

THIRD QUARTER 2021 UPDATE

Georgia State Water Plan Altamaha Regional Water Planning Council Newsletter

Updates from EPD



**JENNIFER
WELTE**

The Georgia Environmental Protection Division (EPD) has been actively working with state officials to ensure that Council appointments and re-appointments occur. New appointments and re-appointments for the Altamaha Council are anticipated before the end of 2021.

EPD is once again making state funds available to support and incentivize local governments and other public entities to implement elements of their Regional Water Plan. The State Fiscal Year 2022 Regional Water Plan Seed Grant program will have funds available to implement management practices or other recommendations from one or more Regional Water Plans. Applications are due October 31, 2021, and eligible recipients include local, regional, and State units of government, local authorities, regional commissions, resource conservation and development councils, local school systems, State college and universities, and State agencies. Project applications must include a letter of endorsement from the Water Planning Council Chair or designated representative.

PURPOSE

The purpose of this newsletter is to inform Council Members of work that has already been completed and what is still to come to support the 2020-2022 Regional Water Plan (RWP) Update.

Good morning/afternoon, everyone!

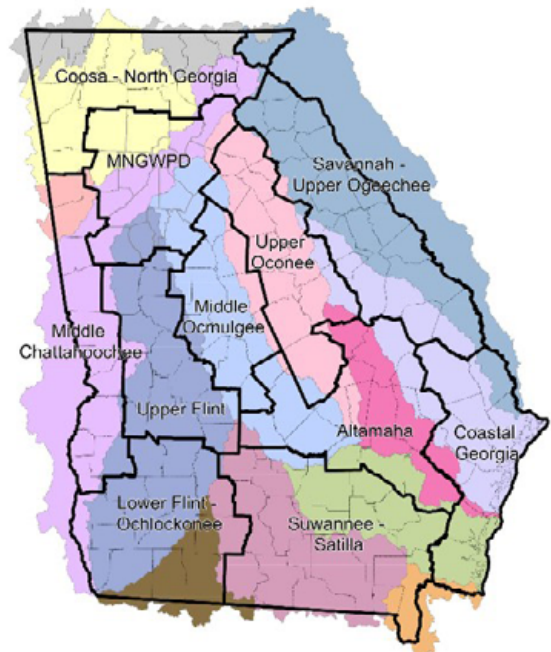
I hope this email finds you all healthy and prospering. Because it's been a while since we've been together, Danielle Honour with CDM Smith has put together this Council Update to keep you informed of water planning activities that relate to our Council. I hope this update will help keep you engaged and prepared for our next meeting!

If you have any questions about anything that's been happening, please feel free to contact me or Danielle.

I look forward to seeing you all soon,
Ed

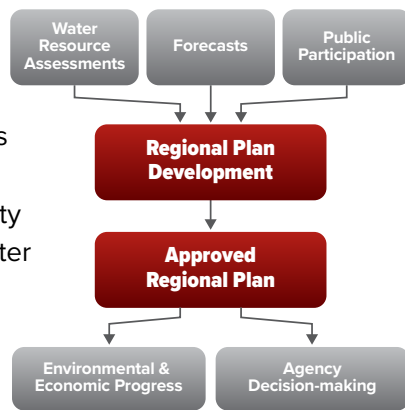


Water Planning Regions



Planning Process Overview

As part of preparation for the 2020–2022 Regional Water Plan (RWP) update, work over the past year has included updates to the water demand forecasting, surface and groundwater availability resource assessments, surface water quality/assimilative availability resource assessments, and public participation through Council Meetings. These factors will go into the updates of the regional plan that the Council will prepare for public review and input and EPD adoption. RWPs play a role in the state's water-related permitting and project funding decisions as well as environmental and economic progress of the state of Georgia. Activities related to the water planning cycle include EPD seed grant and 319(h) grant funding in each planning region, surface and groundwater availability studies, and surface water quality studies. The current Altamaha Regional Water Plan can be found [here](#).



