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### *Section I*

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# **Introduction**

## **What Is the Purpose of This Plan?**

This document presents Georgia's river basin management plan for the Savannah River, which is being produced as a part of Georgia's River Basin Management Planning (RBMP) approach. The purpose of this plan is to provide relevant information on the Savannah River basin characteristics, describe the status of water quality and quantity in the Savannah River basin, identify present and future water resource demands, present and facilitate the implementation of water protection efforts, and enhance stakeholder understanding and involvement in basin planning.

This plan has been produced by the Georgia Department of Natural Resources Environmental Protection Division (EPD), based on data and information gathered by EPD, other state and federal agencies, universities, utilities, consultants, and environmental groups. A basin team made up of representatives from the Georgia Soil and Water Conservation Commission (GSWCC), the Natural Resources Conservation Service (NRCS), Georgia Department of Natural Resources Wildlife Resources Division (WRD), Georgia Forestry Commission (GFC), and EPD's Water Resources Management Branch, Water Protection Branch, and Geologic Survey Branch compiled the information to generate the plan. The U.S. Geological Survey (USGS) and the EPD Geologic Survey Branch created the majority of the figures in this report using geographic information system technologies.

## **River Basin Management Planning**

RBMP is designed to coordinate management of water quantity and quality within river basins by integrating activities across regulatory and non-regulatory programs. The

RBMP approach provides the framework for identifying, assessing, and prioritizing water resources issues, developing management strategies, and providing opportunities for targeted, cooperative actions to reduce pollution, enhance aquatic habitat, and provide a dependable water supply. RBMP includes opportunities for stakeholders in the State's river basins to participate in developing and implementing river basin management plans. These plans will benefit from the collective experience and combined resources of a variety of stakeholders.

A separate document is available from Georgia EPD that describes the RBMP approach in greater detail.

## **Initial Efforts for the Savannah River Basin**

Begun in 1993, RBMP is a new approach to the management of Georgia's water resources. This is the first river basin management plan produced under RBMP for the Savannah River (Figure 1-1). Under the RBMP approach, the Savannah River plan will be updated every five years. During the first iteration of RBMP in Georgia, much effort and resources are being dedicated to making programmatic changes, building the infrastructure of RBMP, cataloging current water management activities and beginning to coordinate with the many agencies, organizations, and individuals that have a stake in river basin management. As a result, some portions of the RBMP cycle have had to be condensed during this first iteration; in particular, it has not been possible to spend as much effort on developing management strategies as is planned for future iterations. Future iterations of the basin planning cycle will provide a better opportunity for developing new, innovative, and cost-effective strategies for managing water quality and quantity.

## **What's Inside?**

This plan is organized into the following sections:

