

03060106-06
(Savannah River)

General Description

The South Carolina portion of watershed 03060106-06 (formerly 03060106-050) is located in Edgefield and Aiken Counties and consists primarily of the *Savannah River* and its tributaries from the Stevens Creek Dam to Upper Three Runs. This Savannah River watershed extends into Georgia. There are 230,156 acres in the extended watershed; 189,151 acres or 82.2% are outside of South Carolina. The South Carolina portion is within the Piedmont, Sand Hills, and Upper Coastal Plain physiographic regions. Land use/land cover in the South Carolina portion of the watershed includes: 33.8% forested land, 27.2% forested wetland (swamp), 18.2% urban land, 14.7% agricultural land, 4.2% water, 1.6% nonforested wetland (marsh), and 0.3% barren land. A map depicting this watershed is found in Appendix C, page C-31.

This section of the Savannah River accepts drainage from its upper reaches, together with Reed Creek*, Fox Creek (Pole Branch), Rock Creek*, Pretty Run Creek, the Horse Creek watershed, the Dead River (oxbow), and Butler Creek*. An asterisk connotes a stream entering from the Georgia side of the river. Further downstream, the river accepts drainage from Spirit Creek*, Pine Creek (Hardens Dead River, Horseshoe Lake, Clarkes Lake), the Hollow Creek watershed, Berryhill Gut (Coleman Lake), High Bank Creek*, McBean Creek*, Boggy Gut Creek*, Bent Lake, and Newberry Creek*. There are a total of 712.7 stream miles and 3,119.2 acres of lake waters in this extended watershed, all classified FW. Redcliffe State Park resides in this watershed, as does a portion of the federally owned Savannah River Plant.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
RS-04544	RS04/BIO	FW	PRETTY RUN CREEK AT RIVER BLUFF RD IN RAPIDS SD
SV-251	W	FW	SAVANNAH RIVER AT US 1, 1.5 MI SW N.AUGUSTA
SV-252	W	FW	SAVANNAH RIVER AT SC 28, 1.6 MI NNW OF BEECH ISLAND
SV-323	W	FW	SAVANNAH RIVER AT LOCK AND DAM
SV-366	INT	FW	SAVANNAH RIVER OFF JACKSON LANDING OFF END OF S-02-299

Pretty Run Creek (RS-04544) – Aquatic life uses are partially supported based on macroinvertebrate community data. Recreational uses are not supported due to fecal coliform bacteria excursions.

Savannah River – There are four SCDHEC monitoring stations along this portion of the Savannah River. At the furthest upstream sites (**SV-251**, **SV-252**), aquatic life and recreational uses are fully supported; however; there is 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. Further downstream (**SV-323**), aquatic life and recreational uses are fully supported; however; there is a

significant increasing trend in five-day biochemical oxygen demand. A significant decreasing trend in turbidity suggests improving conditions for this parameter. At the furthest downstream site (*SV-366*), aquatic life and recreational uses are fully supported and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters.

A fish consumption advisory has been issued by the Department for mercury and includes the Savannah River within this watershed (see advisory p. 111).

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
SAVANNAH RIVER TRIBUTARY ECW&SA/WTP	SCG645036 MINOR INDUSTRIAL
SAVANNAH RIVER KIMBERLY-CLARK CORP./BEECH ISLAND	SC0000582 MAJOR INDUSTRIAL
SAVANNAH RIVER SCE&G/URQUHART STEAM STATION	SC0000574 MAJOR INDUSTRIAL
SAVANNAH RIVER AIKEN PSA/HORSE CREEK WWTP	SC0024457 MAJOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

<i>RECEIVING STREAM MUNICIPALITY RESPONSIBLE PARTY IMPLEMENTING PARTY</i>	<i>NPDES# MS4 PHASE MS4 SIZE</i>
SAVANNAH RIVER CITY OF NORTH AUGUSTA CITY OF NORTH AUGUSTA CITY OF NORTH AUGUSTA	SCR030304 PHASE II SMALL MS4
SAVANNAH RIVER UNINCORPORATED AREAS AIKEN COUNTY AIKEN COUNTY	SCR030302 PHASE II SMALL MS4
SAVANNAH RIVER UNINCORPORATED AREAS EDGEFIELD COUNTY EDGEFIELD COUNTY	----- PHASE II SMALL MS4

