

### Section 9

# Planned Water Supply Facilities

Water supply sources within the District barely meet the projected demands for 2030. The District will continue to rely upon Lake Lanier and the Chattahoochee River, Lake Allatoona and the Etowah River, and smaller streams and reservoirs within the Etowah, Flint, Ocmulgee, and Oconee River Basins.

By law, the District is not allowed to import water from outside basins, which compels efficient water use and management of the existing sources. Because environmental permitting constraints make siting and constructing new reservoirs so difficult, it is possible that no new reservoirs will be developed in the District beyond those currently within the permitting process. Therefore, the Plan focuses on water conservation and water reclamation. The region will rely increasingly on indirect potable reuse to extend existing water supplies beyond 2030.

Additional water treatment capacity of 572 MGD is needed by 2030. A phased approach for providing the needed capacity at 35 treatment plants is shown in Appendix B.

## Recommended Actions and Milestones

To implement the Water Supply and Water Conservation Plan (WS Plan) for water supply and treatment, the following actions are needed for securing water supply sources, sharing the water resources within the District, building additional treatment capacity, and organizing facilities for future indirect potable reuse.

### ***Water Supply Action No. 1: Support reallocation of Lake Lanier and Lake Allatoona for water supply.***

The reallocation of water storage from Lakes Lanier and Allatoona is crucial to guarantee water supply for the District for the next 30 years and beyond. The District should serve as an advocate with State negotiators, legislators, and the congressional delegation. The United States Army Corps of Engineers will be responsible for implementing the reallocation of the lakes, upon the request of the State.

### ***Water Supply Action No. 2: Support permitting and construction of at least five new water supply reservoirs.***

The WS Plan includes five new water supply reservoirs that are planned and in various stages of the permitting process. The new reservoirs, which will serve Cherokee, Cobb, Hall, Walton,

Henry, and Fayette Counties, are essential for meeting demands in these areas. The District should be a strong advocate for the permitting and timely construction of these projects, as these reservoirs are of critical importance to the jurisdictions that will benefit directly from the new sources. The reservoirs will also benefit the District overall by reducing reliance on Lakes Lanier and Allatoona, and the Chattahoochee and Etowah Rivers.

Other new reservoirs, if they prove to be feasible and can be permitted, should be viewed as consistent with the WS Plan. Potential reservoir projects, beyond the five included, can be investigated and, if possible, constructed. However, in order to base the Plan on a conservative scenario, only new reservoirs deemed most likely to be constructed were included.

The proposed South Fulton Reservoir or Hall County’s Glades Reservoir would be examples of additional reservoirs that should be added to the District if they can be permitted and constructed.

***Water Supply Action No. 3: Construct two new system connections and maintain one existing system connection to allow water resource sharing***

To implement the Plan, water supply for some areas will need to come from different service providers than is currently the case. This is critical to meeting projected demands without overtaxing the available water resources within the District. The service connections that will be needed to accomplish these service area changes are described in Table 9-1.

**TABLE 9-1  
System Connections for Multi-County Projects**

Service Provider/ Extension	2030 Capacity (MGD- AADD)	2030 Capacity (MGD- PDD)	Description of District Need
CCMWA wholesale service to Fulton County	33	53	Supplies projected Fulton County demand. Allows City of Atlanta to maintain emergency service capability for Fayette and Clayton, and to extend routine service to part of Coweta.
CCMWA Wholesale service to Paulding County	27	43	Continues current service pattern through 2030. Fills Paulding’s demands with existing supplies in a cost-effective manner.
City of Atlanta wholesale service to Coweta County	9	15	Helps to meet projected demands in Coweta County, where supplies are limited.

More details on implementing these services are given in Section 10, Interconnection of Water Systems. The type of service arrangement, such as wholesale, retail, or joint authority, needs to be determined by the local governments, using the programs described in Section 14.

***Water Supply Action No. 4: Construct a new water treatment plant in Walton County.***

A new plant should be constructed by Walton County to treat water from the planned Hard Labor Creek Reservoir. The capital improvements associated with this action are presented in Appendix B.

