

Altamaha Regional Water Planning Council Management Practices Subcommittee Materials

Overview of Regional Water and Wastewater Forecasts, Identification of Water and Wastewater Needs and Gaps, and Preliminary Management Practices to Address Regional Needs and Gaps between Forecasts and Available Resources

In February 2008 the Georgia General Assembly adopted the Georgia Comprehensive State-wide Water Plan (Plan) dated January 8, 2008. This Plan established the Regional Planning process that was officially kicked off in March 2009. The Altamaha Regional Water Planning Council (RWPC) is one of the 11 planning regions established throughout the state. The Altamaha RWPC is charged with several tasks including: 1) developing water and wastewater forecasts for the region through the year 2050; and 2) identification of management practices to help meet forecasted demands and address regional needs. The Altamaha RWPC boundaries are shown in Figure 1.

This document summarizes preliminary work completed by the Altamaha Regional Water Planning Council; and the Council's Management Practices Subcommittee. As part of the identification of regional priorities and needs the Altamaha RWPC has adopted the following Vision for the region:

The vision of the Altamaha Regional Water Planning Council is to wisely manage, develop, and protect the region's water resources for current and future generations by ensuring that the Altamaha basin's water resources are sustainably managed to enhance quality of life and public health, protect natural systems, and support the basin's economy.

More information on the Altamaha Regional Council and Goals adopted by the Council can be found at <http://www.altamahacouncil.org/>



Figure 1 – Altamaha RWPC Boundary

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Preliminary Findings for the Altamaha Region

Groundwater Availability

Groundwater from the Upper Floridan Aquifer is a vital resource for the Altamaha region. Groundwater is and will continue to be relied upon to meet about 80% of the water use in the region. Overall, the results from the Groundwater Resource Assessment indicate that there is sufficient groundwater supply to meet forecasted demands. However, localized issues could arise in areas where there is a high well density and/or high volumes of groundwater withdrawal.

Groundwater Gaps between Available Resource and Forecasted Needs

At this time there are **no anticipated groundwater gaps** expected over the 40 year planning horizon in the region.

The 5 highest groundwater use areas are expected to occur in Wayne, Wilcox, Dodge, Toombs, and Tattnall Counties.

Overview of Preliminary Management Practices to Address Groundwater Gaps

There are no anticipated groundwater gaps in the region. **The following list provides a summary of potential management practices to meet future needs.**

- Continue to develop groundwater from the Upper Floridan aquifer.
- Water Conservation
- Others?

Action Item - Council needs to identify additional practices and/or modify this list.

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Preliminary Findings for the Altamaha Region

Surface Water Availability

Surface water is an important resource used to meet current and future needs for the agricultural demand sector. Over the planning horizon the use of surface water for agricultural purposes is expected to increase by 9 million gallons per day (MGD) from 39.93 to 48.94 MGD.

There are several surface water planning nodes located in and in close proximity to the Altamaha region (bolded nodes are located within the planning region boundaries). These nodes and the basic conclusions of the current and future conditions modeling are summarized below:

- **Claxton (Canoochee River)** – surface water gaps under current and future conditions.
- Eden (Ogeechee River) – surface water gaps under current and future conditions; related to upstream uses.
- Kings Ferry (Ogeechee River) – surface water gaps under current and future conditions.
- Atkinson (Satilla River) – surface water gaps under current and future conditions.
- **Doctortown (Altamaha River)** – no surface water gaps under current and future conditions.
- **Lumber City (Ocmulgee River)** – no surface water gaps under current and future conditions.
- **Mount Vernon (Oconee River)** – no surface water gaps under current and future conditions.
- Statenville (Alapaha River) – surface water gaps under current and future conditions (the south western corner of Wilcox County drains to the Alapaha and Statenville node).

Overview of Preliminary Management Practices to Address Surface Water Gap

Agricultural surface water use accounts for all surface water use in the region and about 20 percent of all regional water use. The 5 highest surface water agricultural use counties in the region are Tattnall, Toombs, Wilcox, Evans and Dodge.

The only surface water gap expected in the region is on the Canoochee River at Claxton. There are however gaps measured outside the region that may in part be the result of surface water use within the region.

Water withdrawals from the Canoochee River Watershed within the region are used for agricultural purposes in portions of Emanuel, Candler, and Evans Counties and in a small portion of Tattnall County. The total forecasted surface water use for these counties is shown below. Note that only a small portion of Tattnall County’s surface water demand would come from the Canoochee River Watershed with the remainder coming from the Ohoopee and Altamaha Rivers/Watersheds.

Agricultural Surface Water Demand Forecast (MGD) – Total Crop, Nursery and Golf

| County | 2011 | 2020 | 2030 | 2040 | 2050 |
|----------|------|------|-------|-------|-------|
| Candler | 2.83 | 2.89 | 2.97 | 3.05 | 3.14 |
| Emanuel | 0.74 | 0.76 | 0.79 | 0.83 | 0.86 |
| Evans | 3.58 | 3.76 | 3.99 | 4.25 | 4.53 |
| Tattnall | 9.35 | 9.86 | 10.51 | 11.23 | 12.03 |

There is also a surface water gap that occurs downstream of the region on the Ogeechee River. This gap is likely associated with surface water uses on both the Canoochee and Ogeechee Rivers/Watersheds upstream of the Kings Ferry node.

There is another surface water gap on the Satilla River downstream of the region at the Atkinson node. Portions of Jeff Davis, Appling and Wayne Counties are within the Satilla River Basin upstream of this node. These three counties all utilize some surface water for agricultural purposes, but a portion (the majority?) of that demand would be met from the Altamaha River Watershed.

Finally as noted above surface water agricultural within Wilcox County may be contributing to gaps at the Statenville node within the Suwannee-Satilla Region.

Preliminary Potential Surface Water Gap Management Practices

Claxton node – Potential gaps are related to surface water agricultural use; no other demand sectors use surface water above the Claxton node. The gap at Claxton includes both a Flow Regime Gap and a Demand gap.

Action Item – Council direction on Flow Regime Gap and EPD and Council direction needed on Demand Gap

Observations of Management Practices subcommittee regarding the Claxton gap – from July 30, 2010 subcommittee meeting

Several members of the subcommittee observed that the Canoochee River has historically had period of low flow and at times goes dry.

The PC pointed out that the gap is identified if the frequency of critical low flows has increased due to out of stream use and/or if the flows are even lower than historically (in relationship to the flow regime value) as a result of out of stream use.

Several members of the subcommittee observed that farm ponds are an important source of surface water supply and in their opinion very few people withdraw water from the Canoochee and/or tributaries to the Canoochee. It was noted that some people irrigate crops with both surface water and groundwater; especially when surface supplies are low. In addition, many agricultural producers pump groundwater into their ponds thereby combining surface and groundwater.

Action Item – *Additional technical review of how this is handled in the forecasts and resource assessment modeling was requested.*

Several members of the subcommittee believe that tributaries and surface water “diversions” on the tributaries may need to be handled differently than diversions directly from the Canoochee.

The PC pointed out that the cumulative interception of surface water by ponds does have an overall affect on the Canoochee and from a resource perspective the affect and impact to low flow conditions (whether from pond interception of surface water or direct withdrawal) is the same.

Several members of the subcommittee indicated that it would be difficult for them to support management actions that would impact pond management (i.e., require releases from ponds to address low flow conditions).

The subcommittee discussed the following management practices within the context of the observations outlined above.

Data Improvement and Information Collection Practices

- Conduct additional improvements in agricultural water use measurement.
- Conduct additional improvements to better identify source of water supply associated with agricultural uses especially related to dual (surface water and groundwater) sources.
- Conduct additional research regarding agricultural consumptive use (currently assumed to be 100% consumptive).
- Conduct additional monitoring of gauge data in relationship to annual precipitation to verify timing of flow regime gaps and “triggers” to initiate management practices; is additional gauge installation needed to refine gap?

Action Item - Council needs to identify additional practices and/or modify this list.

Educational Practices

- Develop, encourage and educate irrigators - Develop more information regarding research and/or availability of crops that have less transpiration (i.e., DuPont, Monsanto).
- Universities of Georgia, Auburn, Clemson, and others are doing research on the most efficient means to irrigate and to identify when and how much water is needed to meet crop water requirements.
- Encourage UGA extension service to develop seeds and trees and things that farmers farm which will use less water.

Action Item - Council needs to identify additional practices and/or modify this list.

Water Conservation Practices

- Encourage/promote additional agricultural conservation whether it’s high efficiency nozzles for pivots or other conservation methods.

Action Item - Council needs to identify more specific measure here:

Water Supply Practices

- Consider strategies and incentives to replace the estimated future increase in surface water use with groundwater use.
- Replace a portion of current surface water withdrawals with groundwater withdrawals in drier years.
- Surface water storage (smaller offstream) to supplement the river during low flow conditions.
- Develop/design well fields to pump groundwater to stream to address critical low flow periods.
- Create a pond for winter storage and then use that to supplement the river in low flow periods.

Action Item - Council needs to identify additional practices and/or modify this list.

Surface water return flow practices

- There are several LAS systems in proximity to the Canoochee: Candler County (City?), Claxton poultry, Swainsboro. Management practice to consider could be to direct the LAS returns to critical section of the Canoochee to improve streamflow. Anti-degradation and surface water discharge requirements may make this costly and difficult to implement.

Institutional and Ordinance Practices

If we solve the problem by putting water back into the river, do we want to protect that from future withdrawals?

Action Item - Council needs to identify additional practices and/or modify this list.

Kings Ferry node

The above management practices should be coordinated with the management practices in the Coastal Georgia and Savannah-Upper Ogeechee regions to address the gaps at Kings Ferry.

Some of the surface water demands in Evans County likely affect both the Claxton and Kings Ferry nodes.

Atkinson node

The above management practices should be coordinated with the management practices in the Suwannee-Satilla region to address the gap at Atkinson.

Statenville node

The above management practices should be coordinated with the management practices in the Suwannee-Satilla region to address the gap at Statenville.

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Preliminary Findings for the Altamaha Region

Surface Water Quality

Assimilative Capacity Modeling – this modeling tool assesses the amount of dissolved oxygen that is available to assimilate wastewater. There are a number of segments in the Suwannee-Satilla Region where there is limited and no dissolved oxygen during certain times of the year including the following creeks and rivers: Alligator Creek, Oconee River (Wheeler County), Peterson Creek, Big Cedar and Yam Gandy Creeks, Ochoopee River, Beards and Doctors Creeks, Altamaha River below Doctortown, Cedar and Mill Creek's (research Fifteenmile Creek and Canoochee River above Fifteenmile Creek).

Current Water Quality Impairments - there are a number of current water quality impairments in the Altamaha region. The majority of water quality impairments are due to: low dissolved oxygen and fecal coliform bacteria. There are several segments impaired for trophic-weighted residual value for mercury in fish tissue, bio impacted (fish community) and pH. The Altamaha RWPC is currently prioritizing current impairments and the implementation status for the Total Maximum Daily Load (TMDL) Implementation Plans in the region (a list of the initial prioritized segments is provided at the end of this document).

Satilla River Watershed Models – Over the next several years it is likely that nutrient standards will be developed for Nitrogen and Phosphorous. In anticipation of these standards it may be prudent for the water planning councils to consider best management practices (BMPs) that can be used to address/reduce nutrient loading in this watershed. Although there are no current standards, indentifying possible load reducing strategies may be a good first step in preparation for future standard setting. The southern portions of Appling, Jeff Davis, and Wayne Counties contribute run-off to the Satilla River Watershed as do counties within the Suwannee-Satilla and Coastal Georgia RWPC boundaries.

Permitted Wastewater Capacity – See individual county capacities and gaps.

Overview of Preliminary Management Practices to Address Water Quality

Preliminary potential surface water quality management practices.

Point Sources and Non-Point Sources and for the Satilla Watershed Nutrient (phosphorus and nitrogen) Model

- Support Georgia Forestry Commission BMP Program.
- Identify - Agricultural BMPs, Forestry, Urban BMPs
- Advanced/Improved point source treatment
- Groundwater return flow management
- Stormwater detention/return management
- Identify potential location where improved data collection/assumptions on discharges are needed
- Identify areas with naturally low dissolved oxygen
- Identify if current fecal coliform issues are a significant health/environmental issue based on sources and designated uses

Action Item - Council needs to identify additional practices and/or modify this list.

Water and Wastewater Overview - Altamaha RWPC

County-level water and wastewater forecasts have been developed at 10-year increments beginning in 2010 and extending to 2050 for the 16 counties within the region. The major water and wastewater sectors include: municipal (domestic and commercial), industrial and agricultural. Thermoelectric energy needs are also being forecasted on a statewide basis.

Figures 2 and 3 show the aggregated county water forecasts for the Altamaha region in 2010 and 2050. Overall, the regional forecasted water need is expected to increase by approximately 41 million gallons per day (MGD).

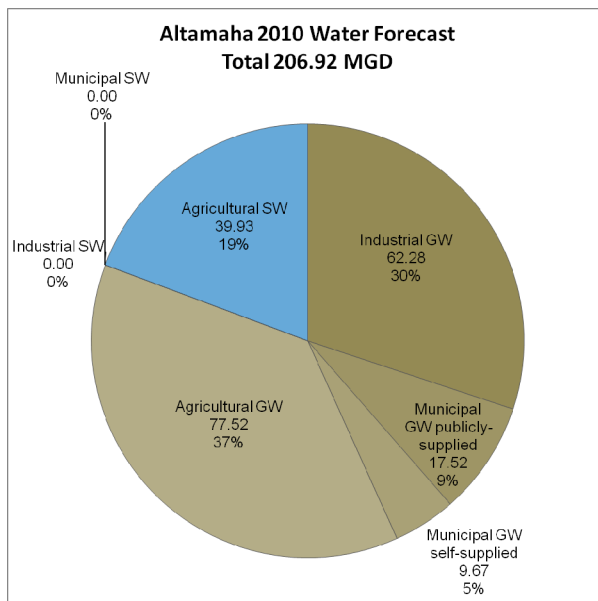


Figure 2 – Altamaha 2010 Total Water Forecast

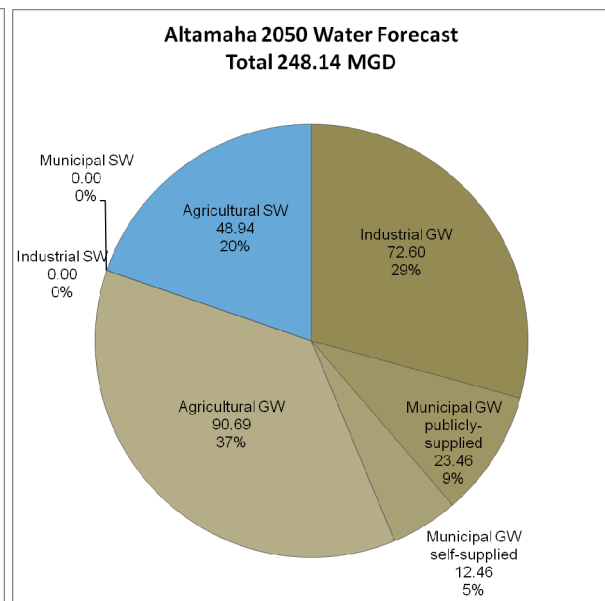


Figure 3 – Altamaha 2050 Total Water Forecast

Figures 4 and 5 show the aggregated county wastewater forecasts for the Altamaha region in 2010 and 2050. Overall, the regional forecasted wastewater flows are expected to increase by approximately 18.5 million gallons per day (MGD).