Water Resource Assessments

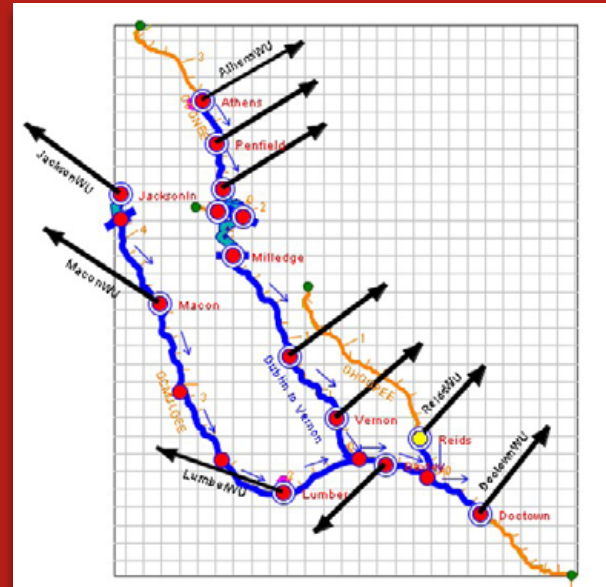
Georgia EPD has been working with a team at Hazen and Sawyer to develop a Basin Environmental Assessment Model (BEAM) to update the surface water availability resource assessment process. The Oconee-Ocmulgee-Altamaha (OOA) River system is the pilot watershed under this effort. The BEAM performs similar assessments as the HEC-ResSim models which were used in the previous planning efforts. However, the BEAM is being developed at a much finer scale using the OASIS modeling platform. The BEAM will be used for updating RWPs and also by EPD for future evaluations of proposed water use permits. Compared to the previous ResSim model, the BEAM model has a much higher resolution and more accurately represents the tributaries that contribute to the main stems. The model also has a variety of metrics that can be considered including water supply, ecological and recreation. As scenarios change in the regions, the model can be re-visited to see where additional changes may be needed to meet regional goals or support stream conditions.

Surface and groundwater availability as well as surface water quality resource assessments relevant to the previous 2017 plan update can be found [here](#).

