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Section 8

Future Issues and Challenges

8.1 Where Do We Go From Here?

The Dynamic Process of Basin Management

This plan represents another step in managing the water resources in the Savannah River basin, but not the final step. It is important to recognize that effective basin management is ongoing and dynamic because changes in resource use and conditions occur continually, as do changes in management resources and perspectives. Therefore, management planning and implementation must remain flexible and adapt to changing needs and capabilities.

Building on Past Improvements

For the past few decades, management efforts have resulted in substantial improvements in water quality and reduction in pollutant loading for many waters (see examples in Section 4). Much of these improvements stem from increased wastewater treatment at municipalities and industries, and from implementation of best management practices by landowners that help reduce soil and contaminated runoff. Indeed, many of the waterbodies in the basin are fully supporting their designated uses. The assessments summarized in this plan show, however, that not all waters are at the level of quality deemed necessary to support designated uses. There are existing waters still in need of restoration and attention.

Participation by Many Different Stakeholders

The current and proposed strategies summarized in this plan do not “solve” all existing problems. Many of the unsolved problems will require actions by stakeholders other than those that have been involved in planning to date. For example, resolution of fecal coliform bacteria problems will typically require local government (e.g., dealing

with urban storm water issues and leaking and overflowing sanitary sewers) and private landowner actions (e.g., correcting failed septic systems; using best management practices in animal operations and land application of waste residuals). Other issues will require significant additional time and effort before they are addressed sufficiently (e.g., restoration of riparian zones and aquatic habitat). Some of these issues may require trial management efforts and adapting those efforts over time based on observations of what works well, particularly where there is no 100 percent effective solution evident at the time of strategy development. Future management should focus on the priorities among those continuing needs, as determined by communities and partners in management.

Additionally, continued growth in population is expected in the Savannah basin (see Section 2). This growth will place additional demands on water resources, and require corresponding responses in management. More people means more water use (drinking water, industrial consumption, irrigation), more storm water runoff (from impervious surfaces of new houses, roads, industries, businesses, and parking lots), and more contamination (sediment; nutrients; organic material; pesticides, herbicides, and other toxics). Therefore, it is essential that stakeholders continue to work together to plan and implement the most cost-effective ways of restoring and protecting water resources.

Blending Regulatory and Voluntary Approaches

Although the regulatory authorities of agencies such as EPD are important for protection and restoration of Georgia's waters, RBMP partners will continue to emphasize voluntary and cooperative approaches to watershed management. This will take time and be very challenging. Long-term protection means that the people, local governments, and businesses must learn collectively what is needed for protection and adapt their lifestyles and operations accordingly. Experience indicates that we are much more likely to buy into proposed management solutions in which we have a say and control over how we spend our time and money. The challenge in the future, therefore, is to continue to "build bridges" between regulatory and voluntary efforts, using each where they best serve the people and natural resources of Georgia.

8.2 Working to Strengthen Planning and Implementation Capabilities

Understanding One Another's Roles

Increasing awareness and understanding of the roles and capabilities of local, state, and federal partners is one of the keys to future success in basin management for the Savannah River. Lack of understanding can lead to finger pointing and frustration on the part of all involved. Increasing opportunities for stakeholders to develop this awareness and understanding should result in more effective management actions.

This basin plan provides one opportunity for stakeholders to increase their awareness of conditions in the basin and to learn about ongoing and proposed new management strategies. Within this context, stakeholders can develop a better understanding of certain roles and responsibilities. For example, this basin plan points out several areas where EPD has regulatory authority and corresponding duties, including:

- Establishing water quality use classifications and standards.
- Assessing and reporting on water quality conditions.
- Facilitating development of River Basin Management Plans.
- Developing TMDLs

- Implementation Plan Development through Regional Development Centers (RDCs)
- Issuing permits for point source discharges of treated wastewater, municipal storm water discharges as required, and land application systems.
- Issuing water supply permits.
- Enforcing compliance with permit conditions.

In many areas, however, organizations or entities other than EPD are responsible; for example,

- Septic tank permitting and inspection (County Health Departments) and maintenance (individual landowners).
- Land development (land use) and zoning ordinances (local governments).
- Sanitary sewer and storm water ordinances (local governments).
- Water supply source water protection ordinances (local governments).
- Urban storm water and drainage (local governments).
- Erosion and sediment control (local governments).
- Siting of industrial parks, landfills, and wastewater treatment facilities (local governments).
- Floodplain management (FEMA, local governments).
- Implementation of forestry best management practices (Georgia Forestry Commission with support from the American Forest and Paper Association, Georgia Forestry Association, The University of Georgia School of Forest Resources, Southeastern Wood Producers Association, and the American Pulpwood Association).
- Implementation of agricultural best management practices (landowners with support from state and federal agricultural agencies).
- Proper use, handling, storage, and disposal of chemicals (businesses, landowners, municipalities, counties, etc.).

These are but a few of the areas involved, but they illustrate how responsibilities are spread across many stakeholders in each basin. Additionally, other agencies and organizations—regional development centers; federal, state, and local technical assistance programs; citizens groups; and business associations—assist in planning and implementation in many of these areas. As stakeholders become more familiar with one another’s responsibilities and capabilities, they will become increasingly aware of appropriate partners to work with in addressing their issues of concern.

Using the RBMP Framework to Improve Communication

Raising awareness frequently involves two-way communication. The RBMP framework’s interactive planning and outreach sessions provide additional opportunities for two-way communication. For example, Basin Technical Planning Team meetings provide opportunities for partners to share information on their responsibilities and capabilities with each other. Similarly, River Basin Advisory Committee meetings and Stakeholder meetings provide opportunities for citizens, businesses, government agencies, associations, and others. to share information and learn from each other. Although these interactions often require considerable time, they are critical to the future

of management in the basin because they build the working relationships and trust that are essential to carrying out effective, integrated actions.

