

## Extended Abstract

# Groundbreaking Regional Water Planning in Georgia: Lessons from the Middle Chattahoochee, Upper Flint and Lower-Flint Ochlockonee Regional Water Councils

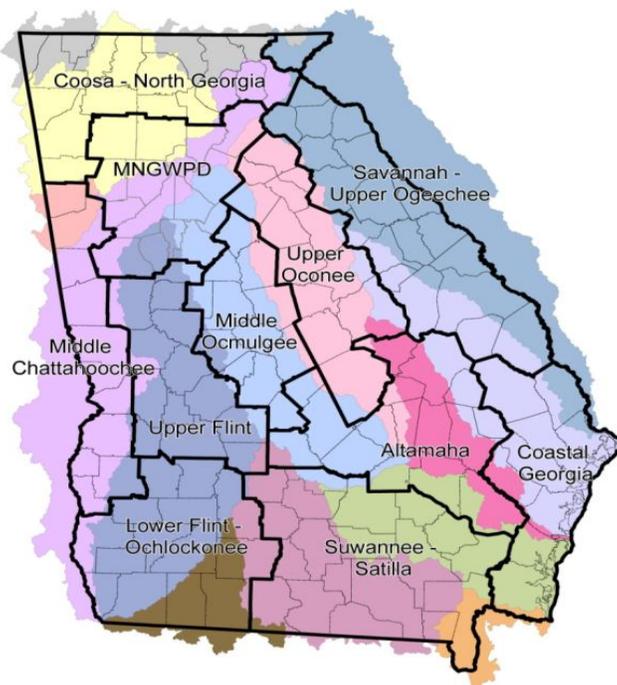
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### Background

Georgia's State Water Plan was adopted in 2008 establishing the framework for regional water planning across the entire state to ensure that water resources are sustainably managed through at least 2050. Ten Regional Water Planning Councils were established, joining the Metropolitan North Georgia Water Planning District, which was created in 2001.

### Water Planning Regions



The Georgia water planning process is a unique example of empowerment of regional planning councils, each reflective of the communities represented, to develop consensus around water management priorities. Regional water plans were tailored based on the unique balance of agriculture, energy/industry, municipal, and other needs throughout each region. The State Water Plan provides a framework for regional planning consistent with the policy statement that “*Georgia manages water resources in a sustainable manner to support the state’s economy, to protect public health and natural systems, and to enhance the quality of life for all citizens.*”

Similar to South Carolina, prior to this regional water planning effort, Georgia did not have reliable statewide forecasts of how much water they will need or how much wastewater will be discharged as the state continues to grow. Georgia also did not have good measurements of their available capacity to meet future demands for water supply and wastewater discharge.

### **Regional Water Planning Overview**

The regional water planning councils spent almost three years examining and developing technical information about their water resources, refining water use forecasts and comparing these forecasts to expected demands. The Georgia EPD retained Black & Veatch to support the Middle Chattahoochee, Upper Flint, and Lower-Flint Ochlockonee Water Councils by assisting the Councils in preparing the regional water plans in their specific regions.

Black & Veatch worked with the Georgia EPD, Water Planning Councils and stakeholder groups to plan, organize, prepare, and draft the regional water plans which incorporate the following:

- Surface water and groundwater availability and surface water quality resources assessments (provided by the EPD) applicable to their region.
- Agricultural and energy water demand forecasts to be provided by EPD.
- Domestic, commercial and industrial water demand and wastewater flow forecasts for 10-, 20-, 30-, and 40-year horizons.

- Gap analysis between water resource needs and resource capacities.
- Management practices that will be used to close any gaps, attain Council defined goals, and ensure that forecasted needs are met.

This presentation will summarize this work, outline the challenges and present some lessons learned.

### **Middle Chattahoochee Planning Region**

The Middle Chattahoochee Regional Water Planning Council (the Council), was charged with developing this Regional Water Plan. The Council was comprised of 30 individuals from throughout the planning region which includes 11 counties and 34 incorporated municipalities. A total of eleven full council meetings were held to develop the Regional Water Plan over a 30-month period.

The majority of the Middle Chattahoochee planning region is part of the Apalachicola-Chattahoochee-Flint (ACF) River Basin and is comprised of the Chattahoochee and Flint Rivers which converge at Lake Seminole on the Georgia-Florida state line to form the Apalachicola River. In addition, both Carroll and Haralson counties have areas that are in the headwaters of the Tallapoosa River basin.

Throughout the planning process, there was strong recognition by the Council that the water resources in the ACF River Basin are highly complex with significant political and environmental issues that remain unresolved. Several rulings on the consolidated litigation between the Corps of Engineers, Georgia, Alabama, and Florida disputing Corps operations of the federal reservoirs were made during the plan development. In addition, the EPA issued new nutrient standards for free flowing streams and lakes in Florida, which may have substantial implications for water quality management in this region

The Council identified significant “gaps” between desired lake levels and river flows citing specific objections to the current operations of the Chattahoochee system as operated by the USACOE under the Revised Interim Operations Plan (RIOP). The Council identified the need for an improved operating plan for the Apalachicola-

Chattahoochee-Flint (ACF) Basin which better balances the multiple authorized purposes of the federally operated reservoirs and addresses impacts on instream uses throughout the basin.

### **Upper Flint Planning Region**

Most of the Upper Flint region is located in the Apalachicola-Chattahoochee-Flint (ACF) River Basin. Small areas of the region are located in the Ocmulgee and Suwannee River Basins. The region is bisected by the fall line dividing the piedmont and the coastal plain. The region is largely rural.

The Upper Flint Council met eleven times over a more than two-year period (2009-2011) to develop this regional water plan. During this time, Council members participated in numerous additional meetings, including committee meetings and joint council meetings, to support the work of the Council. Developing the plan required the Council to gather information from a variety of sources to provide a foundation for sound decision making. Often, the Council found information gaps or significant uncertainties that affected its ability to plan. The Council proceeded based on the best information available and made recommendations to address information gaps and improve water planning and policies.

Models identified potential shortfalls (“gaps”) in the capacity of water resources to meet water supply and wastewater demands while also meeting criteria for flows and assimilative capacity defined by EPD. The Council considered model results, the region’s water needs, and potential impacts on the region, both environmental and economic.

The Council developed a set of eighteen management practices, including seven Demand Management practices, five Supply Management and Flow Augmentation practices, one Returns Management practice, and five Water Quality practices.

## **Lower Flint Planning Region**

The Lower Flint-Ochlockonee Regional Water Planning Council (the Council) was charged with developing this Regional Water Plan. The Lower Flint-Ochlockonee Council met ten times over a two-year period (2009-2011) to develop this regional water plan.

The Lower Flint-Ochlockonee Council adopted the following statement to describe its vision for the future of the region's water resources:

*The Lower Flint-Ochlockonee Water Planning Council will manage water resources in a sustainable manner to support the region's economy, to protect public health and natural systems, and to enhance the quality of life for the region's citizens.*

The assessment models identified potential shortfalls ("gaps") in the capacity of water resources to meet water supply and wastewater demands while also meeting criteria for flows and assimilative capacity defined by EPD. The Council considered the assessment model results, the region's water needs, and potential impacts on the region, both environmental and economic.

The Council developed the rest of the plan to address gaps identified by the models and to meet the Council's vision and goals for the region.