**Impacts Municipal Forecast*



SUO Population Projections

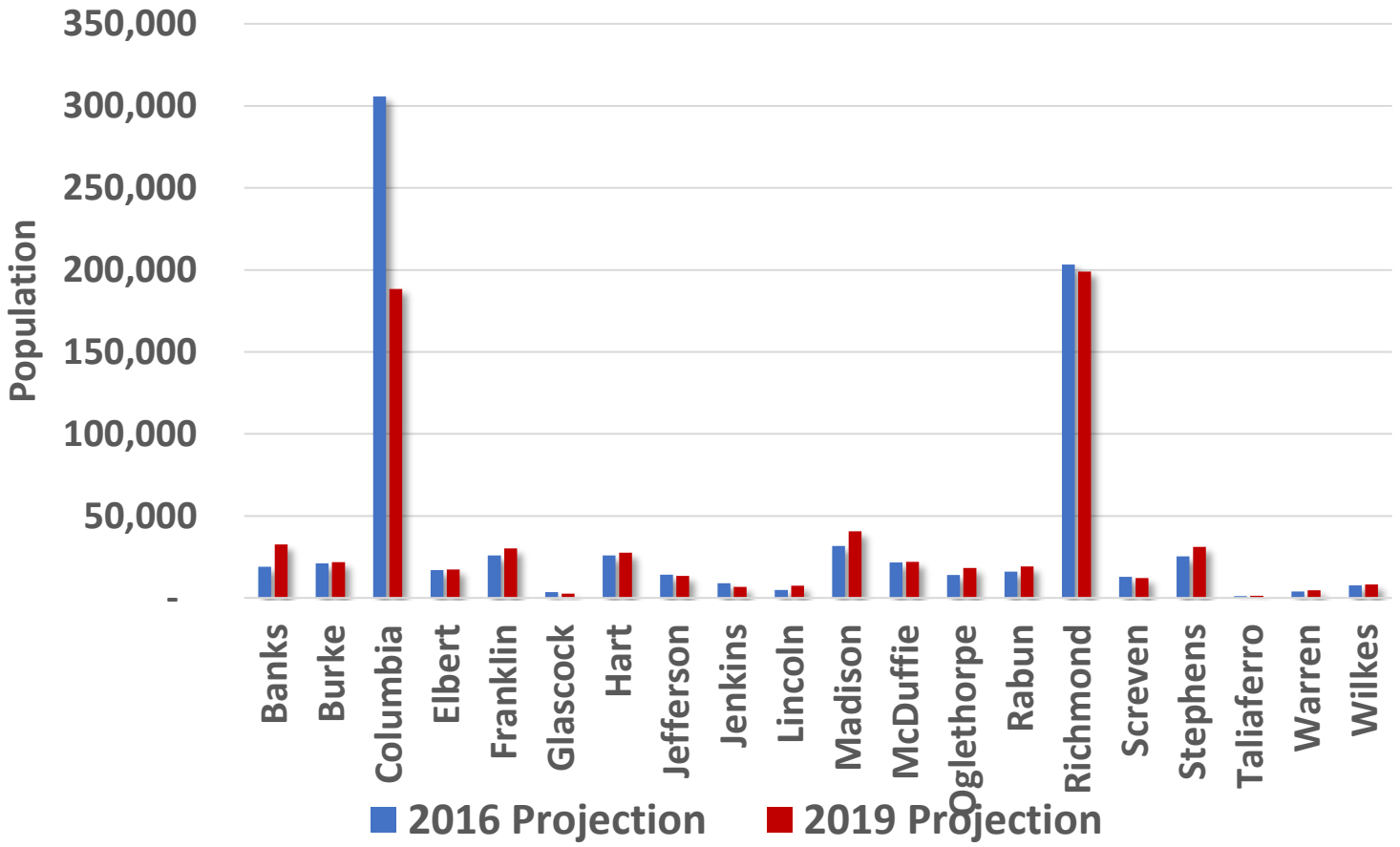
- 2017 RWP Update was based on 2016 population projections from Office of Planning & Budget (OPB)
- 2020 Municipal Forecast Demand Update based on 2019 OPB population projections
- OPB 2020 projections became available in October 2020 and similar to 2019 projections



SUO Population Projections Comparison for 2050 by County

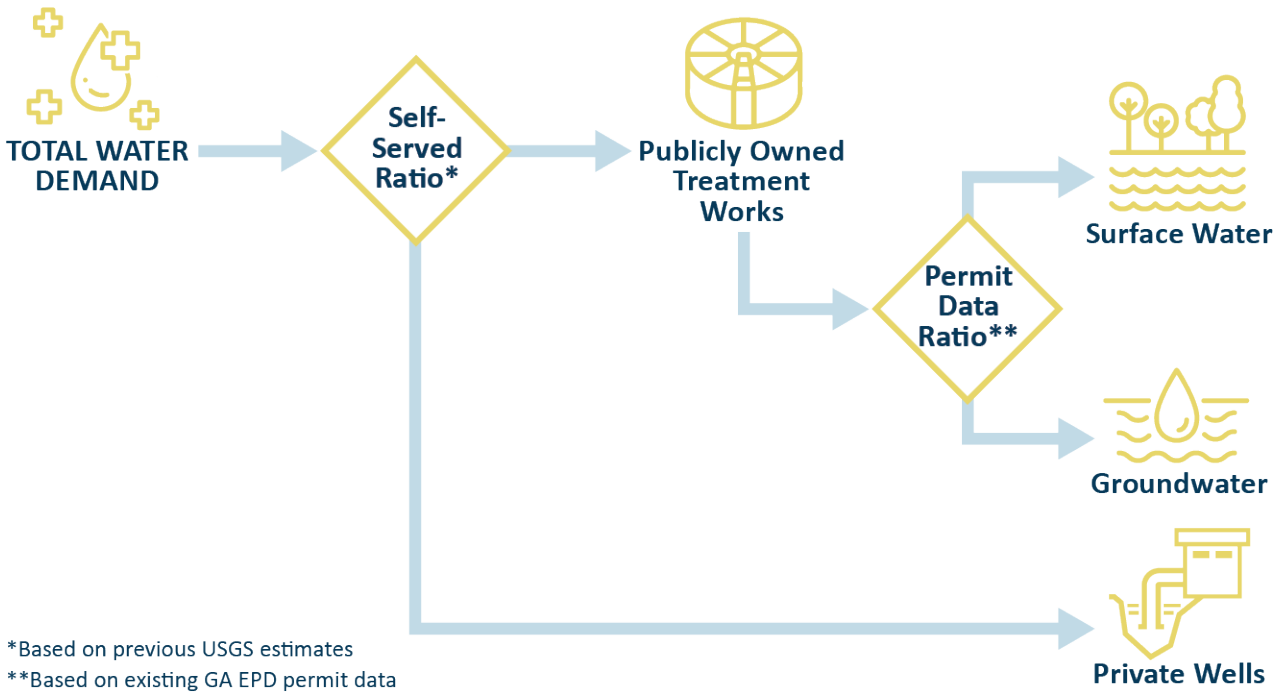
In 2050:

- 14 counties projected to have higher population in 2050
- 6 counties projected to have lower population in 2050



County Water Demand Methodology

- Some % of county population is self-served (75 gpcd)
- Remainder of population is municipally-supplied
- Each county has unique municipal gpcd (weighted average)



SUO Region Percent Self Supplied

- 2020 % self-supplied taken from USGS 2015 data
- Percentages held constant for the future except for 8 counties
- Self-supplied population assumed to use 75 GPCD (USGS)

County	2017 % Self-Supplied	2020 % Self-Supplied	2060 % Self-Supplied
Banks	57%	49%	49%
Burke	64%	63%	63%
Columbia	13%	17%	5%
Elbert	51%	54%	45%
Franklin	51%	27%	27%
Glascock	60%	100%	100%
Hart	66%	52%	25%
Jefferson	47%	40%	40%
Jenkins	23%	54%	25%
Lincoln	29%	31%	31%
Madison	20%	70%	25%
McDuffie	53%	18%	10%
Oglethorpe	83%	69%	12%
Rabun	27%	32%	32%
Richmond	2%	2%	2%
Screven	59%	67%	67%
Stephens	10%	4%	4%
Taliaferro	62%	100%	100%
Warren	44%	33%	33%
Wilkes	51%	36%	36%

SUO Municipal Forecast GPCD

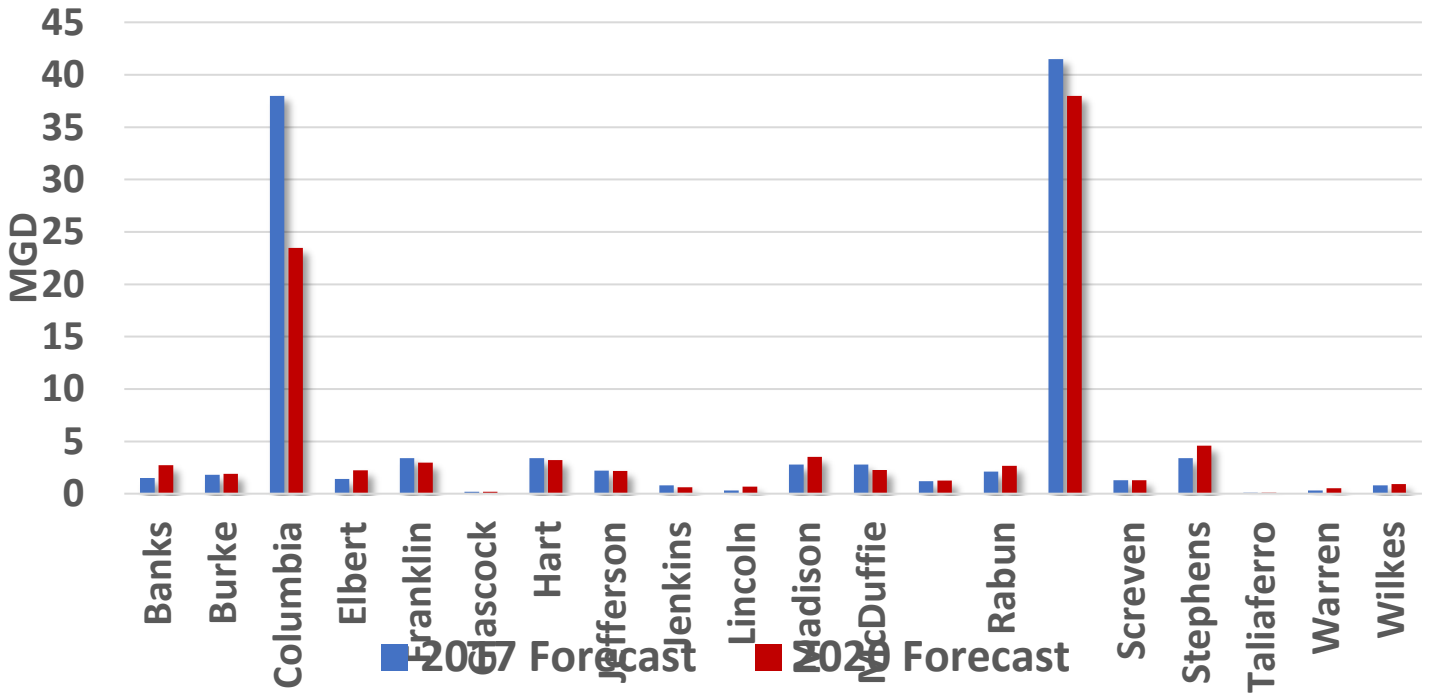
- Updated GPCD by county based on weighted average from 2015 – 2018 Water Loss Audits
- GPCD calculated from State Drinking Water Information System (SDWIS) data if Water Loss Audit data not available
- 10 counties have lower GPCD
- 10 Counties have higher GPCD

County	2017 GPCD	2020 GPCD	Change
Banks	102.0	101.0	-1.0
Burke	129.1	128.4	-0.7
Columbia	133.7	132.0	-1.8
Elbert	105.0	190.0	85.0
Franklin	161.0	114.7	-46.3
Glascock	73.4	75.0	1.6
Hart	157.9	143.3	-14.6
Jefferson	163.5	171.0	7.5
Jenkins	106.5	110.0	3.5
Lincoln	66.3	109.0	42.7
Madison	103.6	104.0	0.4
McDuffie	141.5	112.4	-29.1
Oglethorpe	99.7	75.0	-24.7
Rabun	163.9	155.5	-8.4
Richmond	216.8	197.0	-19.8
Screven	160.1	189.0	28.9
Stephens	145.8	155.4	9.6
Taliaferro	71.4	75.0	3.6
Warren	72.1	136.7	64.6
Wilkes	156.4	143.5	-12.9

