

## Section 1 Introduction

The Metropolitan North Georgia Water Planning District (District) was established by the Georgia legislature in 2001 in Senate Bill 130 to address the pressing need for comprehensive water resources management in the 16-county area of metropolitan north Georgia.

The District is a planning entity dedicated to developing comprehensive regional and watershed-specific plans that will be implemented by the local governments in the District. It is comprised of 16 counties, including Bartow, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Fulton, Forsyth, Gwinnett, Hall, Henry, Paulding, Rockdale, and Walton (see Figure 1-1). These counties lie primarily within the boundaries of five major river basins: Chattahoochee, Etowah (sub-basin of the Coosa), Flint, Oconee, and Ocmulgee. Small portions of the District are also in the Tallapoosa and other smaller basins of the Coosa River Basin.

The legislature, in creating the District, mandated the preparation of three long-term plans:

- Water Supply and Water Conservation Management Plan
- Wastewater Management Plan
- District-wide Watershed Management Plan

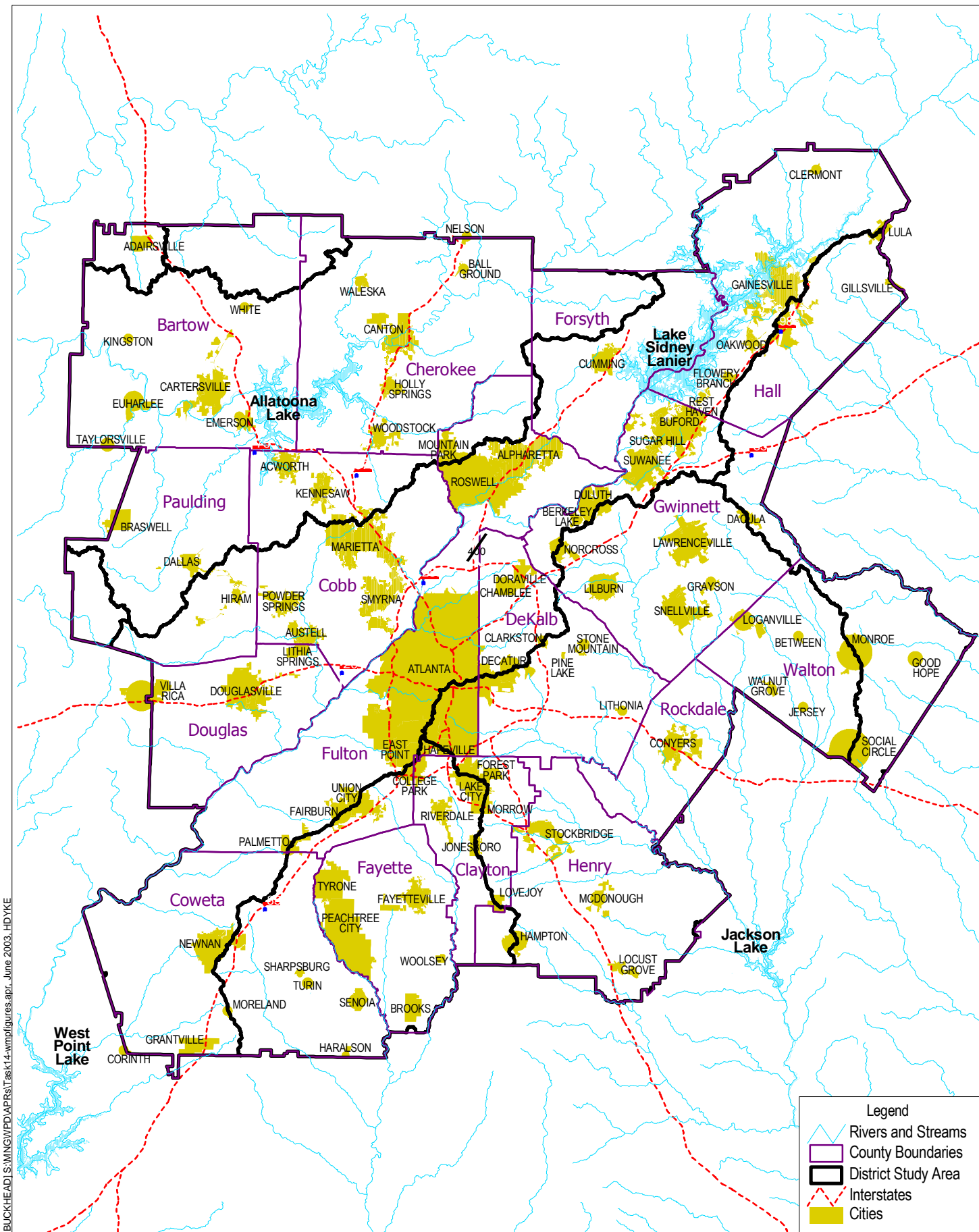
The Water Supply and Water Conservation Management Plan (WS Plan), provides strategies and recommendations for effective water supply management. It also includes the specific tasks and milestones for implementation of these recommendations.

