

03050104-03

(*Wateree River*)

General Description

Watershed 03050104-03 (formerly a portion of 03050104-030, and 070, 080) is located in Kershaw, Lee, Sumter, and Richland Counties and consists primarily of the middle section of the *Wateree River* and its tributaries from Twentyfive Mile Creek to Swift Creek. The watershed occupies 175,248 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. Land use/land cover in the watershed includes: 39.0% forested land, 26.7% agricultural land, 24.2% forested wetland (swamp), 8.1% urban land, 1.2% water, 0.6% nonforested wetland (marsh), and 0.2% barren land.

Downstream of Twentyfive Mile Creek, the Wateree River accepts drainage from Camp Creek, Bolton Branch, Gillies Creek (Buck Creek), Big Pine Tree Creek (Llewellyn Millpond, Beaverdam Branch, Thoroughfare Branch, Hyco Branch, Berkeley Branch, Adams Mill Pond, Hermitage Mill Pond, Thomas Branch, Little Pine Tree Creek, Kendall Lake), Town Creek, Bolton Branch, Gillies Ditch (Jumping Gully), Swift Creek (Little Swift Creek, Boykins Mill Pond, White Oak Slash Lake), and Rafting Creek (Bracey Mill Creek, Little Rafting Creek). Additional natural resources in the watershed include Goodale State Park near the City of Camden. There are a total of 546.3 stream miles and 1,288.6 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CW-019	S/W	FW	WATEREE RIVER AT US 1
CW-223	S/W/BIO	FW	LITTLE PINE TREE CREEK AT S-28-132
CW-021	W/INT	FW	BIG PINE TREE CREEK AT US 521, NW OF BRIDGE
CW-082	INT	FW	SWIFT CREEK AT S-28-12
CW-238	W/INT	FW	SWIFT CREEK AT SC 261

Wateree River (CW-019) – Aquatic life uses are partially supported due to dissolved oxygen excursions. There is a significant increasing trend in pH. Significant decreasing trends in turbidity and fecal coliform bacteria suggest improving conditions for these parameters. Recreational uses are fully supported.

Little Pine Tree Creek (CW-223) – Aquatic life uses are fully supported based on macroinvertebrate community data; however, there are significant increasing trends in five-day biochemical oxygen demand and turbidity. Although pH excursions occurred, they were typical of values seen in such systems and were considered natural, not standards violations. Recreational uses are not supported due to fecal coliform bacteria excursions, which are compounded by significant increasing trends in fecal coliform bacteria concentration.

Big Pine Tree Creek (CW-021) - Aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand.

Swift Creek - There are two SCDHEC monitoring sites along Swift Creek and recreational uses are fully supported at both sites. Although pH excursions occurred at both sites, they were typical of values seen in such systems and were considered natural, not standards violations. At the upstream site (**CW-082**), aquatic life uses are partially supported due to dissolved oxygen excursions. In addition, there is a significant increasing trend in turbidity. Aquatic life uses are not supported at the downstream site (**CW-238**), due to dissolved oxygen excursions. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH at this site.

A fish consumption advisory has been issued by the Department for mercury and includes the Wateree River within this watershed (for the most current advisories visit www.scdhec.gov/fish).

Natural Swimming Areas

FACILITY NAME	PERMIT #
RECEIVING STREAM	STATUS
GOODALE STATE PARK	28-N01
GOODALE STATE PARK LAKE	ACTIVE

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-038	GB	MIDDENDORF	C. THOMPSON WATER DISTRICT
AMB-019	GB	BLACK CREEK	WATEREE CORRECTIONAL INST.