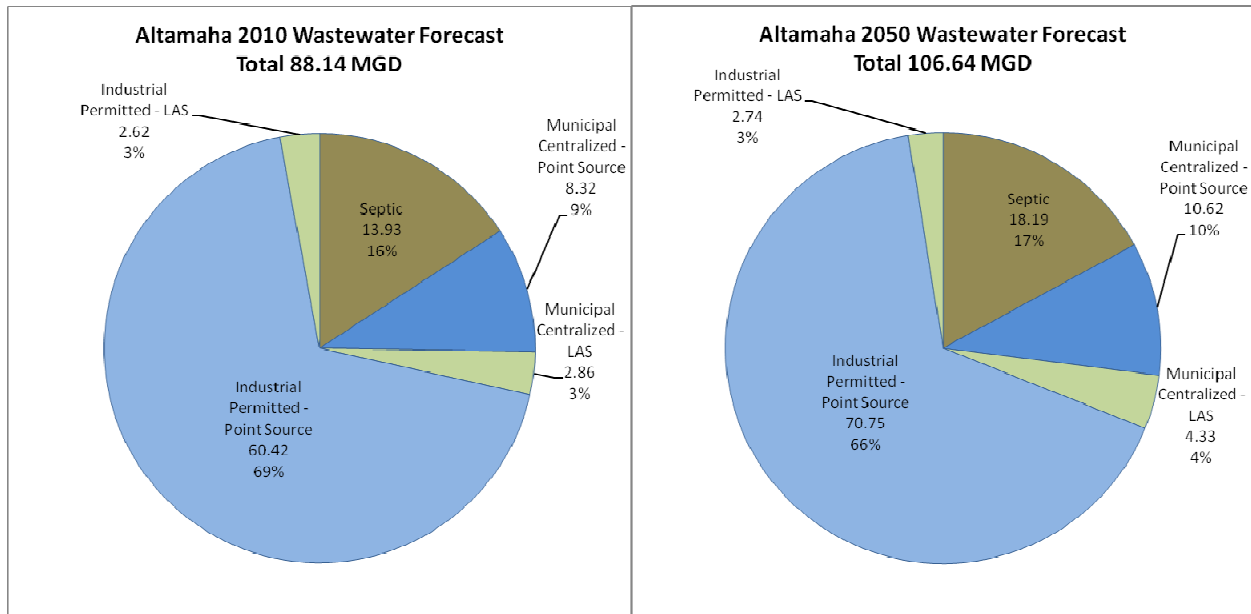


Figure 4 – Altamaha 2010 Total Wastewater Forecast

Figure 5 – Altamaha 2050 Total Wastewater Forecast

Summary of Surface Water Gaps

Summary of Atkinson Node (CFS)

| Scenario | Length of Shortfall (% of time) | Average Shortfall (cfs) | Long-term Average Flow (cfs) | Maximum Shortfall (cfs) | Corresponding Flow Regime (cfs) |
|------------------------|---------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current Demand | 11% | 26 | 2257 | 63 | 73 |
| 2050 Forecasted Demand | 7% | 29 | 2269 | 54 | 70 |

Summary of Claxton Demand Shortage (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Maximum shortfall (cfs) | Corresponding demand (cfs) |
|----------------|---------------------------------|-------------------------|-------------------------|----------------------------|
| Current | 10% | 5 | 17 | 18 |
| 2050 | 11% | 11 | 31 | 32 |

Summary of Claxton Flow Regime Shortage (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Long-term average flow (cfs) | Maximum shortfall (cfs) | Corresponding flow regime (cfs) |
|----------------|---------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current | 18% | 5 | 457 | 15 | 15 |
| 2050 | 17% | 5 | 457 | 15 | 15 |

Summary of Eden Node (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Long-term average flow (cfs) | Maximum shortfall (cfs) | Corresponding flow regime (cfs) |
|----------------|---------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current | 6% | 19 | 2258 | 41 | 201 |
| 2050 | 4% | 31 | 2262 | 54 | 155 |

Summary of Kings Ferry Node (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Long-term average flow (cfs) | Maximum shortfall (cfs) | Corresponding flow regime (cfs) |
|---------|------------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current | 6% | 35 | 3722 | 75 | 317 |
| 2050 | 4% | 47 | 3736 | 100 | 245 |

Summary of Statenville Node (CFS)

| Scenario | Length of Shortfall (% of time) | Average Shortfall (cfs) | Long-term Average Flow (cfs) | Maximum Shortfall (cfs) | Corresponding Flow Regime (cfs) |
|------------------------|------------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current Demand | 20% | 31 | 1060 | 92 | 95 |
| 2050 Forecasted Demand | 19% | 44 | 1054 | 82 | 84 |

Surface Water Statistics from other Regional Planning Nodes

Summary of Mount Vernon Node

| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--------------------------------|---------------------------|------------------------------|
| Current Consumptive Demand | 0 | 0 | 94230 At Milledgeville | 63% At Milledgeville | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 94676 At Milledgeville | 63% At Milledgeville | N/A |

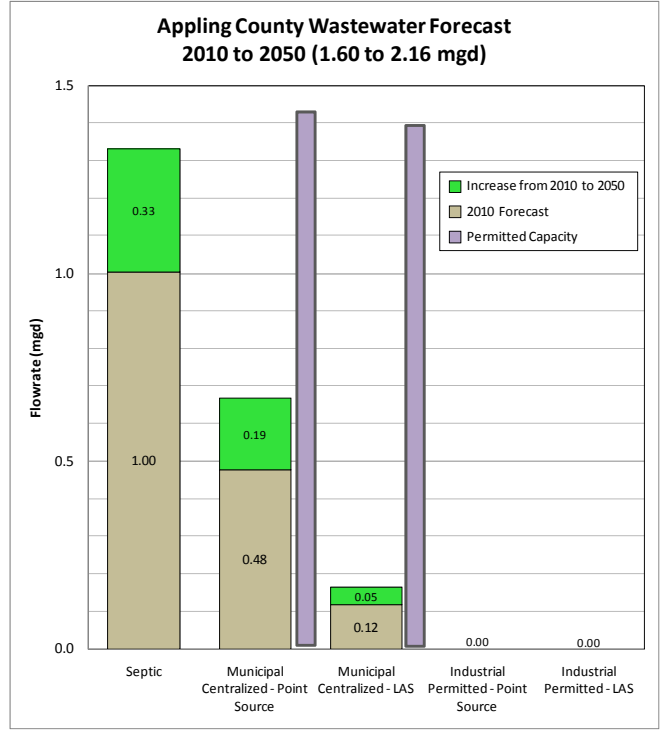
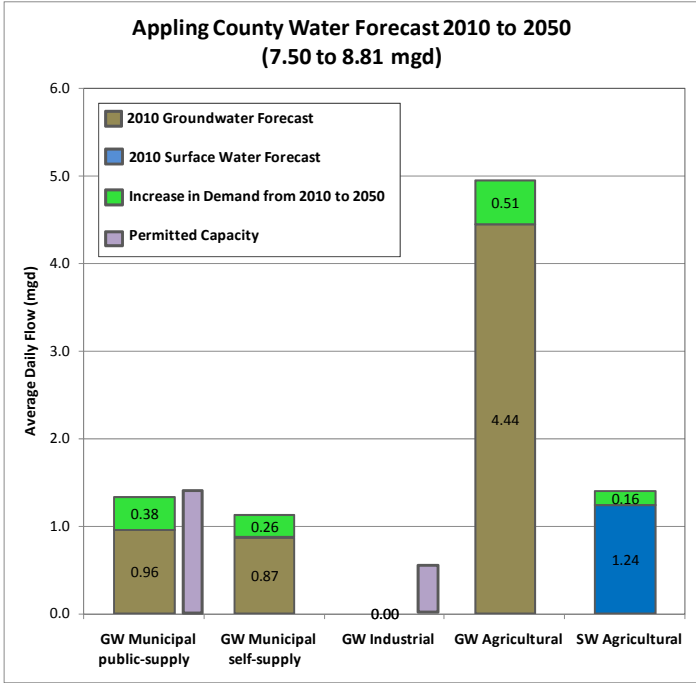
Summary of Lumber City Node

| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--------------------------------|---------------------------|------------------------------|
| Current Consumptive Demand | 0 | 0 | 61000 At Lake Jackson | 82% At Lake Jackson | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 55169 At Lake Jackson | 74% At Lake Jackson | N/A |

Summary of Doctortown Node

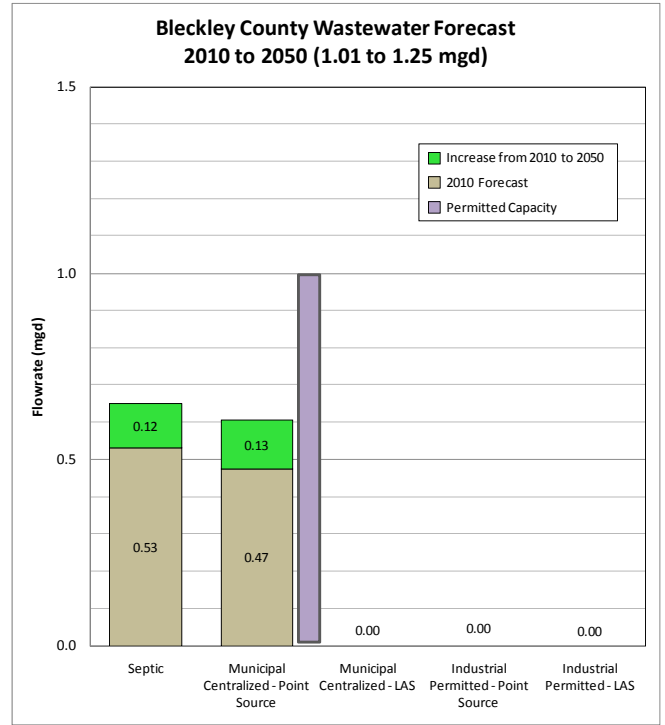
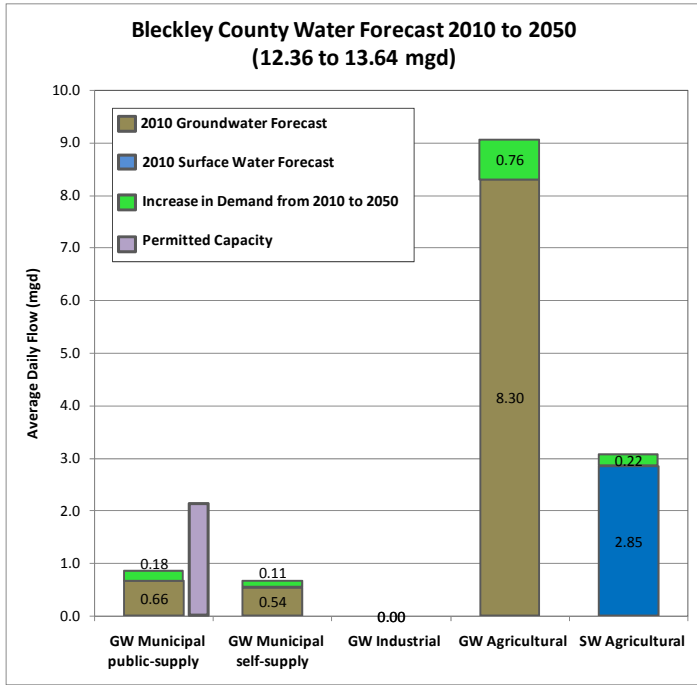
| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--|--|------------------------------|
| Current Consumptive Demand | 0 | 0 | 61000 At Lake Jackson and 94230 At Milledgeville | 82% At Lake Jackson and 63% At Milledgeville | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 55169 At Lake Jackson and 94676 At Milledgeville | 74% At Lake Jackson and 63% At Milledgeville | N/A |

Appling County



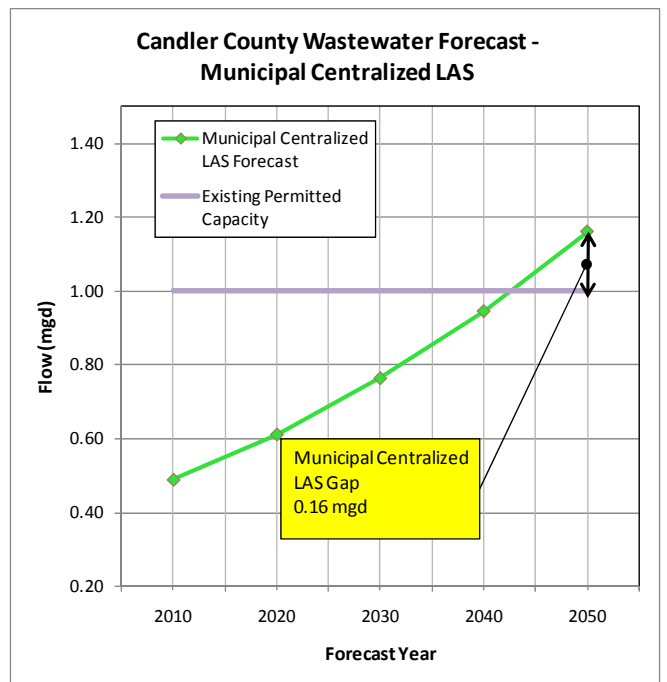
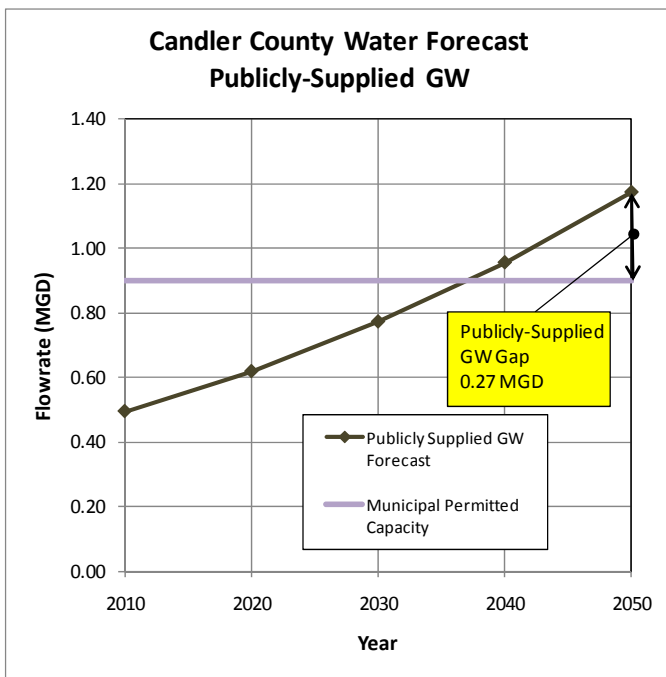
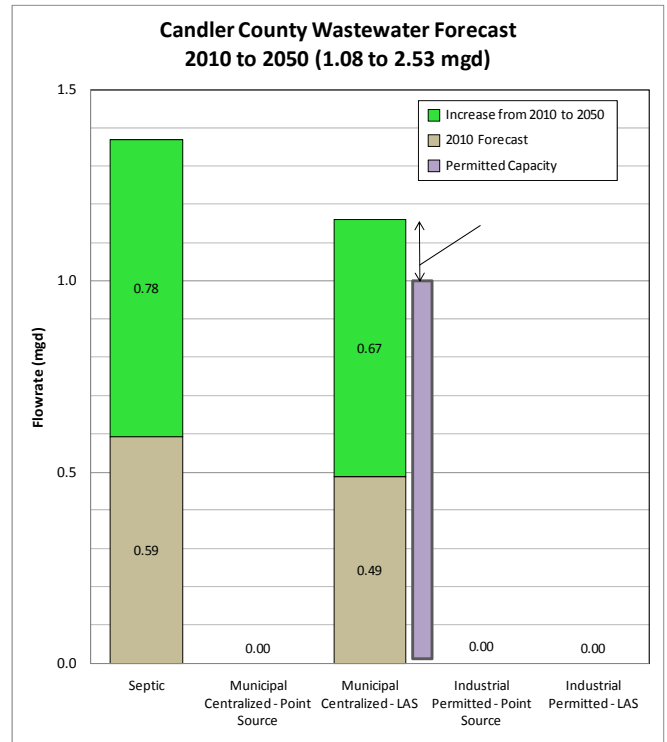
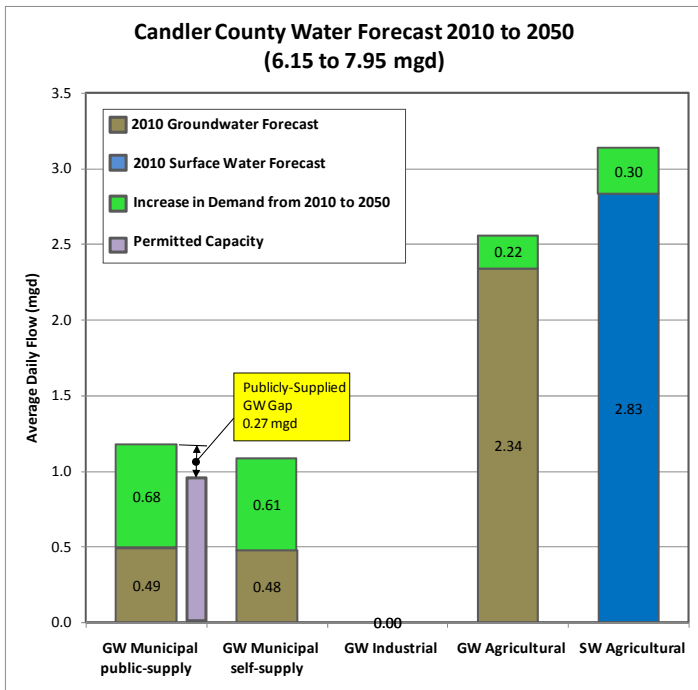
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|---------|---|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Appling | Municipal | 1.83 | 0.00/Doctortown & Atkinson | N/A | 0.64 (0.38 Public; 0.26 Self) | 1.40 | Septic 1.00; Centralized 0.60 | Septic 0.33; Centralized 0.24 | Centralized 2.84 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Atkinson | N/A | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 5.68 | 0.16/Doctortown & Atkinson | | 0.51 | | | | | | | |
| | Total | 7.51 | 0.16/Doctortown & Atkinson | | 1.14 | 1.95 | 1.60 | 0.56 | 2.84 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 1.24 MGD, some of which is at Atkinson; Additional 0.16 MGD of 2050 Ag SW use, some of which is at Atkinson | | | None | | | None | None | Impairments on 5 segments for DO, Bio F, or FC; Assessment Pending on 1 segments; See Appendix A | TMDLs complete for 3 segments; impairment cause is NP or UR |
| | Future Needs | | 0.16 MGD of additional Ag SW development | | 1.14 additional GW development | | | 0.56 additional ww capacity development | | None | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Satilla or Altamaha River Basins; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | Permitted Capacity | | | | | None | 1) Cite TMDL implementation status for DO, Bio F, and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | Suwannee-Satilla - Satilla River Basin, Atkinson Node | | | | | | | | Suwannee-Satilla - Little Satilla River in Satilla River Basin | |