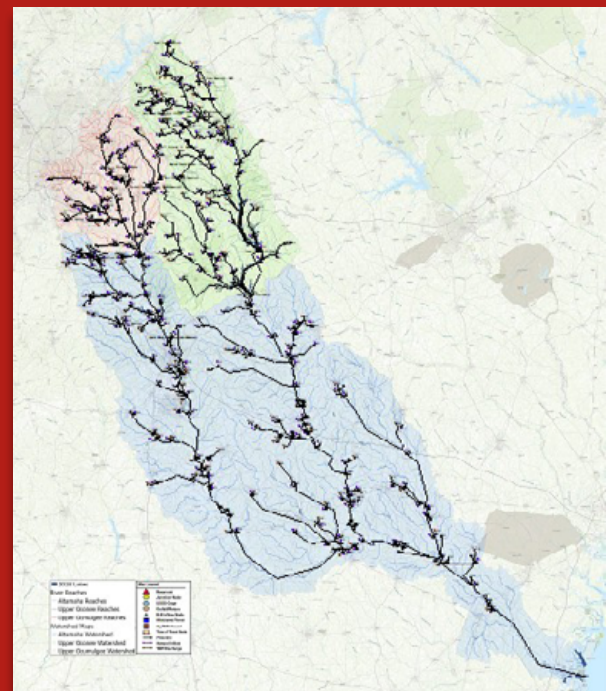
OOA BEAM Model Development



ReSim Model

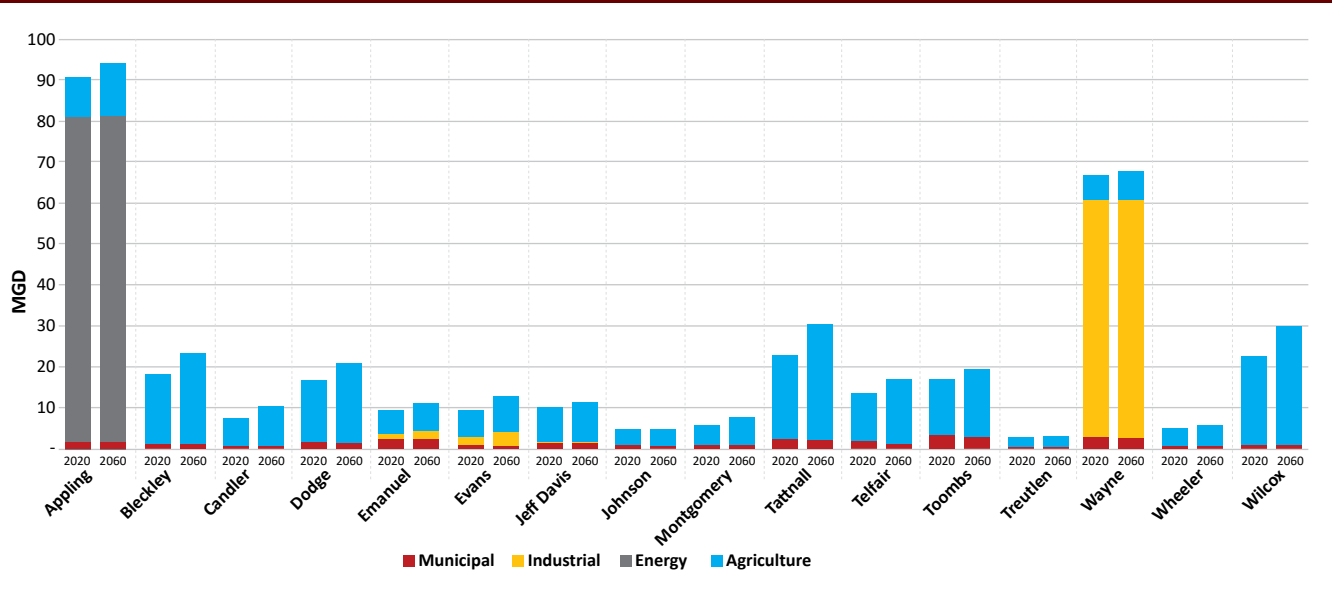


BEAM Model



INTRODUCTION

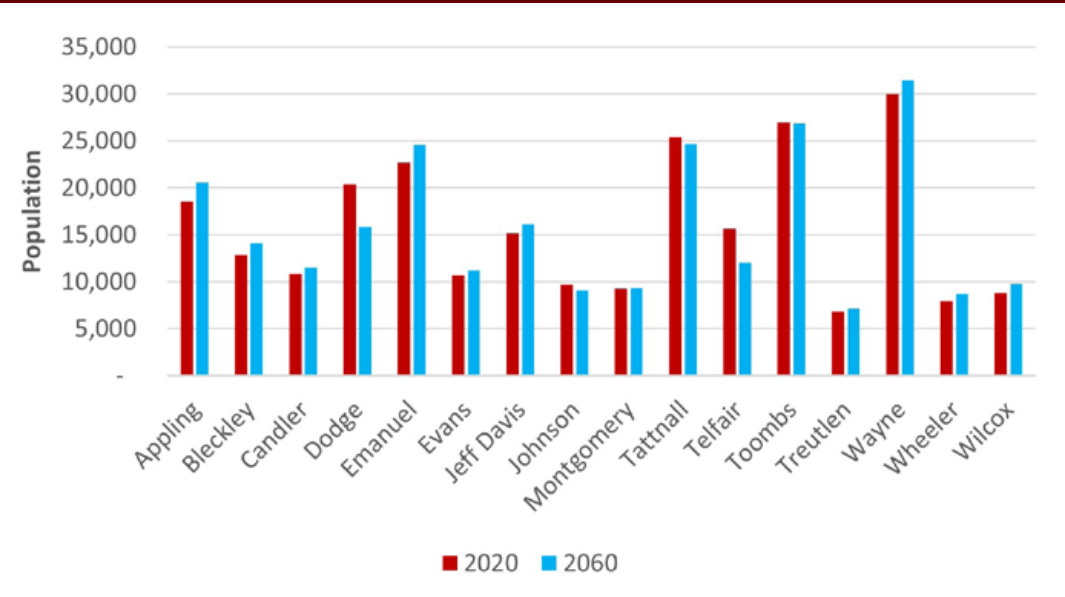
With the help of stakeholder groups and the planning contractor liaisons, the Municipal Water Demand Forecast has been finalized and is posted on the water planning website. The Energy and Industrial water demand forecasts have also been finalized and are posted to the website. The graphic below shows the results of the updated water demand forecasts for the Altamaha region, for these three water use sectors. The Georgia Water Planning and Policy Center has developed the agricultural water demand forecast, and results will be shared at the next Council Meeting.