SUO Municipal Demand Forecast Comparison for 2050 by County

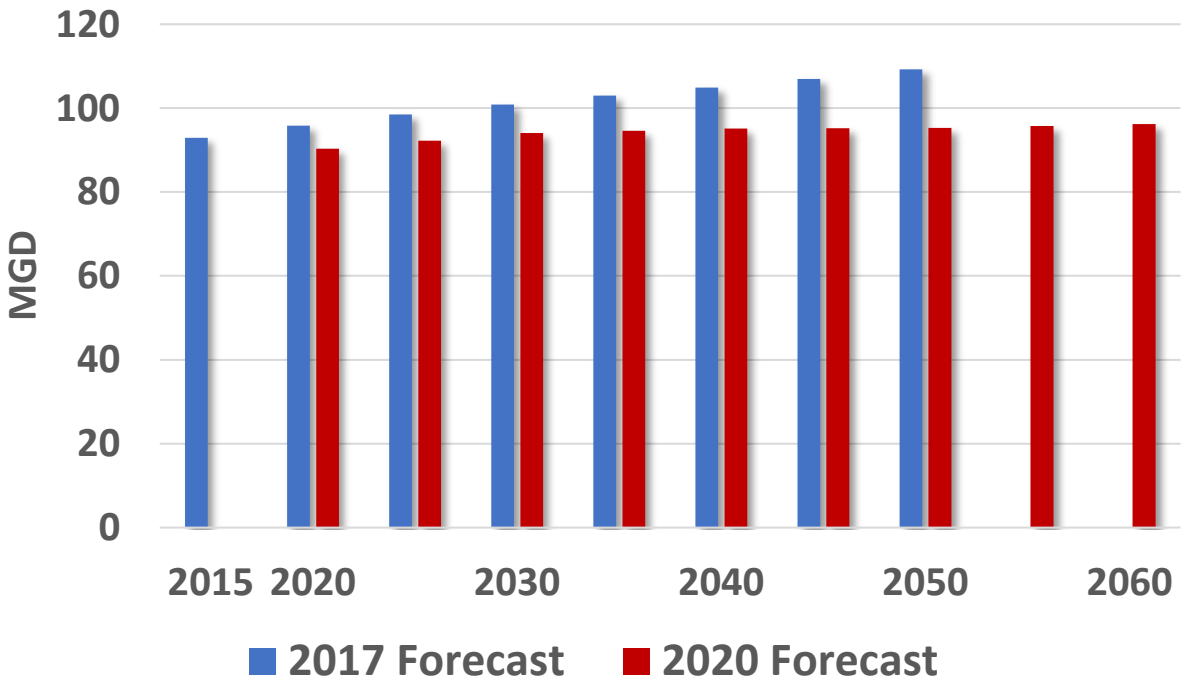
In 2050:

- 10 counties have lower demand
- 10 counties have higher demand



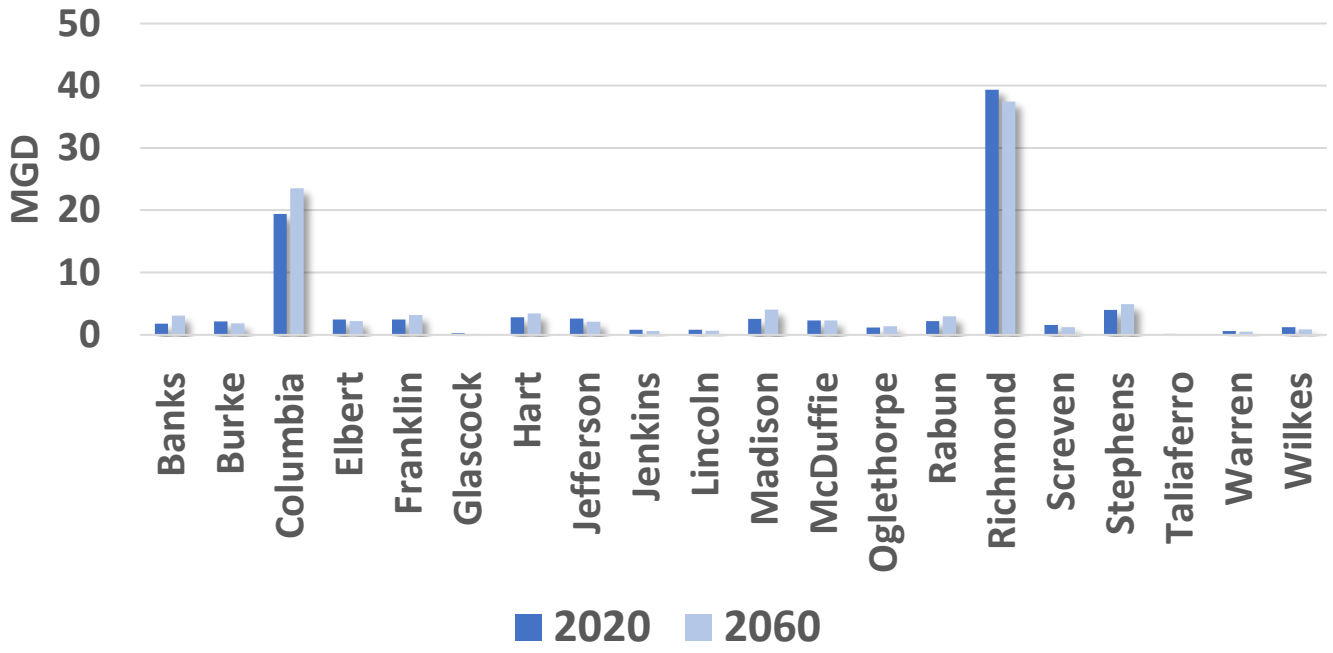
SUO Region Municipal Demand Forecast

- Current (2020) demand is lower than the 2017 forecast
- Population projections are higher by 3% in 2050
- Overall, county GPCDs are lower



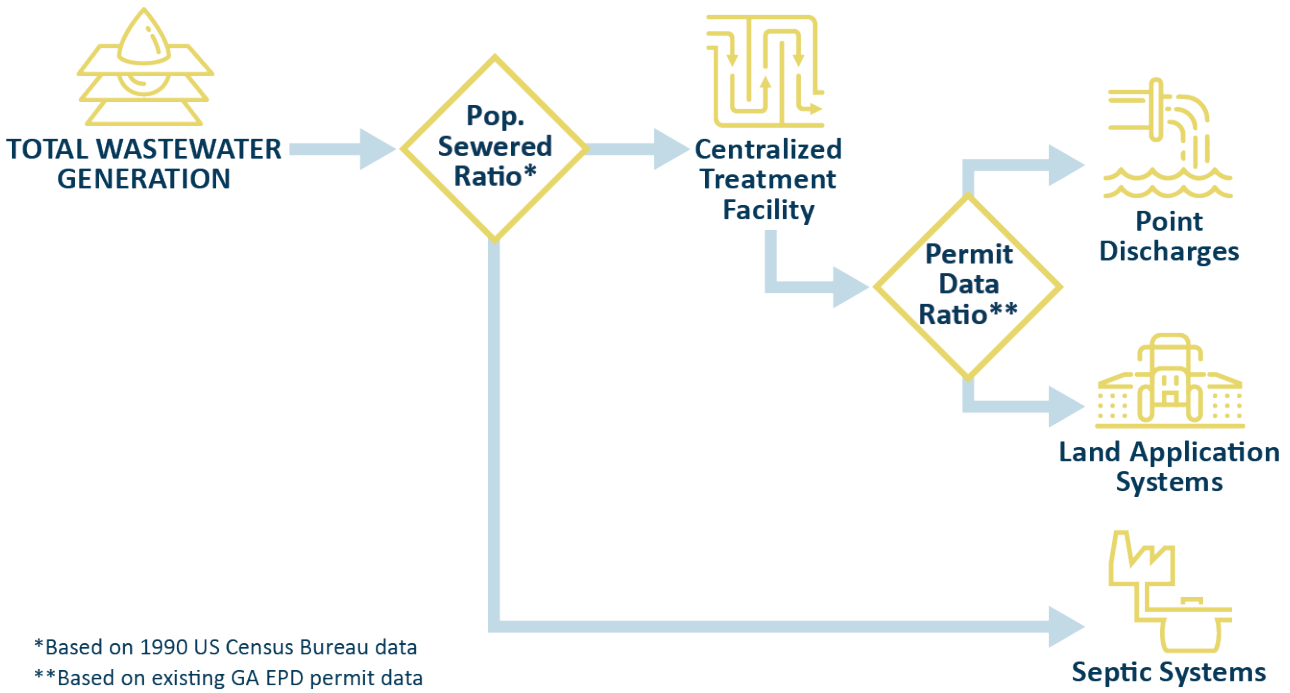
SUO 2020 Municipal Demand Forecast by County

The 2020 Municipal demand forecast shows12 counties with a decline and 8 with an increase in demand



Municipal Wastewater Methodology

- Septic flow based on % households on septic (80% of use)
- Used 2019 discharges by county
- Applied % change in population
- Maintain same ratio of Point and LAS



*Based on 1990 US Census Bureau data
**Based on existing GA EPD permit data

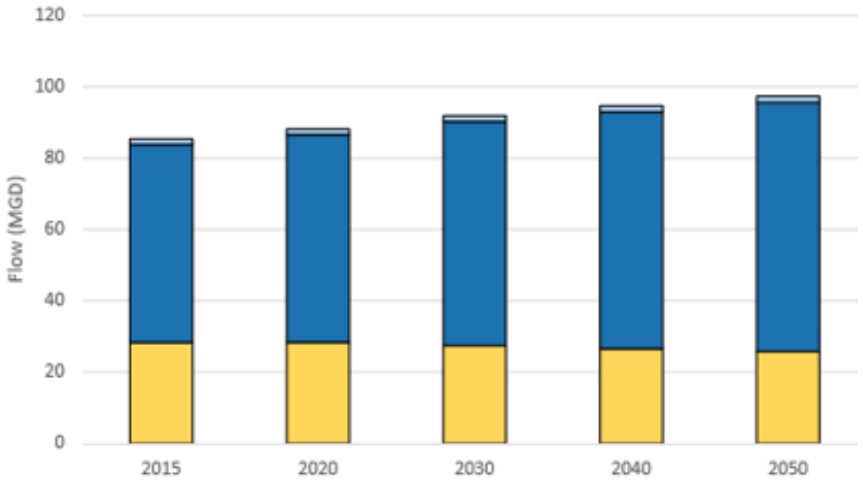
Municipal Wastewater – Septic

- County % population on septic systems
  - Held constant, unless specific input provided
- Values with asterisks are from the 1990 Census housing characteristics for Georgia
- Values w/o asterisks are from Georgia Dept. of Public Health data (through 2018)

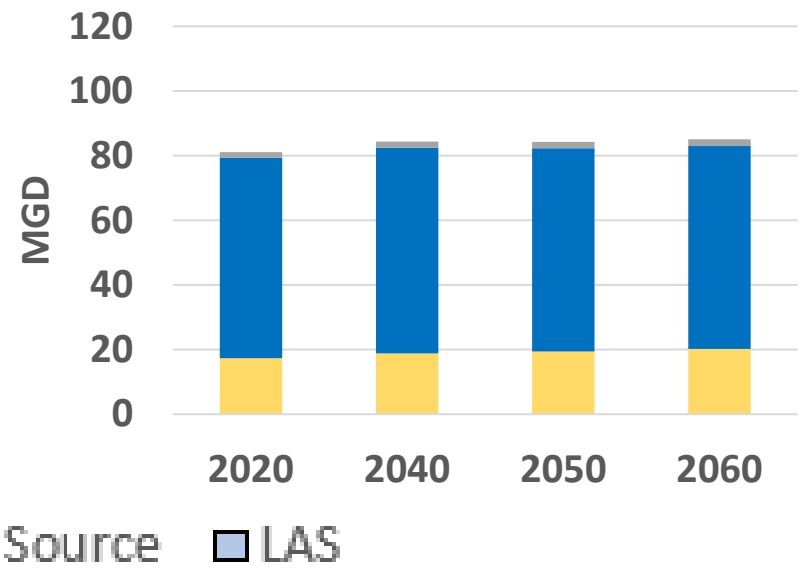
County	2020 % Septic
Banks	90%*
Burke	65%*
Columbia	20%
Elbert	61%*
Franklin	75%*
Glascock	74%*
Hart	78%*
Jefferson	54%*
Jenkins	84%
Lincoln	81%*
Madison	93%*
McDuffie	80%
Oglethorpe	94%*
Rabun	85%*
Richmond	21%
Screven	72%*
Stephens	60%*
Taliaferro	76%*
Warren	62%*
Wilkes	57%*

