

03060103-07

(Savannah River/Lake Thurmond)

General Description

The South Carolina portion of watershed 03060103-07 (formerly 03060103-100 plus the Little River Arm from 03060103-140) is located in Abbeville, McCormick, and Edgefield Counties and consists primarily of the *Savannah River* and its tributaries as it flows through *Lake J. Strom Thurmond*. This Savannah River watershed extends into Georgia. There are 316,144 acres in the extended watershed; 201,296 acres or 63.7% are outside of South Carolina. The South Carolina portion is within the Piedmont physiographic region. Land use/land cover in the South Carolina portion of the watershed includes: 64.5% forested land, 18.5% water, 8.5% agricultural land, 7.1% urban land, 1.8% barren land, and 0.6% forested wetland (swamp). A map depicting this watershed is found in Appendix B, page B-25.

The Savannah River flows out of the Richard B. Russell Dam and into Lake Thurmond, where it accepts drainage from Coffey Creek and Russells Creek. The Broad River* and Pistol Creek* drain into the lake next from the Georgia side. All tributaries from the Georgia side of the Savannah River will be connoted with an asterisk. Further downstream, Patterson Creek enters the lake followed by Fishing Creek*, Lees Branch, Harmon Branch, Murray Creek*, another Patterson Creek, and Soap Creek*. The Little River watershed enters Lake Thurmond next forming an arm of the lake. Streams draining into this impounded portion of Little River include Wilson Spring Creek, Horse Branch, Ludlow Branch, Mill Creek, the impounded portion of Long Cane Creek (Linkay Creek, Bold Branch (Persimmon Branch, Little Persimmon Branch, Rocky Branch, Tanyard Branch, Horton Branch, Morrah Branch, Welch Creek, Mathias Creek), Buffalo Creek (Vall Branch, Taylor Branch, Engevine Branch), and Baker Creek. The Little River is followed by Hawe Creek (Jester Branch), Wells Creek*, Benningsfield Creek, Landam Branch, Shriver Creek*, and Dordon Creek. At the lower end of the lake, Reese Branch flows into the lake followed by Howell Branch, Little River*, Lake Spring Creek*, and Scott Creek. There are a total of 750.2 stream miles and 41,345.3 acres of lake waters in this extended watershed, all classified FW. Hickory Knob State Resort Area, Baker Creek State Park, and Hamilton Branch State Recreation Area are all located along the shoreline of Lake Thurmond.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CL-040	W	FW	LAKE THURMOND HEADWATERS (SAVANNAH RIVER)
RL-05405	RL05	FW	LAKE THURMOND, 1.25 MI S OF THE END OF S-33-337
RL-05407	RL05	FW	LAKE THURMOND, 0.3 MI S OF BOATRAMP AT THE END OF S-33-366
RL-03357	RL03	FW	LAKE THURMOND, HICKORY KNOB ST PARK OPP PATTERSON CREEK
RL-05463	RL05	FW	LAKE THURMOND, 0.67 MI NW OF US 378
SV-291	W	FW	LAKE THURMOND AT US 378, 7 MI SW OF MCCORMICK
CL-039	W	FW	LITTLE RIVER ARM OF LAKE THURMOND
RS-03510	RS03/BIO	FW	BAKER CREEK TRIB AT S-33-329 IN BAKER CREEK STATE PARK

SV-819	SSS	FW	HAWE CREEK IMMEDIATELY UPSTREAM OF SV-817 & SV-818
SV-818	SSS	FW	HAWE CREEK TRIBUTARY AT STREAM MOUTH
SV-817	SSS	FW	HAWE CREEK TRIBUTARY AT STREAM MOUTH
SV-066	SSS	FW	HAWE CREEK AT SECONDARY ROAD 44
RL-05405	RL05	FW	LAKE THURMOND HEADWATERS (SAVANNAH RIVER)
RL-05405	RL05	FW	LAKE THURMOND HEADWATERS (SAVANNAH RIVER)
CL-041	W	FW	LAKE THURMOND IN FOREBAY NEAR DAM

Lake Thurmond – There are nine SCDHEC monitoring stations along Lake Thurmond (**CL-040, RL-05405, RL-05407, RL-03357, RL-05463, SV-291, RL-06423, RL-04385, CL-041**) and aquatic life and recreational uses are fully supported at all sites. At **SV-291**, there is however, a significant increasing trend in five-day biochemical oxygen demand. Significant decreasing trends in turbidity, total phosphorus concentration, and fecal coliform bacteria concentration suggest improving conditions for these parameters at this site. At the furthest downlake site (**CL-041**), there is a significant increasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter at this site.

Little River arm of Lake Thurmond (CL-039) – Aquatic life and recreational uses are fully supported.

Tributary to Baker Creek (RS-03510) – Aquatic life uses are fully supported based on macroinvertebrate community data and recreational uses are fully supported.

Hawe Creek – There are two SCDHEC monitoring stations along Hawe Creek (**SV-819, SV-066**). These are special study stations and only examined aquatic life uses. Aquatic life uses are fully supported at both sites.

Hawe Creek Tributary – There are two SCDHEC monitoring stations along the Hawe Creek tributary (**SV-818, SV-817**). These are special study stations and only examined aquatic life uses. Aquatic life uses are fully supported at both sites. Although pH excursions occurred at **SV-818**, due to the small sample size, aquatic life uses are considered fully supported.

A fish consumption advisory has been issued by the Department for mercury and includes the Savannah River and Lake Thurmond within this watershed (see advisory p. 84).

Natural Swimming Areas

FACILITY NAME	PERMIT #
RECEIVING STREAM	STATUS
BAKERS CREEK STATE PARK	35-N01
LITTLE RIVER ARM, LAKE THURMOND	ACTIVE

Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-106	GB	PIEDMONT BEDROCK	HAMILTON BRANCH

All water samples collected from ambient monitoring well **AMB-106** met standards for Class GB groundwater.

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
LAKE THURMOND SCPRT/HAMILTON BRANCH	SC0021466 MINOR DOMESTIC

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
MCCORMICK COUNTY LC&D LANDFILL C & D	331002-1701 ACTIVE
BARITE HILL GOLD MINE LANDFILL INDUSTRIAL	332338-1601 INACTIVE

Water Quantity

<i>WATER USER STREAM</i>	<i>TOTAL PUMP. CAP (MGD) RATED PUMP CAP (MGD)</i>
MCCORMICK CPW	5.4
LITTLE RIVER ARM OF LAKE THURMOND	2.7

Growth Potential

There is a low potential for growth in this watershed, which contains portions of the Towns of McCormick, Plum Branch, and Parksville, and the communities of Mount Carmel and Modoc. The Town of McCormick has experienced a population growth with the establishment of a State Prison near the town. Growth has occurred around the Savannah Lakes Village Development, a retirement village, on Lake Thurmond, and may encourage more in the future. The majority of the watershed resides within the Sumter National Forest and would tend to limit growth.

Savannah River/ Lake Thurmond Watershed

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