03050112-060

(North Santee River/South Santee River)

General Description

Watershed 03050112-060 is located in Charleston County and consists primarily of the ***South Santee River and the North Santee River*** and their tributaries. The watershed occupies 79,788 acres of the Coastal Zone region of South Carolina. The predominant soil types consist of an association of the Bohicket-Capers-Chipley series. The erodibility of the soil (K) averages 0.19 and the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 46.2% forested land, 36.8% nonforested wetland, 10.6% water, 4.5% forested wetland, 1.5% scrub/shrub land, 0.3% barren land, and 0.1% agricultural land.

The lower Santee River divides into the South Santee River and the North Santee River, both draining into the Atlantic Ocean. Both the South and North Santee Rivers are classified FW from their origin to the U.S. Hwy. 17 crossing, SA from the U.S. Hwy. 17 crossing to 1000 feet below the Atlantic Intracoastal Waterway (AIWW) crossing, and ORW from 1000 feet below the AIWW crossing to the Atlantic Ocean. The South Santee River accepts drainage from Chicken Creek, Hampton Creek (Cedar Creek), Montgomery Creek, Garfish Creek, Sixmile Creek, and Collins Creek. Pleasant Creek connects Sixmile Creek to the South Santee River. Fourmile Creek Canal and Alligator Creek also drain into the South Santee River. Sall Creek drains directly into the Atlantic Intracoastal Waterway (AIWW), which bisects the South and North Santee Rivers. This section of the AIWW is classified SFH.

The North Santee River accepts drainage from Cedar Creek, Pole Branch, Bonny Clabber Creek, White Oak Creek, and Sixmile Creek. Minim Creek drains into the North Santee River and into the North Santee Bay, and incorporates the drainage of Kinloch Creek (Bluff Creek), Pleasant Meadow Creek, Bella Creek, and Cork Creek. Atchison Creek and Fourmile Creek Canal drain directly into the river, and Little Duck Creek, Duck Creek, Big Duck Creek, Mosquito Creek, and Beach Creek drain into the North Santee Bay. Cane Creek connects the North Santee River to the North Santee Bay and Bird Bank Creek enters the river just before it flows into the Atlantic Ocean.

There are a total of 68.5 stream miles in this watershed, along with 657.1 acres of lake waters, and 5,266.9 acres of estuarine areas. Additional natural resources in the watershed include the Francis Marion National Forest (covering the southeastern portion of the watershed), several wildlife management areas, the Yawkey Center, and Hampton Plantation State Park.

Surface Water Quality

Station #	Type	Class	Description
ST-005	S/W	FW/SA	North Santee River at US 17
RT-01654	RT01	SA	Minim Creek, 9 mi S of Georgetown
RO-01122	RO01	ORW	Big Duck Creek, 9 mi S of Georgetown
MD-263	INT	ORW	Santee Bay at Beach Creek
RS-01056	RS01	FW	Cedar Creek at county rd 857, Hampton Plantation St Pk.
ST-006	P/INT	FW/SA	South Santee River at US 17
RO-02004	RT02	ORW	South Santee River, 1.1 mi NW of Atlantic Ocean

North Santee River (ST-005) – The water quality assessment for both the freshwater and saltwater classifications for this stream are identical. Aquatic life uses are fully supported and a significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. There is a significant increasing trend in pH. Recreational uses are fully supported.

Minim Creek (RT-01654) - Aquatic life uses are not supported due to turbidity excursions. Recreational uses are fully supported.

Big Duck Creek (RO-01122) - Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low dissolved oxygen conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

Santee Bay (MD-263) - Aquatic life and recreational uses are fully supported.

Cedar Creek (RS-01056) - Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low dissolved oxygen conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are not supported due to fecal coliform bacteria excursions.

South Santee River - There are two SCDHEC monitoring sites along the South Santee River. The upstream site ***(ST-006)*** has both freshwater and saltwater classifications**.** The freshwater classification is not supported for aquatic life uses due to turbidity excursions, and the saltwater classification is fully supported. However, both classifications indicate significant increasing trends in turbidity. Both classifications indicate significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggesting improving conditions for these parameters. There is a significant increasing trend in pH with both classifications. Recreational uses are partially supported with both classifications, and are compounded by a significant increasing trend in fecal coliform bacteria concentration. The downstream site ***(RO-02004)*** is fully supported for aquatic life and recreational uses.

Aquatic macrophytes have proliferated and public access has been restricted in the Santee Delta Plantation Wildlife Management Area and the Santee Coastal Reserve. To abate aquatic plant growth and enhance waterfowl habitat in these areas, aquatic herbicides were applied in 2004 and 2005 to the Santee Delta, and in 1998, 1999, and 2002-2005 to the Coastal Reserve.

A fish consumption advisory has been issued by the Department for mercury and includes the North and South Santee Rivers within this watershed (see advisory p.39).