NPDES Permitted Activities

Active NPDES Facilities

RECEIVING STREAM	FACILITY NAME	NPDES#	TYPE
WATEREE RIVER	INVISTA S.A.R.L./CAMDEN	SC0002585	MAJOR INDUSTRIAL
WATEREE RIVER	CITY OF CAMDEN WWTP	SC0021032	MAJOR DOMESTIC
WATEREE RIVER	WEYLICHEM US INC.	SC0002682	MAJOR INDUSTRIAL
WATEREE RIVER	PALMETTO UTILITIES INC./SPEARS CREEK WWTF	SC0043451	MINOR DOMESTIC
BIG PINE TREE CREEK	DEROYAL TEXTILES INC.	SC0002518	MAJOR INDUSTRIAL
LITTLE PINE TREE CREEK	KENDALL CO./WATEREE PLANT	SCG250049	MINOR INDUSTRIAL
GILLIES CREEK	TB KAWASHIMA USA, INC./LUGOFF	SCG250279	MINOR INDUSTRIAL
GILLIES CREEK	UNIMIN CORP./LUGOFF PLANT	SCG730382	MINOR INDUSTRIAL

GILLIES CREEK COGSDILL TOOL PRODUCTS INC.	SC0037575 MINOR INDUSTRIAL
GILLIES CREEK EASTERN LAND & TIMBER/INDUSTRIAL PARK MINE	SCG730188 MINOR INDUSTRIAL
WATEREE RIVER SC DEPT. CORRECTIONS/WATEREE RIVER PLANT	SC0045349 MINOR DOMESTIC
LITTLE RAFTING CREEK SCENIC LAKE PARK	SC0031895 MINOR DOMESTIC
GILLIES CREEK C RAY MILES CONTRUCTION CO., INC./TURTLE CREEK	SCG730605 MINOR INDUSTRIAL
WATEREE RIVER TRIBUTARY LUGOFF SAND CO.	SCG730606 MINOR INDUSTRIAL
BIG PINE TREE CREEK CALLAHAN GRADING LLC/1401 CHERAW ROAD MINE	SCG731164 MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

<i>RECEIVING STREAM</i>	<i>NPDES#</i>
<i>MUNICIPALITY</i>	<i>MS4 PHASE</i>
<i>RESPONSIBLE PARTY</i>	<i>MS4 SIZE</i>
<i>IMPLEMENTING PARTY</i>	
WATEREE RIVER ----- RICHLAND COUNTY RICHLAND COUNTY	SCS400001 PHASE I MEDIUM MS4

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME</i> <i>FACILITY TYPE</i>	<i>PERMIT #</i> <i>STATUS</i>
KERSHAW COUNTY C&D LANDFILL C&D	281001-1201 ACTIVE
KERSHAW COUNTY YARD WASTE COMPOSTING COMPOSTING	281001-3001 ACTIVE
KERSHAW COUNTY SANITARY LANDFILL MUNICIPAL	281001-1101 INACTIVE
KERSHAW COUNTY SANITARY LANDFILL MUNICIPAL	----- INACTIVE
KERSHAW COUNTY SANITARY LANDFILL MUNICIPAL	----- INACTIVE
OLD KERSHAW LANDFILL (DUMP) -----	----- CLOSED
TOWN OF KERSHAW MUNICIPAL	----- INACTIVE

KENDALL CO. PLANT LANDFILL INDUSTRIAL	----- INACTIVE
KENDALL CO. PLANT LANDFILL INDUSTRIAL	----- INACTIVE
CANTEY LAND CLEARING LANDFILL C&D	282618-1701 INACTIVE
FAIR STREET DUMP MUNICIPAL	----- INACTIVE
DICEY CREEK DUMP MUNICIPAL	----- INACTIVE
WATEREE CORRECTIONAL INST. MUNICIPAL	----- INACTIVE

Land Application Sites

<i>LAND APPLICATION FACILITY NAME</i>	<i>PERMIT # TYPE</i>
SPRAYFIELD ROLLING MEADOWS/HERMITAGE FINANCIAL	ND0069868 DOMESTIC
SPRAYFIELD SMITHS MHP	ND0061735 DOMESTIC
RAPID INFILTRATION BASIN PRAXAIR, INC./LINDE DIV.	ND0069655 INDUSTRIAL
SLUDGE APPLICATION DEROYAL TEXTILES INC.	ND0075272 INDUSTRIAL