Altamaha Water Demand Forecast

POPULATION PROJECTIONS

State and County population projections are prepared by the Governor’s [Office of Planning and Budget](#) (OPB). These population projections are used consistently by all state agencies for multiple purposes. A Cohort-Component model is used to develop county level projections based upon age specific fertility and death rates, and migration rates. The OPB population projections released in October 2019 were used in the forecasting process and are based upon the fertility, mortality and migration rates from 2014–2018. The graph to the right shows the population projections for each county at 2020 compared to 2060.

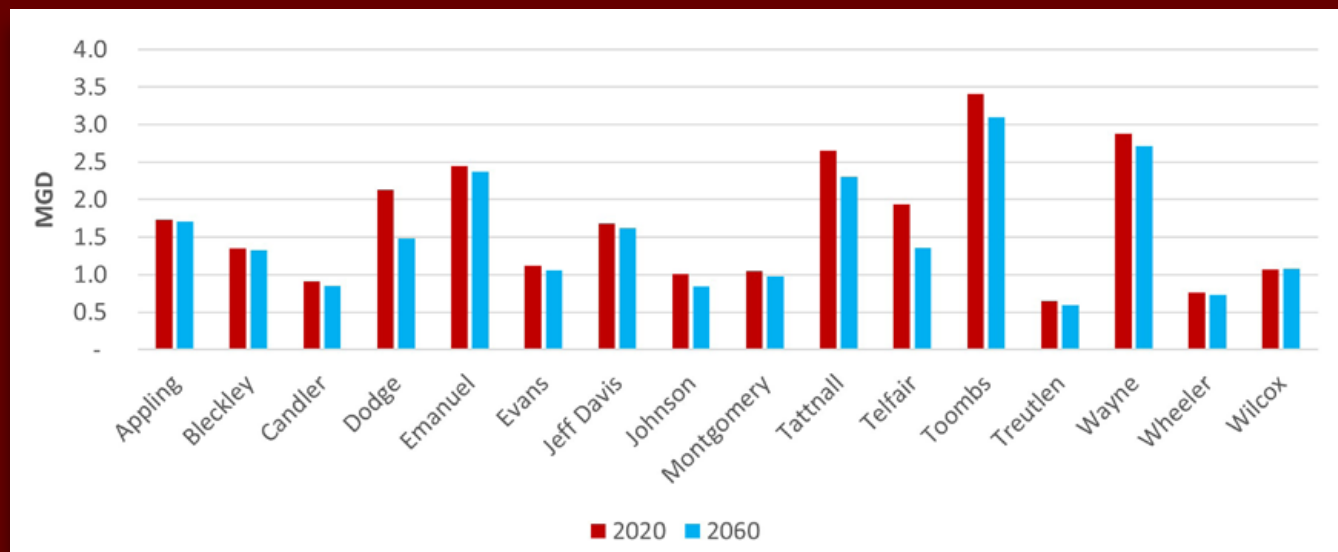


Altamaha Population Projections (2019)



UPDATE OF THE MUNICIPAL WATER DEMAND FORECAST

A final copy of the Municipal Water Demand and Wastewater Flow Forecasting Methods Report is available [here](#). This report outlines the updated data sources used for this update of statewide municipal water demand forecasts, the methodology for performing the forecasts, the stakeholder review process, input received to date, and draft forecast results by water planning region. County-level details of permitted water withdrawals and wastewater facilities are included in the report. A visual of the municipal water demand forecast from 2020 into 2060 for each County is shown below.



Altamaha Municipal Water Demand Forecast

UPDATE OF THE AGRICULTURAL WATER DEMAND FORECAST

From 2015 to 2020, the Altamaha Region has seen a 6.7% increase in total irrigated acres, 10.4% increase in groundwater irrigated acres, and 7.2% increase in the number of center pivot irrigation systems. Each County in the region had over 2,500 irrigated acres in 2020, where corn, cotton, and peanuts make up almost 82% of the crop acreage in the region. Over the same five-year period, average daily water uses for livestock decreased by 1.8 MGD and horticultural nurseries water use increased by 0.3 MGD. When finalized, more information on the Agricultural Water Demand Forecast can be found [here](#).