The overall goal of the WS Plan is to meet projected water demands without compromising environmental and downstream needs. This WS Plan builds upon the existing water supply management planning efforts that have taken place in the District. It is also the beginning of an iterative process of plan reviews and updates. Annual review of the wastewater, water supply and conservation, and watershed management plans are required, as stated in Senate Bill 130:

*“The District shall review...management plan(s) and (their) implementation annually to determine whether there is a need to update such plan(s) and shall report to the director the progress of implementation of its goals...”*

Senate Bill 130 also states that:

*“...the District shall prepare updated...management plan(s) no less frequently than every five years...”*



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**Figure 1-1**

District Study Area

Metropolitan North Georgia Water Planning District

## Planning Process

A multi-step decision process was used to develop the WS Plan. This approach was designed to facilitate an open, reviewable planning procedure. It focused on specific District goals for water resource management, maximized the use of existing information, and assured completion within the schedule mandated in the law that established the District.

### Water Supply and Conservation Management Planning Steps

The primary steps in the process included:

- **Development of the District Policy Goals** – Goals for water supply and conservation management were developed in coordination with the wastewater and watershed management teams to assure consistency between water resource planning efforts (as discussed in the next section).
- **Identification of Need** – Available data and studies were used to define existing water demands, sources, and water treatment capacity. These were compared with the projected water demands and treatment needs to determine the overall water resource needs.
- **Development of Alternatives** – Water supply source, conservation, and treatment alternatives were developed in conjunction with the wastewater management alternatives to address the previously defined needs.
- **Evaluation of Alternatives** – Using the policy goal derived criteria, the alternatives were evaluated to select the recommended solution.
- **Preparation of the Implementation Plan** – Once the recommended solution was identified, the implementation plan was developed.
- **Preparation of the Draft Water Supply and Conservation Management Plan** – A draft plan was prepared and reviewed by the District Board, Technical Coordinating Committee, Basin Advisory Councils, and the public. Comments on this draft were incorporated into the final plan.
- **Preparation of the Water Supply and Conservation Management Plan** – The WS Plan is the culmination of the previous sequential planning steps. Recommendations in this document were evaluated against the District Policy Goals and the Georgia Environmental Protection Division (EPD) Planning Standards to assure that the final WS Plan meets the goals for regional water management.

## Public Participation

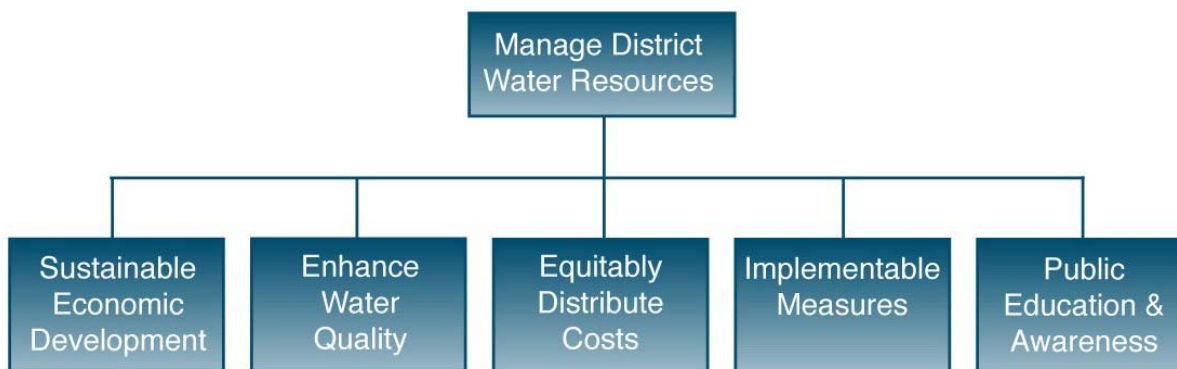
A cornerstone of the decision process for the WS Plan was a series of facilitated meetings with the Technical Coordinating Committee (TCC) and six Basin Advisory Councils, or BACs (Chattahoochee, Etowah, Lake Lanier, Oconee, Ocmulgee, and Flint). The TCC was comprised of local county and city technical staff and served as a technical advisory group to provide