### **Executive Summary**

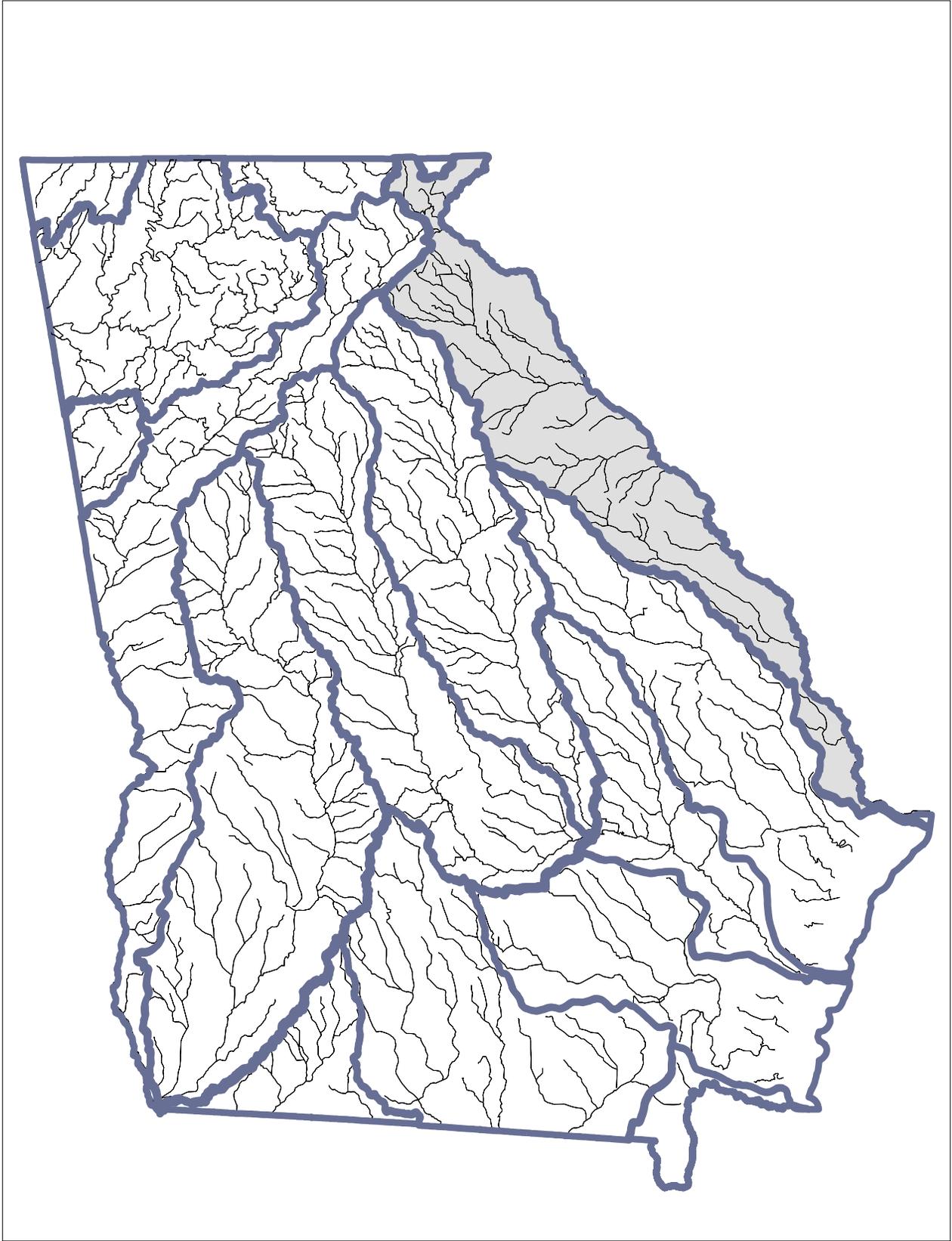
The executive summary provides a broad perspective on the condition of the basin and the management strategies recommended to protect and enhance the Savannah River basin's water resources.

### **1.0 Introduction**

The introduction provides a brief description of Georgia's River Basin Management Planning approach, the planning cycle for the Savannah River basin, opportunities for stakeholder involvement, and a description on how to use this document.

### **2.0 River Basin Characteristics**

This chapter provides a description of the basin and its important characteristics, including boundaries, climate, physiography and geology, geochemistry, soils, surface water resources, ground water resources, biological resources, population and land use, local government and jurisdictions, and water use classifications.



**Figure I-1. The Savannah River Basin**

### **3.0 Water Quantity**

This chapter describes current surface and ground water availability, as well as forecasts for future demand. This chapter also includes sections on historic, present and possible proposed permitting activities pertaining to water availability.

### **4.0 Environmental Stressors**

This chapter describes the major stressors in the basin that may impair water or habitat quality. The stressors are divided into point sources (i.e., NPDES permitted discharges) and nonpoint sources.

### **5.0 Assessment**

This chapter provides an assessment of water quality and quantity in the streams, lakes, estuaries, and groundwater along with an assessment of the basin's biological integrity. The data sources and analysis techniques for these assessments are also discussed.