Bleckley County



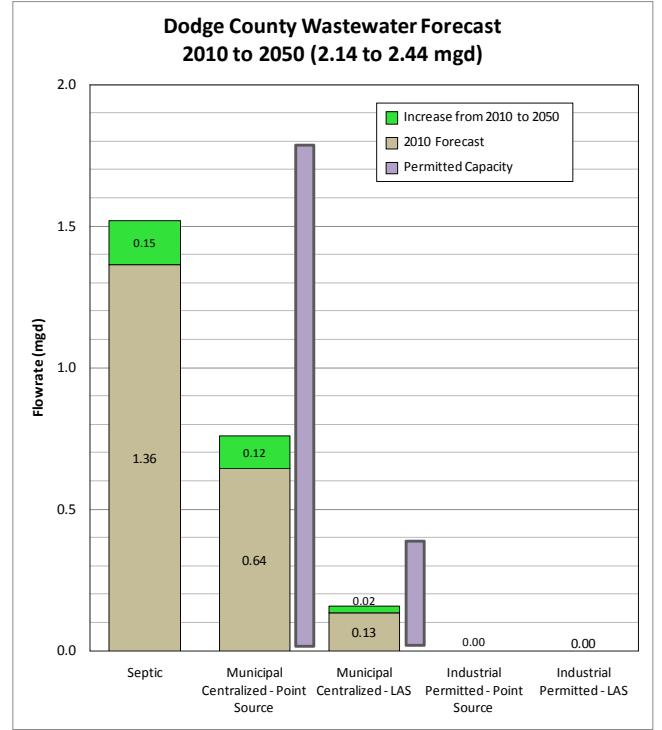
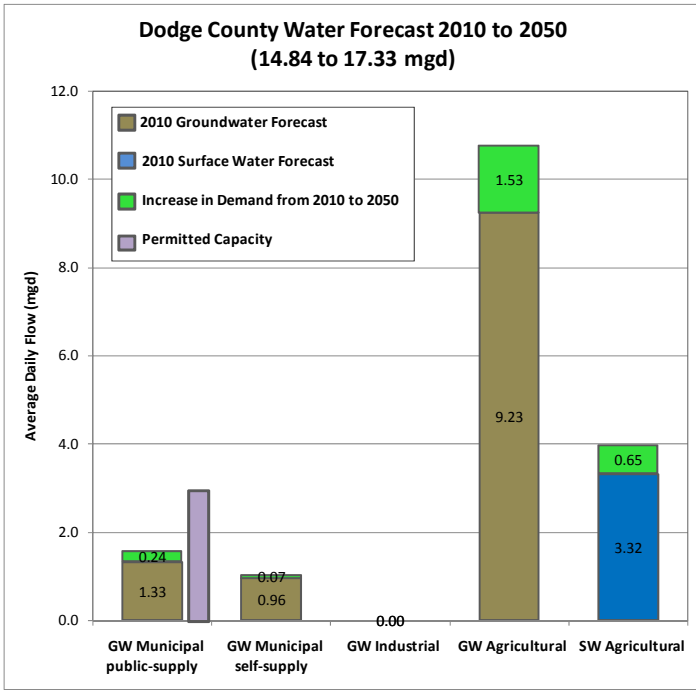
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|----------|---|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Bleckley | Municipal | 1.20 | 0.00/Lumber City & Mt. Vernon | N/A | 0.29 (0.18 Public; 0.11 Self) | 2.15 | Septic 0.53; Centralized 0.47 | Septic 0.12; Centralized 0.13 | Centralized 1.00 | | | |
| | Industrial | 0.00 | 0.00/Lumber City & Mt. Vernon | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 11.15 | 0.22/Lumber City & Mt. Vernon | | 0.76 | | | | | | | |
| | Total | 12.35 | 0.22/Lumber City & Mt. Vernon | | 1.06 | 2.15 | 1.01 | 0.25 | 1.00 | | | |
| | Gaps | | None | | | None | | | None | None | Impairments on 2 segments for Bio F or FC; See Appendix A | TMDLs complete for 2 segments and ; impairment cause is NP or UR |
| | Future Needs | | 0.22 MGD of additional Ag SW development | | 1.06 additional GW development | | | 0.25 additional ww capacity development | | None | | |
| | Preliminary Management Practices | | None | | Permitted Capacity | | | | | None | 1) Cite TMDL implementation status for Bio F or FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | Middle Ocmulgee - Ocmulgee River | |

Candler County



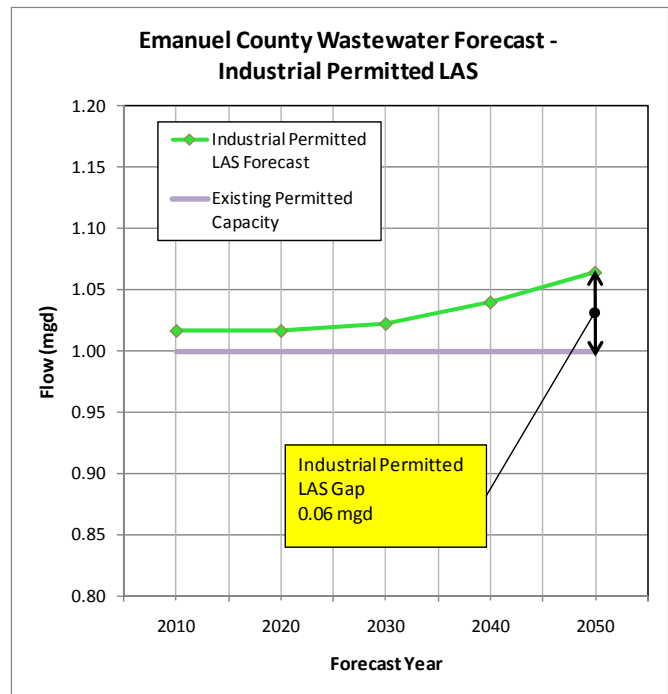
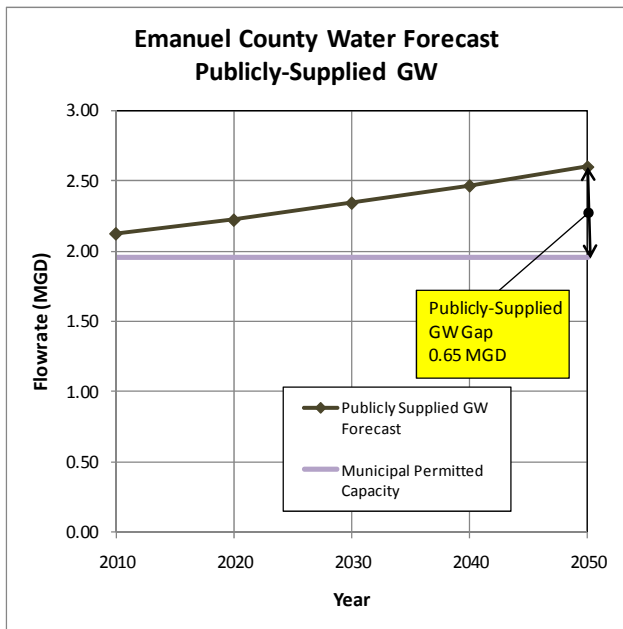
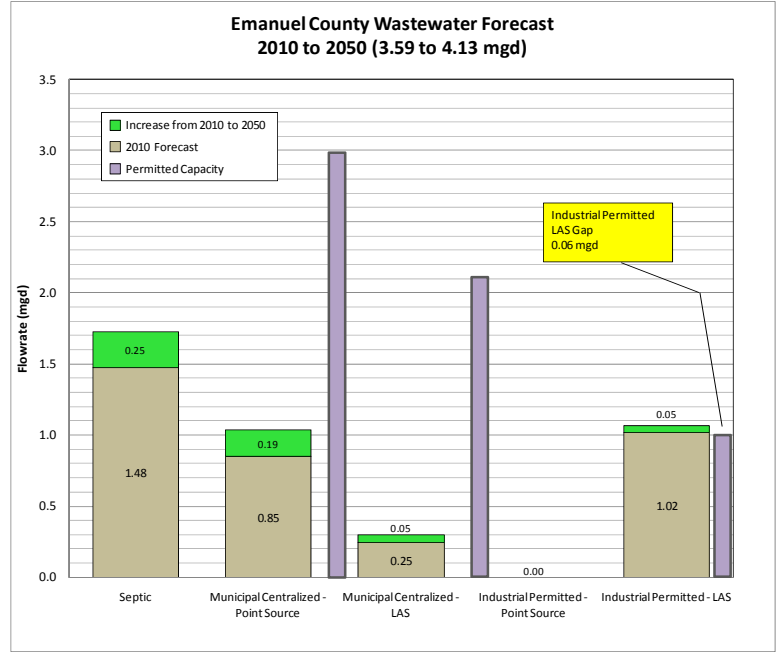
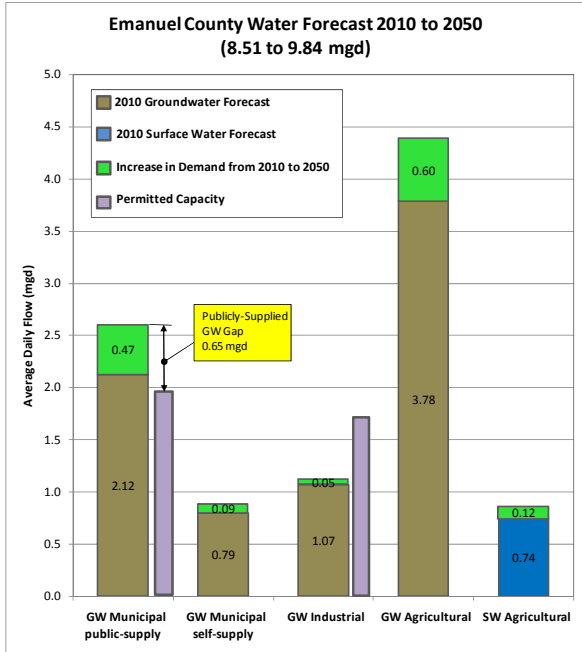
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|---|---|--|--|----------------------------------|---|---|---------------------------------------|--|--|--|--|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Candler | Municipal | 0.97 | 0.00/Doctortown & Claxton | N/A | 1.29 (0.68 Public; 0.61 Self) | 0.90 | Septic 0.59; Centralized 0.49 | Septic 0.78; Centralized 0.67 | Centralized 1.00 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Claxton | N/A | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 5.17 | 0.30/Doctortown & Claxton | | 0.22 | | | | | | | |
| | Total | 6.14 | 0.30/Doctortown & Claxton | | 1.51 | 0.90 | 1.08 | 1.45 | 1.00 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 2.83 MGD, some of which is at Claxton; Additional 0.30 MGD of 2050 Ag SW use, some of which is at Claxton | | | Yes, publicly-supplied demand exceeds permitted capacity between 2030 and 2040, Infrastructure gap of 0.27 MGD by 2050. | | | Yes, centralized LAS demand exceeds permitted capacity between 2040 and 2050, ww Infrastructure gap of 0.16 MGD by 2050. | Yes, Assimilative capacity exceeded on Fifteenmile Creek under baseline conditions; confirmed by 303(d) list | Impairments on Fifteenmile Creek for DO, on 6 other segments for DO, TWR or FC; Assessment pending for 2 segments See Appendix A | TMDLs complete for 4 segments and ; impairment cause is NP or UR |
| | Future Needs | | 0.30 MGD of additional Ag SW development | | 1.51 additional GW development | | | 1.45 additional ww capacity development | | None | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Ogeechee River Basin; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | No GW permit applications found. | | | No planned projects found. | None | 1) Cite TMDL implementation status for DO, TWR and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| Council or Additional Coordination - Shared Resource | | Coastal Georgia - Ogeechee River Basin, Claxton Node | | | | | | | | Coastal Georgia - Canoochee River in Ogeechee River Basin | | |

Dodge County



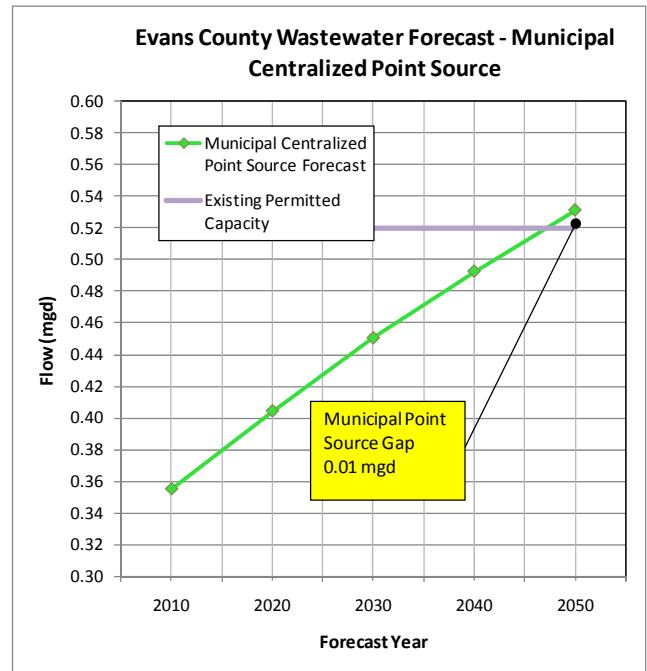
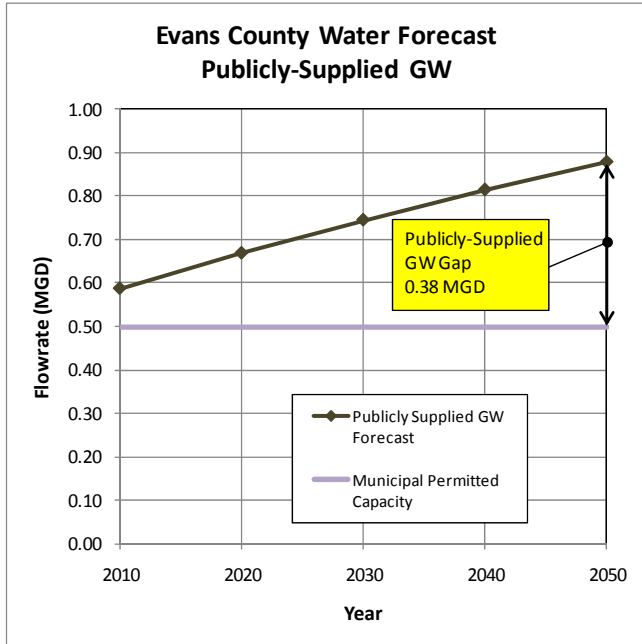
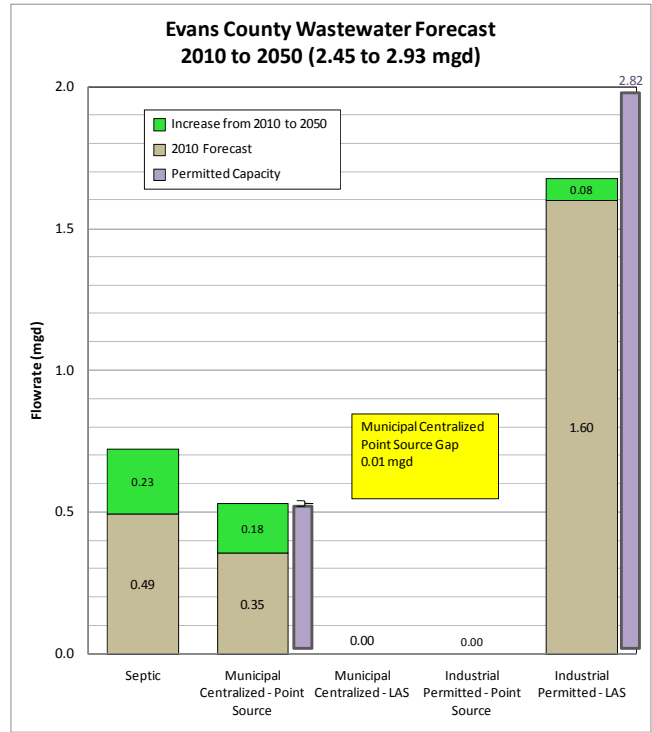
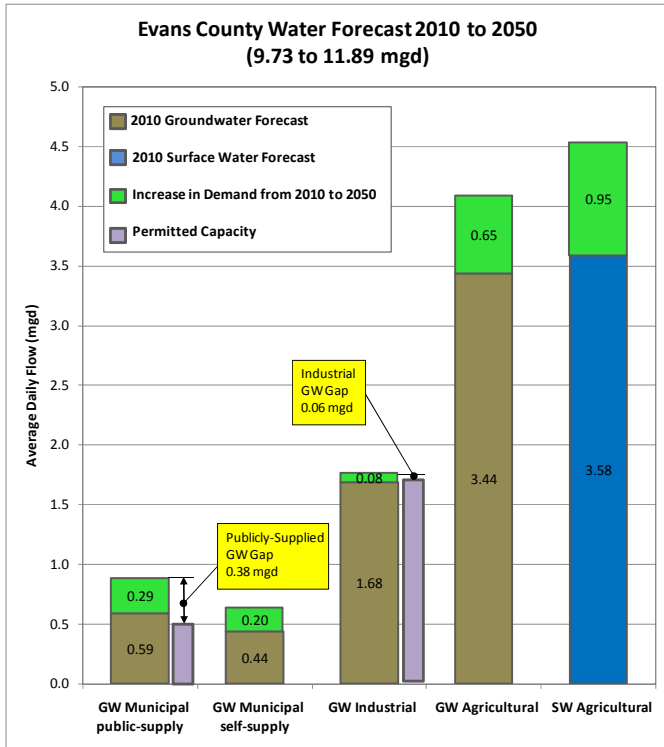
| County | Demand Sector | WATER SUPPLY | | | | WASTEWATER | | | | WATER QUALITY | | |
|--------|--|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Dodge | Municipal | 2.29 | 0.00/Lumber City, Doctortown & Mt. Vernon | N/A | 0.31 (0.24 Public; 0.07 Self) | 2.80 | Septic 1.36; Centralized 0.77 | Septic 0.15; Centralized 0.14 | Centralized 2.18 | | | |
| | Industrial | 0.00 | 0.00/Lumber City, Doctortown & Mt. Vernon | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 12.55 | 0.65/Lumber City, Doctortown & Mt. Vernon | | 1.53 | | | | | | | |
| | Total | 14.84 | 0.65/Lumber City, Doctortown & Mt. Vernon | | 1.84 | 2.80 | 2.14 | 0.29 | 2.18 | | | |
| | Gaps | | None | | | None | | | None | Yes, assimilative capacity exceeded in segment of Sugar Creek under baseline conditions | Impairments on 5 segments for DO, pH, Bio F or FC; See Appendix A | TMDL complete for 1 segment and other TMDLs are complete for 5 segments; impairment cause is NP or UR |
| | Future Needs | | 0.65 MGD of additional Ag SW development | | 1.84 additional GW development | | | 0.29 additional ww capacity development | | Assimilative capacity exceeded in longer segment of Sugar Creek and reach of Alligator Creek under permit limit conditions | | |
| | Preliminary Management Practices (NOT PRIORITIZED) | | None | | Permitted Capacity | | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, TWR, Bio F and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | Middle Ocmulgee - Mosquito Creek in Ocmulgee River Basin; Upper Oconee - Alligator Creek in Ocmulgee River Basin | |

