

03040201-06

(Black Creek/Lake Robinson)

General Description

Watershed 03040201-06 is located Chesterfield and Darlington Counties and consists primarily of **Black Creek** and its tributaries from its origin to the Lake Robinson dam. The watershed occupies 109,406 acres of the Sandhills region of South Carolina. Land use/land cover in the watershed includes: 48.0% forested land, 31.7% agricultural land, 10.0% forested wetland, 6.6% urban land, 2.4% water, 0.8% barren land, and 0.5% nonforested wetland.

Black Creek originates near the Town of Pageland and accepts drainage from Old Town Pond, Cattail Branch, Mangum Branch, Boggy Branch, Rocky Branch, Big Branch, Panther Branch, Tan Trough Branch, and Cotton Patch Branch. Big Ruddy Branch enters the system next followed by Silver Run, Little Ruddy Branch, Still Branch, Horsepen Branch, Hurricane Branch, Joplin Branch (Stancil Lakes), Big Branch, and Meadow Branch (Joplin Mill Branch). Further downstream, Rattlesnake Branch (Dismal Spring Branch) flows into Black Creek followed by Jessies Branch, Little Black Creek (Graves Millpond, Peddler Branch, Martin Branch, Woodward Millpond), Canal Branch, and Poplar Branch. Black Creek then accepts drainage from Skipper Creek (Peeled Oak Branch, Dead Pine Branch, Little Skipper Creek), Rogers Branch, Pond Branch, Long Branch (Clay Ford Branch, Mays Lake), Ham Creek (Triple Lakes, Lake Bee, Hemp Branch, Lightwood Log Branch, Poplar Branch, Martin Lake, Cow Branch), and Little Alligator Creek before flowing through Lake Robinson. Little Beaverdam Branch and Lower Alligator Creek flow into the headwaters of the lake, Big Beaverdam Creek flows into the midsection, and Pond Hollow Branch enters the lake near the dam. The Carolina Sandhills National Wildlife Refuge extends across the center of the watershed, and the Sand Hills State Forest lies between the refuge and the lake. There are a total of 175.2 stream miles and 2,452.8 acres of lake waters in this watershed. Black Creek and its tributaries upstream of the S.C. Hwy. 145 crossing (just upstream of Skipper Creek) are classified FW. Downstream of the crossing, Black Creek is classified FW* (Dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8.5) and its tributaries are classified FW. Lake Robinson is classified FW*.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
PD-004	W	FW	BLACK CREEK AT S-13-43, 1 MI NE OF NICEY GROVE
RS-08065	RS08	FW	LITTLE BLACK CREEK TRIBUTARY AT ARCHIE SOWELL ROAD
PD-613	BIO	FW	SKIPPER CREEK AT SC 145
PD-710	BIO	FW	DIRT ROAD BRIDGE (EXT. OF SR 657) CROSSING DOWNSTREAM OF SC 145
PD-251	INT	FW*	BLACK CREEK AT US 1
PD-327 (RL-03342)	INT	FW*	LAKE ROBINSON AT S-13-346, 5 MI E OF MCBEE
CL-094	INT	FW*	LAKE ROBINSON IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES

Black Creek – There are three SCDHEC monitoring sites along this section of Black Creek. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred at all monitored sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the upstream site (**PD-004**), aquatic life and recreational uses are fully supported. There is a significant decreasing trend in pH. Aquatic life uses are fully supported at the midstream site (**PD-710**) based on macroinvertebrate community data. At the furthest downstream site (**PD-251**),

aquatic life uses are fully supported; however, there is a significant increasing trend in turbidity and total phosphorus concentration. There is a significant decreasing trend in pH. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration.

Little Black Creek (RS-08065) - Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

Skipper Creek (PD-613) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Lake Robinson – There are two SCDHEC monitoring sites along Lake Robinson. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred at both monitored sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the uplake site (**PD-327**), aquatic life uses are fully supported. There is a significant decreasing trend in pH. Significant decreasing trends in turbidity and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported. At the downlake site (**CL-094**), aquatic life uses are fully supported and a significant decreasing trend in total nitrogen concentration suggests improving conditions for this parameter. There is a significant decreasing trend in pH. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria.