Mining Activities

<i>MINING COMPANY MINE NAME</i>	<i>PERMIT # MINERAL</i>
LUGOFF SAND COMPANY LUGOFF SAND MINE	0121-55 SAND
PALMETTO BRICK COMPANY HINES MINE	0995-55 KAOLI
JOSEPH K. MCCASKILL MCCASKILL MINE	1298-55 SAND

Water Quantity

<i>WATER USER STREAM</i>	<i>REGULATED CAP.(MGD) PUMPING CAP. (MGD)</i>
INVISTA	6.0
WATEREE RIVER	9.0

Growth Potential

There is a high potential for continued residential, commercial, and industrial development in this watershed, which contains portions of the City of Camden and the Towns of Lugoff, Stateburg, Wedgewood, and Rembert and is adjacent to Shaw Air Force Base. U.S. Hwy 1 and U.S. Hwy 521, together with I-20 provide the growth corridors. The interchange of I-20 and U.S. Hwy 521 has a particularly high development potential. Sewer is provided to this area through a regional system located in Kershaw County. The City of Camden is in the process of upgrading the WWTP to 3.0 MGD to serve the growth in the area. A large portion of the watershed is river bottomland swamp forests, which are heavily forested for timber.

Watershed Protection and Restoration

Special Projects

Water Quality Model of the Upper Wateree River and Allocation of Oxygen Demand

The Kershaw County Water and Sewer Authority contracted with the U.S. Geological Survey to conduct an extensive modeling study of the upper Wateree River. Model development was completed in 1999. The study included the characterization of streamflow and water quality in the river and the development of hydrodynamic and water quality computer simulation models to determine allowable loads for oxygen demanding substances. Together, the models are designed to predict water quality, especially dissolved oxygen levels, under various streamflow and loading conditions.

The USGS model was converted to a wasteload allocation tool and the allowable oxygen demand load to the upper Wateree River determined. The new model required an overall reduction of 27% from the previously permitted load. With input from the Central Midlands Council of Governments (CMCOG) and the Santee Lynches Regional Council of Governments (SLRCOG), the available load was allocated with the CMCOG's one discharge being allocated 31% of the load and the SLRCOG's five discharges being allocated 69% of the load. The agreed upon loadings have been incorporated into NPDES permits for the individual dischargers.

COWASEE Basin Focus Area

The COWASEE Basin covers over 215,000 acres in the midlands of South Carolina and includes the Congaree, Wateree and upper Santee River watersheds. Based on the ACE Basin focus area model, land trusts and other conservation organizations have come together to protect land in the COWASEE basin through land acquisition and conservation easements. The focus area is also a priority waterfowl restoration area where basin partners are implementing research and management to improve waterfowl habitat and populations. Organizations working in the COWASEE basin include the Congaree Land Trust, Ducks Unlimited, Friends of Congaree Swamp, the USDA Natural Resources Conservation Service, Richland County Conservation Commission, the South Carolina Department of Natural Resources, Sumter County Soil and Water Conservation District and The Conservation Fund.

Kershaw County Manure Composting Demonstration Project

At the time of publication, Kershaw County has nearly completed a nonpoint source pollution demonstration project designed to address the fecal coliform issues in Kershaw County. The pilot program seeks to demonstrate that composting horse manure can be an easy and effective solution to fecal coliform contamination of surface waters. The end result will be a sustainable BMP technique to reduce microbial contaminant transport to surface waters in Kershaw County that can be transferred elsewhere in the County and in South Carolina.

(Middle) Wateree River Watershed (03050104-03)

- ▽ 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
- 🌿 Wetland
- 🌊 Lake
- 🗺 10-Digit Hydrologic Units
- 🏙 Cities/Towns
- 🌳 Public Lands