Emanuel County



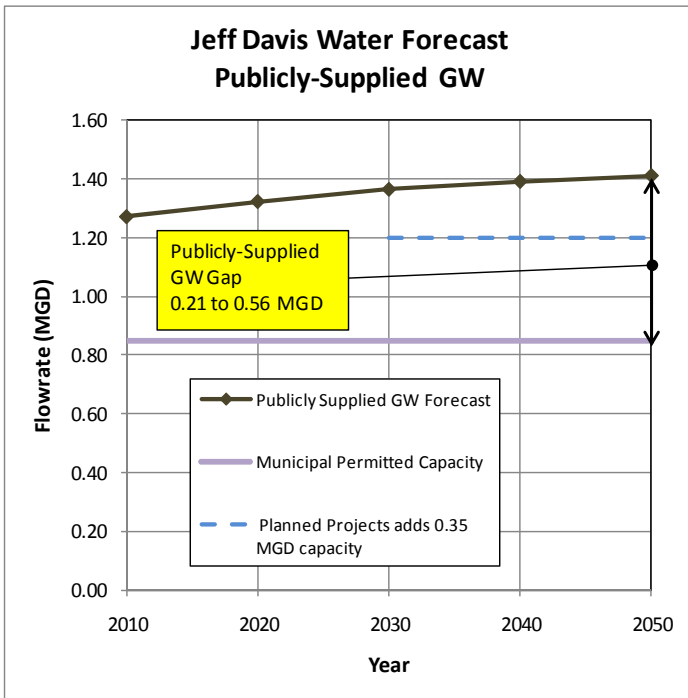
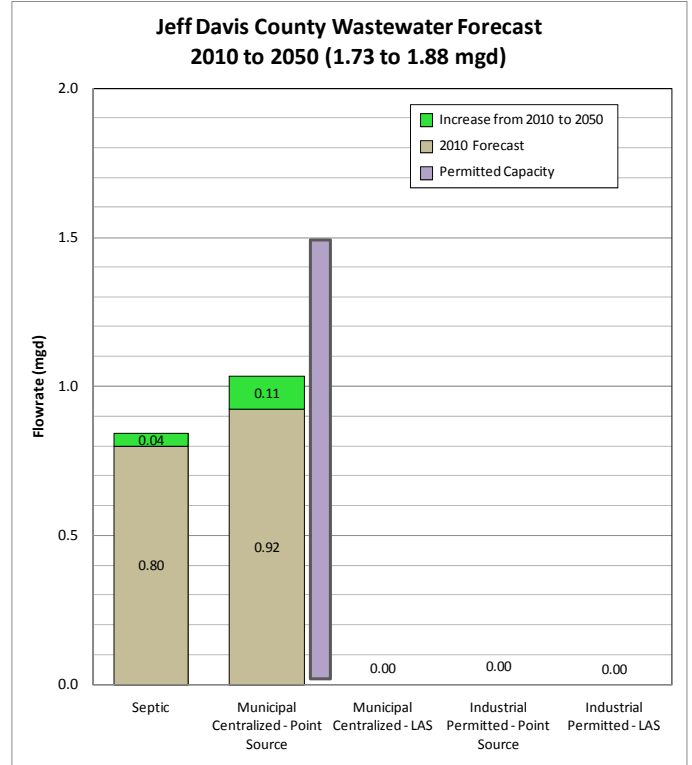
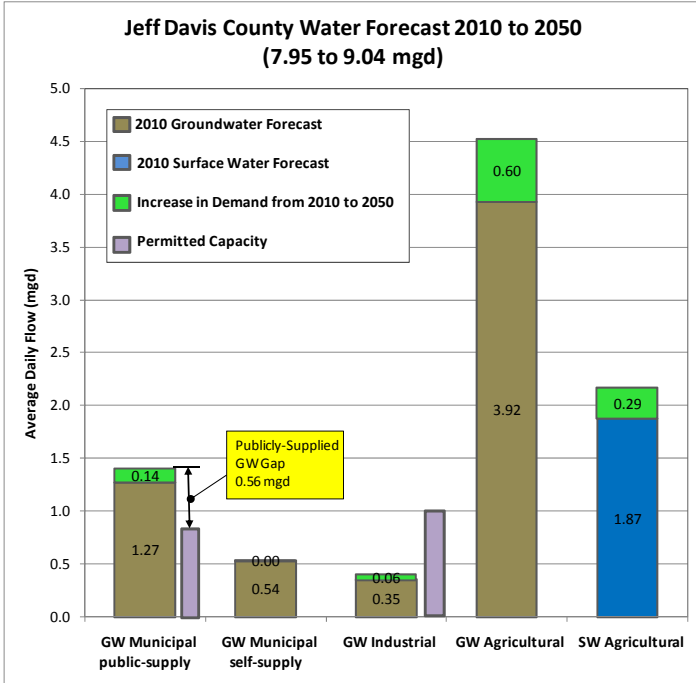
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | WATER QUALITY | | |
|---------|---|----------------------------------|--|----------------------------------|---|---|---------------------------------------|--|---|--|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Emanuel | Municipal | 2.91 | 0.00/Doctortown, Eden, & Claxton | N/A | 0.56 (0.47 Public; 0.09 Self) | 1.95 | Septic 1.48; Centralized 1.10 | Septic 0.25; Centralized 0.24 | Centralized 5.11 | | | |
| | Industrial | 1.07 | 0.00/Doctortown, Eden, & Claxton | N/A | 0.05 | 1.70 | 1.02 | 0.05 | 1.00 | | | |
| | Agricultural | 4.52 | 0.12/Doctortown, Eden, & Claxton | | 0.60 | | | | | | | |
| | Total | 8.50 | 0.12/Doctortown, Eden, & Claxton | | 1.21 | 3.65 | 3.59 | 0.54 | 6.11 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 0.74 MGD, some of which is at Eden & Claxton; Additional 0.12 MGD of 2050 Ag SW use, some of which is at Eden & Claxton | | | Yes, publicly-supplied demand exceeds permitted capacity in 2010 - verifying permit limits, Infrastructure gap of 0.65 MGD by 2050. | | | No municipal centralized gap; possible industrial gap of 0.06 MGD | Yes, assimilative capacity exceeded on segment of Ochoopee River under baseline conditions; confirmed by 303(d) list | Impairments on 9 segments for DO, TWR, Bio F or FC; See Appendix A | TMDLs complete for 6 segments and other TMDLs are complete for 8 segments; impairment cause is NP or UR |
| | Future Needs | | 0.12 MGD of additional Ag SW development | | 1.21 additional GW development | | | 0.54 additional ww capacity development | | Assimilative capacity exceeded on same segment of Ochoopee River under permit limit conditions | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Altamaha or Ogeechee River Basin; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | No GW permit applications found. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, TWR, Bio F and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | Coastal Georgia - Ogeechee River Basin, Claxton and Eden Nodes | | | | | | | | Savannah-Upper Ogeechee - Ogeechee River | |

Evans County



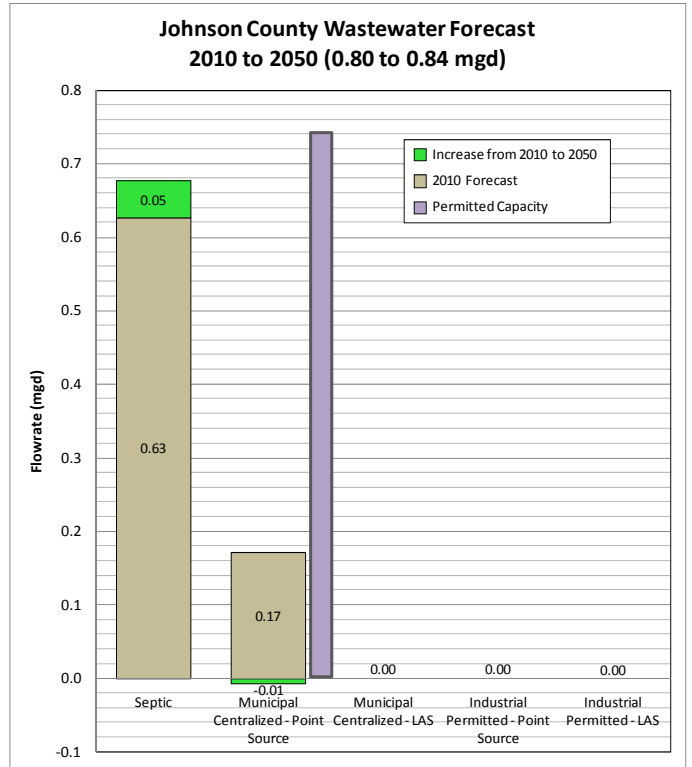
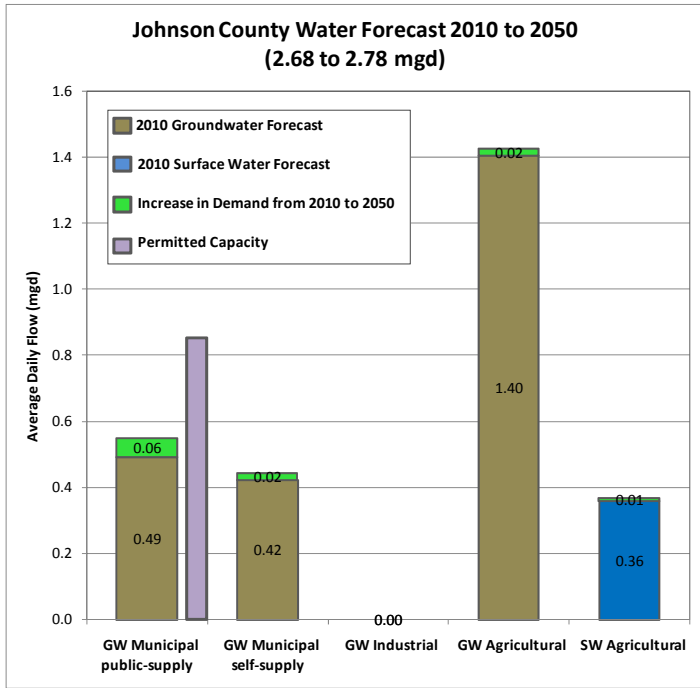
| County | Demand Sector | WATER SUPPLY | | | | WASTEWATER | | | | WATER QUALITY | | |
|---|---|---|--|----------------------------------|---|---|---------------------------------------|--|--|---|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Evans | Municipal | 1.03 | 0.00/Claxton & Kings Ferry | N/A | 0.49 (0.29 Public; 0.20 Self) | 0.50 | Septic 0.49; Centralized 0.35 | Septic 0.23; Centralized 0.18 | Centralized PS 0.52; LAS 0.15 | | | |
| | Industrial | 1.68 | 0.00/Claxton & Kings Ferry | N/A | 0.08 | 1.70 | 1.60 | 0.08 | 2.82 | | | |
| | Agricultural | 7.02 | 0.95/Claxton & Kings Ferry | | 0.65 | | | | | | | |
| | Total | 9.73 | 0.95/Claxton & Kings Ferry | | 1.22 | 2.20 | 2.45 | 0.48 | 3.49 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 3.58 MGD at Kings Ferry & Claxton; Additional 0.95 MGD of 2050 Ag SW use at Kings Ferry & Claxton | | | Yes, publicly-supplied demand exceeds permitted capacity in 2010 - verifying permit limits, public supply infrastructure gap of 0.38 MGD by 2050; Industrial demand exceeds permit capacity between 2030 and 2040, Gap at 2050 is 0.06 MGD. | | | Possible municipal centralized PS gap of 0.01 MGD at 2050; No industrial gap | Yes, assimilative capacity exceeded on segments of Cedar Creek, Lotts Creek, and Canoochee River under baseline conditions; Cedar Creek and Canoochee River low DO confirmed by 303(d) list | Impairments on Cedar Creek for DO & FC, Canoochee River for DO & TWR, and 3 other segments for DO, TWR or FC; Assessment Pending for 1 segment; See Appendix A | TMDLs complete for all 5 segments; impairment cause is NP or UR |
| | Future Needs | | 0.95 MGD of additional Ag SW development | | 1.22 additional GW development | | | 0.54 additional ww capacity development | | Assimilative capacity exceeded on same segments of Cedar Creek under permit limit conditions | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Ogeechee River Basin; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | No GW permit applications found. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, TWR, and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| Council or Additional Coordination - Shared Resource | | Coastal Georgia - Ogeechee River Basin, Claxton and Kings Ferry Nodes | | | | | | | | None - impairments originate in Altamaha and terminate in Coastal Georgia | | |