### **6.0 Concerns and Priority Issues**

This chapter summarizes and prioritizes the issues of concern that were identified through the assessment in Chapter 5.

### **7.0 Implementation Strategies**

This chapter presents strategies for addressing the issues of concern in the order that they appear on the priority list in Chapter 6 with a description of each issue, goals and objectives of management, overview of alternatives considered, and descriptions of recommended options for implementation.

### **8.0 Future Issues and Challenges**

This chapter discusses long-range goals to set the stage for further improvements in managing water resources and water quality. Due to limited resources (data, time, funding, etc.), some issues will be addressed in future iterations of each basin planning cycle.

## **Appendices**

The appendices contain technical information for those interested in specific details involved in the planning process.

## **How Do I Use This Plan?**

This river basin plan will serve as the road map for managing the water resources in the Savannah River basin. It contains useful information on the health of the Savannah River basin and recommended strategies to protect the basin now and into the future. The document can be used as a reference tool for watershed conditions in the basin, as well as a planning guide for implementing key actions throughout the basin cycle.

Chapter 7 contains the key management strategies that have been identified to address the priority issues and concerns in the basin. The earlier chapters show the reader how

the issues were identified and where the specific stressors in the basin occur. Each chapter in this river basin plan builds upon the previous ones. For example, the recommended management strategies in Chapter 7 were formulated based on the priority concerns identified in Chapter 6. Similarly, the priority issues in Chapter 6 were derived as a result of the assessment in Chapter 5.

### **Links to Other Chapters**

Because issues are discussed across several chapters, an explanatory paragraph at the beginning of chapters 4, 5, 6, and 7 will alert the reader that an issue may be discussed elsewhere. For example, Chapter 4 discusses stressors to the water body from various point and nonpoint sources. Chapter 5 provides an assessment summary of water quality and water quantity based on the sources of environmental stressors. Next, Chapter 6 combines the assessment information from Chapter five to identify priority issues for the development of management strategies. Finally, Chapter 7 provides general goals and strategies to address the most significant existing and future water quality and quantity issues within the Savannah basin.

### **What Is the Schedule of Activities for the Savannah River Basin?**

The schedules of activities for the first two Savannah River basin cycles , i.e., 1996-2001 and 2001-2006, are provided in Figures 1-2 and 1-3. As mentioned earlier, initial scheduling complications and the need to devote resources to development of the RBMP infrastructure have caused the first basin cycle to be somewhat condensed. In the Savannah basin, this has meant that there was not as much time available in the first cycle (1996-2001) to develop management strategies for priority watersheds (step 8) as there will be once the program converges into a long-term rotating cycle (after 2001).

### **How Do Stakeholders Get Involved in the Basin Planning Process?**

A major goal of RBMP is to involve interested citizens and organizations in plan development and implementation. This is intended to improve the identification and prioritization of water quality and quantity problems, maximize the efficient use of resources and expertise, create better and more cost-effective management strategies, and be responsive to stakeholder perceptions and needs. The opportunities for stakeholders to get involved in river basin management planning include the following:

#### **Support the Basin Team**

Every basin planning cycle begins with the organization of the basin team. The Savannah River basin team will be reorganizing itself in 2001.

Members of the basin team are from EPD programs and branches, and other interested governmental partners (e.g., the Department of Community Affairs, GFC, GSWCC, NRCS, and WRD). Emphasis is placed on technical knowledge, available resources, and potential implementation responsibilities. Other agencies may act as partners in the RBMP process, contributing resources and expertise, while not being directly involved in Basin Team activities. Support and provide input to the agency that represents your interests.