SUO Municipal Wastewater Forecast

2017 Forecast



2020 Forecast



Georgia's State Water Plan

Energy Water Demand Forecast

Energy Demand Forecast Update

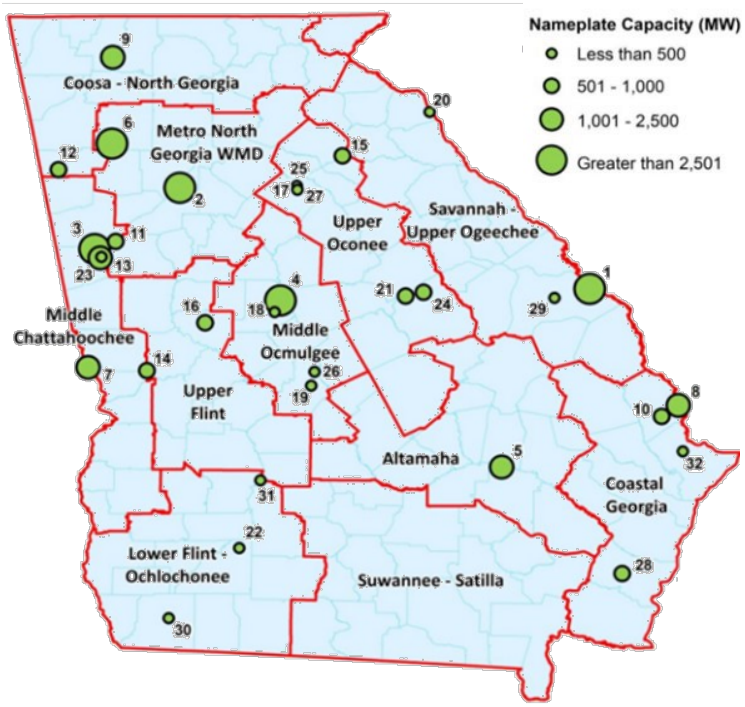
- Convened a stakeholder advisory group representing power companies in the State of Georgia
- Worked with stakeholder group to identify future sources of power generation
- https://waterplanning.georgia.gov/forecasting/energy-water-use

Participating Representatives from:

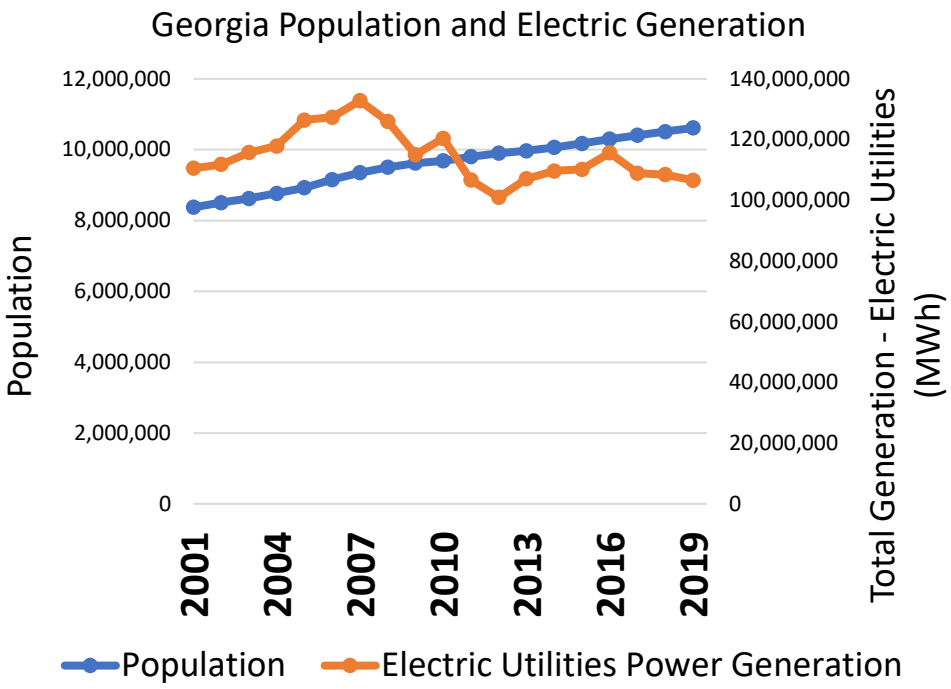
- Georgia Power / Southern Company
- Municipal Electric Authority of Georgia (MEAG)
- Oglethorpe Power Corporation
- Dalton Utilities
- Georgia Public Service Commission
- Georgia Environmental Finance Authority

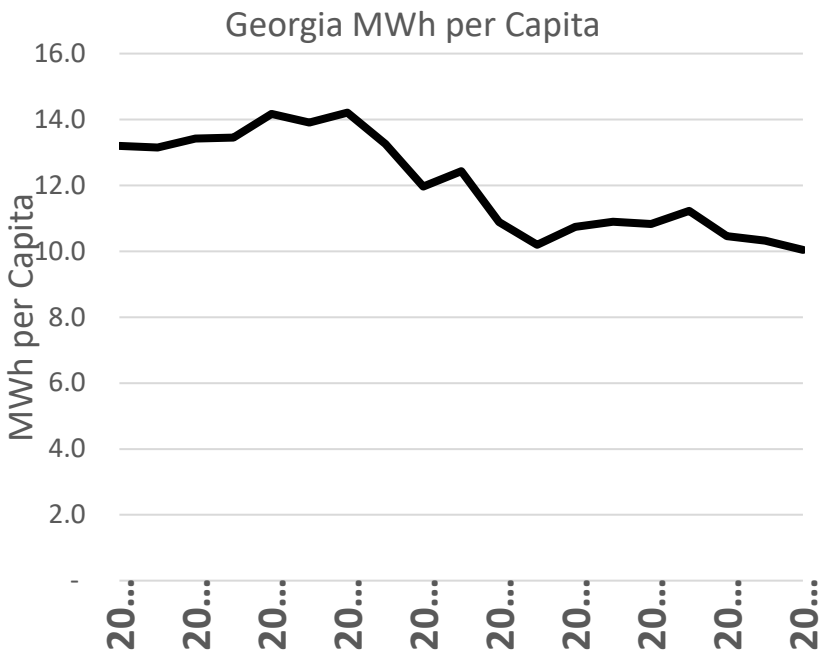
Energy Demand Forecast Update Methodology

- Updated the list of active, retired and planned generating units
- Evaluated historic MWh per capita use
- Estimated need for power generation
- Estimated statewide generation by fuel type
- Applied water use factors by fuel type
- Identified water withdrawals and consumption by facility location

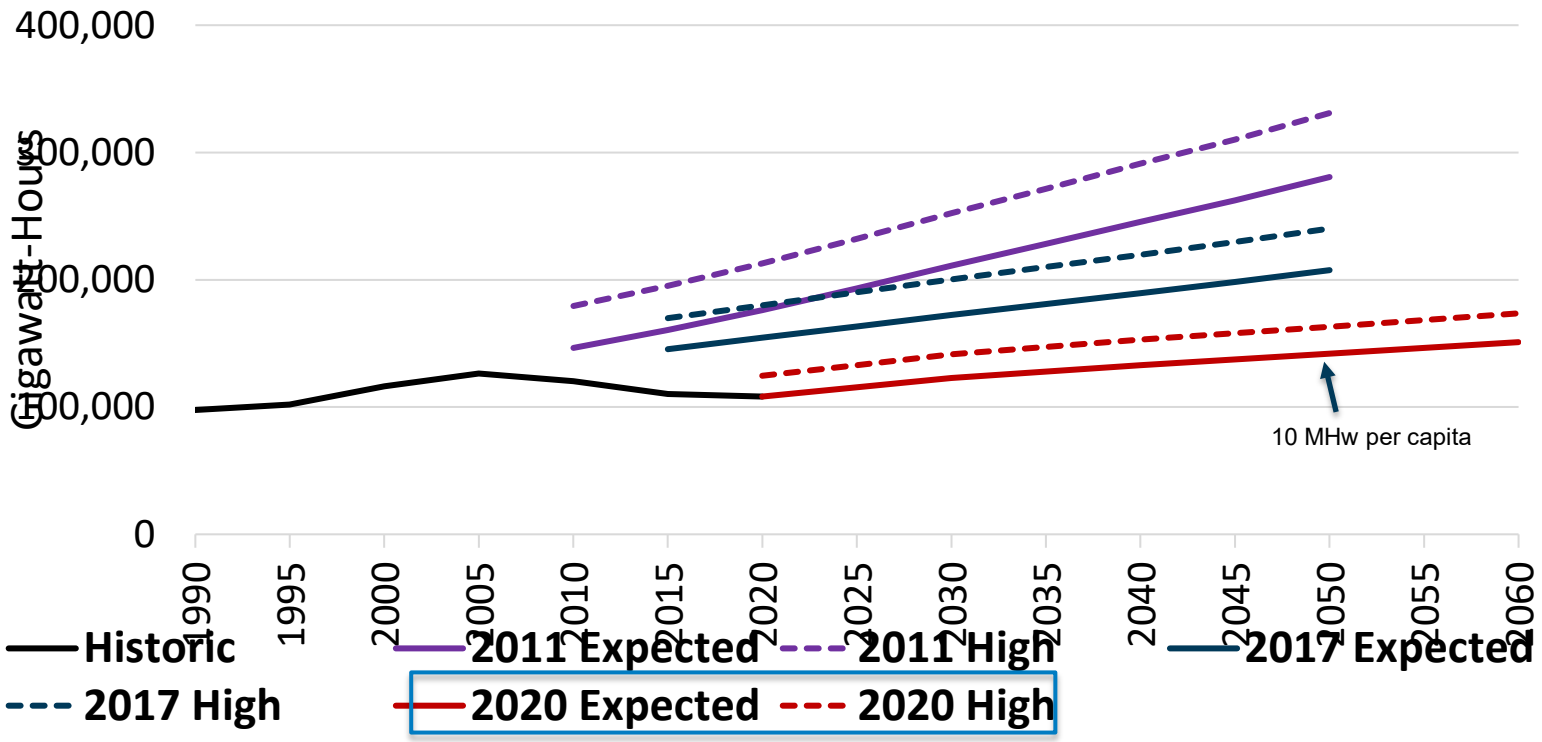


How Much Energy Do Georgians Use?



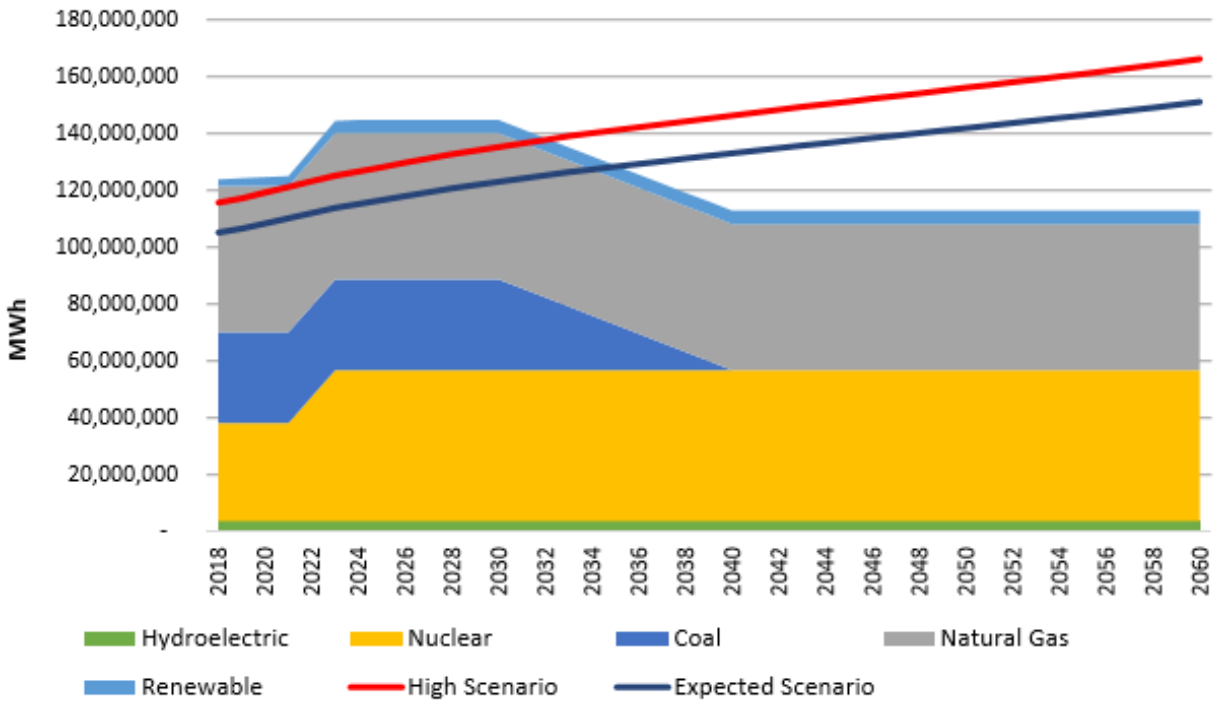


How Much Power will Georgia Need?