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-087	GB	SURF SANDS	NORTH SANTEE

Shellfish Monitoring Stations

Station #	Description
06A-01	SOUTH SANTEE RIVER AT ALLIGATOR CREEK
06A-01A	SOUTH SANTEE RIVER NEAR THE MIDPOINT OF GRACE ISLAND
06A-02	SOUTH SANTEE INLET
06A-03	NORTH SANTEE RIVER AT BEACH CREEK
06A-04	NORTH SANTEE INLET
06A-04A	NORTH SANTEE BAY – E. OF CANE ISLAND
06A-04B	NORTH SANTEE RIVER - SW OF CANE ISLAND
06A-04C	NORTH SANTEE RIVER NEAR NORTHWESTERN TIP OF CANE ISLAND
06A-05	NORTH SANTEE RIVER AND MOSQUITO CREEK
06A-11	AIWW AT MINUM CREEK
06B-13	ALLIGATOR CREEK NEAREST SOUTH SANTEE RIVER BETWEEN MARKERS 24&25

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)*	*NPDES#* *TYPE* *COMMENT*
NORTH SANTEE RIVER GCW&SD NORTH SANTEE WWTP PIPE #: 001 FLOW: 0.052	SC0042439 MINOR DOMESTIC
NORTH SANTEE RIVER SCPSA/WINYAH STEAM IPE #: 002 FLOW: M/R	SC0022471 MAJOR INDUSTRIAL

Nonpoint Source Management Program

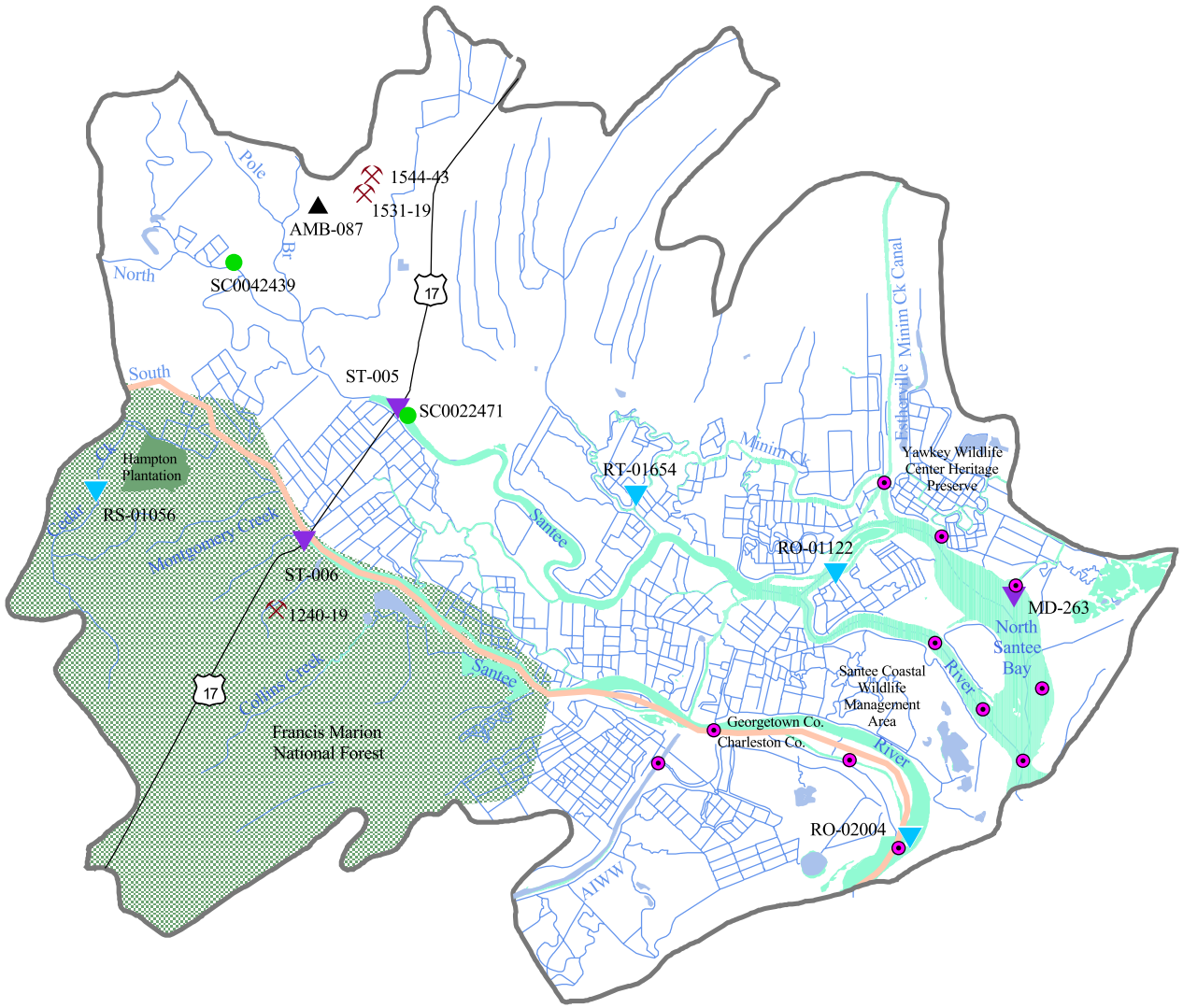
Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
MCKENZIE BACKHOE & DOZIER SERVICE, INC. MCKENZIE MINE	1240-19 SAND
MCKENZIE BACKHOE & DOZIER SERVICE, INC. CHARLES CLARK MINE	1531-19 SAND
SHELLEYS LANDCLEARING TAYLOR POND MINE	1544-43 SAND

Growth Potential

There is a low potential for growth in this watershed.

North and South Santee Rivers Watersheds
(03050112-060)



- NPDES Permits
- Mines
- Water Quality Monitoring Sites
- Groundwater Monitoring Sites
- Random Sites - 2001-2002
- Shellfish Monitoring Sites
- Highways
- Streams
- County Lines
- Lakes
- Estuaries
- 11-Digit Hydrologic Units
- City
- Public Lands

2 0 2 4 Miles