Jeff Davis County



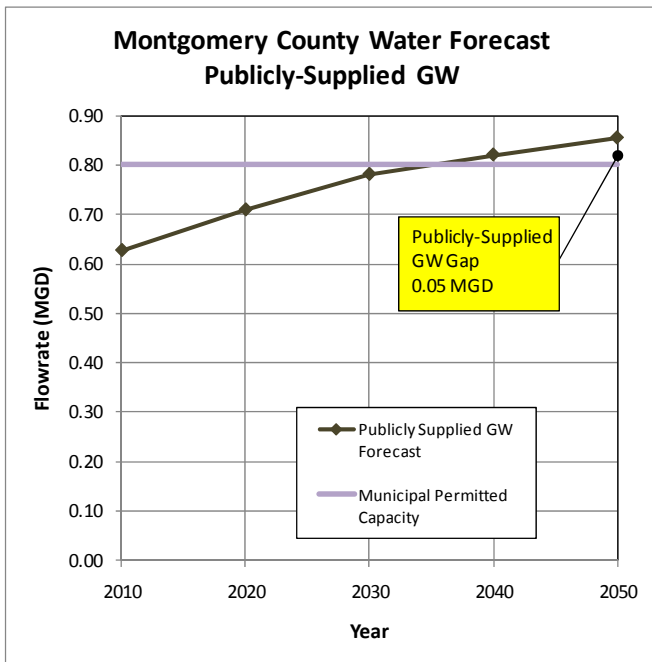
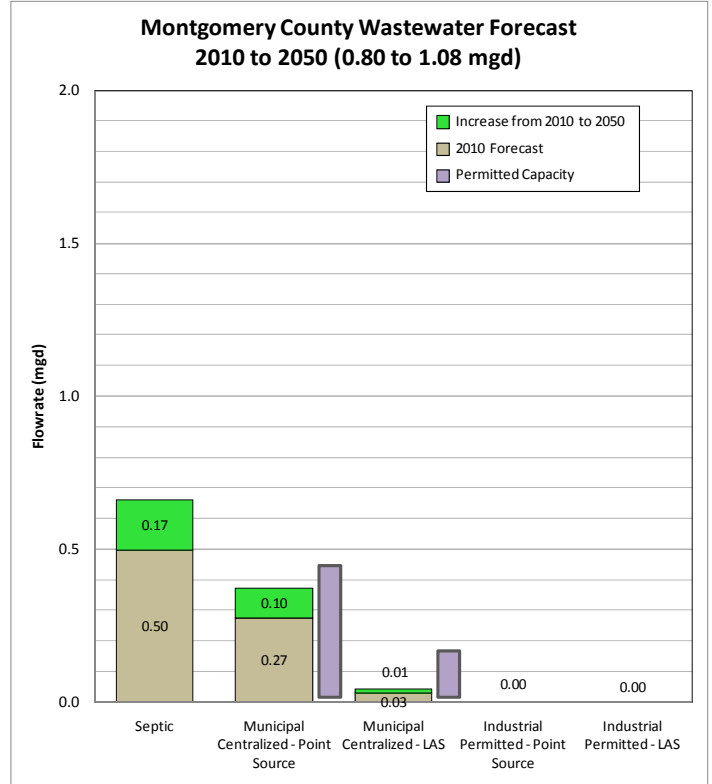
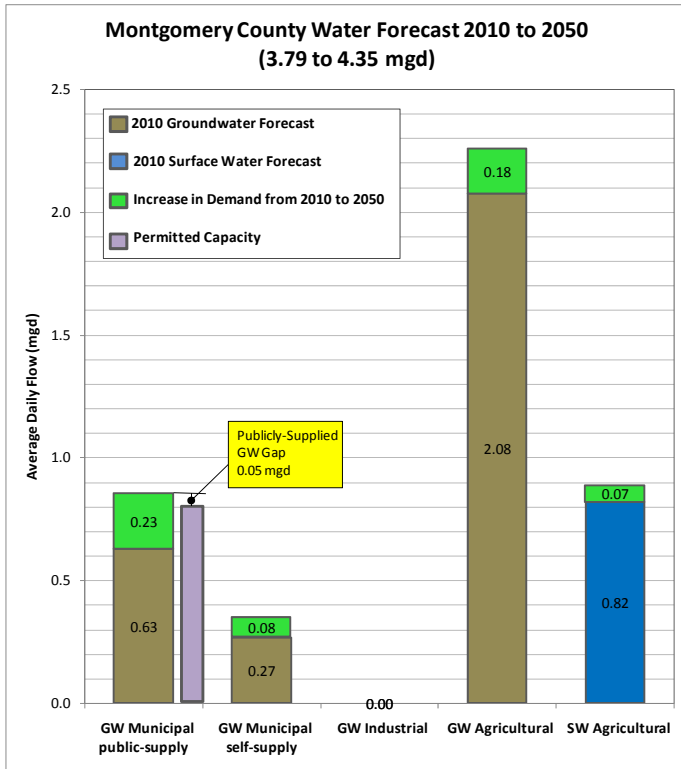
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|--|----------------------------------|---|--|----------------------------------|---|---|---------------------------------------|--|-------------------------------------|---|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Jeff Davis | Municipal | 1.81 | 0.00/Lumber City, Doctortown & Atkinson | N/A | 0.14 (0.14 Public; 0 Self) | 0.85 | Septic 0.80; Centralized 0.92 | Septic 0.04; Centralized 0.11 | Centralized 1.50 | | | |
| | Industrial | 0.35 | 0.00/Lumber City, Doctortown & Atkinson | N/A | 0.06 | 1.00 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 5.79 | 0.29/Lumber City, Doctortown & Atkinson | | 0.60 | | | | | | | |
| | Total | 7.95 | 0.29/Lumber City, Doctortown & Atkinson | | 0.80 | 1.85 | 1.72 | 0.15 | 1.50 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 1.87 MGD at Lumber City, Doctortown & Atkinson; Additional 0.29 MGD of 2050 Ag SW use at Lumber City, Doctortown & Atkinson | | | Yes, publicly-supplied demand exceeds permitted capacity in 2010 - verifying permit limits, public supply infrastructure gap of 0.56 MGD by 2050. | | | None | None | Impairments on 3 segments for DO, Bio F or FC; Assessment Pending for 2 segments; See Appendix A | TMDLs complete for 2 segments; impairment cause is NP or UR |
| | Future Needs | | 0.29 MGD of additional Ag SW development | | 0.80 additional GW development | | | 0.15 additional ww capacity development | | None | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Ocmulgee, Satilla or Altamaha River Basins; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | GW permit modification request for City of Hazlehurst to increase capacity by 0.35 MGD | | | | None | 1) Cite TMDL implementation status for DO, Bio F, and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| Council or Additional Coordination - Shared Resource | | Suwannee-Satilla - Satilla River Basin, Atkinson Node | | | | | | | | Suwannee-Satilla - Big Satilla Creek in Satilla River Basin | | |

Johnson County



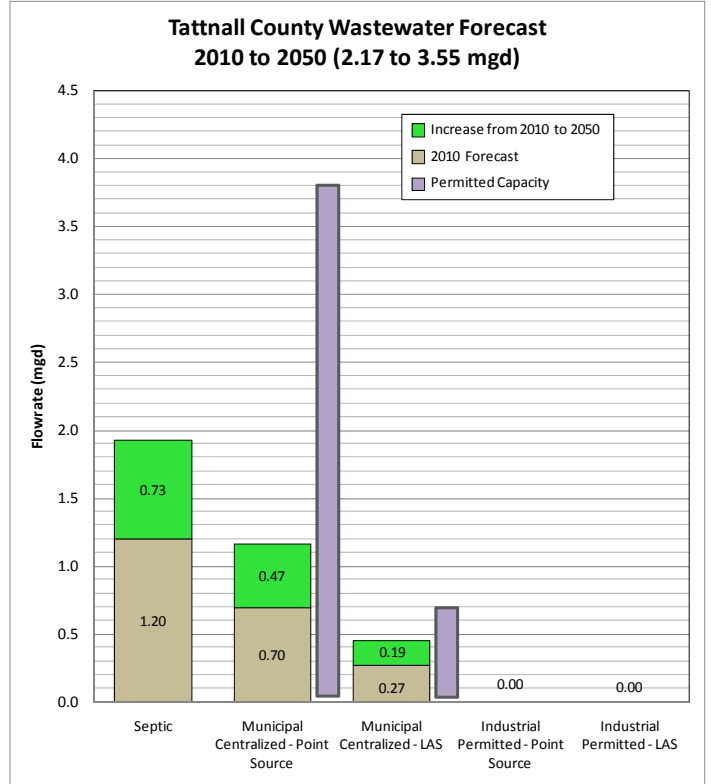
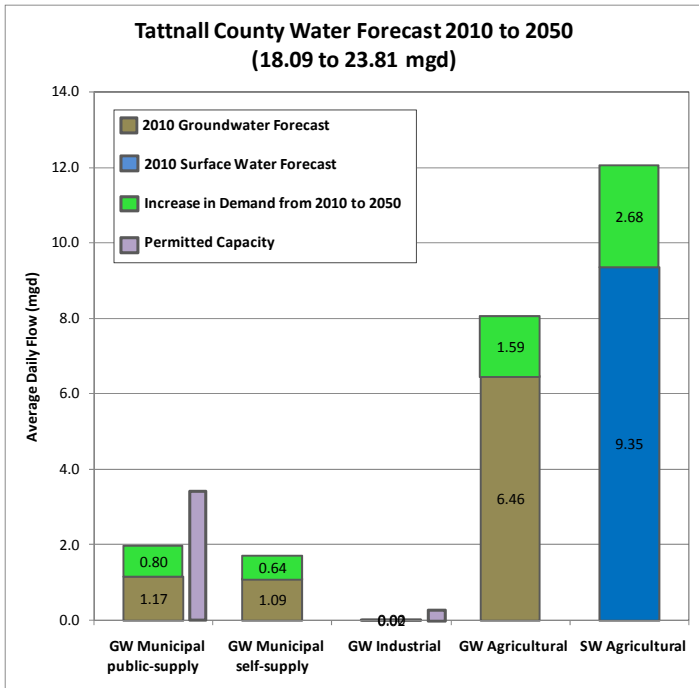
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|---------|--|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Johnson | Municipal | 0.91 | 0.00/Doctortown & Mt. Vernon | N/A | 0.08 (0.06 Public; 0.02 Self) | 0.85 | Septic 0.63; Centralized 0.17 | Septic 0.05; Centralized -0.01 | Centralized 0.75 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Mt. Vernon | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 1.76 | 0.01/Doctortown & Mt. Vernon | | 0.02 | | | | | | | |
| | Total | 2.67 | 0.01/Doctortown & Mt. Vernon | | 0.10 | 0.85 | 0.80 | 0.04 | 0.75 | | | |
| | Gaps | | None | | | None | | | None | Yes, assimilative capacity exceeded on segment of Ochoopee River under baseline conditions; confirmed by 303(d) list | Impairments on 3 segments of Ochoopee River and 6 other segments for DO, TWR or FC; See Appendix A | TMDLs complete for all 9 segments; impairment cause is NP or M |
| | Future Needs | | 0.01 MGD of additional Ag SW development | | 0.10 additional GW development | | | 0.04 additional ww capacity development | | Assimilative capacity exceeded on same segment of Ochoopee River under permit limit conditions | | |
| | Preliminary Management Practices | | None | | Permitted Capacity | | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, TWR, and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | Upper Oconee - Ochoopee River, Little Ochoopee River, and Nealy Creek in Altamaha River Basin | |

Montgomery County



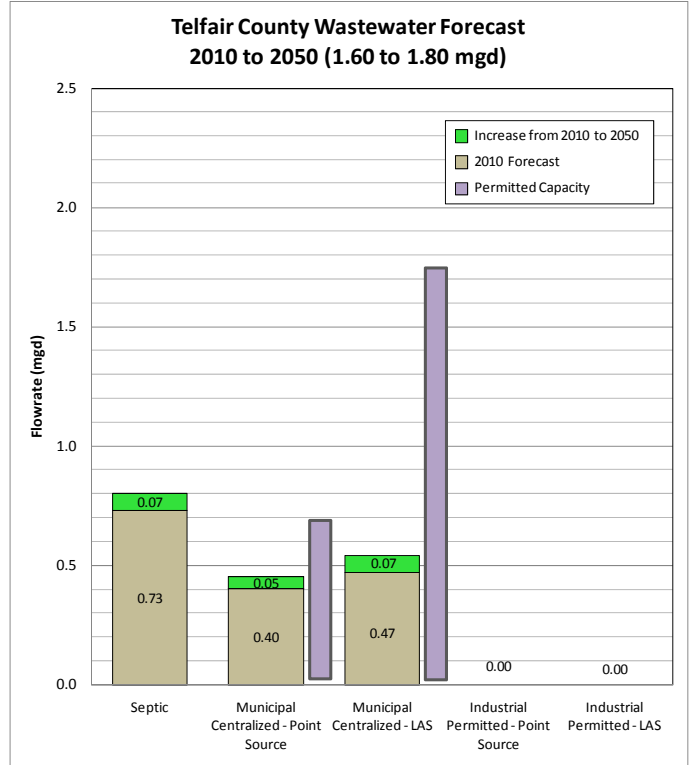
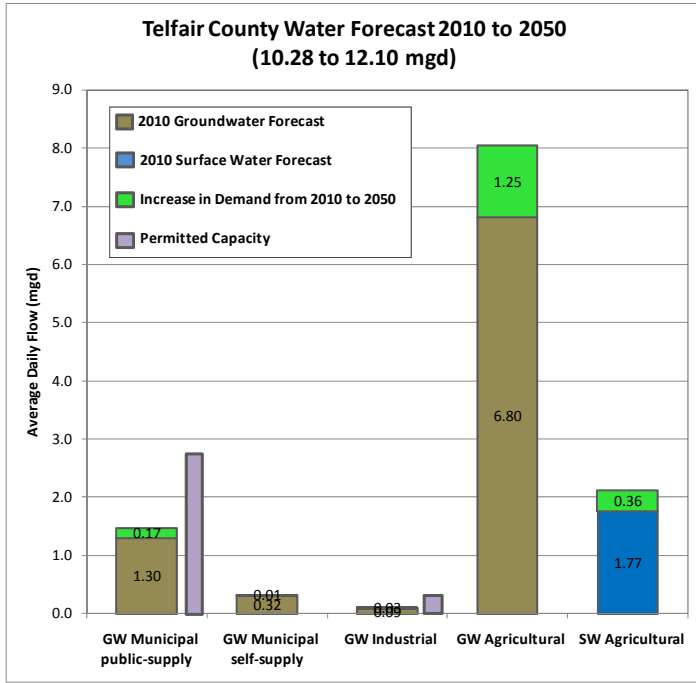
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|------------|---|----------------------------------|--|----------------------------------|---|---|---------------------------------------|--|-------------------------------------|---|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Montgomery | Municipal | 0.90 | 0.00/Doctortown & Mt. Vernon | N/A | 0.31 (0.23 Public; 0.08 Self) | 0.80 | Septic 0.50; Centralized 0.30 | Septic 0.17; Centralized 0.11 | Centralized 0.58 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Mt. Vernon | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 2.90 | 0.07/Doctortown & Mt. Vernon | | 0.18 | | | | | | | |
| | Total | 3.80 | 0.07/Doctortown & Mt. Vernon | | 0.49 | 0.80 | 0.80 | 0.28 | 0.58 | | | |
| | Gaps | | None | | | Yes, publicly-supplied demand exceeds permitted capacity between 2030 and 2040, Infrastructure gap of 0.05 MGD by 2050. | | | None | None | Impairments on 5 segments for DO, Bio F or FC; See Appendix A | TMDLs complete for 3 segments; impairment cause is NP or UR |
| | Future Needs | | 0.07 MGD of additional Ag SW development | | 0.49 additional GW development | | | 0.28 additional ww capacity development | | Assimilative Capacity exceeded on segment of Oconee River under permit limit conditions | | |
| | Preliminary Management Practices | | None | | | No GW permit applications found. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, Bio F, and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | None - impairments originate and terminate in Altamaha | |

Tattnall County



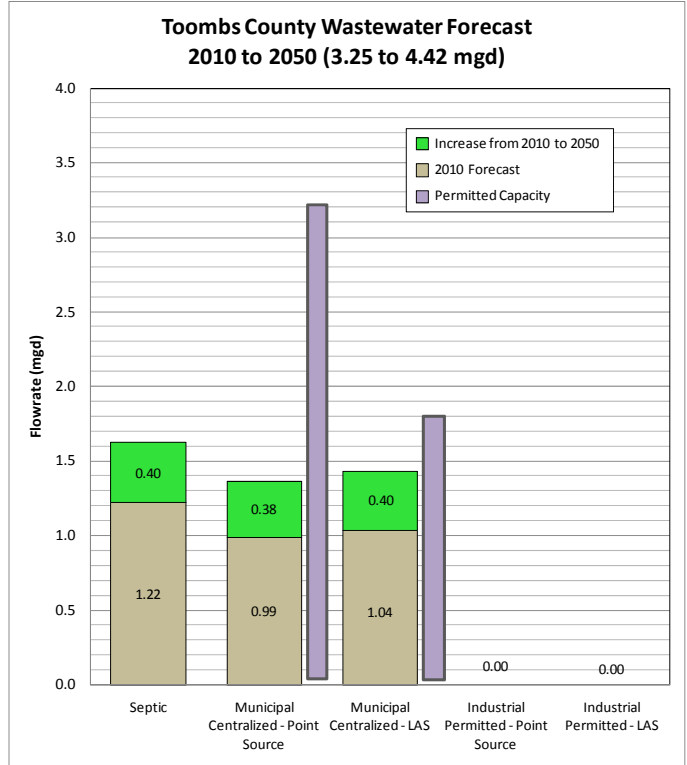
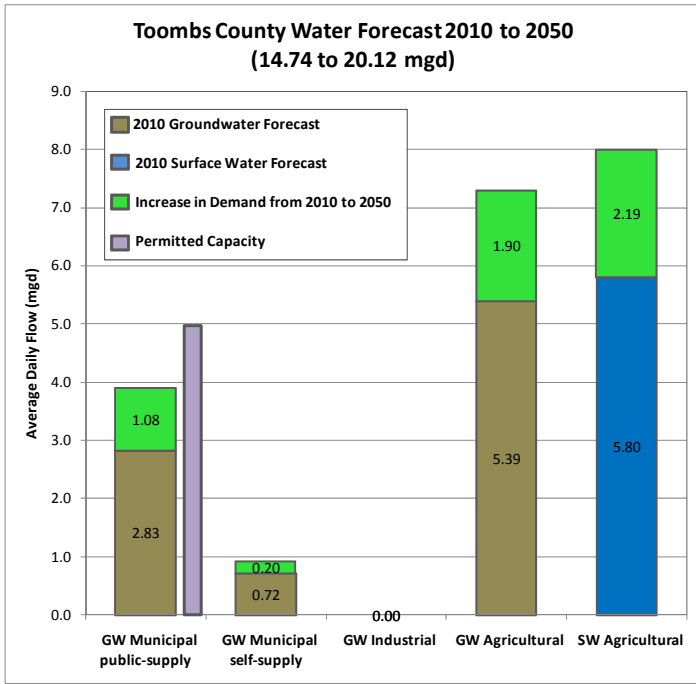
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|----------|--|----------------------------------|---|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Tattnall | Municipal | 2.26 | 0.00/Doctortown, Claxton, & Kings Ferry | N/A | 1.44 (0.80 Public; 0.64 Self) | 3.37 | Septic 1.20; Centralized 0.97 | Septic 0.73; Centralized 0.66 | Centralized 4.50 | | | |
| | Industrial | 0.02 | 0.00/Doctortown, Claxton, & Kings Ferry | N/A | 0.00 | 0.30 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 15.81 | 2.68/Doctortown, Claxton, & Kings Ferry | | 1.59 | | | | | | | |
| | Total | 18.09 | 2.68/Doctortown, Claxton, & Kings Ferry | | 3.04 | 3.67 | 2.17 | 1.38 | 4.50 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 9.35 MGD some of which is at Claxton & Kings Ferry ; Additional 2.68 MGD of 2050 Ag SW use, some of which is at Claxton & Kings Ferry | | | None | | | None | Yes, assimilative capacity exceeded on some segments of Ochoopee River under baseline conditions | Impairments on 3 segments of Ochoopee River and 2 other segments for DO or TWR; Assessment pending on 2 segments; See Appendix A | TMDLs complete for all 5 segments; impairment cause is NP or UR |
| | Future Needs | | 2.68 MGD of additional Ag SW development | | 3.04 additional GW development | | | 1.38 additional ww capacity development | | Assimilative capacity exceeded on same and additional segments of Ochoopee River under permit limit conditions | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Ogeechee or Altamaha River Basins; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | Permitted Capacity | | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, and TWR; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | Coastal Georgia - Ogeechee River Basin, Claxton and Kings Ferry Nodes | | | | | | | | None - impairments originate and terminate in Altamaha | |