***Water Supply Action No. 5: Expand 25 existing (or soon to be constructed) water treatment plants.***

Many existing water treatment facilities will require capacity expansions and upgrades before 2030. The programmed capital improvements for expansions are presented in Appendix B. The 25 WTPs identified for expansion are listed in Table 9-2. Because treatment process upgrades will be triggered by regulatory requirements still being developed, the date and scope of the upgrades are not known today. Hence, projects for upgrading the plants are not listed in Appendix B. The non-capital tasks associated with this action include financing, inter-jurisdictional agreements, and State permitting.

**TABLE 9-2  
Water Treatment Plants Planned to be Expanded before 2030**

Location by County	Water Treatment Plant
Bartow	Cartersville WTP
Cherokee	Cherokee Etowah River WTP
	Canton WTP
Clayton	Clayton J.W. Smith WTP
	Clayton W.J. Hooper WTP
	Clayton Freeman Road WTP
Cobb	CCMWA Wyckoff WTP
Coweta	Coweta BT Brown
	Newnan WTP
DeKalb	DeKalb Scott Candler WTP
Douglas	DDCWSA Bear Creek WTP
Fayette	Fayette Crosstown WTP
	Fayette South WTP
	Fayetteville WTP
Forsyth	Forsyth WTP
	Cumming WTP
Fulton	Atlanta-Fulton County WTP
Gwinnett	Gwinnett Shoal Creek WTP
	Buford WTP
Hall	Gainesville Riverside WTP
	Gainesville Lakeside WTP
	Hall Cedar Creek WTP
Henry	Henry Tussahaw WTP
Rockdale	Rockdale Big Haynes Creek WTP
Walton	Walton Lake Varner WTP

***Water Supply Action No. 6: Retire four existing water treatment plants.***

The planned decommissioning of four existing water plants is included in the phasing tables in Appendix B. The WTPs identified for retirement are listed in Table 9-3. The phase-outs will gradually occur as the older facilities exhaust their useful life, and new facilities come on line. The non-capital tasks associated with this action could include redevelopment of the properties for other uses. This action will also require inter-jurisdictional agreements and some shifting of service areas, assumed to occur as part of other actions.

**TABLE 9-3**  
**Water Treatment Plants Planned to be Retired before 2030**

Location by County	Water Treatment Plant
Coweta	Senoia WTP
Fulton	Roswell WTP
	Palmetto WTP
Walton	Social Circle WTP

***Water Supply Action No. 7: Return reclaimed water to Lake Lanier by Forsyth, Gwinnett, and Hall Counties for future indirect potable reuse.***

The cities and counties that withdraw water from Lake Lanier for drinking water supply need to return reclaimed water to the Lake. Long-term sustainability of the resource can be achieved through returning reclaimed water to the Lake. The District should negotiate a change in the Corps' storage pricing structure to provide a credit to permitted withdrawers for returning the reclaimed water to the Lake.

The capital improvements associated with this action include advanced wastewater treatment facilities in Forsyth, Gwinnett, and Hall Counties, and conveyance systems to return the water to the lake. The *Long-term Wastewater Management Plan* includes the capital improvements needed to support this action. Non-capital tasks include permitting, public education, financing, and septic system policies (to assure the needed quantity of return flow).

## Capital Improvement Phasing Plans

Appendix B presents the phasing plans for the water supply and treatment capital improvements in the Recommended Solution, including reservoirs, new treatment facilities, treatment facility expansions, and distribution system connections associated with inter-jurisdictional transfers.

The phasing plans indicate the timeframe by which the facilities should be operational. A sequence of steps leads up to the operational milestone, including planning, site procurement (at times), environmental studies, design engineering, funding, and construction. These steps must be started from two to ten years in advance of the targeted operational milestone date.

The phasing plans list expansion projects. Projects to upgrade the treatment facilities will be needed during the next 30 years, but they have not been included because the time when they are needed depends on regulatory requirements that are still under development.