*A fish consumption advisory has been issued by the Department for mercury and includes **Black Creek** and **Lake Robinson** within this watershed (see advisory p.144).*

Natural Swimming Areas

<i>FACILITY NAME</i> <i>RECEIVING STREAM</i>	<i>PERMIT #</i> <i>STATUS</i>
JOHNSONS LANDING LAKE ROBINSON	16-N07 ACTIVE
EASTERLING LANDING LAKE ROBINSON	16-N06 ACTIVE

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM</i> <i>FACILITY NAME</i>	<i>NPDES#</i> <i>TYPE</i>
BLACK CREEK HANSON AGGREGATES SE/BREWER SAND PIT #2	SCG730286 MINOR INDUSTRIAL
LITTLE BLACK CREEK B.V. HEDRICK SAND & GRAVEL CO./PIEDMONT SAND	SCG730045 MINOR INDUSTRIAL
LITTLE BLACK CREEK B.V. HEDRICK SAND & GRAVEL CO./WILLIAMS SAND	SCG730590 MINOR INDUSTRIAL

LITTLE BLACK CREEK TRIBUTARY PAGELAND SAND MINE #3	SCG730455 MINOR INDUSTRIAL
LITTLE BLACK CREEK TRIBUTARY PAGELAND SAND MINE #4	SCG730456 MINOR INDUSTRIAL
LITTLE BEAVERDAM BRANCH PALMETTO BRICK CO./MIDDENDORF MINE	SCG730388 MINOR INDUSTRIAL
LAKE ROBINSON/BLACK CREEK PROGRESS ENERGY/HB ROBINSON	SC0002925 MAJOR INDUSTRIAL
CATTAIL BRANCH TOWN OF PAGELAND/SOUTHEAST WWTP	SC0021539 MINOR DOMESTIC

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
CHESTERFIELD COUNTY LF #2/JEFFERSON MUNICIPAL	131001-1101 CLOSED
CHESTERFIELD COUNTY DUMP -----	----- CLOSED
TOWN OF PAGELAND INDUSTRIAL	131002-3001 ACTIVE
PROGRESS ENERGY LANDFILL INDUSTRIAL	163341-1601, 163341-1602 ACTIVE

Mining Activities

<i>MINING COMPANY MINE NAME</i>	<i>PERMIT # MINERAL</i>
BV HEDRICK SAND & GRAVEL CO. PIEDMONT SAND	0665-25 SAND
HANSON AGGREGATES SE BREWER SAND PIT #2	0271-25 SAND
BARRINGER SAND, LLC. BARRINGER SAND MINE	1474-25 SAND
PALMETTO BRICK CO. MIDDENDORF MINE	1367-25 KAOLIN
PAGELAND SAND CO., INC. PAGELAND SAND MINE #3	1332-25 SAND
BV HEDRICK SAND & GRAVEL CO. WILLIAMS SAND	0969-25 SAND
CONSTRUCTION MATERIALS GROUP LLC SANDHILLS MINE	1723-25 SAND

Groundwater Quantity

Portions of this watershed fall within the Pee Dee Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.22).

Growth Potential

There is a low potential for growth in this rural watershed, which contains a portion of the Town of Pageland. The Town of McBee is just outside the watershed. A sizeable portion of the watershed is publicly owned lands within the Carolina Sandhills National Wildlife Refuge or the Sand Hills State Forest, limiting development in these areas. S.C. Hwy. 151 is a four-lane highway connecting the Cities of Florence and Charlotte, and together with its bypass around the Town of Pageland should see additional commercial and industrial development in the northern portion of the watershed. Water service is limited to Pageland and McBee, and sewer service exists only in the Pageland area.