UPDATE OF THE INDUSTRIAL WATER DEMAND FORECAST

The 2020 update of the water demand forecast for the industrial sector is posted [here](#). This updated forecast was prepared to inform the next updates to the Regional Water Plans, reflects Georgia's water needs for the industrial sector through 2060, and the results for this region are shown on the image below. An industrial sector advisory group, which was convened in June 2020, provided input and review on the methodology and results of the updated forecast. The advisory group was further subdivided into four subsector advisory groups representing food processing, paper and forest products, mining, and manufacturing. Each subsector group developed its own approach to estimating future water needs for these subsectors. Thus, the update of the industrial water demand forecast is based upon input and expert opinions by industry leaders from across the state.

The approach used in 2020 to estimate future industrial water demand differs from the approach previously used, which relied upon employment projections to inform the industrial water demand projections. There had been no update to the prior industrial water demand forecast since the 2011 Regional Water Plans. Since that time, industrial water use in Georgia has decreased, in part due to more efficient use of water. Based on those decreases, and the change in the approach for this forecast, the 2020 update of the industrial water demand forecast includes significantly lower projections than the prior forecast. Industrial water demands in Georgia will be re-evaluated every 5–10 years to adjust for changing conditions.

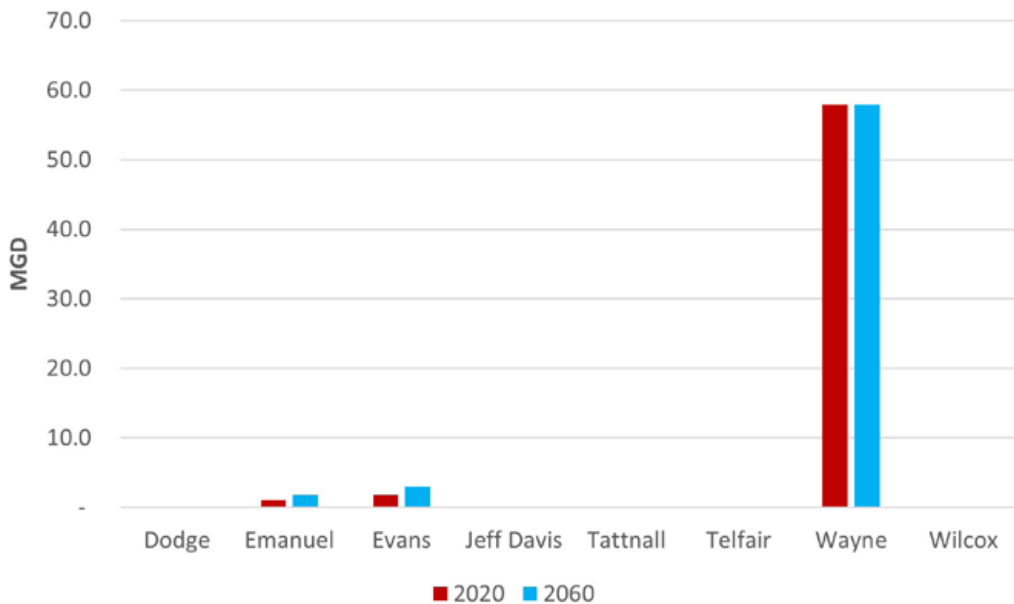
Planning and Budget (OPB) and average energy consumption per capita to project future energy needs in Georgia. Note that both population projections have shifted lower than before and average energy consumption per capita has declined. Therefore, the projected need for energy in Georgia is lower than in prior energy water demand forecasts. The only thermoelectric energy demand in the Altamaha Region is Plant Hatch in Appling County. The nuclear plant is owned by Georgia Power and uses primarily surface as its water source with a small amount of ground water. Appling County is projected to have a demand of 81 million gallons per day (MGD) in 2020, not counting agriculture. Plant Hatch accounts for 98 percent

of this demand. The non-agricultural demand for water is anticipated to remain about the same in 2060.

An energy sector advisory group, which was convened in April 2020, provided input and review to EPD during the forecast update process. Future energy production by type of generating facility is estimated statewide, from which the future water withdrawal and consumption by type of generating facility is estimated. The recent retirement of generating facilities and the expansion of nuclear power generation at Plant Vogtle are accounted for

in this update. Assumptions are made regarding the gradual future retirement of coal-fired generating facilities across the state. The need for additional energy generation in the future is assumed to be provided by natural gas and renewable energy sources.