Using Current Generating Capacity for the Future

- Nuclear generation (yellow) will increase with Vogtle 3&4
- Coal generation (blue) will be phased out in the future
- Both Natural Gas and Renewable assumed to increase to meet the need



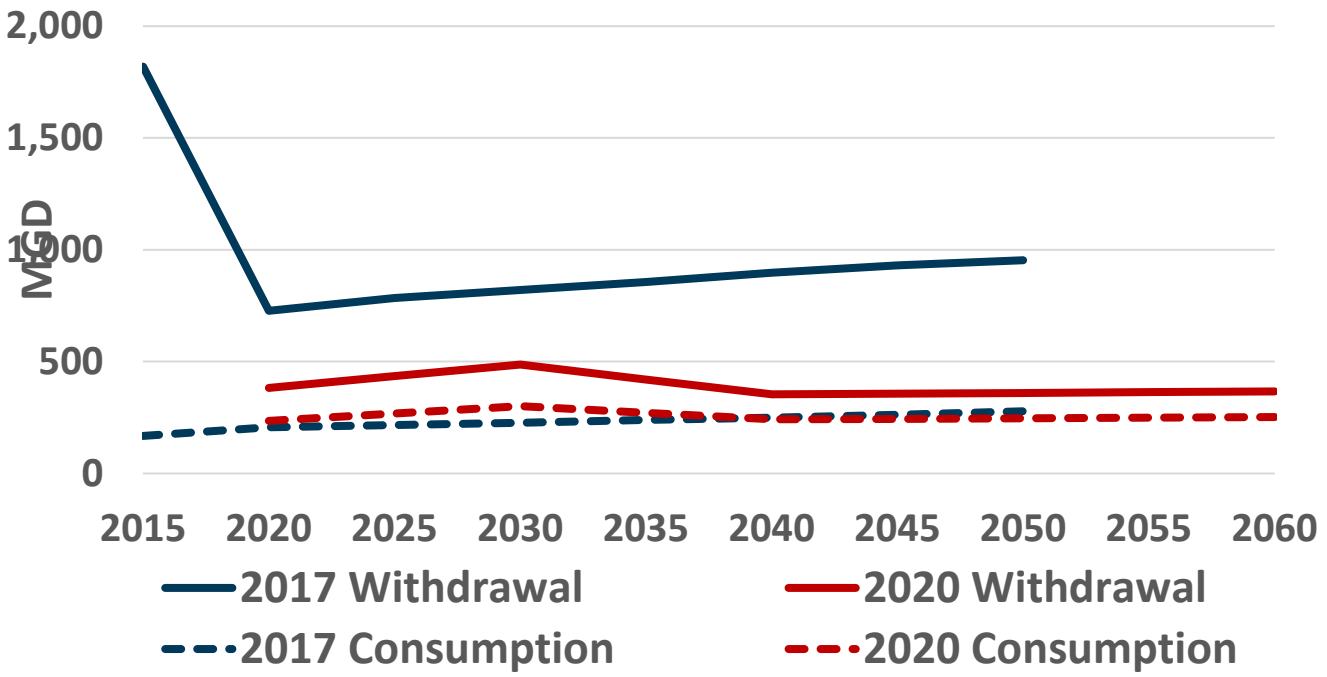
Water Use by Generation Configuration

POWER GENERATING CONFIGURATION	WATER WITHDRAWALS Gal/MWh	WATER CONSUMPTION Gal/MWh
Fossil Fuel/Biomass, Steam Turbine, Once-Through Cooling	41,005	0
Fossil Fuel/Biomass, Steam Turbine, Cooling Tower	1,153	567
Fossil Fuel/Biomass, Gas (Combustion) Turbine	0	0
Natural Gas, Combined-Cycle, Cooling Tower	225	198
Nuclear, Steam Turbine, Cooling Tower	1,372	880

Source: 2003-2007 Averages from EIA and EPD data for Georgia facilities

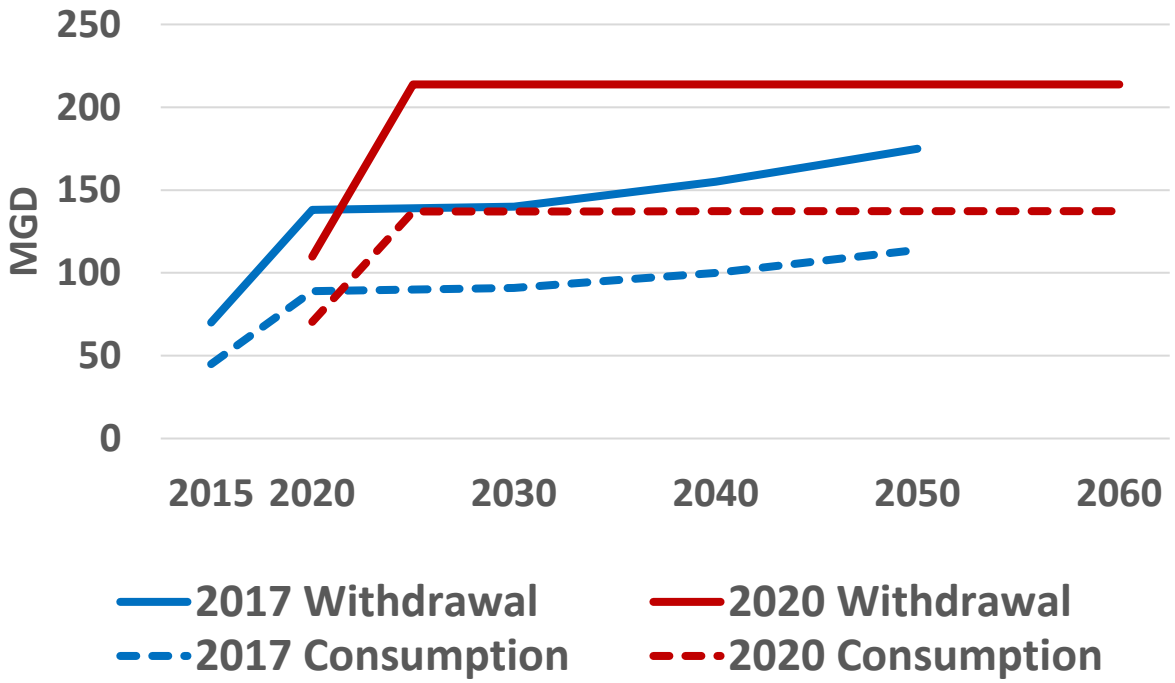
Statewide Energy Water Demand Forecast

- 2017 Forecast has high withdrawals for coal facilities now retired
- 2020 Need (MWh) is lower
- Water per MWh is more efficient



SUO Energy Water Demand Forecast

- The 2017 forecast assumed that Plant Vogtle units 3&4 would be on-line by 2020
- The 2020 forecast assumes that Plant Vogtle units 3&4 will be on-line by 2025



Georgia's State Water Plan

Industrial Water Demand Forecast

Georgia
ExploreGeorgia.org

Industrial Demand Forecast Update

- Updated forecasting methodology based on input from industry representatives from across the state
- No longer based on employment
- Convened industry experts into multiple advisory groups and developed separate estimates
- https://waterplanning.georgia.gov/forecasting/industrial-water-use

Industrial Sub-Sectors:

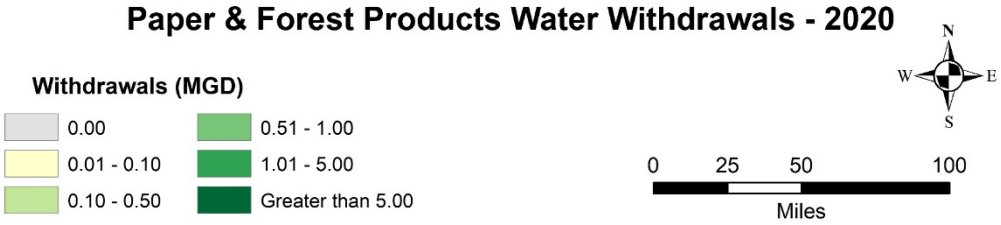
- Paper and Forest Products
- Food Processing
- Manufacturing
- Mining

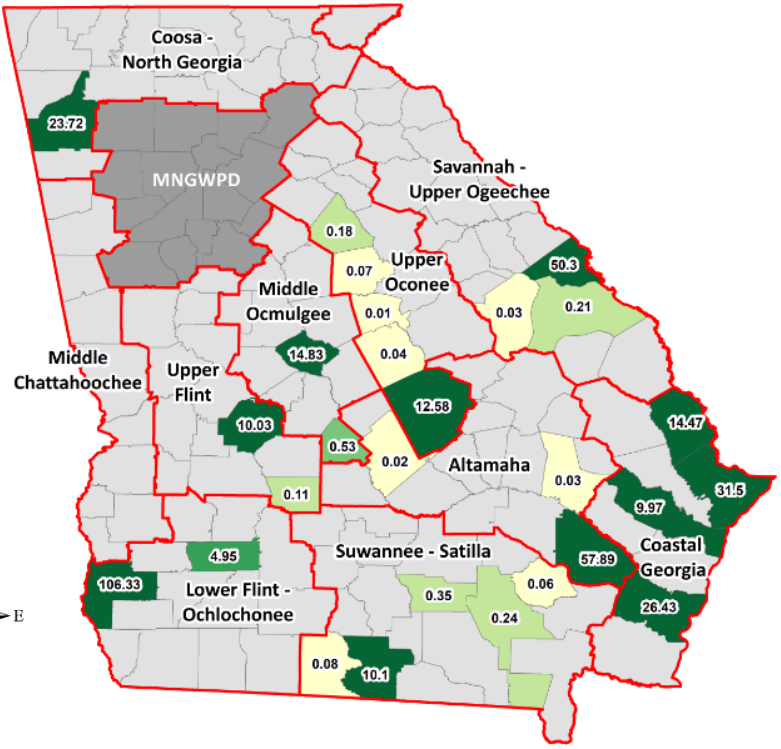
Industrial Stakeholder Advisory Group

- BASF
- Covia
- Georgia Association of Manufacturers
- Georgia Chemistry Council
- Georgia Department of Economic Development
- Georgia Mining Association
- Georgia Pacific
- Georgia Paper and Forest Products Association
- Georgia Poultry Federation
- Georgia Tech Research Institute
- Gerdau Steel
- Gulfstream Aerospace
- International Paper
- Irving Consumer Products
- Kamin
- Kia Motors
- Milliken and Company
- Mohawk Industries
- Office of Planning and Budget
- Packaging Corporation of America
- Rayonier Performance Fibers
- SAFT, Inc.
- Southwire
- Toyo Tire

Paper & Forest Products

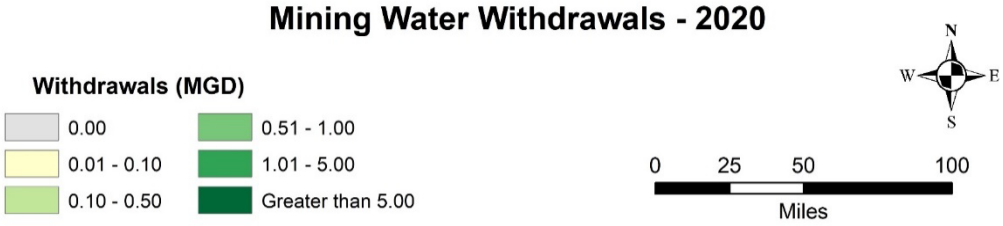
- Water use to remain constant using the (2010 to 2019) 10-year average water withdrawals by location