Step	Action	Months	Year	
1. Organize Basin Team 2. Review Basin Planning Goals and Objectives 3. Compile and Review Preliminary Information/Data		Jan-Mar	1996	← Stakeholder Meetings
		Apr-Jun		
		Jul-Sep		
4. Develop Strategic Information Collection Plan		Oct-Dec		
5a. Implement Monitoring Plan 5b. Compile Detailed Information/Data		Jan-Mar	1997	
		Apr-Jun		
		Jul-Sep		
		Oct-Dec		
6. Analyze and Evaluate Detailed Information		Jan-Mar	1998	← Stakeholder Meetings
		Apr-Jun		
		Jul-Sep		
7. Update Basin Assessment and Priority Issues List		Oct-Dec	1999	
		Jan-Mar		
8. Develop Strategies for Priority Issues		Apr-Jun	2000	
		Jul-Sep		
9. Prepare/Update Draft River Basin Plan		Oct-Dec	2000	
		Jan-Mar		
		Apr-Jun		
10. Agency and Public Review/Hearings		Jul-Sep	2001	← Stakeholder Meetings
11. Finalize River Basin Plan		Oct-Dec		
12. Implement River Basin Plan		Jan-Mar	2001	← Stakeholder Meetings
		Apr-Jun		

Figure I-2. Savannah River Basin Planning Schedule, 1<sup>st</sup> Cycle, 1996-2001

### Support the Local Advisory Committee

The local advisory committees provide advice and counsel to EPD during river basin management plan development, representing a forum for involving local stakeholders. These local advisory committees form a link between EPD and the regulated community and local watershed interests. The local advisory committee will be reorganized simultaneously with the basin teams.

The committees consist of local people representing a variety of stakeholder interests including local governments, agriculture, industry, forestry, environmental groups, land-owners, and citizens. Committee members and chairs are appointed by the EPD Director following a nomination process at the beginning (step 1) of each river basin planning cycle. The committees meet periodically during the planning cycle, and provide input to EPD in the creation of river basin management plans. Meetings are called at the discretion of the chairman of the local advisory committee, and all meetings are open to the public. Table 1-1 lists the members of the Savannah River Basin Local Advisory Committee serving for the first planning cycle (through March 2001).

Step	Action	Months	Year	
1.	Organize Advisory Committee and Basin Team	Jan-Mar	2001	← Stakeholder Meetings
2.	Review Basin Planning Goals and Objectives	Apr-Jun		
3a.	Compile Preliminary Information/Data	Jul-Sep		
3b.	Review Preliminary Information/Data	Oct-Dec		
4.	Develop Strategic Information Collection Plan	Jan-Mar	2002	
5a.	Implement Monitoring Plan	Apr-Jun		
5b.	Compile Detailed Information/Data	Jul-Sep		
		Oct-Dec		
6.	Analyze and Evaluate Detailed Information	Jan-Mar	2003	← Stakeholder Meetings
		Apr-Jun		
7.	Update Basin Assessment and Priority Issues List	Jul-Sep		
8.	Develop Strategies for Priority Issues	Oct-Dec	2004	
		Jan-Mar		
		Apr-Jun		
9.	Prepare/Update Draft River Basin Plan	Jul-Sep	2005	← Stakeholder Meetings
10.	Agency and Public Review/Hearings	Oct-Dec		
11.	Finalize River Basin Plan	Jan-Mar	2006	← Stakeholder Meetings
12.	Implement River Basin Plan	Apr-Jun		
		Jul-Sep		
		Oct-Dec		

**Figure I-3. Savannah River Basin Planning Schedule, 2<sup>nd</sup> Cycle, 2001-2006**

### Participate in Stakeholder Forums

While River Basin Advisory Committees operate at the major basin level, there is an opportunity under RBMP for more localized stakeholder forums to play an important role in the creation and implementation of water resources management strategies. Some strategies, such as best management practices (BMPs) to control pollutant runoff from urban, agricultural or forestry areas, are best managed at the city, county, or sub-watershed level. These local forums might already exist in the form of conservation districts or watershed associations, or may be created as an outgrowth of RBMP.

### Attend a Stakeholder Meeting

The RBMP approach includes regularly-scheduled stakeholder meetings, which provide the opportunity for the general public to learn about the status of water-related issues and management activities in their river basin, as well as contribute input that can influence basin management planning.

