

03050208-04
(Coosawhatchie River)

General Description

Watershed 03050208-04 (formerly 03050208-070) is located in Hampton and Jasper Counties and consists primarily of the lower **Coosawhatchie River** and its tributaries from Black Creek to its confluence with the Pocotaligo River to form the Broad River. The watershed occupies 139,936 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. Land use/land cover in the watershed includes: 44.8% forested land, 29.1% forested wetland, 14.9% agricultural land, 6.0% urban land, 3.9% nonforested wetland, and 1.3% water. A map depicting this watershed is found in Appendix C, page C-23.

This section of the Coosawhatchie River accepts drainage from Horse Pond, Mill Creek, Sanders Branch (House Fork), Camp Branch, Cowpen Branch, Horsegall Creek, Lowndes Lake, McPherson Creek, Broadway Branch, Big Branch, the Cypress Creek Watershed, and Early Branch. The Tulifiny River (Buckfield Backwater) breaks away from the Coosawhatchie downstream of Early Branch, and rejoins it at the base of the watershed before flowing into the Broad River. Buckfield Backwater connects the Tulifiny River to the Pocotaligo River. Downstream of the division, the Coosawhatchie River accepts drainage from Bay Swamp, Little Bees Creek, and Bees Creek (Captain Bill Creek). There are a total of 590.0 stream miles, 376.4 acres of lake waters, and 947.1 estuarine acres in this watershed. The Coosawhatchie River and its tributaries, with the exception of Sanders Branch and Bees Creek are classified FW above the saltwater intrusion and SFH below the intrusion (in the vicinity of U.S. Hwy 17). Sanders Branch is classified FW* (DO no less than 4 mg/l and pH 5.0-8.5) and Bees Creek is classified SB. Captain Bill Creek is classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CSTL-108 W		FW*	SANDERS BRANCH AT SC 363
RS-02488 RS02/BIO		FW	SANDERS BR FROM BRIDGE AT PAVED RD FROM SC 363 N
CSTL-010 W		FW*	SANDERS BRANCH AT SC 278
CSTL-011 W/BIO		FW*	SANDERS BRANCH AT S-25-50
CSTL-109 INT		FW	COOSAWHATCHIE RIVER AT S-25-27, 2.5MI SW OF CUMMINGS
CSTL-107	W	FW/SFH	C OOSAWHATCHIE RIVER AT US 17 AT COOSAWHATCHIE
MD-280	W	SB	BEES CREEK AT WALL FAMILY CAMP FLOATING DOCK

Sanders Branch – There are four SCDHEC monitoring stations along Sanders Branch. At the furthest upstream site (**CSTL-108**), aquatic life uses are fully supported. There is a significant increasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions. Further downstream (**RS-02488**), aquatic life uses are not supported based on macroinvertebrate community data and occurrences of zinc in excess of the aquatic life chronic criterion. Recreational uses are not supported due to fecal coliform bacteria excursions. At the next site downstream (**CSTL-010**), aquatic life uses are fully supported. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions. Although there were occurrences of zinc in excess of the aquatic life

chronic criterion at the furthest downstream site (*CSTL-011*), aquatic life uses are fully supported based on macroinvertebrate community data. There is a significant increasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters at this site. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Coosawhatchie River – There are two SCDHEC monitoring stations along this portion of the Coosawhatchie River. At the upstream site (*CSTL-109*), aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life chronic criterion. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH. Significant decreasing trends in turbidity, total phosphorus and total nitrogen concentration, total suspended solids, and fecal coliform bacteria concentration suggest improving conditions for these parameters. Recreational uses are fully supported. At the downstream site (*CSTL-107*), aquatic life uses are not supported due to dissolved oxygen and pH excursions and occurrences of zinc in excess of the aquatic life chronic criterion. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Bees Creek (MD-128) – Aquatic life uses are not supported due to dissolved oxygen and turbidity excursions. Although pH excursions occurred, they were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions.

A fish consumption advisory has been issued by the Department for mercury and includes the Coosawhatchie River within this watershed (see advisory p.74).

Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-098	GB	TERTIARY LIMESTONE	RIDGELAND

All water samples collected from ambient monitoring well **AMB-098** met standards for Class GB groundwater.

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>		<i>NPDES# TYPE</i>
SANDERS BRANCH TOWN OF HAMPTON	MAJOR	SC0021318 DOMESTIC
SANDERS BRANCH NEVAMAR COMPANY, LLC	MAJOR	SC0001830 INDUSTRIAL
LITTLE BEES CREEK COOSAWHATCHIE LAND COMPANY, LLC		SC0035394 MINOR DOMESTIC

LITTLE BEES CREEK TRIBUTARY STUCKEYS PECAN SHOPPE #083	MINOR	SC0034550 DOMESTIC
COOSAWHATCHIE RIVER TRIBUTARY NATHAN WILSON/JASPER MINE	MINOR	SCG730415 INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Land Application Sites

<i>LAND APPLICATION SYSTEM FACILITY NAME</i>	<i>ND# TYPE</i>
LAND APPLICATION DEGLER SEPTIC TANK & GREASE	ND0073954 DOMESTIC

Landfill Facilities

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
TOWN OF RIDGELAND DUMP DOMESTIC INACTIVE	-----
TOWN OF RIDGELAND DUMP #3 DOMESTIC INACTIVE	-----

Mining Activities

<i>MINING COMPANY MINE NAME</i>	<i>PERMIT # MINERAL</i>
JERRY KERBY INC. KERBY POND MINE	1679-53 SAND
DARRELL THOMAS JOHNSON JR. SLATER MINE	1784-53 SAND
NATHAN WILSON JASPER MINE	1484-53 SAND
DOUBLE B CONSTRUCTION SPRING HILL MINE	1680-53 SAND

Growth Potential

There is a low to moderate potential for growth in this watershed, which contains the Town of Varnville and a portion of the Town of Ridgeland. There is a high potential for residential growth in the Ridgeland area. Ridgeland has expanded its regional treatment facility, which was built to address the needs of Del Webb's Sun City and Hilton Head. I-95 crosses the Town of Ridgeland and may provide some growth to the area.