Continuing to Streamline Our Efforts

Increased coordination will also result if partners in this approach continue to streamline their efforts. There are many laws and requirements with related and complementary goals, e.g., Georgia's Growth Strategies Act, Planning Act, River Corridor Protection Act, Comprehensive Ground Water Management Plan, and River Basin Management Planning requirements, in addition to federal Clean Water Act water quality regulations and Safe Drinking Water Act source water protection requirements. Partners should continue to find ways to make actions under these laws consistent and complementary by eliminating redundancy and leveraging efforts. Again, partners can use the forums in the RBMP framework (e.g., river basin team and advisory committees) to discuss and implement ideas to streamline roles and make the best use of their funds and staff resources.

8.3 Addressing the Impacts from Continued Population Growth and Land Development

Supporting Consistent Implementation of Protection Measures

In addressing the impacts from anticipated population growth and increased land development in the basin, future managers will need to increase their understanding of roles and use forums to coordinate and develop more specific action plans. Historically, mitigating impacts from newly developed areas has been approached mostly on a case-by-case basis. Unfortunately, this approach has resulted in inconsistent planning and implementation of water resource protection measures. River basin planning offers an opportunity for a more consistent approach by making it easier for landowners, local governments, and businesses to work together at the watershed and basin levels.

One way that Georgia EPD will address this issue is by approving only new and expanding permits for water withdrawals and wastewater discharges that are consistent with the basin plan and that meet the intent of the Georgia Planning Act. Rather than waiting for the permit application process, however, local governments can work together and with EPD to work out some of these issues in advance. There are incentives for organizations such as the Georgia Water Pollution Control Association (WPCA), the Georgia Municipal Association (GMA), the Association of County Commissioners of Georgia (ACCG), and the Regional Development Centers (RDCs) to work out consistent methods to conduct watershed assessments in developing areas and to improve the implementation of protection measures as development occurs. EPD, DCA, and other partners can coordinate by facilitating discussion at RBMP meetings and supporting local initiatives aimed at this issue. An excellent example of this cooperative effort is the Georgia Water Management Campaign being facilitated by the Association of County Commissioners in cooperation with the Georgia EPD, the Georgia Municipal Association, and the Georgia Environmental Facilities Authority.

8.4 The Next Iteration of the Basin Cycle

Building on Previous, Ongoing, and Planned Efforts

As discussed above and in Section 7.3, there is more work to do to adequately restore and protect all of Georgia's water resources. After focusing on the implementation of this

plan, the Savannah River basin will enter into its second iteration of the basin management cycle (scheduled for April 2001). The next cycle will provide and opportunity to review issues that were not fully addressed during the first cycle and to reassess or identify any new priority issues. In other words, future management efforts can and should build on the foundation created by previous, ongoing, and already planned management actions.

Providing a Historical Reference for the Next Basin Planning Effort

Additional water resources management issues will also be addressed in the Comprehensive Water Resources Management Study for the Savannah River basin (SRB Study). The 1996 Water Resources Development Act authorized the U.S. Army Corps of Engineers to develop an updated plan addressing current and future needs in the basin, examine reallocation of storage at Corps of Engineers multipurpose projects, and develop a better management structure to deal with basin water resource issues. Potential water resources management issues to be addressed in the study include upper basin needs vs. downstream needs, water supply allocations, flood control, hydropower, water quality, habitat, aquatic plant control, and recreation.

The Reconnaissance phase of the comprehensive water resources management study for the basin was initiated in February 1998 and completed in July 1999. The final report will be completed in September 2003.

The Corps of Engineers is also coordinating this effort with various state and federal agencies including the states of Georgia and South Carolina, as well as Federal agencies such as the Environmental Protection Agency (EPA), US Geological Survey, and the Natural Resources Conservation Service.

Savannah Harbor Channel Deepening Project

Another concern that will be addressed during the next basin planning cycle is the environmental impacts of the proposed Savannah Harbor Deepening Project Georgia. Georgia Ports Authority is recommending a plan to increase the channel depth of the Port of Savannah from 42 to 48 feet to accommodate larger container vessels calling at the port. The potential environmental impacts could include increased salinity levels and decreased oxygen levels in the river and adjacent to the Savannah National Wildlife Refuge, loss of acres of saltwater wetlands, and increased chloride levels at the city of Savannah water intake on a tributary to the Savannah River. Construction on the project is scheduled to start in the fall of 2001 and be completed in the year 2005.

New Savannah Bluff Lock and Dam

Another future issue in the Savannah River basin is the continued operation and maintenance of the New Savannah Bluff Lock and Dam (NSBLD), which was constructed in 1937. The Army Corps of Engineers, Savannah District, initiated a study to review the current use of the NSBLD and recommend its future disposition to Congress. The project was authorized for the sole purpose of supporting commercial navigation along the Savannah River. Augusta-Richmond County currently operates the lock and the adjacent 50-acre public park and recreational area under an agreement with the Corps. The project currently provides water supply, recreation, tourism, and environmental benefits to the region. The study was completed in 2000 and a report was submitted to Congress for action. The Corps will rehabilitate the lock and dam and work with local governments in Georgia and South Carolina to establish a plan for operation of the project.

8.5 Priorities for Additional Data Collection

In 1997-1998 monitoring efforts were focused on the Savannah and Ogeechee River basins in accordance with the EPD basin planning schedule. Intensive monitoring will return to the Savannah basin in support of the next iteration of the basin planning cycle in 2002. Prior to this time, EPD and partners will develop a monitoring plan for the Savannah. The monitoring plan will have two manage components: general assessment of water quality status within the basin, and targeted assessment to address priority issues and concerns.