The results of this forecast update provide region-specific forecasts of water needs for thermoelectric energy generation from existing and known planned facilities. Future addition of natural-gas generation is assumed to be co-located with existing natural gas facilities.



Altamaha Industrial Water Demand Forecast

NOTE: All of the demands for Dodge, Jeff Davis, Tattnall, Telfair and Wilcox counties are less than 0.1 MGD and are therefore not visible at current scale.

UPDATE OF THE ENERGY WATER DEMAND FORECAST

The updated water demand forecast for the energy sector has been finalized based on input from a stakeholder group comprised of representatives from Georgia's major power companies. It will inform the next Regional Water Plan updates and is available on the [Georgia Water Planning website](#).

The 2020 updated forecast reflects Georgia's water needs for thermoelectric energy generation through 2060. The process used the 2019 population projections developed by the Governor's Office of

AMERICAN RESCUE PLAN

The American Rescue Plan provides a total of \$350 billion in Coronavirus State and Local Fiscal Recovery Funds to help eligible state, local, territorial, and tribal governments. Funding has been allocated to States, Counties, Metropolitan Cities, and local governments typically serving populations of less than 50,000. Local governments (counties and cities) in the **Altamaha Region will receive approximately \$88M**. It is important to note that one of the four eligible use categories specified in the American Rescue Plan Act (ARPA) as it relates to the Regional Water Plan includes provisions to make the necessary investments in water and sewer infrastructure. The eligible uses for infrastructure are described in more detail in the U.S. Department of Treasury's Interim Final Rule.

owned treatment works, water reuse projects, security measures at publicly-owned treatment works, and technical assistance to ensure compliance with the Clean Water Act.

Under the DWSRF, categories of eligible projects include: treatment, transmission and distribution (including lead service line replacement), source rehabilitation and decontamination, storage, consolidation, and new systems development.

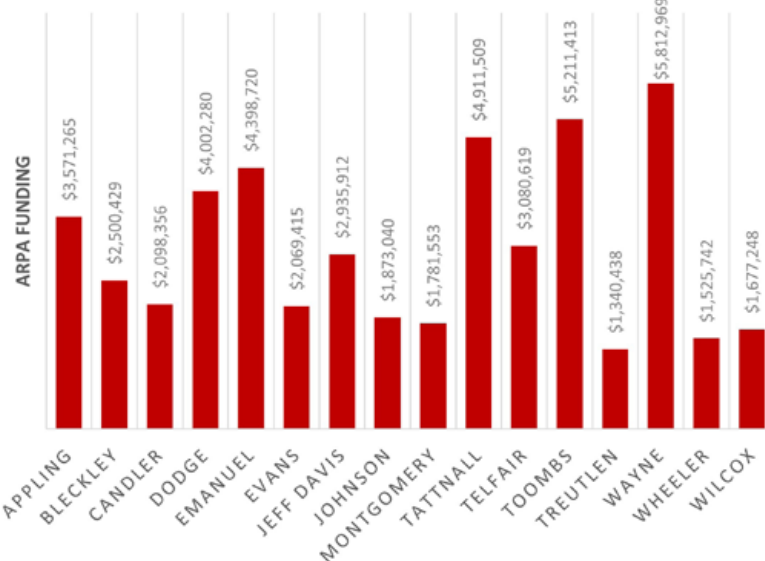
It should be noted that it will be up to each local government how ARPA local fiscal recovery funding is allocated among eligible uses, and allocation is a policy and budgetary question that local staff and elected leadership will work through together. There are several other resources that can be accessed to learn more about the ARPA and funding allocated to the State of Georgia:

- ▶ Governor's Office of Planning and Budget: [American Rescue Plan | Governor's Office of Planning and Budget \(georgia.gov\)](https://georgia.gov)
- ▶ Georgia Municipal Association: [American Rescue Plan Act \(gacities.com\)](https://gacities.com)
- ▶ U.S Treasury Department FAQs:
 - ▶ [Coronavirus State and Local Fiscal Recovery Funds](#)
 - ▶ [Distribution of Funds to Non-entitlement Units of Local Government](#)