Watershed Protection and Restoration Strategies

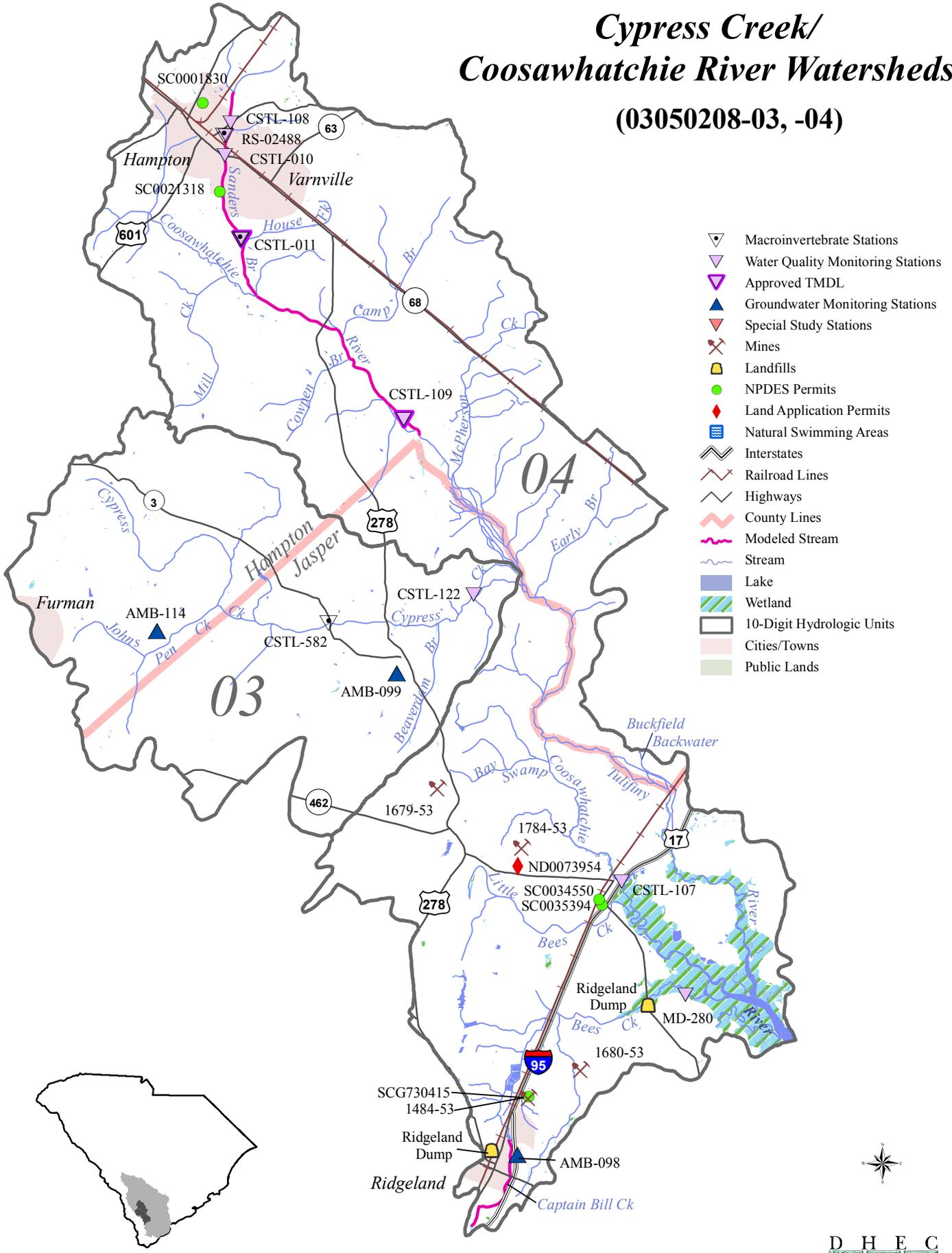
Total Maximum Daily Loads (TMDLs)

Dissolved oxygen (DO) TMDLs were developed by SCDHEC and approved by EPA for **Sanders Branch** and the **Coosawhatchie River** at water quality monitoring sites CSTL-108, CSTL-010, CSTL-011, and CSTL-109. TMDLs determine the maximum amount of biochemical oxygen demand (BOD)

that water bodies can receive and still meet the dissolved oxygen water quality standard. Two continuous NPDES dischargers and one intermittent NPDES discharger are permitted to discharge BOD into Sanders Branch. The TMDL provides BOD₅ and NH₃-N limits for the two NPDES dischargers so that the streams can meet the dissolved oxygen standards. No reductions are required for nonpoint sources.

Cypress Creek/ Coosawhatchie River Watersheds

(03050208-03, -04)



- 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