Telfair County



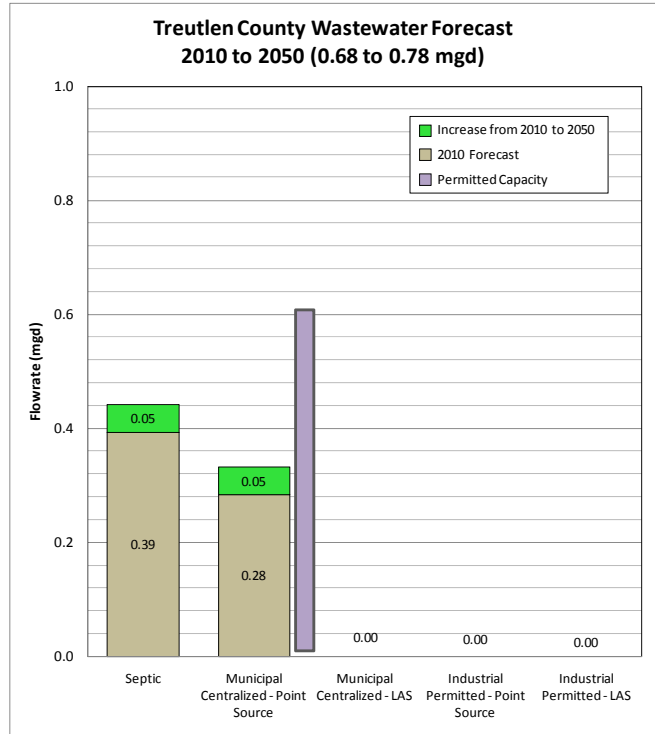
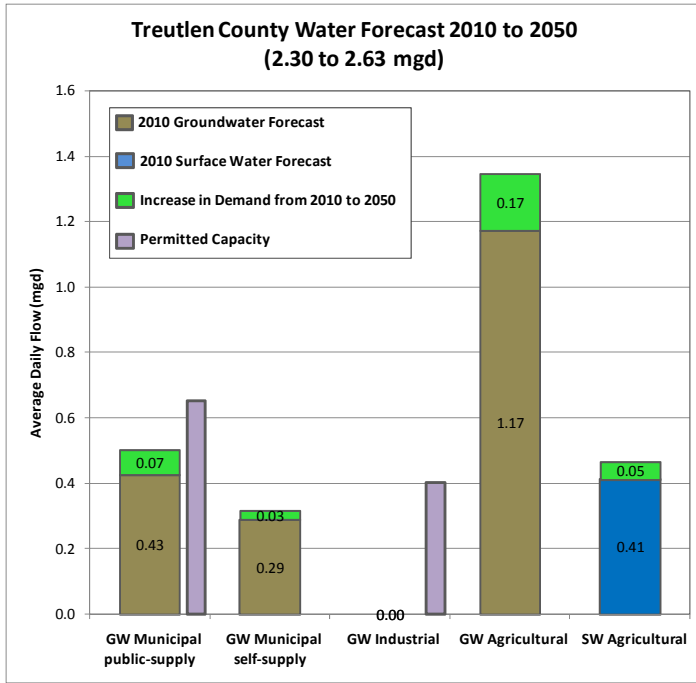
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|---------|--|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|--|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Telfair | Municipal | 1.62 | 0.00/Lumber City | N/A | 0.18 (0.17 Public; 0.01 Self) | 2.78 | Septic 0.73; Centralized 0.87 | Septic 0.07; Centralized 0.12 | Centralized 2.43 | | | |
| | Industrial | 0.09 | 0.00/Lumber City | N/A | 0.03 | 0.30 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 8.57 | 0.36/Lumber City | | 1.25 | | | | | | | |
| | Total | 10.28 | 0.36/Lumber City | | 1.46 | 3.08 | 1.60 | 0.20 | 2.43 | | | |
| | Gaps | | None | | | None | | | None | None | Impairments on 4 stream segments for Bio F, pH or FC, and 1 lake for TWR; Assessment pending on 2 segments; See Appendix A | TMDLs complete for 4 segments and 1 lake; impairment cause is NP |
| | Future Needs | | 0.36 MGD of additional Ag SW development | | 1.46 additional GW development | | | 0.20 additional ww capacity development | | None | | |
| | Preliminary Management Practices | | None | | Permitted Capacity | | | | | None | 1) Cite TMDL implementation status for Bio F, pH, FC, and TWR; 2) Further develop specific MPs based on TMDL implementation plan recommendations | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | None - impairments originate and terminate in Altamaha | |

Toombs County



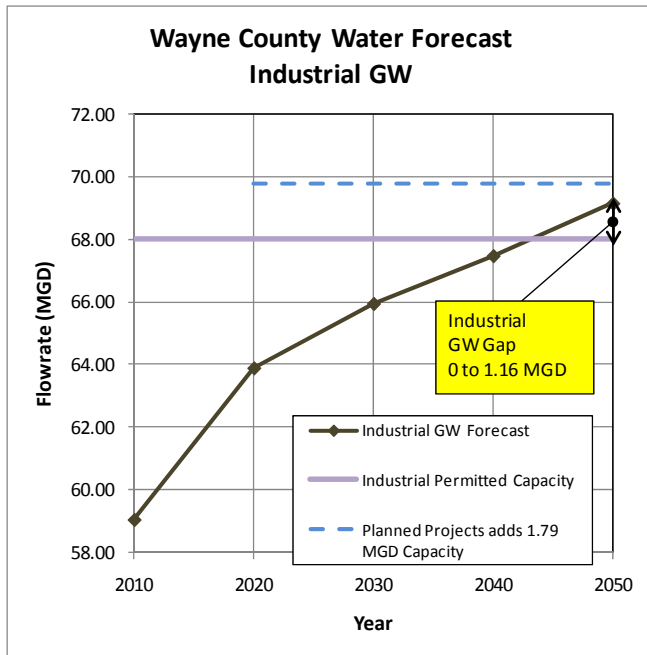
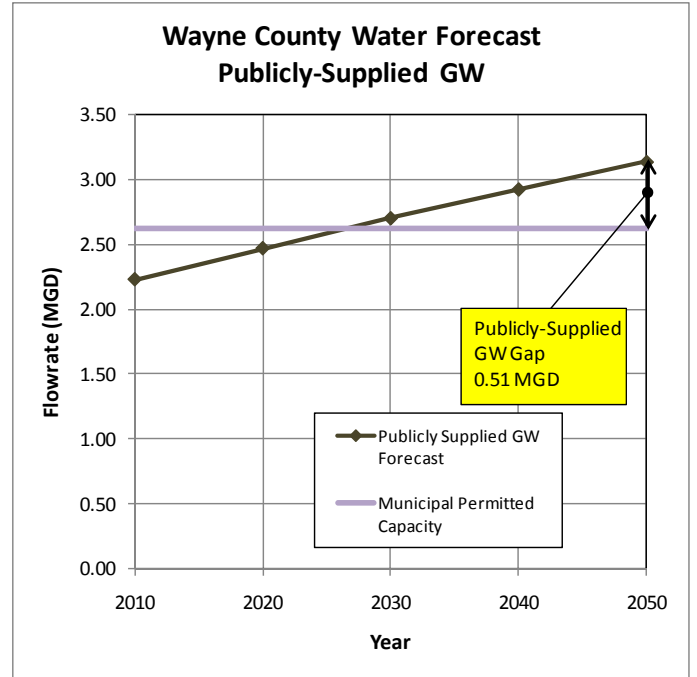
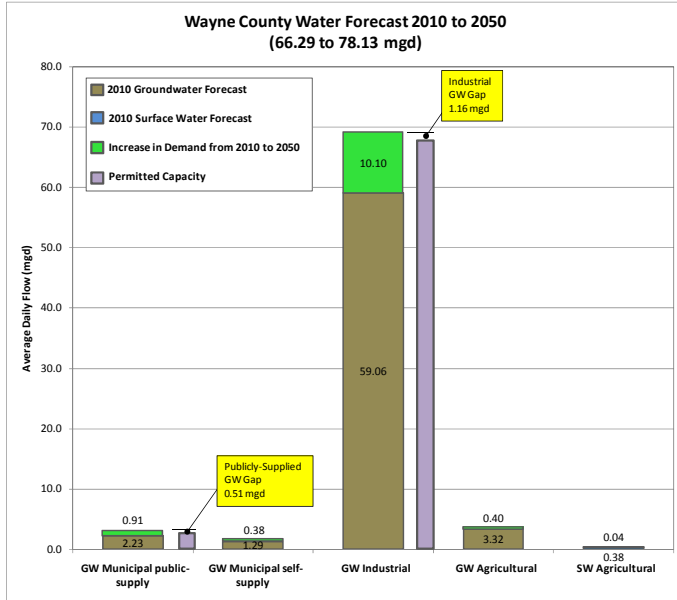
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | WATER QUALITY | | |
|--------|---|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|---|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Toombs | Municipal | 3.55 | 0.00/Doctortown | N/A | 1.28 (1.08 Public; 0.20 Self) | 5.00 | Septic 1.22; Centralized 2.03 | Septic 0.40; Centralized 0.78 | Centralized 5.03 | | | |
| | Industrial | 0.00 | 0.00/Doctortown | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 11.19 | 2.19/Doctortown | | 1.90 | | | | | | | |
| | Total | 14.74 | 2.19/Doctortown | | 3.18 | 5.00 | 3.25 | 1.18 | 5.03 | | | |
| | Gaps | | None | | | None | | | None | Assimilative capacity exceeded on one segment of Ochoopee River under baseline conditions | Impairments on 8 segments for DO or FC; See Appendix A | TMDLs complete for all 8 segments; impairment cause is NP, M or UR |
| | Future Needs | | 2.19 MGD of additional Ag SW development | | 3.18 additional GW development | | | 1.18 additional ww capacity development | | Assimilative capacity exceeded on same and additional segments of Ochoopee River under permit limit conditions | | |
| | Preliminary Management Practices | | None | | Permitted Capacity | | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | None - impairments originate and terminate in Altamaha | |

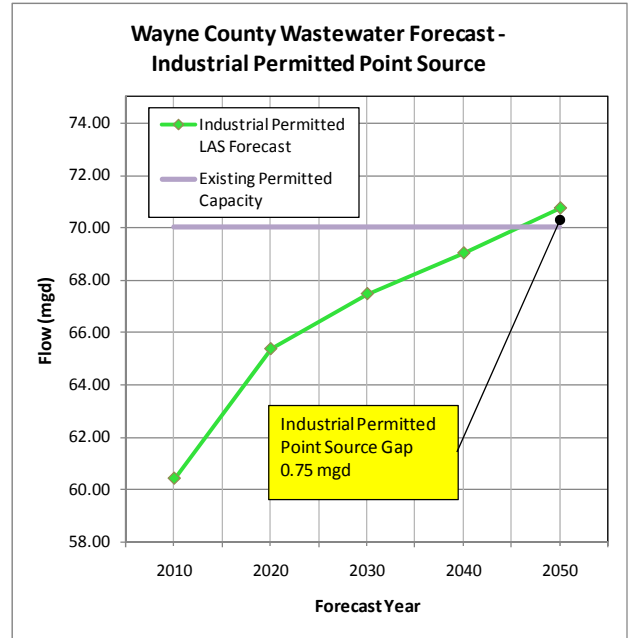
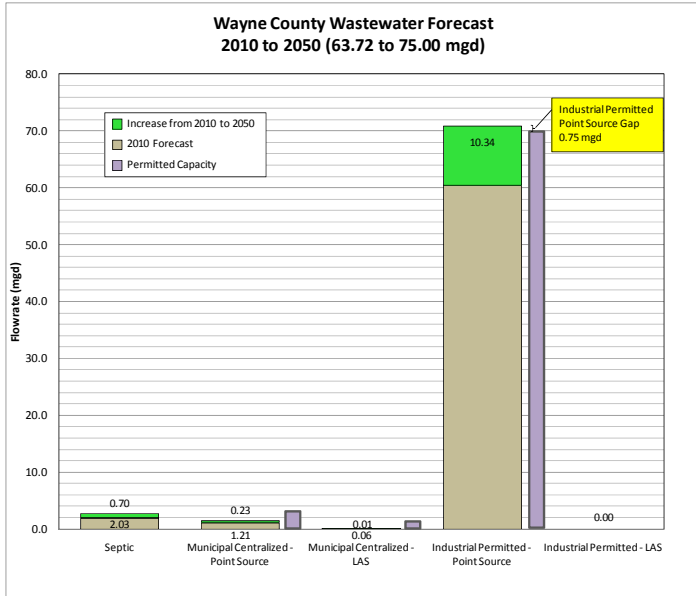
Treutlen County



| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | WATER QUALITY | | |
|----------|---|----------------------------------|--|----------------------------------|---|----------------------------------|---------------------------------------|--|-------------------------------------|--|--|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Treutlen | Municipal | 0.72 | 0.00/Doctortown & Mt. Vernon | N/A | 0.10 (0.07 Public; 0.03 Self) | 0.65 | Septic 0.39; Centralized 0.28 | Septic 0.05; Centralized 0.05 | Centralized 0.61 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Mt. Vernon | N/A | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 1.58 | 0.05/Doctortown & Mt. Vernon | | 0.17 | | | | | | | |
| | Total | 2.30 | 0.05/Doctortown & Mt. Vernon | | 0.27 | 1.05 | 0.68 | 0.10 | 0.61 | | | |
| | Gaps | | None | | | None | | | None | Yes, assimilative capacity exceeded on segment of Ochoopee River under baseline conditions; confirmed by 303(d) list | Impairments on Ochoopee River for DO, FC, and TWR, and 4 other segments for DO, Bio F, or FC; Impairment on one lake for TWR; See Appendix A | TMDLs complete for all 5 segments and 1 lake; impairment cause is NP |
| | Future Needs | | 0.05 MGD of additional Ag SW development | | 0.27 additional GW development | | | 0.10 additional ww capacity development | | Assimilative capacity exceeded on same segment of Ochoopee River under permit limit conditions | | |
| | Preliminary Management Practices | | None | | Permitted Capacity | | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, Bio F, FC, and TWR; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | None - impairments originate in Upper Oconee and terminate in Altamaha | |

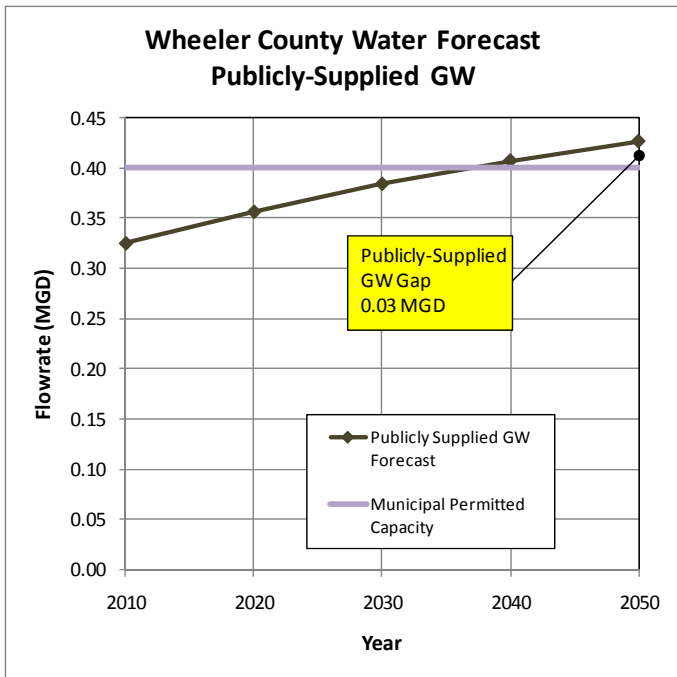
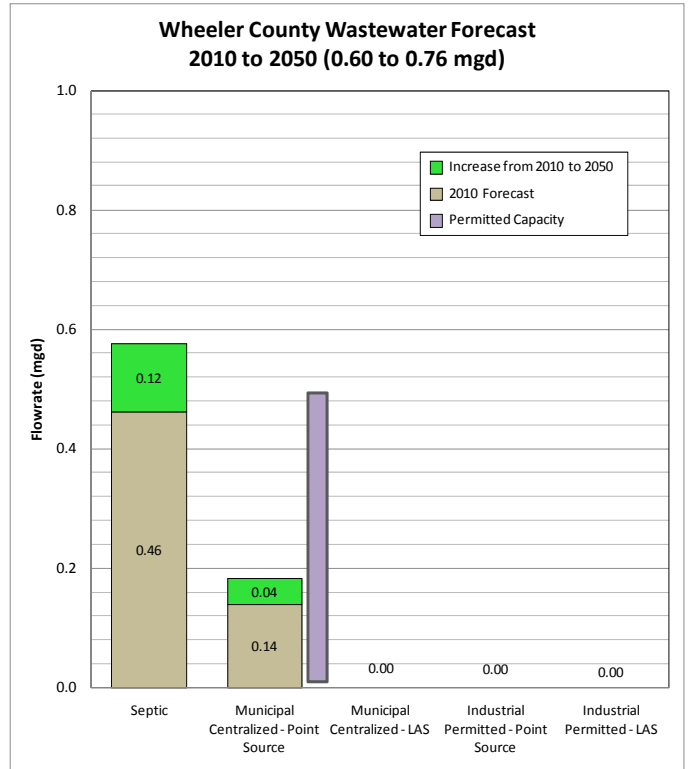
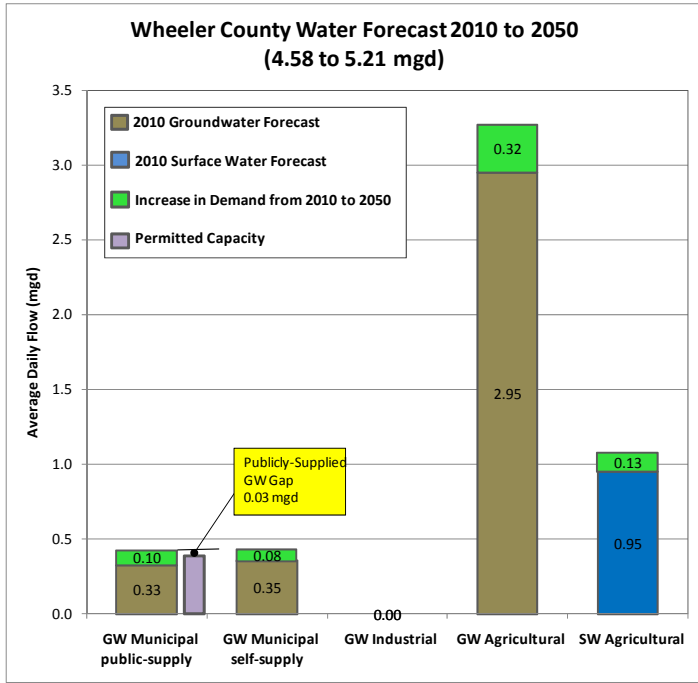
Wayne County