INFRASTRUCTURE

While not yet final, under the Infrastructure Investment and Jobs Act, based on the traditional state revolving fund formula, Georgia will expect to receive \$913 million over five years to improve water infrastructure across the state. The Bipartisan Infrastructure Deal is expected to make large investments in clean drinking water and wastewater infrastructure. This will include including dedicated funding to replace lead service lines and address the chemical PFAS (per- and polyfluoroalkyl). The Council will be updated once the act is final and more specifics are available. There are several other resources and jobs to learn more about the Infrastructure Investment Act:

- ▶ [White House Infrastructure Fact Sheet](#)
- ▶ [U.S. Chamber of Commerce Infrastructure Highlights](#)



Anticipated ARPA Funding for Counties in the Altamaha Planning Council (does not include city funding)

The Interim Final Rule generally includes a wide range of categories of projects that would be eligible through the USEPA's Clean Water State Revolving Fund (CWSRF) or Drinking Water State Revolving Fund (DWSRF):

Under the CWSRF, categories of eligible projects include construction of publicly-owned treatment works, nonpoint source pollution management, national estuary program projects, decentralized wastewater treatment systems, stormwater systems, as well as water conservation, efficiency, and reuse measures. Other categories are watershed pilot projects, energy efficiency measures for publicly-

Visions & Goals

Adopted in 2009, the Altamaha vision is:

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 including fishing, wildlife and wildlife utilization activities, and support the basin's economy.

Previously adopted goals pertain to water systems and supply sustainability, economic sustainability and development, and quality of life and public health enhancement. Similar to the last plan update cycle, visions and goals will be revisited for each region entering this upcoming plan update cycle. These will guide and frame the selection of management practices and will ensure resources are managed to meet the region's needs.

Questions to consider when revisiting these visions and goals include:

- ▶ Are there any major water issues that have surfaced in the region?
- ▶ Has what you hoped to see for this region regarding water resource changed substantially over the past 5 years?
- ▶ Is there anything on the horizon that may influence the vision for the region?

Revisions to visions and goals are not necessary if the answers to the questions above are substantively no. More information about the visions and goals of the Altamaha Region can be found [here](#).

Anticipated Timeline

Similar to the last plan update cycle, quarterly Council Meetings may be held to facilitate the process. Meeting topics will include forecasting results, resource assessment/gap analysis results, and review and update of management practices. With the forecasting effort nearly wrapped up, the planning process has essentially begun. The next few Altamaha Council Meetings will highlight the forecasting results and updated resource assessments, and meetings in 2022 will be focused on plan revisions.

GOALS

WATER SYSTEMS/SUPPLY SUSTAINABILITY

- 1 Help ensure protection and management of surface and groundwater recharge areas to ensure sufficient long-term water supplies for the region.
- 2 Identify opportunities to maximize and optimize existing and future supplies.
- 3 Promote water conservation and water use efficiency for all water use sectors to allow for sufficient long-term water supplies.
- 4 Identify opportunities to better prepare for and respond to climate and water supply variability and extremes.
- 5 Identify and implement cost-effective water management strategies.

ECONOMIC SUSTAINABILITY & DEVELOPMENT

- 1 Manage and develop water resources to sustainably and reliably meet domestic, commercial, agricultural, and industrial water needs.
- 2 Manage groundwater and surface water to encourage sustainable economic and population growth in the region.
- 3 Identify opportunities to minimize excessive regulations and the resulting negative economic impacts (especially in rural areas); while maintaining quality and quantity of water supply.

QUALITY OF LIFE & PUBLIC HEALTH ENHANCEMENT

- 1 Ensure an adequate water supply of suitable quality to meet current and future human, environmental and recreational needs of the region and citizens of Georgia.
- 2 Optimize existing water and wastewater infrastructure, including identifying opportunities to implement regional water and wastewater facilities.
- 3 Identify opportunities to manage water, wastewater, and stormwater to improve water quantity and quality, while providing for wise land management, wetland protection, and wildlife sustainability.
- 4 Work collaboratively with other regions that share resources to help ensure that activities outside the Altamaha Region do not adversely impact the region.

FOR MORE INFORMATION, CONTACT:

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