

03050110-01
(Congaree Creek)

General Description

Watershed 03050110-01 (formerly 03050110-020) is located in Lexington County and consists primarily of *Congaree Creek* and its tributaries. The watershed occupies 91,330 acres of the Sandhills region of South Carolina. Land use/land cover in the watershed includes: 34.2% forested land, 28.3% agricultural land, 27.7% urban land, 7.7% forested wetland (swamp), 1.0% water, 0.8% barren land, and 0.3% nonforested wetland (marsh).

West Fork and East Fork join to form Scouter Branch, which flows through Redmond Pond and Shealy Pond to enter Congaree Creek. Congaree Creek then flows through Hunt Pond before accepting the drainage from Red Bank Creek (Turkey Creek, Crystal Lake, Lick Fork Branch, Pole Branch). Second Creek (Hunt Branch, Bear Creek, Reedy Branch) flows into First Creek, which then drains into Congaree Creek. Congaree Creek also accepts the drainage from Savana Branch (Pitts Lake), Sixmile Creek (Lake Caroline), and Dry Creek. There are a total of 198.1 stream miles and 1,548.1 acres of lake waters in this watershed, all classified FW. The Congaree Creek watershed drains into the Congaree River near the City of Cayce. Another natural resource in the watershed is the Peachtree Rock Nature Preserve, located at the headwaters of Hunt Branch.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
C-565	BIO	FW	CONGAREE CREEK AT SR 34
C-580	BIO	FW	RED BANK CREEK AT ROAD CONNECTING SR 1260 & SR 243
C-066	W	FW	RED BANK CREEK AT S-32-244
C-067	W	FW	RED BANK CREEK AT SANDY SPRINGS ROAD BETWEEN S-32-104 & SC602
C-583	BIO	FW	SECOND CREEK AT SR 647
C-061	W	FW	SAVANA BRANCH AT S-32-72 1.7 MILES NNW OF SOUTH CONGAREE
C-008	W	FW	CONGAREE CREEK AT US 21, AT CAYCE WATER INTAKE
C-025	W	FW	LAKE CAROLINE SPILLWAY AT PLATT SPRINGS ROAD
C-005	W	FW	SIXMILE CREEK ON US 21, S OF CAYCE
C-070	INT	FW	CONGAREE CREEK AT S-32-66

Congaree Creek – There are three SCDHEC monitoring stations along Congaree Creek. At the upstream site (*C-565*), aquatic life uses are fully supported based on macroinvertebrate community data. At the midstream site (*C-008*), aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions. At the downstream site (*C-070*), aquatic life uses are fully supported; however, there are significant decreasing trends in dissolved oxygen concentration and increasing trends in five-day biochemical oxygen demand and total nitrogen concentration. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Red Bank Creek - There are three SCDHEC monitoring stations along Red Bank Creek. At the upstream site (C-580), aquatic life uses are fully supported based on macroinvertebrate community data. At the midstream site (C-066), aquatic life and recreational uses are fully supported. A significant decreasing trend in turbidity suggests improving conditions for this parameter. At the downstream site (C-067), aquatic life uses are fully supported. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Second Creek (C-583) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Savana Branch (C-061) – Aquatic life and recreational uses are fully supported. There is a significant increasing trend in pH. A significant decreasing trend in total phosphorus concentration suggests improving conditions for this parameter.

Lake Caroline (C-025) – Lake Caroline is located along Sixmile Creek. Aquatic life uses are fully supported. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

Sixmile Creek (C-005) – Aquatic life uses are partially supported due to dissolved oxygen excursions. Recreational uses are partially supported due to fecal coliform bacteria excursions, which are compounded by a significant increasing trend in fecal coliform bacteria concentration.

Natural Swimming Areas

<i>FACILITY NAME</i> <i>RECEIVING STREAM</i>	<i>PERMIT #</i> <i>STATUS</i>
CONGAREE GIRL SCOUT CAMP WEST FORK	32-N05 ACTIVE
YMCA LEXINGTON CAMP RED BANK CREEK TRIBUTARY	32-N10 ACTIVE
BETHYL CHRISTIAN CAMP FIRST CREEK	32-N01-1 ACTIVE

Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-042	GB	MIDDENDORF	HIDDEN VALLEY

All water samples collected from ambient monitoring well **AMB-042** met standards for Class GB groundwater.