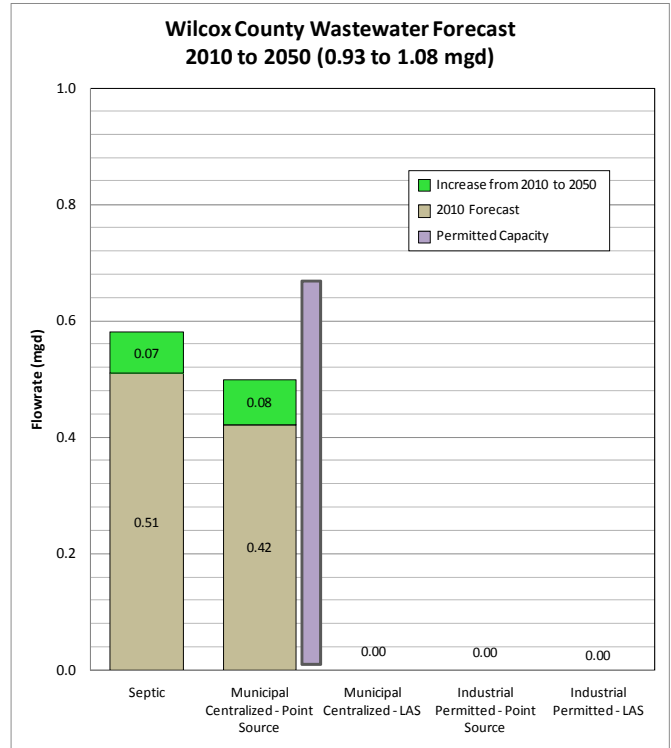
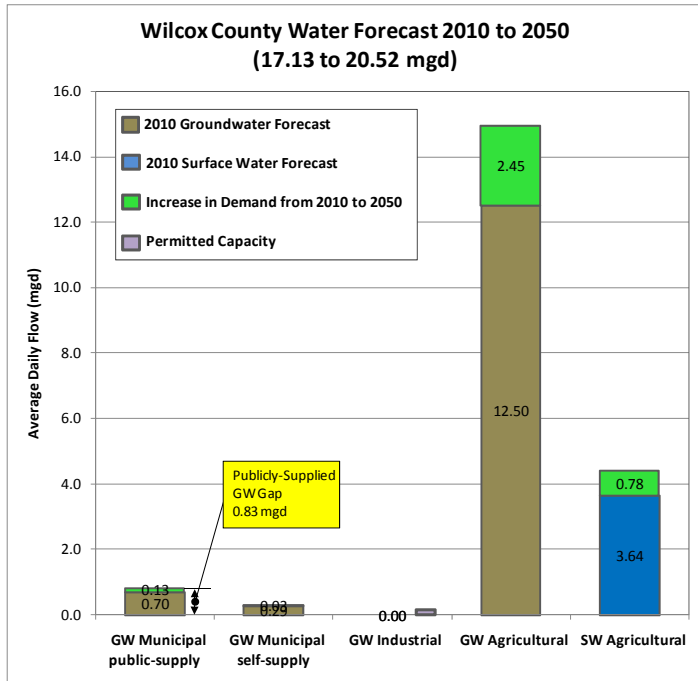
| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | WATER QUALITY | | |
|--|----------------------------------|---|--|----------------------------------|---|---|---------------------------------------|--|--|--|--|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Wayne | Municipal | 3.52 | 0.00/Doctortown & Atkinson | N/A | 1.29 (0.91 Public; 0.38 Self) | 2.63 | Septic 2.03; Centralized 1.27 | Septic 0.70; Centralized 0.24 | Centralized 2.70 | | | |
| | Industrial | 59.06 | 0.00/Doctortown & Atkinson | N/A | 10.10 | 68.00 | 60.42 | 10.34 | 70.00 | | | |
| | Agricultural | 3.70 | 0.04/Doctortown & Atkinson | | 0.40 | | | | | | | |
| | Total | 66.28 | 0.04/Doctortown & Atkinson | | 11.79 | 70.63 | 63.72 | 11.28 | 72.70 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 0.38 MGD, some of which is at Atkinson; Additional 0.04 MGD of 2050 Ag SW use, some of which is at Atkinson | | | Yes, publicly-supplied demand exceeds permitted capacity between 2020 and 2030, public supply infrastructure gap of 0.51 MGD by 2050; Industrial demand exceeds permit capacity between 2040 and 2050, Gap at 2050 is 1.16 MGD. | | | No Centralized ww gap; Possible industrial ww gap between 2040 and 2050 with gap at 2050 of 0.75 MGD | None | Impairments on 10 segments for DO, Bio F, or FC; Assessment pending on 2 segments; See Appendix A | TMDLs complete for 7 segments; impairment cause is NP or UR |
| | Future Needs | | 0.04 MGD of additional Ag SW development | | 11.80 additional GW development | | | 11.28 additional ww capacity development | | Assimilative capacity exceeded on segment of Altamaha River under permit limit conditions | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Satilla or Altamaha River Basins; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | New industrial GW permit application filed for 1.729 MGD. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for Bio F, pH and FC; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| Council or Additional Coordination - Shared Resource | | Suwannee-Satilla - Satilla River Basin, Atkinson Node | | | | | | | | Suwannee-Satilla - Little Satilla River in Satilla River Basin | | |

Wheeler County



| County | Demand Sector | WATER SUPPLY | | | | WASTEWATER | | | WATER QUALITY | | | |
|---------|---|----------------------------------|--|----------------------------------|---|---|---------------------------------------|--|-------------------------------------|---|--|--|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Wheeler | Municipal | 0.68 | 0.00/Doctortown & Mt. Vernon | N/A | 0.18 (0.10 Public; 0.08 Self) | 0.40 | Septic 0.46; Centralized 0.14 | Septic 0.12; Centralized 0.04 | Centralized 0.49 | | | |
| | Industrial | 0.00 | 0.00/Doctortown & Mt. Vernon | N/A | 0.00 | | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 3.90 | 0.13/Doctortown & Mt. Vernon | | 0.32 | | | | | | | |
| | Total | 4.58 | 0.13/Doctortown & Mt. Vernon | | 0.50 | 0.40 | 0.60 | 0.16 | 0.49 | | | |
| | Gaps | | None | | | Yes, publicly-supplied demand exceeds permitted capacity between 2030 and 2040, Infrastructure gap of 0.03 MGD by 2050. | | | None | Yes, assimilative capacity exceeded on segments of Alligator Creek under baseline conditions | Impairments on 3 segments for Bio F or pH; Impairment on 1 lake for TWR; See Appendix A | TMDLs complete for 3 segments and 1 lake; impairment cause is NP |
| | Future Needs | | 0.13 MGD of additional Ag SW development | | 0.50 additional GW development | | | 0.16 additional ww capacity development | | Assimilative capacity exceeded on same segments of Alligator Creek and segments of Oconee River under permit limit conditions | | |
| | Preliminary Management Practices | | None | | | No GW permit applications found. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for Bio F, pH, & TWR; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | None | | | | | | | | Upper Oconee - Ochwalkee Creek in Oconee River Basin | |

Wilcox County



| County | Demand Sector | WATER SUPPLY | | | | | WASTEWATER | | | | WATER QUALITY | |
|--------|---|----------------------------------|---|----------------------------------|---|---|---------------------------------------|--|-------------------------------------|---|---|---|
| | | 2010 Forecast Water Demand (MGD) | Increase in SW Demand from 2010 to 2050/Associated Planning Node | Permitted SW Withdrawal Capacity | Increase in GW Demand from 2010 to 2050 | Permitted GW Withdrawal Capacity | 2010 Forecast Wastewater Demand (MGD) | Increase in Wastewater Flows from 2010 to 2050 | Permitted Wastewater Capacity (MGD) | Assimilative Capacity Limitations (DO) | Current Water Quality Impairments | TMDL Implementation Status |
| Wilcox | Municipal | 0.99 | 0.00/Lumber City & Statenville | N/A | 0.16 (0.13 Public; 0.03 Self) | 0.00 | Septic 0.51; Centralized 0.42 | Septic 0.07; Centralized 0.08 | Centralized 0.67 | | | |
| | Industrial | 0.00 | 0.00/Lumber City & Statenville | N/A | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | | | |
| | Agricultural | 16.14 | 0.78/Lumber City & Statenville | | 2.45 | | | | | | | |
| | Total | 17.13 | 0.78/Lumber City & Statenville | | 2.61 | 0.14 | 0.93 | 0.15 | 0.67 | | | |
| | Gaps | | Yes, 2010 Ag SW use of 3.64 MGD, some of which is at Statenville; Additional 0.78 MGD of 2050 Ag SW use, some of which is at Statenville | | | Yes, no public permitted capacity found - verifying permits. | | | None | Yes, assimilative capacity exceeded on segment of Alapaha River under baseline conditions; confirmed by 303(d) list | Impairments on 6 segments for DO, FC, Bio F, or pH; Assessment pending on 1 segments; See Appendix A | TMDLs complete for all 6 segments; impairment cause is NP or UR |
| | Future Needs | | 0.78 MGD of additional Ag SW development | | 2.61 additional GW development | | | 0.15 additional ww capacity development | | Assimilative capacity exceeded on same segment of Alapaha River and segment of Ocmulgee River under permit limit conditions | | |
| | Preliminary Management Practices | | 1) Replacement of SW Ag demands with GW during dry years; 2) Ag conservation; 3) Regional surface storage in Ocmulgee or Suwannee River Basins; 4) Small-scale storage in individual Ag ponds 5) Aquifer storage and recovery (ASR) | | | New GW permit application filed for City of Rochelle for 0.120 MGD. | | | | Identify potential Point Sources; Identify Non-Point Source BMPs targeting landuse upstream of impairment | 1) Cite TMDL implementation status for DO, FC, Bio F, and pH; 2) Further develop specific MPs based on TMDL implementation plan recommendations 3) Resolve naturally low DO | |
| | Council or Additional Coordination - Shared Resource | | Suwannee-Satilla - Suwannee River Basin, Statenville Node | | | | | | | | Suwannee-Satilla - Alapaha River in Suwannee River Basin | |

Summary of Mount Vernon Node

| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--------------------------------|---------------------------|------------------------------|
| Current Consumptive Demand | 0 | 0 | 94230 At Milledgeville | 63% At Milledgeville | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 94676 At Milledgeville | 63% At Milledgeville | N/A |

Summary of Lumber City Node

| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--------------------------------|---------------------------|------------------------------|
| Current Consumptive Demand | 0 | 0 | 61000 At Lake Jackson | 82% At Lake Jackson | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 55169 At Lake Jackson | 74% At Lake Jackson | N/A |

Summary of Atkinson Node

| Scenario | Length of Shortfall (% of time) | Average Shortfall (cfs) | Long-term Average Flow (cfs) | Maximum Shortfall (cfs) | Corresponding Flow Regime (cfs) |
|------------------------|---------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current Demand | 11% | 26 | 2257 | 63 | 73 |
| 2050 Forecasted Demand | 7% | 29 | 2269 | 54 | 70 |

Summary of Doctortown Node

| Scenario | Demand Shortfall | Up Res. Flow Req Shortage | Min Cons. Storage Left (ac-ft) | Column 3/Cons Storage (%) | Basin-wide Flow Req Shortage |
|------------------------------------|------------------|---------------------------|--|--|------------------------------|
| Current Consumptive Demand | 0 | 0 | 61000 At Lake Jackson and 94230 At Milledgeville | 82% At Lake Jackson and 63% At Milledgeville | N/A |
| 2050 Forecasted Consumptive Demand | 0 | 0 | 55169 At Lake Jackson and 94676 At Milledgeville | 74% At Lake Jackson and 63% At Milledgeville | N/A |

Summary of Claxton Demand Shortage (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Maximum shortfall (cfs) | Corresponding demand (cfs) |
|----------------|---------------------------------|-------------------------|-------------------------|----------------------------|
| Current | 10% | 5 | 17 | 18 |
| 2050 | 11% | 11 | 31 | 32 |

Summary of Claxton Flow Regime Shortage (CFS)

| | Length of shortfall (% of time) | Average shortfall (cfs) | Long-term average flow (cfs) | Maximum shortfall (cfs) | Corresponding flow regime (cfs) |
|----------------|---------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|
| Current | 18% | 5 | 457 | 15 | 15 |
| 2050 | 17% | 5 | 457 | 15 | 15 |

Appendix A to this document contains the current water quality impairments, also referred to as TMDL listed segments.