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME</i> <i>FACILITY TYPE</i>	<i>PERMIT #</i> <i>STATUS</i>
MASONS TREE & TURF FARM INDUSTRIAL	----- INACTIVE
SCE&G URQUHART STA. LANDFILL INDUSTRIAL	023320-1601 ACTIVE
SCE&G URQUHART INDUSTRIAL	----- INACTIVE
KIMBERLY-CLARK CORP. INDUSTRIAL	----- INACTIVE
SHRED TRED CORP. WASTE TIRE PROC.	192482-5201 INACTIVE

Land Application Sites

<i>LAND APPLICATION SYSTEM</i> <i>FACILITY NAME</i>	<i>ND#</i> <i>TYPE</i>
INFILTRATION POND BEECHWOOD SD	ND0067113 DOMESTIC

Mining Activities

<i>MINING COMPANY</i> <i>MINE NAME</i>	<i>PERMIT #</i> <i>MINERAL</i>
THE MARTIN GROUP RAIFORD PIT	1009-03 SAND/CLAY
WERTS EQUIPMENT RENTAL, INC. BEECH ISLAND MINE	0845-03 SAND/CLAY
WILLIAMS & SON TRUCKING HWY 421 NO. 2 MINE	1041-03 SAND; SAND/CLAY
MASONS TREE & TURF FARM MASONS MINE	1667-03 SAND

Water Quantity

<i>WATER USER</i> <i>STREAM</i>	<i>TOTAL PUMP. CAP (MGD)</i> <i>RATED PUMP CAP (MGD)</i>
ECW&SA SAVANNAH RIVER	14.0 10.0
CITY OF NORTH AUGUSTA SAVANNAH RIVER	25.2 16.8

Growth Potential

There is a moderate potential for growth in this watershed, which contains portions of the Town of Jackson and the City of North Augusta. The City of North Augusta is currently experiencing a northward push towards I-20 and Augusta, Georgia. This growth is primarily residential and commercial; the trend is expected to continue. Projected growth includes the area surrounding the seven interchanges of I-20 in Aiken County, particularly in the intersection of I-20 and SC 19, and that of I-20 and US 1.

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

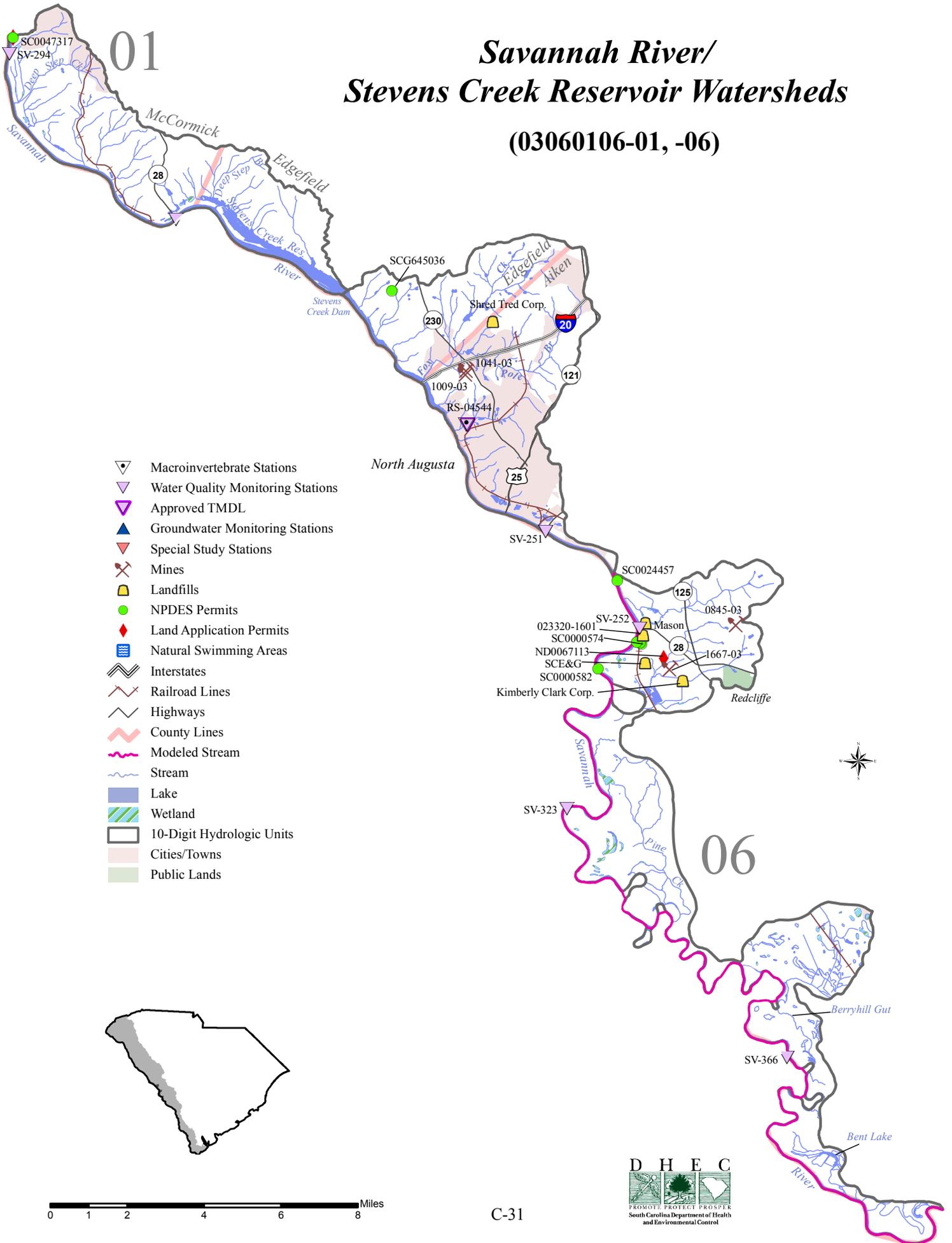
Portions of the **Savannah Harbor** have been included on the Georgia 303(d) list of impaired waters as impaired for dissolved oxygen. This tidal area is considered, at times, to experience naturally occurring levels of dissolved oxygen (DO) below the Georgia standard. This naturally occurring low DO is further impacted by point source discharges both to the harbor and the Savannah River upstream of the estuarine portion of the river. In 2006, the U.S. Environmental Protection Agency (EPA) finalized a dissolved oxygen TMDL for the system that required a 100% reduction in the loading of oxygen demanding substances being discharged to the system. This essentially required that all discharges to the system below Thurmond Dam cease discharging.