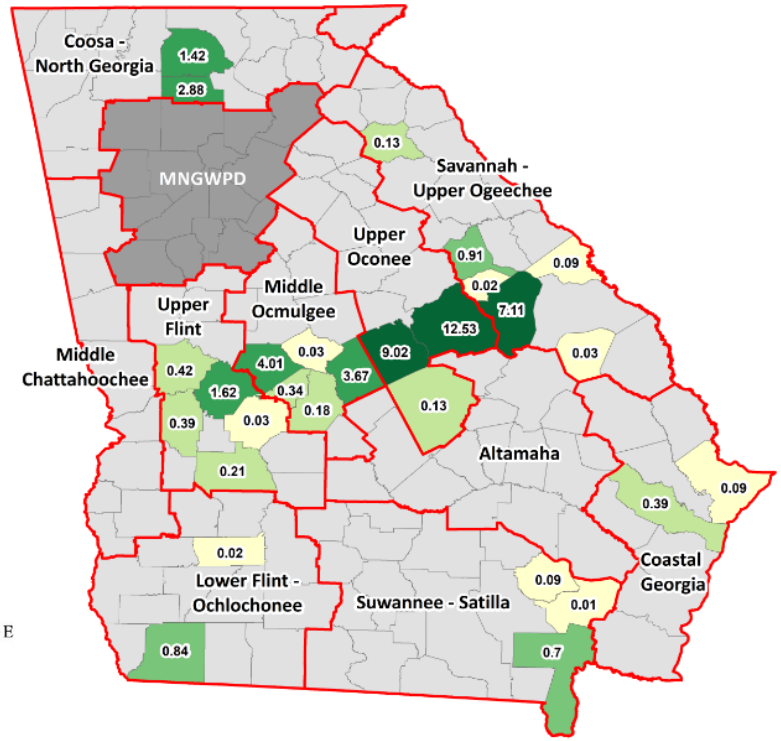




Mining

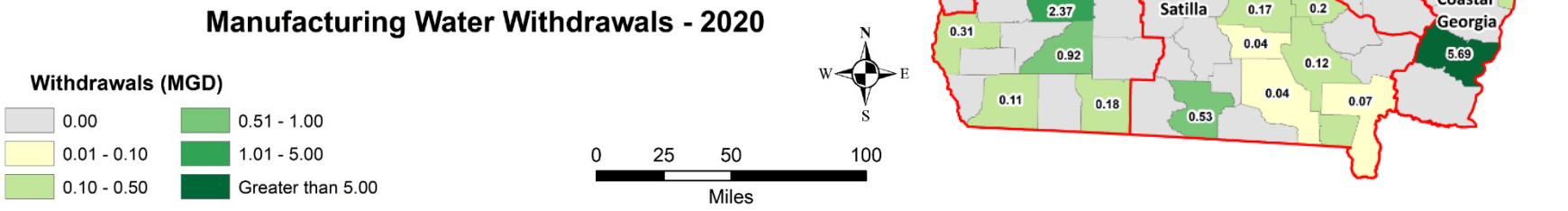
- Water use to remain constant using the (2010 to 2019) 10-year average water withdrawals by location

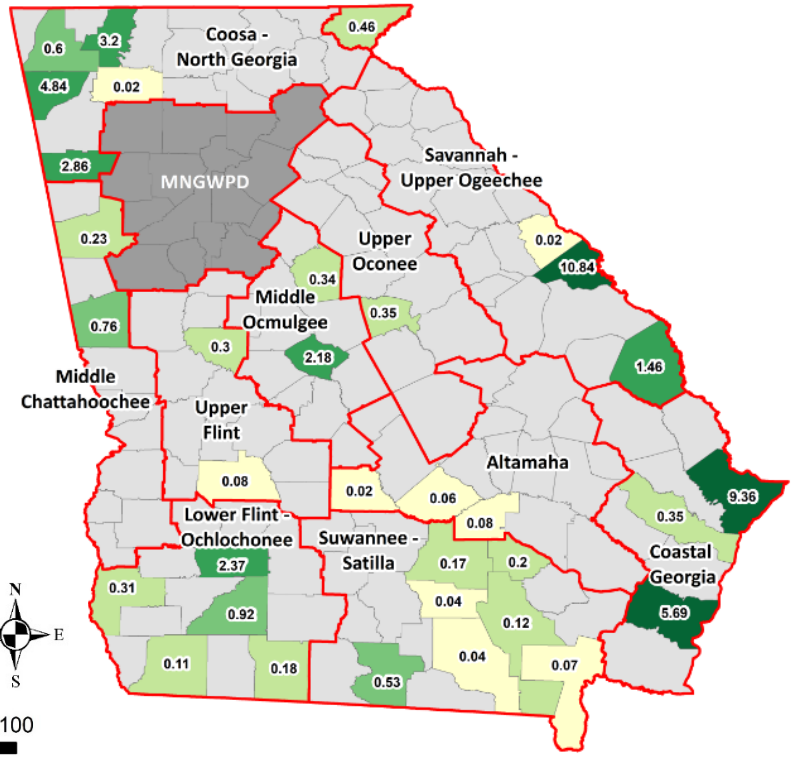




Manufacturing

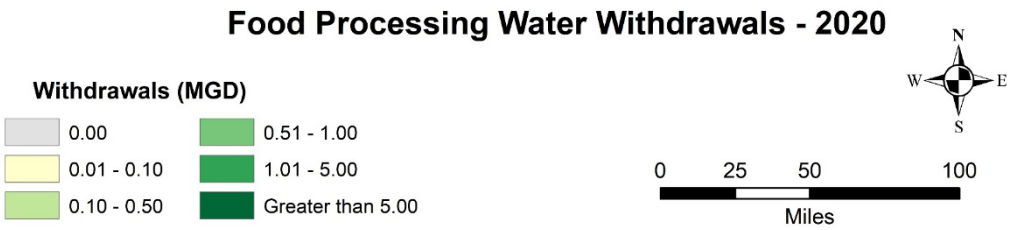
- Water use to remain constant using the (2010 to 2019) 10-year average water withdrawals by location

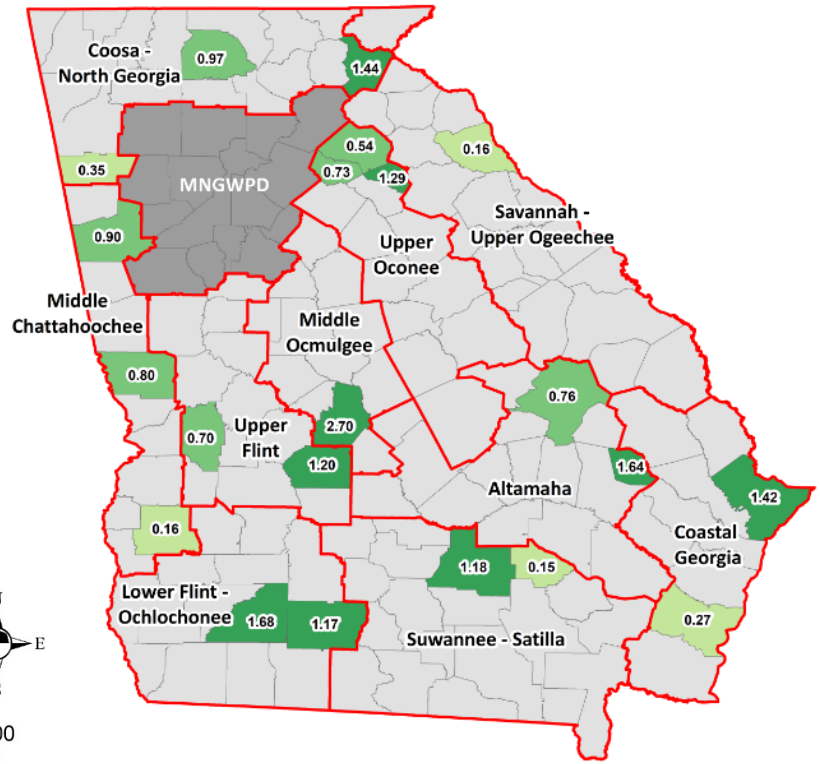




Food Processing

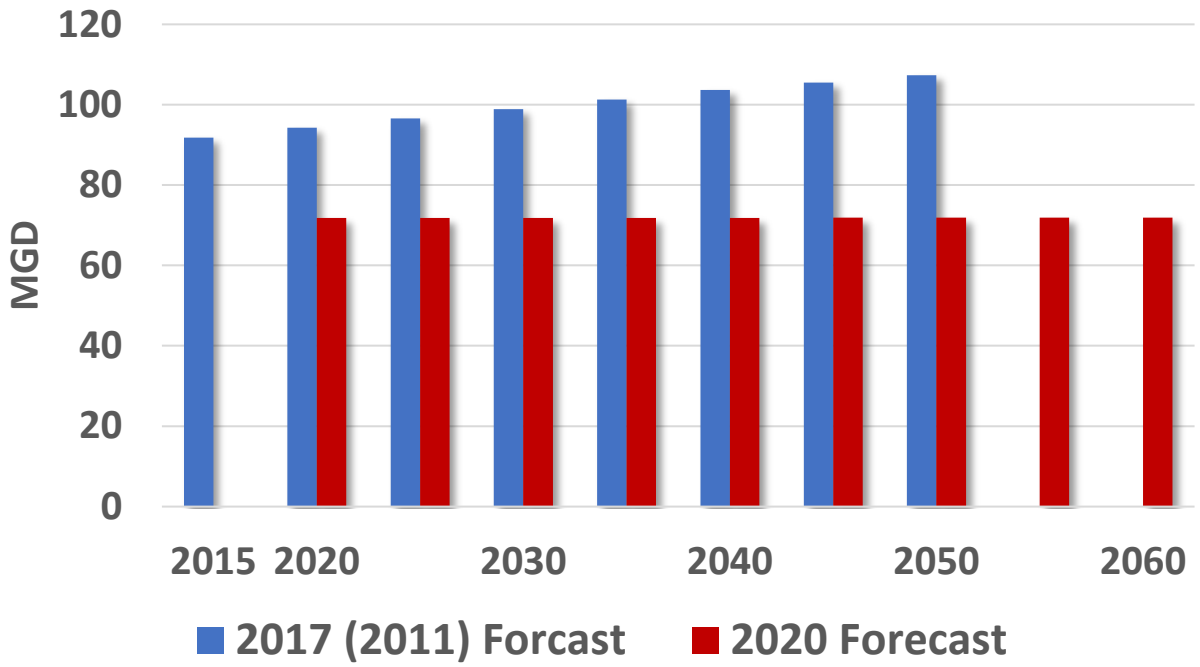
- Poultry processing projected to increase
- Non-poultry processing to remain constant at 10-year average water withdrawals





SUO - Industrial Forecast

- 2017 forecast is from the 2011 RWP, and was based on employment growth projections
- 2020 based on input from local industry experts

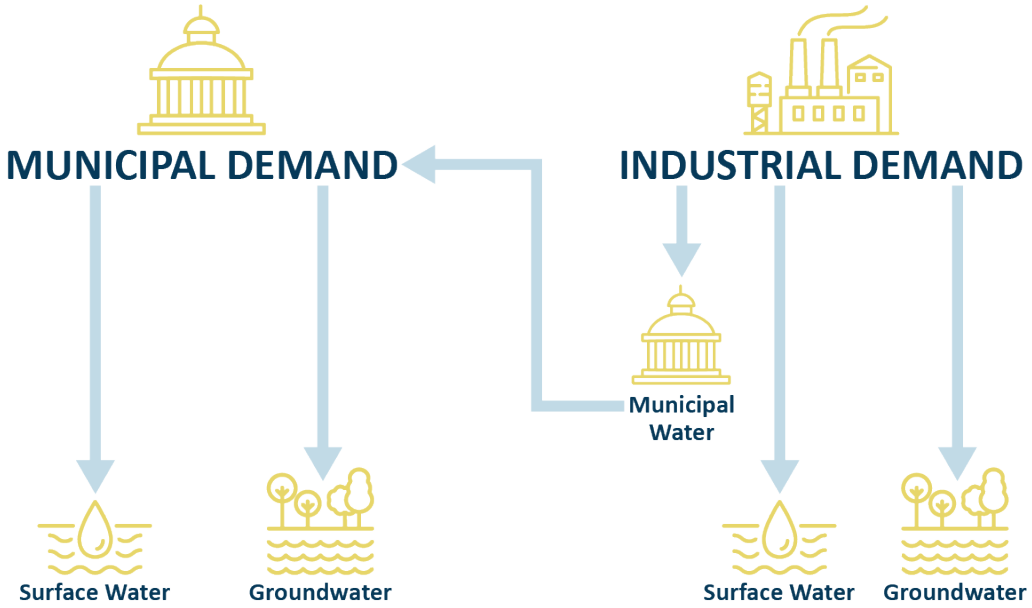


Coordination with Municipal Water Demand Forecast

- Shared information with municipal forecast team where municipal water use is identified and greater than 0.2 MGD

Are we double counting?