NPDES Permitted Activities

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
CONGAREE CREEK MARTIN MARIETTA AGGREGATES/CAYCE QUARRY	SCG730263 MINOR INDUSTRIAL
FIRST CREEK CWS/GLENN VILLAGE II SD	SC0030651 MINOR DOMESTIC
FIRST CREEK TRIBUTARY COLUMBIA SILICA/DIXIANA MINE	SCG730051 MINOR INDUSTRIAL
BEAR CREEK LEXINGTON COUNTY/EDMUND LANDFILL	SC0045110 MINOR INDUSTRIAL
SIXMILE CREEK SOLAR FARMS, INC.	SC0039021 MINOR INDUSTRIAL
SIXMILE CREEK SHANDON TERRACE/PARKWOOD MHP	SC0030473 MINOR DOMESTIC
SIXMILE CREEK TRIBUTARY MARTIN MARIETTA/CAYCE QUARRY	SCG730263 MINOR INDUSTRIAL
SCOUTER BRANCH TRIBUTARY COLUMBIA SILICA/TINDAL MINE	SCG730449 MINOR INDUSTRIAL
SCOUTER BRANCH TRIBUTARY B&T SAND/EDMUND MINE	SCG730582 MINOR INDUSTRIAL
SECOND CREEK COLUMBIA SILICA/PRINCETON MINE	SCG730450 MINOR INDUSTRIAL
SECOND CREEK TRIBUTARY US SILICA CO./COLUMBIA MINE	SCG730700 MINOR INDUSTRIAL
CONGAREE CREEK TRIBUTARY HANSON BRICK EAST/SOX PIT	SCG730501 MINOR INDUSTRIAL
CONGAREE CREEK TRIBUTARY EAGLE CONSTRUCTION/MALPHRUS PIT MINE	SCG731166 MINOR INDUSTRIAL
RED BANK CREEK B&T SAND/NAZARETH MINE	SCG730584 MINOR INDUSTRIAL
RED BANK CREEK TRIBUTARY LONG POND PROPERTIES, LLC/HIDDEN SPRINGS MINE	SCG731061 MINOR INDUSTRIAL
RED BANK CREEK TRIBUTARY B&T SAND/BLEDSOE MINE	SCG730581 MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

<i>RECEIVING STREAM</i>	<i>MUNICIPALITY</i>	<i>RESPONSIBLE PARTY</i>	<i>IMPLEMENTING PARTY</i>	<i>NPDES#</i>	<i>MS4 PHASE</i>	<i>MS4 SIZE</i>
CONGAREE CREEK	CITY OF CAYCE	CITY OF CAYCE	LEXINGTON COUNTY	SCR036301	PHASE II	SMALL MS4
CONGAREE CREEK	TOWN OF PINE RIDGE	TOWN OF PINE RIDGE	LEXINGTON COUNTY	SCR036305	PHASE II	SMALL MS4
CONGAREE CREEK	TOWN OF SOUTH CONGAREE	TOWN OF SOUTH CONGAREE	LEXINGTON COUNTY	SCR036306	PHASE II	SMALL MS4
CONGAREE CREEK	TOWN OF SPRINGDALE	TOWN OF SPRINGDALE	LEXINGTON COUNTY	SCR036307	PHASE II	SMALL MS4
CONGAREE CREEK	UNINCORPORATED AREAS	LEXINGTON COUNTY	LEXINGTON COUNTY	SCR036304	PHASE II	SMALL MS4
CONGAREE CREEK	CITY OF WEST COLUMBIA	CITY OF WEST COLUMBIA	LEXINGTON COUNTY	SCR036308	PHASE II	SMALL MS4

Nonpoint Source Permitted Activities

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME</i>	<i>FACILITY TYPE</i>	<i>PERMIT #</i>	<i>STATUS</i>
LEXINGTON COUNTY TRANSFER STATION	DOMESTIC	321001-6001	ACTIVE
LEXINGTON COUNTY LANDFILL	C&D	321001-1201	ACTIVE
12 TH ST. EXTENTION LANDFILL	C&D	322902-1301	INACTIVE
SOX & SONS C&D LANDFILL	C&D	322902-1301	INACTIVE
SOX & SONS CONSTRUCTION CO.	C&D	322613-1701	ACTIVE
SOX & SONS LAND CLEARING	C&D	322902-1701	INACTIVE