information, guidance, and feedback during preparation of the WS Plan. These regional resources contributed significant effort to the planning process and provided critical technical information and direction to the District and the consultant team. The BACs were consulted on each of the major deliverables in the planning process. Feedback and suggestions from both groups were used to refine the recommendations through each successive step. Comments from the TCC and BACs were captured during each meeting using computer terminals and a professional facilitator. This facilitated input process greatly reduced the time needed to assimilate the feedback and assured participants that their comments were captured in the process.

## Policy Goals

The District's Policy Goals, shown in abbreviated form in Figure 1-2, served as guideposts for evaluating the water management alternatives. Key elements were evaluated with these goals in mind. The Policy Goals guided the development of all three planning studies (water supply, wastewater, and watershed).

**FIGURE 1-2**  
District Policy Goals



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## Planning Assumptions

The District planning efforts are not growth management plans. They are responsive plans that build on estimated population and employment projections that were based on historical growth patterns in the District.

The requirements and standards for the planning efforts were established in both Senate Bill 130 and the EPD Planning Standards. Prior to development of the solutions for water and wastewater management, additional minimum requirements were identified and assigned as screening criteria. Table 1-1 summarizes the screening criteria. All solutions had to meet these screening criteria to be considered viable for the District.

**TABLE 1-1**  
**Screening Criteria for the Water Supply and Wastewater Management Plans**

Criterion	Definition
Meet projected demands	Provide water supply and wastewater capacity to meet projected demands through 2030, allowing for consideration of water conservation.
Follow EPD guidance for limiting factors for the ACF and ACT basins	Limit net surface water withdrawals to 705 MGD in the Chattahoochee Basin <sup>1</sup> .
	Limit interbasin transfer from the Etowah Basin to 100 MGD by 2030.
	Return to the Chattahoochee River at least 58% of the water withdrawn.
	Meet streamflow requirements in the Chattahoochee River and in the Etowah Basin.
Meet in-stream standards	Meet EPD's in-stream water quality and flow standards, according to water use classification.

## Report Organization

This document is the recommended WS Plan for the District. It is based on a series of interim reports and technical memoranda that were developed during the planning process and reviewed with the TCC and BACs. It includes the recommendations and rationale for each of the management plan components. In addition, the document includes the specific recommended tasks, milestones, and responsibilities (and estimated costs) for the implementation of the WS Plan.

This document is organized as follows:

- **Executive Summary** – Provides a summary of the entire plan.
- **Section 1, Introduction** – Describes the water supply and conservation management planning process and the contents of the document.
- **Section 2, Plan Overview** – Provides an overview of the major components of the recommended WS Plan.
- **Section 3, Existing Water Supply and Treatment Conditions** – Summarizes the current conditions across the District, including existing water supplies, water treatment facilities, and interconnections.
- **Section 4, Water Demand Projections** – Provides the methodology and results for population, employment, and water demand forecasts.
- **Section 5, Water Conservation Analysis** – Provides a summary of the development and evaluation of water conservation options.
- **Section 6, Water Supply Issues and Source Evaluation** – Summarizes the water supply issues and limitations considered in developing the WS Plan.
- **Section 7, Alternatives Development and Evaluation** – Summarizes the process and interim steps that were taken to develop the WS Plan.