**Table I-I. Savannah River Basin Local Advisory Committee Members**

Andy Cato Supervisor-Brier Creek Soil and Water Conservation District, Chair-Savannah River Development RC&D 4843 Story Mill Rd. Hephzibah, Ga. 30815	Jim Daniel Union Camp Corp. Box 1391 Savannah, Ga. 31402	Jeremy J. Pearson International Paper Box 1425 Augusta, Ga. 30903
Hugh Fulcher Supervisor- Brier Creek Soil and Water Conservation District 2948 Hwy. #88 Hephzibah, Ga. 30815	Cliff Hargrove GFC District Forester 1465 Tignall Rd. Wshiongton, Ga. 30673	Jimmy Adams Farmer/Landowner, Supervisor- Broad River Soil and Water Conservation District Box 118 Hartwell, Ga. 30643
Philip Hadarits US Dept of Agriculture - NRCS 2029 Lumpkin Road Augusta, Ga. 30906	Francis Palmer Georgia Pacific Corp. US Hwy. 17S Box 236 Riceboro, Ga. 31323	George Allen 3183 Sisters Ferry Road, Clyo, Ga.
Dick Fox Augusta Canal Authority Augusta Rowing Club 1313 Waters Edge Augusta, Ga. 30901	Amy Hughes Executive Director Savannah Area Manufacturers Council Savannah Area Chamber of Commerce 222 W. Oglethorpe Ave. Savannah, Ga. 31401	David Brooks Hart County Administrator Box 279 Hartwell, Ga. 30643
Patty Mc Intosh 428 Bull Street Savannah, Ga. 31401	John Hutto Albion Kaolin 7183 Jonesboro Rd. Suite 101 Morrow, Ga. 30260	Paul Bryan Screven County Manager Box 159 Syvania, Ga. 30467
Leroy Crosby U.S. Army Corps of Engineers Box 889 Savannah, Ga. 31401	George Beasley Box 206 Lavonia, Ga. 30553	Harry Jue Water & Sewer Bureau Chief City of Savannah Box 1027 Savannah, Ga. 31402

Figures 1-2 and 1-3 show the timing of stakeholder meetings that have been and will be held as part of the Savannah basin RBMP cycles. The first stakeholder meetings have already been held for the current planning cycle. EPD hosted initial stakeholder meetings in Hartwell, Evans and Savannah in late 1996 to invite and encourage stakeholder input early in the planning process for the Savannah River basin. Monitoring in the Savannah River basin was extended through 1998. The data were assessed in 1999 and waters not meeting water quality standards were public noticed in February, 2000. This work along with priority issues was presented to and discussed with the Local Advisory Committee in March 2000. Draft strategies to address priority issues were presented to and discussed with the Local Advisory Committee June, 2000. Due to the extended monitoring program and compressed schedules for problem listing and strategy development, the second set of stakeholder meetings were not held. A third group of stakeholder meetings—to give stakeholders the opportunity to review this river basin management plan was held in March 2001. A public hearing to receive formal comments on this draft plan was also held in March 2001. A fourth group of meetings in mid-2001 will give stakeholders a chance to discuss implementation of management strategies. The next set of stakeholder meetings after the implementation phase of the first cycle is planned for mid to late 2001, providing stakeholders an opportunity to be involved in the planning for the next cycle of RBMP in the Savannah basin. The dates of ensuing stakeholder meetings are indicated in Figure 1-3.

## **What's Next?**

This draft plan will be reviewed by governmental partners, the Savannah River Basin Advisory Committee, and the public. Public meetings will be held to solicit comments and recommendations regarding the river basin management plan. Following the review, appropriate modifications will be made to the plan, and the final plan will be submitted for review and acceptance by the Board of the Georgia Department of Natural Resources. After approval and an initial implementation period, partners will enter into the next 5-year cycle iteration to evaluate and update the plan as necessary.