CAROLINA MATERIALS CORP. C&D LF C&D	322611-1201 ACTIVE
CAROLINA MATERIALS CORP. C&D/LCD LF SWP C&D	322611-1201 INACTIVE
CAROLINA MATERIALS CORP. WOOD WASTE PROC. FAC. COMPOSTING	322611-3001 ACTIVE
OWEN ELECTRICAL STEEL CO. INDUSTRIAL	----- INACTIVE
RED BANK DUMP DOMESTIC	----- CLOSED
U.S. #1 FLEA MARKET COMPOSTING COMPOSTING	322447-3001 CLOSED
U.S. #1 FLEA MARKET INERT LANDFILL INDUSTRIAL	322447-1201 CLOSED
LEXINGTON COUNTY/EDMUND C&D & LCD LANDFILL C&D	321001-1201 ACTIVE
LEXINGTON COUNTY/EDMUND C&D LANDFILL C&D	321001-1202 ACTIVE
LEXINGTON COUNTY/EDMUND FACILITY MUNICIPAL	321001-1101 INACTIVE
S&T RECYCLING, LLC C&D LANDFILL C&D	322456-1203 ACTIVE
S&T EXCAVATING WOOD CHIPPING FACILITY COMPOSTING	322456-3003 ACTIVE
PENNSYLVANIA GLASS SAND CORP. INDUSTRIAL	----- INACTIVE

Land Applications

<i>LAND APPLICATION FACILITY NAME</i>	<i>PERMIT # TYPE</i>
SPRAYFIELD/TILEFIELD WINDY HILL WWTP	ND0067075 DOMESTIC

Mining Activities

<i>MINING COMPANY MINE NAME</i>	<i>PERMIT # MINERAL</i>
MARTIN MARIETTA MATERIALS, INC. CAYCE QUARRY	0102-63 GRANITE
RICHTEX CORPORATION SOX MINE	0184-63 KAOLIN

B&T SAND COMPANY, INC. BLEDSOE MINE	0947-63 SAND
CAROLINA MATERIALS CORPORATION RED BANK PIT	0608-63 SAND, SAND/CLAY
B&T SAND COMPANY, INC. EDMUND MINE	0958-63 SAND
COLUMBIA SILICA SAND, INC. TINDAL MINE	0535-63 SAND
US SILICA CO. COLUMBIA MINE	0150-63 SAND
COLUMBIA SILICA SAND, INC. SHULER MINE #2	0010-63 SAND
B&T SAND COMPANY, INC. NAZARETH MINE	1211-63 SAND/CLAY
WILSON BROTHERS SMITH MINE	0934-63 SAND
FOSTER-DIXIANA SAND COMPANY GASTON MINE	1139-63 SAND
COLUMBIA SILICA SAND, INC. TRUCK PIT	0009-63 SAND
TRISTAR LAND CO. BELO ROAD SAND MINE	1589-63 SAND CLAY/SOIL
TCJW, LLC TCJW MINE	1709-63 SAND, TOP

Growth Potential

There is a high potential for growth in this watershed, which contains the Towns of Red Bank, South Congaree, Pineridge, Springdale, Oak Grove, and portions of the Cities of Cayce and West Columbia. The growth is primarily in the form of commercial and residential uses. Expansion of the industrial base is also expected. There are several major highways bisecting the watershed, together with the Columbia Metropolitan Airport and a rail line to aid transportation related growth. Water is available in the urbanized areas and can be easily extended by the Cities of West Columbia and Cayce; however, sewer is not widely available and will require a major investment. Two Notch Road and Old Barnwell wastewater treatment plants (WWTP), under Lexington County Joint Municipal Water and Sewer Commission, have been eliminated in accordance with the §208 Regional Water Quality Management Plan, with effluent transported to the City of Cayce's WWTP. The construction of the line to Cayce and the planned expansion of the Cayce Plant to 25 million gpd has and will continue to make regional sewer service more readily available in this portion of Lexington County.

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

TMDLs were developed for SCDHEC and approved by EPA for **Congaree Creek** and its tributaries **Sixmile Creek** and **Red Bank Creek** at water quality monitoring sites C-005, C-008, C-025, and C-067. The TMDLs determine the maximum amount of fecal coliform bacteria these streams can receive and still meet water quality standards. There were six NPDES facilities permitted to discharge fecal coliform bacteria in the Congaree Creek watershed. Much of the watershed has been designated as part of one or more small MS4s. Possible sources of fecal coliform bacteria in this watershed are failing septic systems, leaking sewers, sanitary sewer overflows, agricultural runoff, cattle-in-streams, and urban (MS4 and non-MS4) runoff. The TMDLs require reductions of 27% to 54% in fecal coliform loading for this stream to meet the recreational use standard.