- If we add Municipal and Industrial demand, yes
- If we add surface water and groundwater demand, no



Georgia's State Water Plan

Agricultural Water Demand Update

AGRICULTURAL WATER USE UPDATE

Savannah-Upper Ogeechee Regional Water Planning Council

April 27, 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

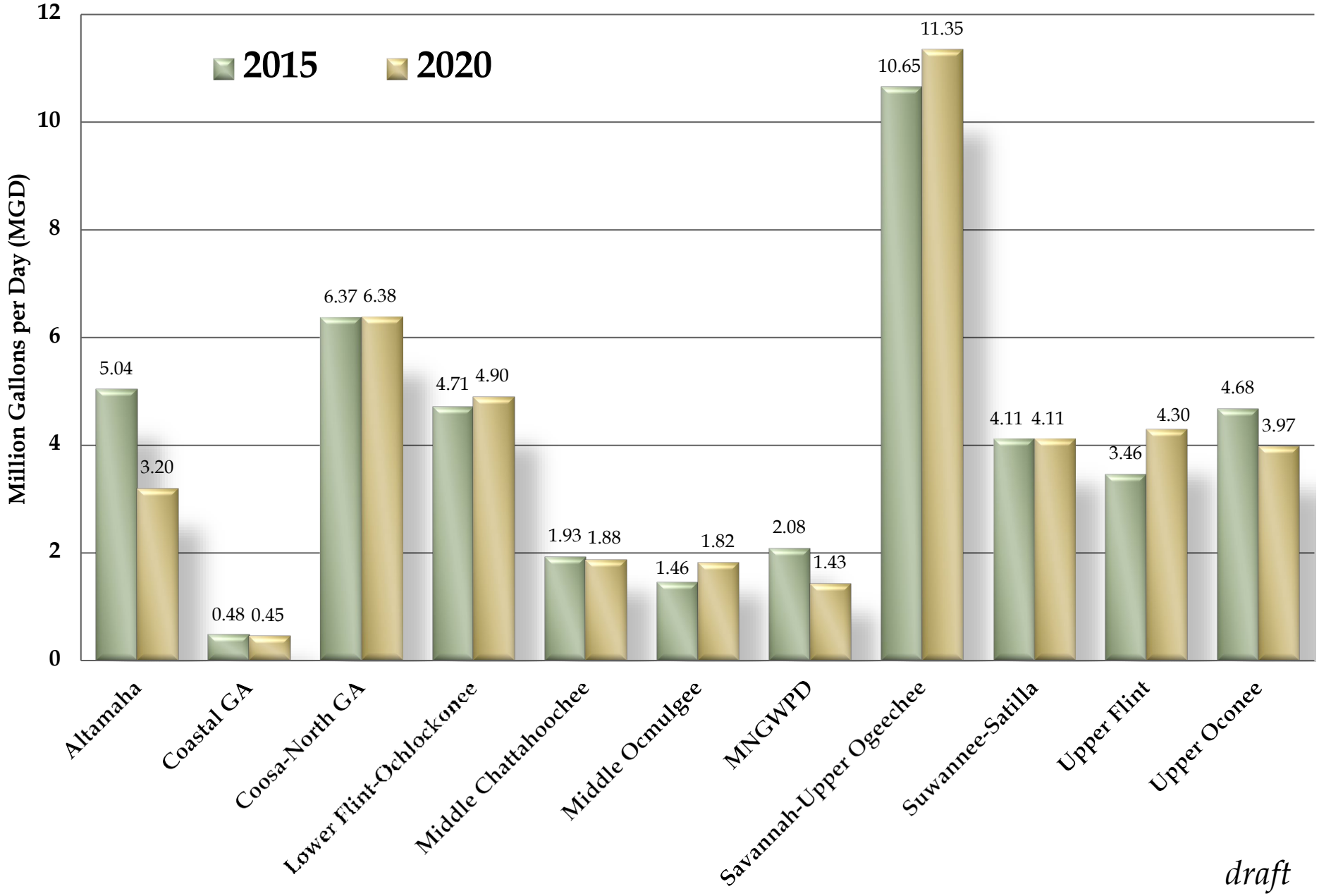
GEORGIA Water PLANNING & POLICY CENTER
ALBANY STATE UNIVERSITY

THE UNIVERSITY OF GEORGIA
COLLEGE OF AGRICULTURAL & ENVIRONMENTAL SCIENCES

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
  - Presented by basin, county, planning node, aquifer, etc….
- **Animal Ag/Nursery**

Animal Agriculture - Daily Water Use by Water Planning Region
Statewide Total: 43.8 MGD



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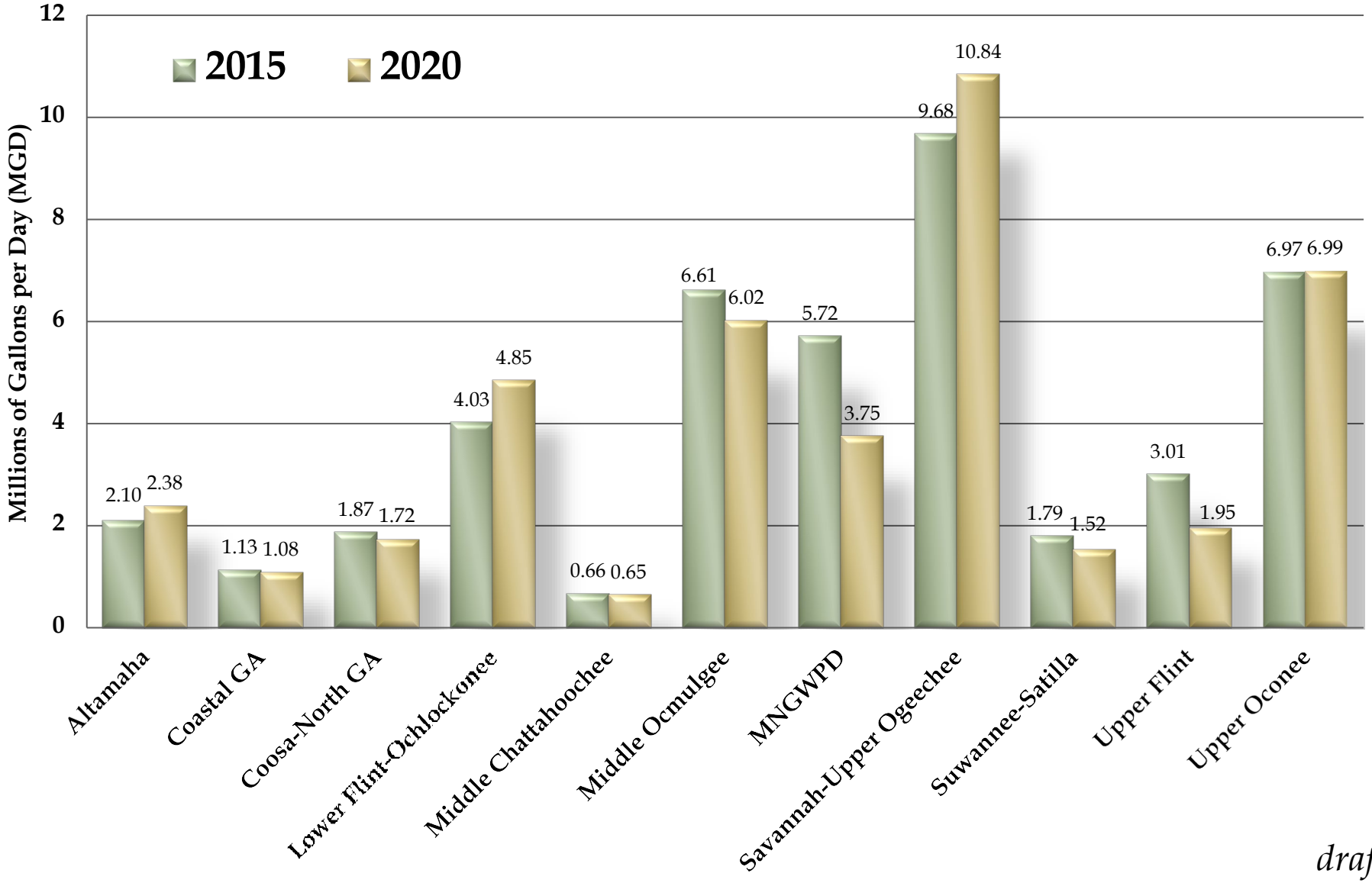
Daily Water Use by Horticultural Nurseries (Container, In-Ground, and Greenhouse), Millions of Gallons Per Day
Statewide Total: 41.76 MGD - *draft*



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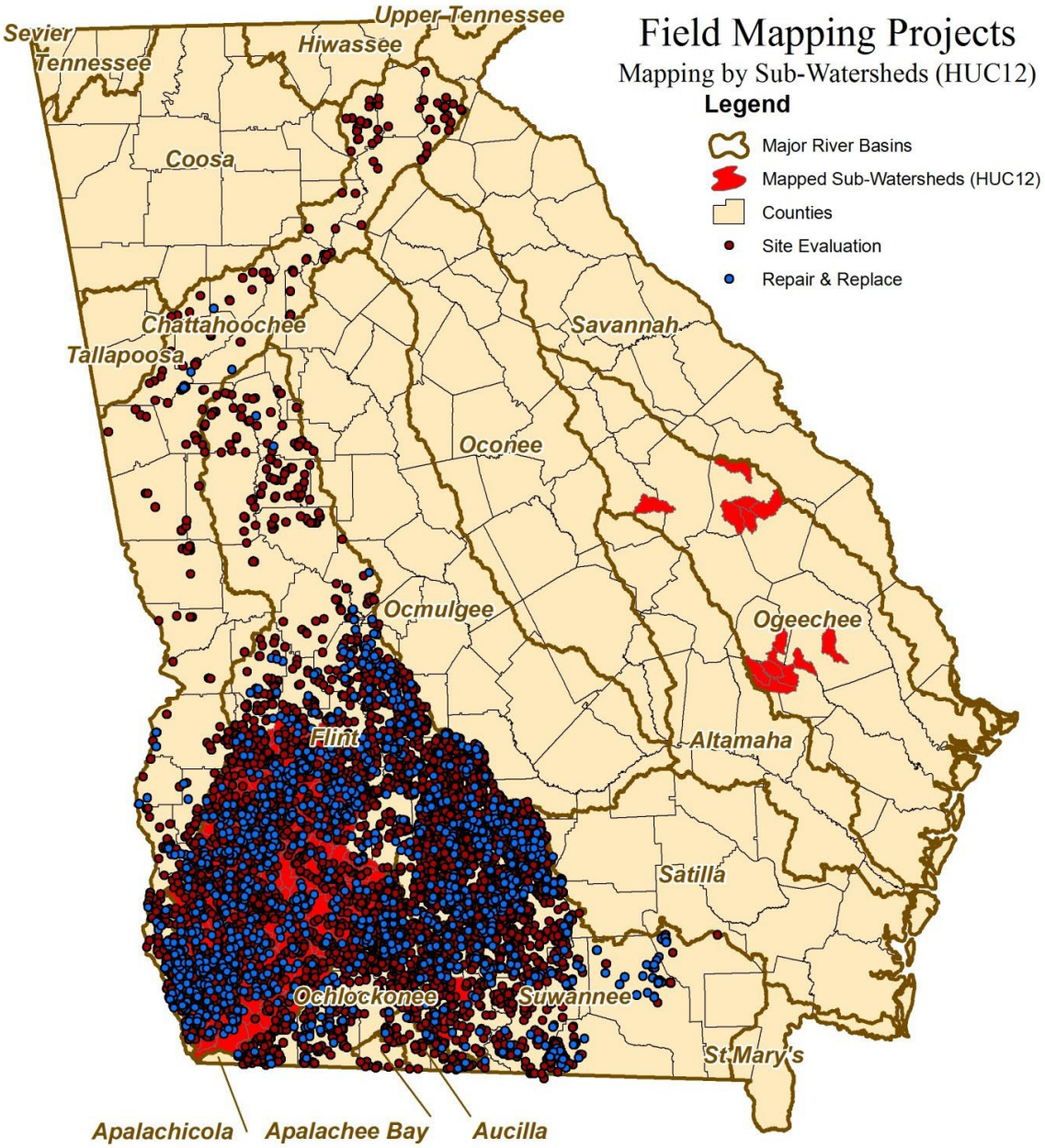
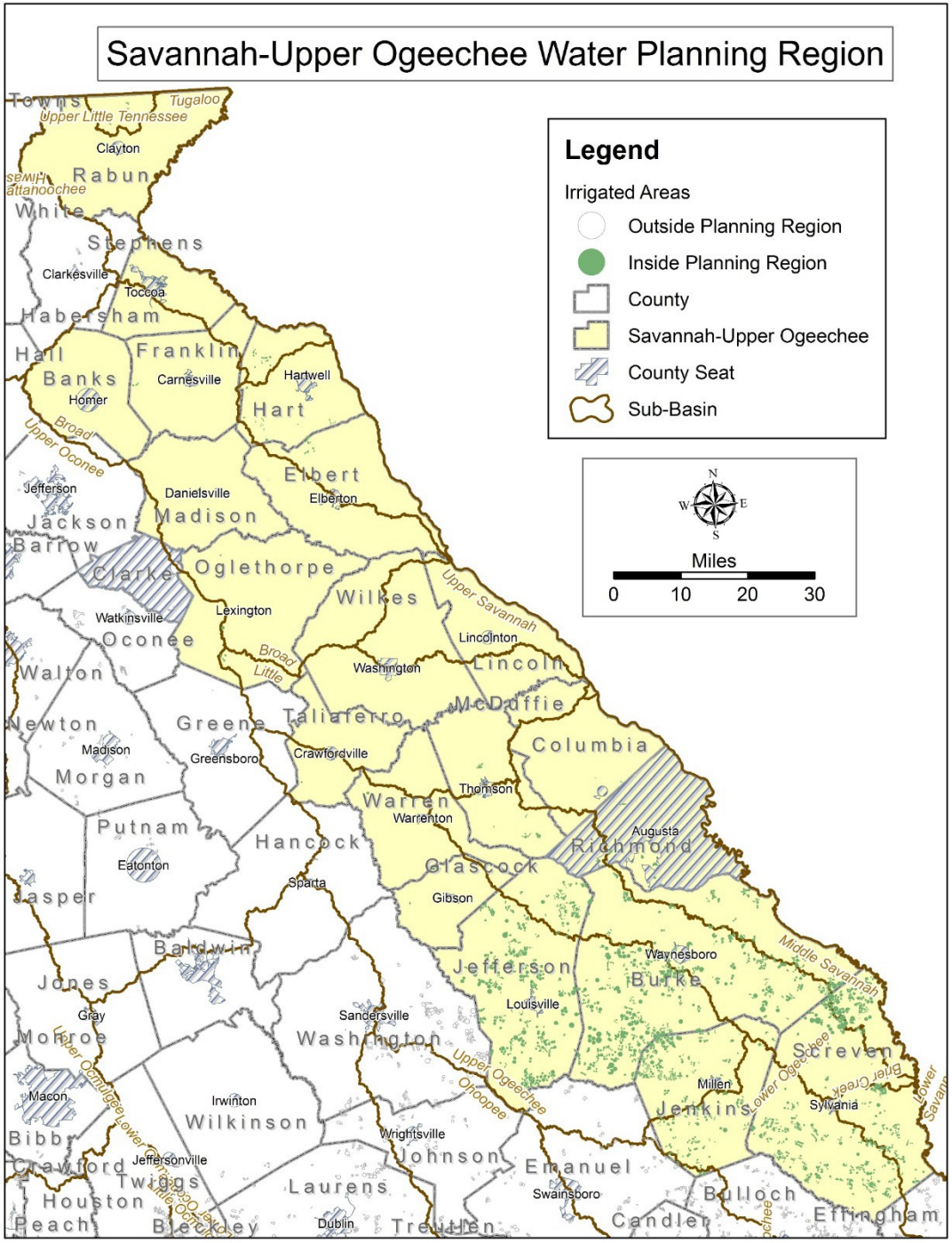