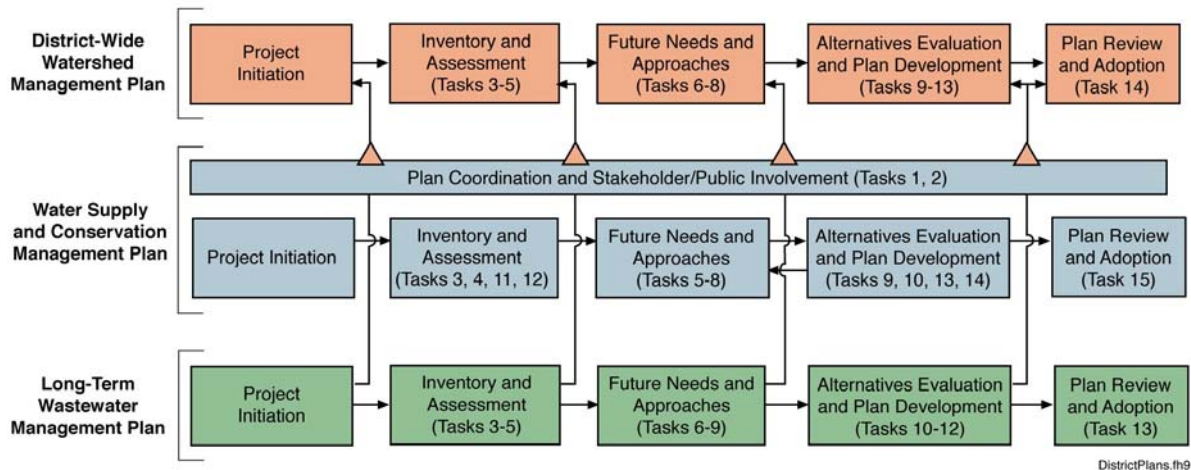
- **Section 8, Water Conservation Program** - Describes the recommended water conservation program.
- **Section 9, Planned Water Supplies Facilities** - Provides an overview of the recommended infrastructure improvements included in the recommended WS Plan.
- **Section 10, Water System Interconnections** - Describes the recommended water systems interconnection program.
- **Section 11, Local Planning Recommendations** - Describes the role and requirements for local plans.
- **Section 12, Plan Flexibility** - Presents guidelines regarding the extent to which local jurisdictions can modify the WS Plan while remaining consistent with its essential elements.
- **Section 13, Legislative and Regulatory Recommendations** - Summarizes the legal and regulatory changes to facilitate implementation of water supply and conservation management in the District.
- **Section 14, Governance and Inter-jurisdictional Collaboration** - Summarizes roles and responsibilities for the District, state agencies, and local governments.
- **Section 15, Funding** - Summarizes the potential funding mechanisms for the recommended WS Plan and the District operations.
- **Section 16, Education and Public Awareness** - Includes the recommended programs for education and public awareness directly related to water supply and conservation management.
- **Section 17, Implementation Actions** - Includes the specific actions, milestones, and responsibilities for implementation of the recommended WS Plan.
- **Section 18, Assessment of Progress** - Includes the performance measures that will be used to assess implementation progress.

## Integration of District Planning Efforts

The District's planning efforts included a Long-term Wastewater Management Plan, a District-wide Watershed Management Plan, and a Short-term Wastewater Plan in addition to this WS Plan. An overall goal for the District was to integrate the planning efforts to ensure consistency and synergy to the greatest extent possible.

Throughout the development of the WS Plan, the Long-term Wastewater Management Plan, and the District-wide Watershed Management Plan, there were continuous opportunities for coordination (Figure 1-3).

**FIGURE 1-3**  
**Integration of the Three District Long-term Plans**



Integration of the three planning studies included:

- Inventory of existing water quality conditions, and existing waster and wastewater permits within the District;
- Evaluation of water quality conditions under various wastewater, water supply, and watershed conditions;
- Evaluation of the effects of water conservation on future water and wastewater needs;
- Evaluation of impacts of wastewater discharge locations to water supply quantity and quality; and
- Development of public education and awareness recommendations.

Based on these collaborative efforts, the WS Plan recommendations reflect the influences of the recommended wastewater and watershed plans. Key benefits and synergies between the WS Plan recommendations and the wastewater and watershed plans are summarized below:

- **Water Supply and Conservation** - The water supply and conservation management recommendations address the need to meet projected water demands. The water conservation recommendations reduce consumptive uses that do not return flows to surface waters.
- **Wastewater Management** - The recommendations for water conservation reduce the projected wastewater flows by reducing indoor water use. This delays the capital investments for increasing wastewater treatment capacity in the District.
- **Watershed Management** - The recommendations provide significant reductions in hydrologic changes by reducing outdoor water use. This results in higher stream flows and increased assimilative capacity.