Appendix A

2008 Impaired Streams List within the Altamaha Regional Water Planning Council Boundary

**Altamaha Regional Council
Non-Supporting 303d List
Category 4a and 5
Streams and Lakes**

| Ranking | Map ID | River Basin | County | Reach Name | Reach Location | Waterbody Type | Criterion Violation | Notes | Violation Rank | Waterbody Type | Water Use | Water Use Rank | Category Tier | Category Tier Rank | Length or Area (Miles or Acres) | Length or Area Rank | Status Reports Obtained | Status Report Rank |
|------------------------|----------------------|--|--|--|--|----------------|---------------------|---|----------------|----------------|-----------|----------------|---------------|--------------------|---------------------------------|---------------------|-------------------------|--------------------|
| LEVEL 1 REACHES | | | | | | | | | | | | | | | | | | |
| 10 | 14 | Altamaha | Johnson/ Emanuel | Ohoopsee River | Neels Creek to Little Ohoopsee River | Stream | DO, FC, TWR | TMDLs completed DO, FC, TWR. | 3 | Fishing | 1 | Not Supporting | 4a | 2 | 18 | 2 | YES | 2 |
| 10 | 47 | Ocmulgee | Telfair | Turnpike Creek | Hwy 280 to Sugar Creek | Stream | FC, pH | TMDLs completed FC, pH, DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 24 | 3 | YES | 2 |
| 10 | 52 | Oconee | Laurens/ Wheeler | Ochwalkee Creek (aka Okeewalkee Creek) | Unnamed tributary 550 ft U/S Little New York Rd. to Oconee River | Stream | pH, Bio F | TMDLs completed pH, Bio(F) & DO. | 3 | Fishing | 1 | Not Supporting | 4a | 2 | 18 | 2 | YES | 2 |
| 10 | 64 | Ogeechee | Emanuel/ Candler | Canoochee River | Ga. Hwy. 192 to Fifteen Mile Creek near Metter | Stream | DO, FC, TWR | TMDLs completed DO, FC & TWR. | 3 | Fishing | 1 | Not Supporting | 4a | 2 | 21 | 3 | NO | 1 |
| 10 | 69 | Ogeechee | Washington/ Glascock/ Jefferson/ Jenkins/ Emanuel/ Burke | Ogeechee River | Hwy. 102 to U.S.Hwy 301 | Stream | TWR | TMDL completed TWR. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 98 | 5 | NO | 1 |
| 9 | 3 | Altamaha | Emanuel | Jacks Creek | U.S. Hwy. 1 to Ohoopsee River | Stream | DO, FC, Bio F | TMDLs completed DO, FC, Bio(F). | 3 | Fishing | 1 | Not Supporting | 4a | 2 | 9 | 1 | YES | 2 |
| 9 | 16 | Altamaha | Montgomery/ Toombs | Oconee Creek | Headwaters to Cobb Creek | Stream | FC, DO | TMDLs completed DO, FC | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 11 | 2 | YES | 2 |
| 9 | 27 | Altamaha | Treutlen/ Toombs | Pendleton Creek | Wildwood Lake to Tiger Creek | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 12 | 2 | YES | 2 |
| 9 | 31 | Altamaha | Washington/ Johnson | Ohoopsee River | Dyers Creek to Big Cedar Creek | Stream | FC, DO | TMDLs completed FC & DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 15 | 2 | YES | 2 |
| 9 | 51 | Ocmulgee | Wilcox/ Ben Hill | House Creek | Ball Creek to Little House Creek | Stream | DO, pH, FC | TMDLs completed DO, pH, FC. | 3 | Fishing | 1 | Not Supporting | 4a | 2 | 8 | 1 | YES | 2 |
| 9 | 74 | Satilla | Jeff Davis/ Appling | Big Satilla Creek | Headwaters near Hazlehurst to Sweetwater Cr. near Baxley | Stream | DO, FC | TMDL completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 34 | 3 | NO | 1 |
| 9 | 38 | Ocmulgee | Dodge/ Laurens | Alligator Creek | Batson Creek to Lime Sink Creek | Stream | FC, pH | TMDLs completed DO, FC. TMDL development for pH has been deferred to EPA. | 2 | Fishing | 1 | Not Supporting | 4a,5 | 2 | 12 | 2 | YES | 2 |
| 8 | 5 | Altamaha | Emanuel | Yam Grandy Creek | d/s Crooked Creek | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | YES | 2 |
| 8 | 8 | Altamaha | Johnson | Big Cedar Creek | Little Cedar Creek to Ohoopsee River | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | YES | 2 |
| 8 | 15 | Altamaha | Montgomery/ Toombs | Milligan Creek | Uvalda to Altamaha River | Stream | FC | TMDLs completed FC, DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 11 | 2 | YES | 2 |
| 8 | 22 | Altamaha | Toombs | Rocky Creek | Ga. Hwy. 130 to Little Rocky Creek | Stream | FC, DO | TMDLs completed FC, DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 10 | 1 | YES | 2 |
| 8 | 23 | Altamaha | Toombs | Swift Creek | Old Normantown Rd. To Pendleton Creek | Stream | FC, DO | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 5 | 1 | YES | 2 |
| 8 | 26 | Altamaha | Treutlen/ Montgomery/ Toombs | Tiger Creek | Little Creek to Pendleton Creek | Stream | FC | TMDLs completed FC, DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 16 | 2 | YES | 2 |
| 8 | 46 | Ocmulgee | Telfair | Sugar Creek | Turnpike Creek to Little Ocmulgee River | Stream | pH, FC | TMDLs completed pH, FC & DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 5 | 1 | YES | 2 |
| 8 | 6 | Altamaha | Emanuel/ Candler/ Tattnall | Ohoopsee River | Little Ohoopsee River to U.S. Highway 292 | Stream | TWR | TMDL completed TWR. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 23 | 3 | NO | 1 |
| 8 | 10 | Altamaha | Johnson | Little Ohoopsee River | Neeley Creek to Sardis Creek | Stream | DO, FC | TMDL completed DO & FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 15 | 2 | NO | 1 |
| 8 | 39 | Ocmulgee | Dodge/ Pulaski | Mosquito Creek | Headwaters to Ocmulgee River | Stream | FC, DO | TMDLs completed FC & DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 18 | 2 | NO | 1 |
| 8 | 41 | Ocmulgee | Houston/ Twiggs/ Bleckley | Ocmulgee River | Sandy Run Creek to Big Indian Creek | Stream | FC | TMDL completed FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 23 | 3 | NO | 1 |
| 8 | 58 | Ogeechee | Bryan/ Evans/ Liberty | Canoochee River | Lotts Creek to Savage Creek | Stream | TWR | TMDL completed TWR. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 38 | 3 | NO | 1 |
| 8 | 70 | Satilla | Appling | Sweetwater Creek | Black Water Creek to Big Satilla Cr. near Baxley | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 12 | 2 | NO | 1 |
| 8 | 84 | Suwannee | Wilcox/ Ben Hill/ Turner/ Irwin | Alapaha River | U.S. Hwy. 280 to Sand Creek | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 29 | 3 | NO | 1 |
| LEVEL 2 REACHES | | | | | | | | | | | | | | | | | | |
| 7 | 25 | Altamaha | Treutlen | Pendleton Creek | Sand Hill Lake to Reedy Creek | Stream | FC | TMDLs completed FC, DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 7 | 1 | YES | 2 |
| 7 | 34 | Altamaha | Wayne | Goose Creek | U/S Rd. S1922(Walton Griffis Rd.) to Little Goose Creek | Stream | FC | TMDL completed FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 8 | 1 | YES | 2 |
| 7 | 1 | Altamaha | Appling | Ten Mile Creek | Little Ten Mile Creek to Altamaha River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 13 | 2 | NO | 1 |
| 7 | 4 | Altamaha | Emanuel | Sardis Creek | Headwaters to Little Ohoopsee River | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 10 | 1 | NO | 1 |
| 7 | 18 | Altamaha | Tattnall | Ohoopsee River | Ga. Hwy 147 to Confluence with Altamaha River | Stream | TWR | TMDL completed TWR | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 13 | 2 | NO | 1 |
| 7 | 19 | Altamaha | Tattnall | Ohoopsee River | Hwy 292 to Hwy 147 | Stream | TWR | TMDL completed TWR | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 12 | 2 | NO | 1 |
| 7 | 20 | Altamaha | Tattnall | Thomas Creek | D/S CR203 to Ohoopsee River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 12 | 2 | NO | 1 |
| 7 | 21 | Altamaha | Toombs | Cobb Creek | Oconee Creek to Altamaha River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 13 | 2 | NO | 1 |
| 7 | 24 | Altamaha | Toombs/ Tattnall | Rocky Creek | Little Rocky Creek to Ohoopsee River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 11 | 2 | NO | 1 |
| 7 | 28 (Coastal Georgia) | Ogeechee (moved from Coastal Georgia List) | Candler | Tenmile Creek | Upstream Canoochee River, Excelsior | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | NO | 1 |
| 7 | 29 (Coastal Georgia) | Ogeechee (moved from Coastal Georgia List) | Candler/ Evans | Canoochee River | Fifteen Mile Creek to Cedar Cr. | Stream | TWR | TMDL completed TWR. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 14 | 2 | NO | 1 |
| 7 | 29 | Altamaha | Washington | Little Ohoopsee River | Gully Branch to Neeley Creek | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 14 | 2 | NO | 1 |
| 7 | 35 | Altamaha | Wayne | Penholoway Creek | Little Creek to Altamaha River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 13 | 2 | NO | 1 |
| 7 | 36 | Ocmulgee | Bleckley/ Dodge | Gum Swamp Creek | Reedy Creek to Ga. Hwy. 257 | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 12 | 2 | NO | 1 |
| 7 | 40 | Ocmulgee | Dodge/ Telfair | Horse Creek | Headwaters to Alligator Creek | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 17 | 2 | NO | 1 |
| 7 | 42 | Ocmulgee | Jeff Davis | Gully Creek | Rocky Branch to Ocmulgee River | Stream | DO, FC | TMDLs completed DO & FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 4 | 1 | NO | 1 |
| 7 | 45 | Ocmulgee | Telfair | Big Horse Creek | Alligator Creek to Ocmulgee River | Stream | Bio F | TMDL completed Bio(F) & DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 15 | 2 | NO | 1 |
| 7 | 61 | Ogeechee | Candler | Fifteenmile Creek | Stocking Head Branch to Canoochee River near Metter | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 6 | 1 | NO | 1 |
| 7 | 62 | Ogeechee | Candler | Tenmile Creek | Upstream Canoochee River, Excelsior | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | NO | 1 |
| 7 | 63 | Ogeechee | Candler/ Evans | Canoochee River | Fifteen Mile Creek to Cedar Cr. | Stream | TWR | TMDL completed TWR. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 14 | 2 | NO | 1 |
| 7 | 66 | Ogeechee | Evans | Cedar Creek | Water Hole Creek to Canoochee River, Claxton | Stream | DO, FC | TMDLs completed DO, FC. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 6 | 1 | NO | 1 |
| 7 | 67 | Ogeechee | Jefferson | Williamson Swamp Creek | Mill Creek to Ogeechee River, Wadley | Stream | FC, DO | TMDLs completed FC & DO. | 2 | Fishing | 1 | Not Supporting | 4a | 2 | 9 | 1 | NO | 1 |

**Altamaha Regional Council
Non-Supporting 303d List
Category 4a and 5
Streams and Lakes**

| | | | | | | | | | | | | | | | | | | |
|------------------------|-----------|----------|---------------------------|--|---|--------|--------|-------------------------|---|---------|---|----------------|------|---|-----|---|----|---|
| 7 | 72 | Satilla | Appling/ Wayne | Colemans Creek | Dry Branch S. of Surrency to Big Satilla Cr. near Screven | Stream | FC | TMDLs completed DO, FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 17 | 2 | NO | 1 |
| 7 | 78 | Satilla | Wayne | Dry Creek | Headwaters to Boggy Creek | Stream | DO, FC | NONE | 2 | Fishing | 1 | Not Supporting | 5 | 1 | 11 | 2 | NO | 1 |
| 7 | 79 | Satilla | Wayne | Little Satilla Creek | Boggy Cr. to Little Satilla River near Screven | Stream | DO, FC | TMDL completed DO. | 2 | Fishing | 1 | Not Supporting | 4a,5 | 2 | 3 | 1 | NO | 1 |
| LEVEL 3 REACHES | | | | | | | | | | | | | | | | | | |
| 6 | 85 (Lake) | Altamaha | Treutlen | Sand Hill Lake (previously known as Treutlen County PFA) | Treutlen County | Lake | TWR | TMDL completed TWR | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 166 | 2 | NO | 0 |
| 6 | 86 (Lake) | Ocmulgee | Telfair/ Wheeler | Little Ocmulgee State Park Lake (Gum Creek Swamp) | Telfair and Wheeler Counties | Lake | TWR | TMDL completed TWR | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 224 | 2 | NO | 0 |
| 6 | 2 | Altamaha | Appling/ Wayne | Five Mile Creek | Headwaters to Altamaha River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 9 | 1 | NO | 1 |
| 6 | 7 | Altamaha | Jeff Davis | Bullard Creek | ~0.25 mi u/s Altamaha Road to Altamaha River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 8 | 1 | NO | 1 |
| 6 | 9 | Altamaha | Johnson | Cypress Creek | Rolands Pond to Ohooppee River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 4 | 1 | NO | 1 |
| 6 | 11 | Altamaha | Johnson | Ohooppee River | Big Cedar Creek to Cypress Creek | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 2 | 1 | NO | 1 |
| 6 | 12 | Altamaha | Johnson/ Emanuel | Flat Creek | Headwaters to Little Ohooppee River | Stream | FC | TMDL completed FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 10 | 1 | NO | 1 |
| 6 | 13 | Altamaha | Johnson/ Emanuel | Magruda Creek | Headwaters to Little Ohooppee River | Stream | FC | TMDL completed FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 6 | 1 | NO | 1 |
| 6 | 30 | Altamaha | Washington/ Johnson | Nealy Creek | Headwaters to Little Ohooppee River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 9 | 1 | NO | 1 |
| 6 | 33 | Altamaha | Wayne | Alex Creek | Mason Cowpen Branch to Altamaha River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | NO | 1 |
| 6 | 37 | Ocmulgee | Dodge | Crooked Creek | Cypress Lake to Ocmulgee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 4 | 1 | NO | 1 |
| 6 | 48 | Ocmulgee | Wilcox | Cedar Creek | Headwaters to Brushy Creek | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 7 | 1 | NO | 1 |
| 6 | 49 | Ocmulgee | Wilcox | Folsom Creek | ~0.2 mi d/s CR 33 to Ocmulgee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 9 | 1 | NO | 1 |
| 6 | 50 | Ocmulgee | Wilcox | House Creek | Headwaters to Haw Pond Creek | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 7 | 1 | NO | 1 |
| 6 | 53 | Oconee | Montgomery | Cypress Creek | Little Cypress Creek to Oconee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 4 | 1 | NO | 1 |
| 6 | 54 | Oconee | Montgomery | Limestone Creek | Mount Vernon to Oconee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 2 | 1 | NO | 1 |
| 6 | 55 | Oconee | Treutlen | Red Bluff Creek | Little Red Bluff Creek to Oconee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | NO | 1 |
| 6 | 56 | Oconee | Wheeler | Lotts Creek | Headwaters to Oconee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 5 | 1 | NO | 1 |
| 6 | 57 | Oconee | Wheeler | Peterson Creek | Headwaters to Oconee River | Stream | Bio F | TMDL completed Bio(F). | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 8 | 1 | NO | 1 |
| 6 | 65 | Ogeechee | Evans | Bull Creek | Strickland Pond to Canoochee River near Daisy | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 6 | 1 | NO | 1 |
| 6 | 71 | Satilla | Appling/ Pierce/ Brantley | Big Satilla Creek | Sweetwater Creek to Colemans Creek | Stream | FC | NONE | 1 | Fishing | 1 | Not Supporting | 5 | 1 | 12 | 2 | NO | 1 |
| 6 | 80 | Satilla | Wayne | Little Satilla Creek | Dry Branch to Boggy Creek (Dry Creek) | Stream | DO, FC | NONE | 2 | Fishing | 1 | Not Supporting | 5 | 1 | 9 | 1 | NO | 1 |
| 6 | 81 | Satilla | Wayne | Little Satilla Creek | Keene Bay Branch to Dry Branch near Odum | Stream | FC | TMDL completed DO, FC. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 10 | 1 | NO | 1 |
| 6 | 83 | Suwannee | Wilcox | Mill Creek | Reynolds Cr. to Alapaha River | Stream | DO | TMDL completed DO. | 1 | Fishing | 1 | Not Supporting | 4a | 2 | 3 | 1 | NO | 1 |
| 5 | 77 | Satilla | Wayne | Boggy Creek | Headwaters to Lake Lindsay Grace | Stream | DO | NONE | 1 | Fishing | 1 | Not Supporting | 5 | 1 | 10 | 1 | NO | 1 |

Altamaha Regional Council
 Assessment Pending 303d List
 Category 3
 Streams and Lakes

| Ranking | Map ID | River Basin | County | Reach Name | Reach Location | Waterbody Type | Criterion Violation | Notes | Violation Rank | Water Use | Water Use Rank | Category Tier | Category Tier Rank | Length (Miles) | Length Rank | Status Reports Obtained | Status Report Rank |
|------------------------|--------|-------------|---------------------------|-----------------------------------|---------------------------------------|----------------|---------------------|---|----------------|-----------|----------------|---------------|--------------------|----------------|-------------|-------------------------|--------------------|
| LEVEL 1 REACHES | | | | | | | | | | | | | | | | | |
| 3 | 75 | Satilla | Jeff Davis/ Coffee/ Bacon | Little Hurricane Creek | Headwaters to Ga Hwy 32 | Stream | NONE | EPD needs to determine the "natural DO" for the area before a use assessment is made. It is EPD's goal to determine the "natural DO" by the end of 2011. | 0 | Fishing | 1 | 3 | 0 | 17 | 2 | NONE | 0 |
| LEVEL 2 REACHES | | | | | | | | | | | | | | | | | |
| 2 | 17 | Altamaha | Tattnall | Big Branch | Headwaters to Blocker Creek | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data needs to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 3 | 1 | NONE | 0 |
| 2 | 28 | Altamaha | Washington | Big Cedar Creek | Griffith Branch to Little Cedar Creek | Stream | NONE | The water is being placed in Category 3 because macroinvertebrate data are currently under evaluation for listing assessment purposes. A listing decision should be made by 2010. | 0 | Fishing | 1 | 3 | 0 | 5 | 1 | NONE | 0 |
| 2 | 32 | Altamaha | Wayne | Little Creek | Gum Creek to Honey Camp Branch | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 4 | 1 | NONE | 0 |
| 2 | 43 | Ocmulgee | Telfair | Fishing Creek | Headwaters to Ocmulgee River | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 9 | 1 | NONE | 0 |
| 2 | 44 | Ocmulgee | Telfair | Oppossum Creek | Headwaters to Ocmulgee River | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 8 | 1 | NONE | 0 |
| 2 | 59 | Ogeechee | Bulloch/ Candler | Lotts Creek | Big Branch to Cypress Lake | Stream | NONE | Not enough data to make an assessment of use support. Data from Jan - June 2007 only. Assessment should be possible in 2010. | 0 | Fishing | 1 | 3 | 0 | 6 | 1 | NONE | 0 |
| 2 | 60 | Ogeechee | Candler | Tributary to Canoochee River | Paradise Lake to Canoochee River | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 3 | 1 | NONE | 0 |
| 2 | 68 | Ogeechee | Tattnall/ Evans | Billy Fork Creek (aka Bull Creek) | Headwaters to Bull Creek | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 3 | 1 | NONE | 0 |
| 2 | 73 | Satilla | Jeff Davis | Burket Creek | Headwaters to Hurricane Creek | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 6 | 1 | NONE | 0 |
| 2 | 76 | Satilla | Wayne | Keene Bay Branch | Headwaters to Little Satilla Creek | Stream | NONE | The water is being placed in Category 3 because more macroinvertebrate data need to be collected in this area of the State to develop metrics for assessment purposes. | 0 | Fishing | 1 | 3 | 0 | 6 | 1 | NONE | 0 |
| 2 | 82 | Suwannee | Wilcox | Tributary to the Alapaha River | Headwaters to the Alapaha River | Stream | NONE | The water is being placed in Category 3 because macroinvertebrate data are currently under evaluation for listing assessment purposes. A listing decision should be made by 2010. | 0 | Fishing | 1 | 3 | 0 | 2 | 1 | NONE | 0 |