Field Mapping Projects
Mapping by Sub-Watersheds (HUC12)
Legend
Major River Basins
Mapped Sub-Watersheds (HUC12)
Counties
Site Evaluation
Repair & Replace
Upper Tennessee
Sevier
Tennessee
Hiwassee
Coosa
Chattahoochee
Tallapoosa
Savannah
Oconee
Ocmulgee
Ogeechee
Flint
Altamaha
Satilla
Ochlockonee
Suwannee
St Mary's
Apalachicola
Apalachee Bay
Aucilla



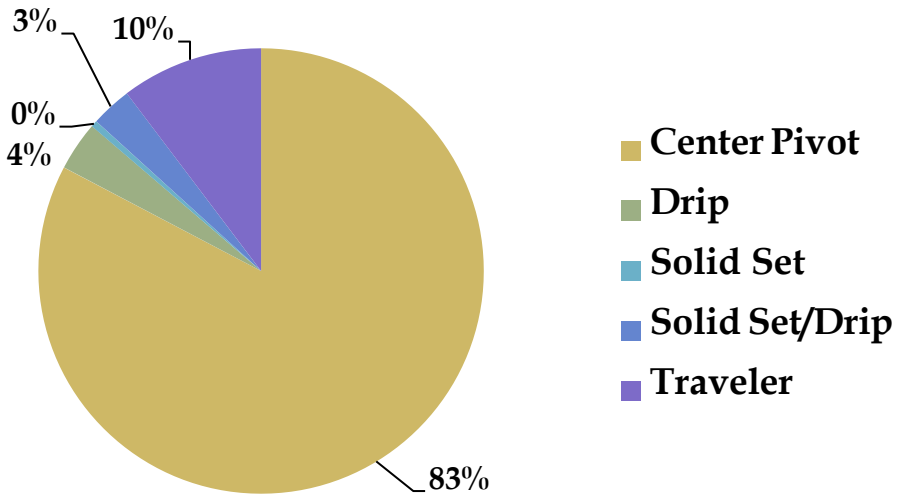
Irrigated Acres

County	2015	2020
Banks	6	42
Burke	40,244	44,054
Columbia	141	141
Elbert	311	311
Franklin	161	161
Glascock	294	294
Hart	911	1,059
Jefferson	26,688	28,228
Jenkins	13,084	14,770
McDuffie	793	794
Oglethorpe	341	367
Rabun	0	183
Richmond	851	888
Screven	27,117	31,263
Taliaferro	33	33
Warren	99	99
Wilkes	0	0

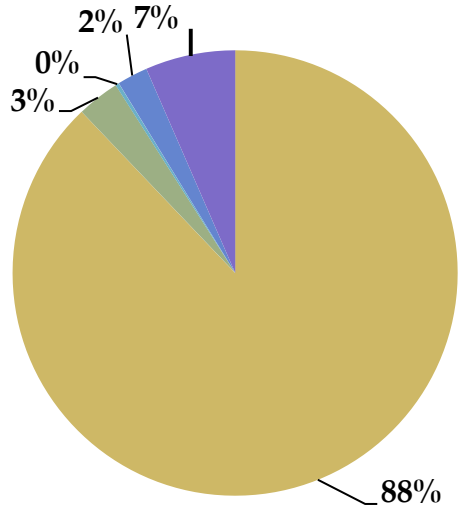
Savannah-Upper Ogeechee RWPC

	2015	2020	% Change
Total # of Fields	1,876	2,126	+ 13.3%
Total Acreage	111,075	122,688	+ 10.5%
Total GW Acreage	87,466	98,705	+ 12.8%
Total SW Acreage	23,609	23,984	+ 1.6%
Total Center Pivots	1,525	1,758	+ 15.3%
Center Pivot Acreage	96,999	107,823	+ 11.2%