Subsequent to development of this TMDL, the State of Georgia adopted a new DO standard for the harbor. The new Georgia standards allow for a 0.1 mg/L depression in DO levels below natural conditions in naturally low DO waters. This is essentially consistent with the South Carolina standard for the waters it shares with Georgia. EPA, with assistance and input from Georgia, South Carolina and interested stakeholders, is developing a new TMDL based on the new Georgia standard. It is anticipated that the new TMDL, though very restrictive, will allow continued discharge of some oxygen demanding substances to the Savannah River and Harbor. The final TMDL is not expected until 2011.

A TMDL was developed by SCDHEC and approved by EPA for **Pretty Run Creek** at water quality monitoring site RS-04544. TMDLs determine the maximum amount of fecal coliform bacteria a water body can receive from pollution sources and still meet water quality standards. This small stream has no permitted wastewater treatment facilities. Most of the watershed is within a designated MS4. Probable sources of fecal coliform bacteria that were identified in the watershed are leaking sanitary sewers, illicit discharges, failing septic systems, and urban runoff. The TMDL states that a reduction of 31% in fecal coliform loading is necessary for the stream to meet the recreational use standard. The nonpoint source component of the Pretty Run Creek TMDL has been implemented using §319 grant funds. Implementation was completed in October 2009. For more information on §319 grants, visit <http://www.scdhec.gov/water> and click on Nonpoint Source Program.

Savannah River/ Stevens Creek Reservoir Watersheds

(03060106-01, -06)



- ▽ Macroinvertebrate Stations
- ▽ Water Quality Monitoring Stations
- ▽ Approved TMDL
- ▲ Groundwater Monitoring Stations
- ▼ Special Study Stations
- ⚒ Mines
- 🗑 Landfills
- NPDES Permits
- ◆ Land Application Permits
- 🏊 Natural Swimming Areas
- 🛣 Interstates
- 🚂 Railroad Lines
- 🛣 Highways
- 🗺 County Lines
- 🌊 Modeled Stream
- 🌊 Stream
- 🟦 Lake
- 🟩 Wetland
- 📏 10-Digit Hydrologic Units
- 🏘 Cities/Towns
- 🌳 Public Lands

0 1 2 4 6 8 Miles