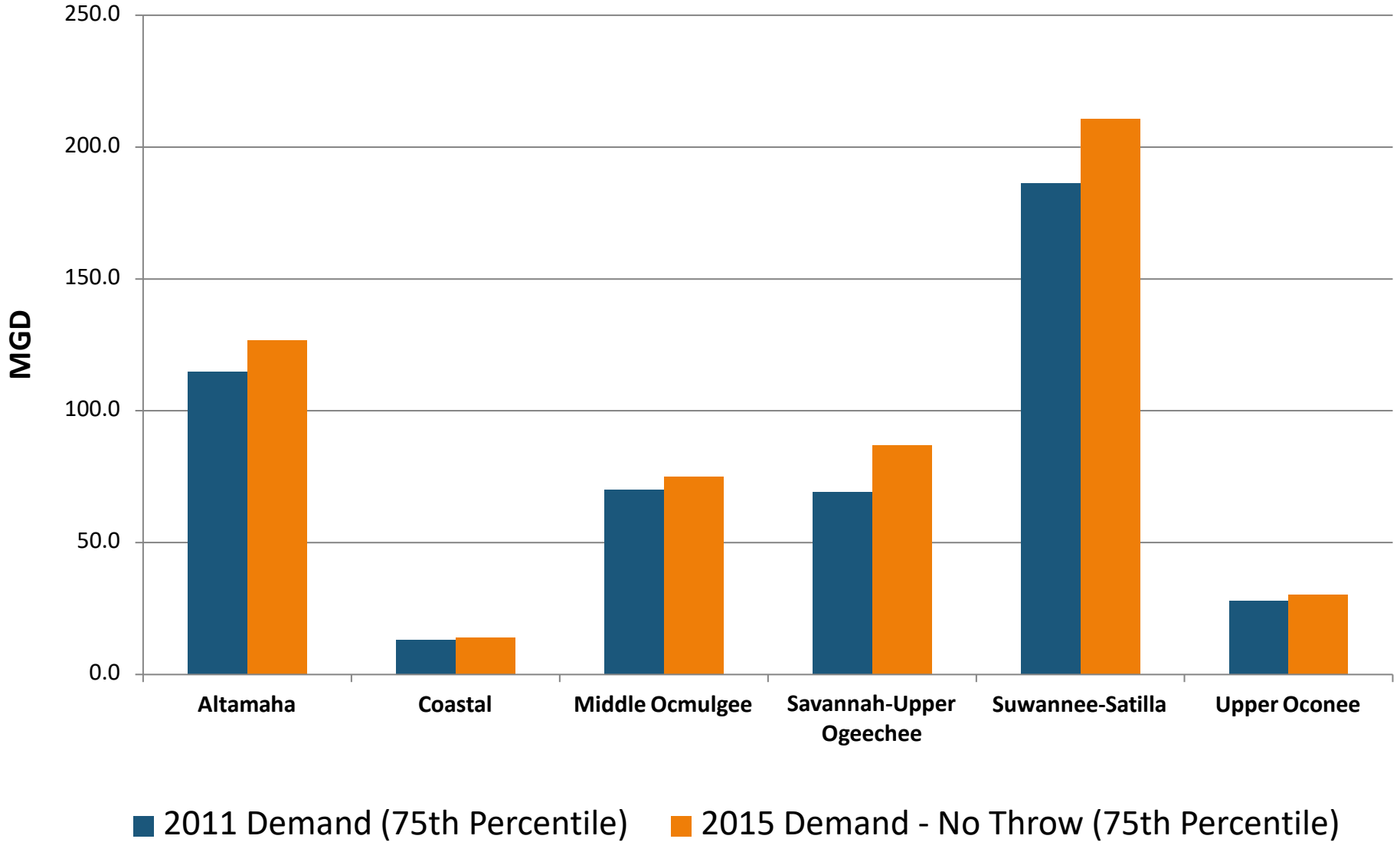
System Type - % of Systems



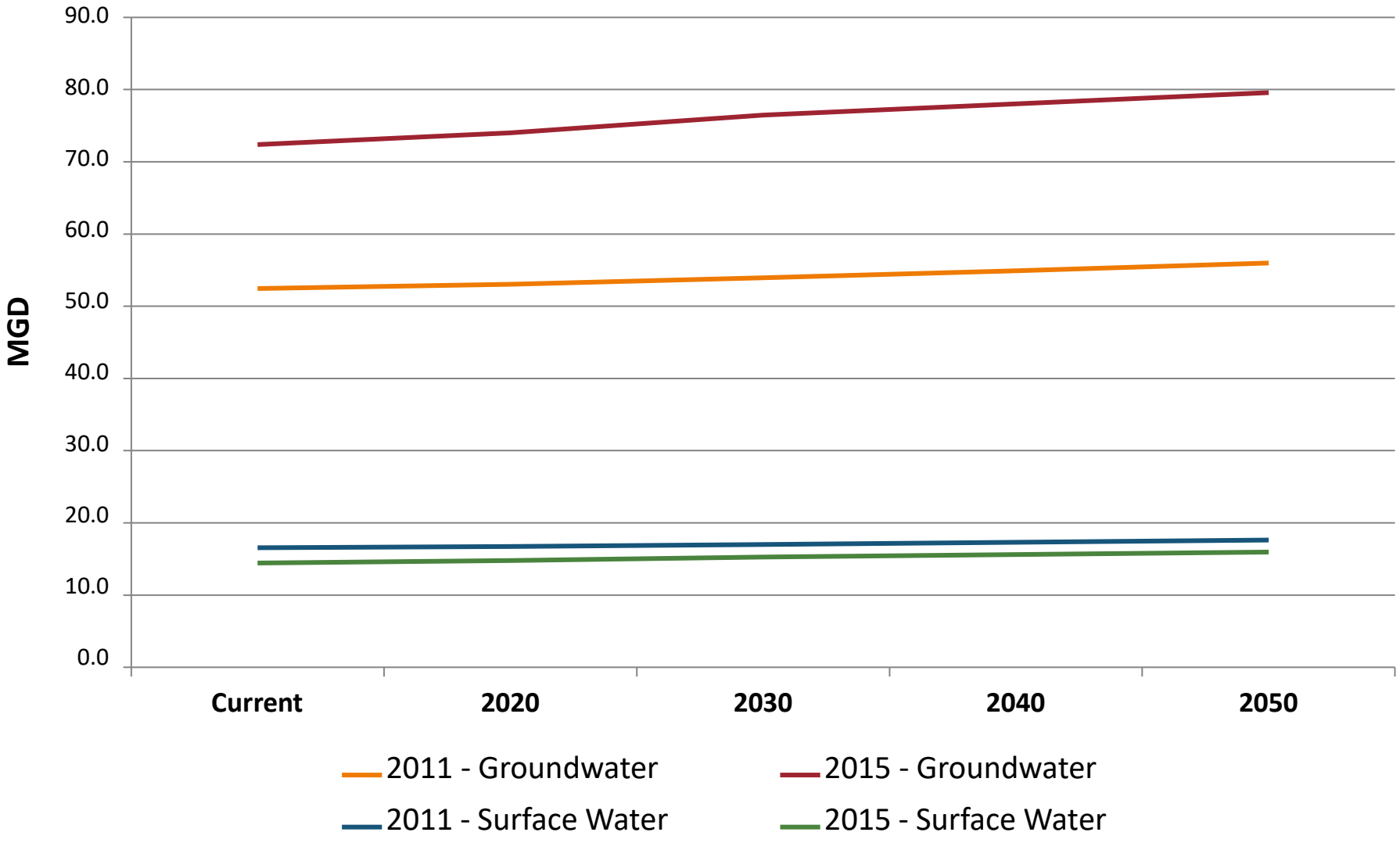
System Type - % of Acreage



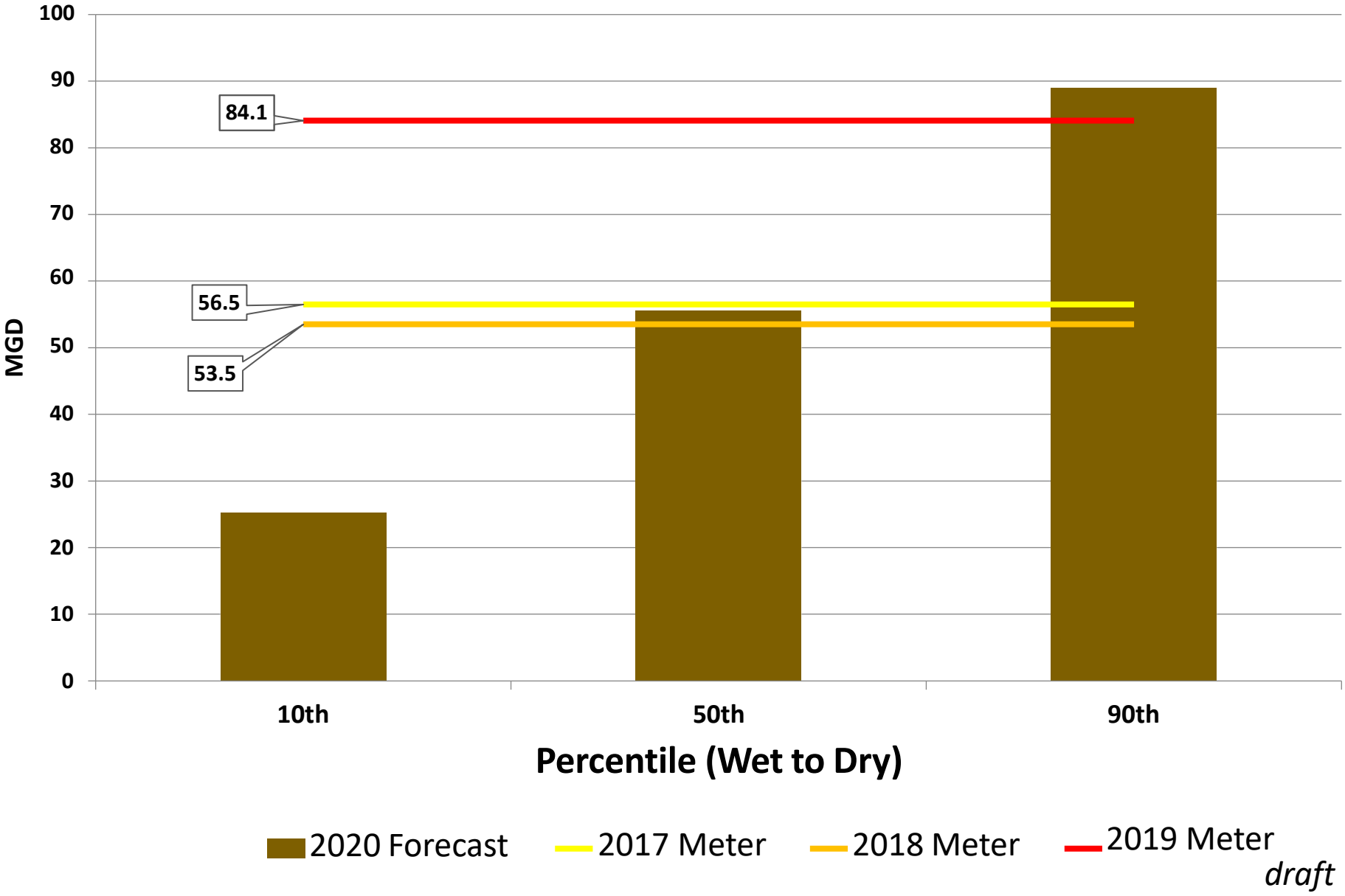
Ag Demand (2011 & 2015)



Savannah-Upper Ogeechee – Forecast (75th Percentile)



Sav-Upper Ogeechee Groundwater



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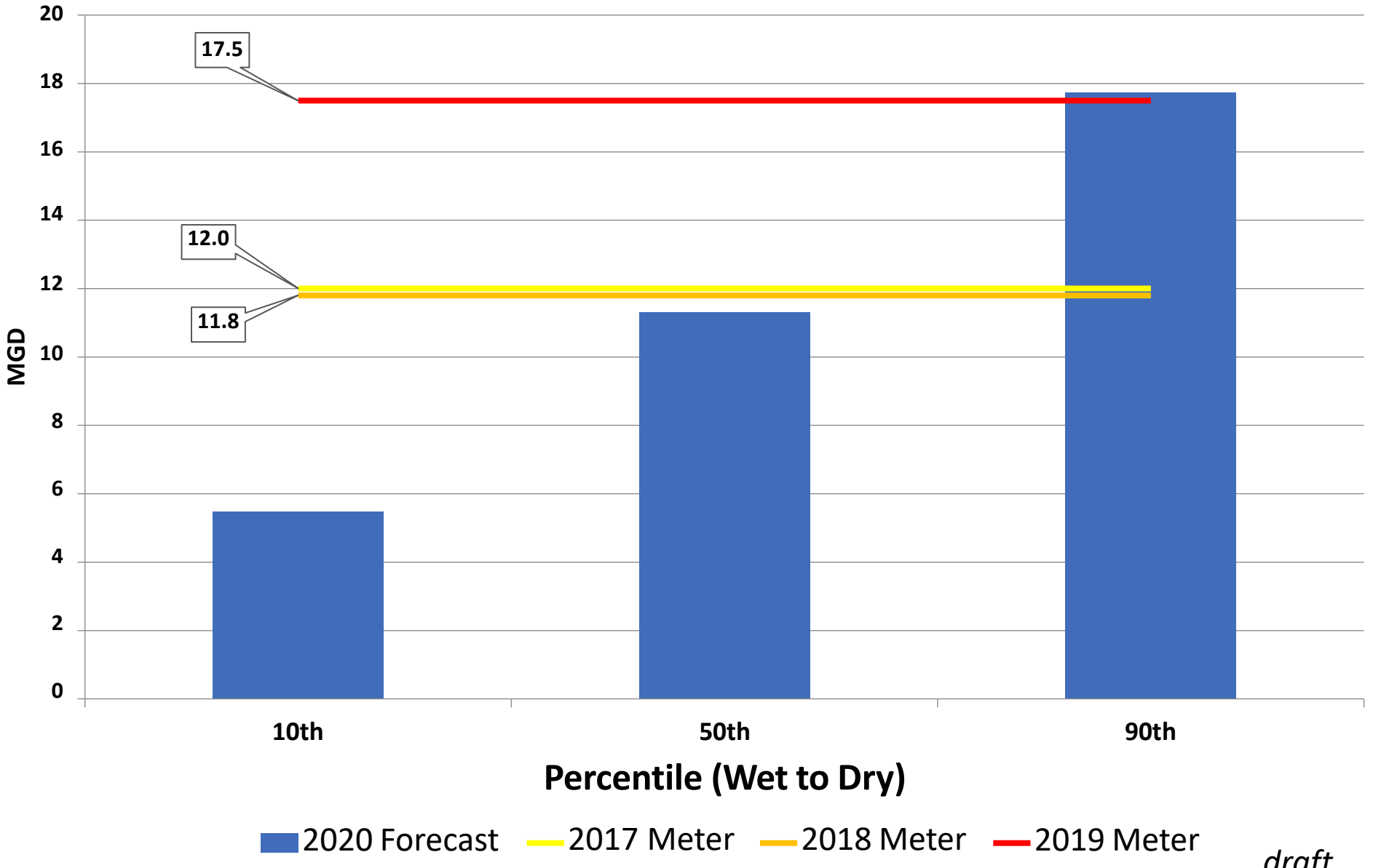
Sav-Upper Ogeechee Surface Water



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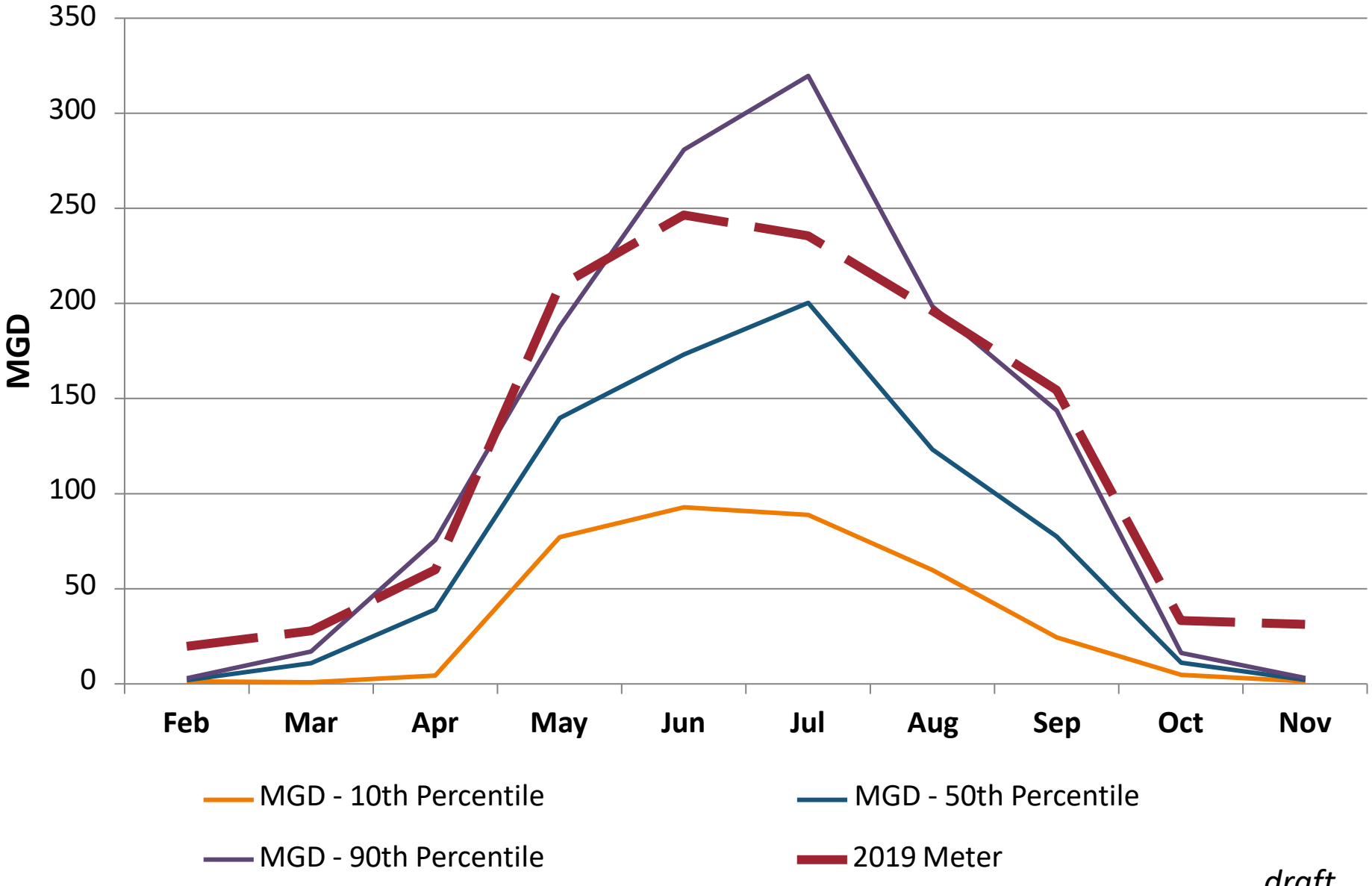
Sav-Upper Ogeechee - Monthly



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Questions & Discussion

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229-430-2900 x36

Public Comment

Thank You!

Questions? Comments? Need More Information?

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