

## 03040205-07

(Black River)

### General Description

Watershed 03040205-07 is located in Florence, Clarendon, and Williamsburg Counties and consists primarily of the **Black River** and its tributaries from Pudding Swamp to the crossing of SC Hwy 30. The watershed occupies 209,661 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 34.1% forested wetland, 31.6% forested land, 25.8% agricultural land, 5.9% urban land, 2.3% nonforested wetland, 0.2% water, and 0.1% barren land.

This middle section of the Black River accepts drainage from its upper reaches and Clapp Swamp (Long Branch, Bull Branch, Spring Branch), Kingtree Swamp Canal (Smiths Bay, Long Bay, Findley Bay, Sandy Bay), and Laws Swamp. Rocky Ford Swamp (Chaney Swamp) and Dickey Swamp (Mulberry Branch, Bennett Swamp, Mill Branch, Pushing Branch, Shanty Branch) join to form Laws Swamp, which flows into the river downstream of the Kingtree Swamp Canal. Further downstream, the river accepts drainage from Thorntree Swamp, Stony Run Branch, Boggy Swamp, McElroy Branch, Camden Swamp, and Ox Swamp (Gumtree Branch). There are a total of 212.1 stream miles and 137.1 acres of lake waters in this watershed. The Black River is classified FW\* (Dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8.0) and the remaining streams are classified FW.

### Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
PD-714	BIO	FW	BLACK RIVER AT GILLAND MEMORIAL PARK LANDING
RS-10381	RS10	FW	KINGTREE SWAMP CANAL AT S-21-514
PD-358	INT	FW	KINGTREE SWAMP CANAL AT SC 527
PD-044	INT	FW*	BLACK RIVER AT US 52 AT KINGTREE
RS-06018	RS06	FW	THORNTREE SWAMP AT BRIDGE ON S-45-143, 5.1 MI S OF KINGTREE
PD-045	W	FW*	BLACK RIVER AT SC 377 AT BRYAN'S CROSSROADS
(PD-359)	W	FW*	BLACK RIVER AT S-45-30

**Black River** - There are three SCDHEC monitoring sites along this section of the Black River. Aquatic life and recreational uses are fully supported at all sites. At the upstream site (**PD-714**), aquatic life uses are fully supported based on macroinvertebrate community data. Aquatic life and recreational uses are fully supported at the midstream site (**PD-044**); however there are significant increasing trends in five-day biochemical oxygen demand and fecal coliform bacteria. A significant decreasing trend in total phosphorus suggests improving conditions for this parameter. At the downstream site (**PD-045**), aquatic life and recreational uses are again fully supported. **PD-359**, being just downstream of this watershed, represents the water quality in this watershed and it too fully supports aquatic life and recreational uses; however, there is a significant increasing trend in five-day biochemical oxygen demand. A significant decreasing trend in total phosphorus suggests improving conditions for this parameter at this site.

**Kingtree Swamp Canal** - There are two SCDHEC monitoring sites along Kingtree Swamp Canal. This is a blackwater system, characterized by naturally low dissolved oxygen and pH conditions. At the upstream site (**RS-10381**), aquatic life uses are fully supported. Although dissolved oxygen and pH 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. At the downstream site (*PD-358*), aquatic life and recreational uses are fully supported. There is a significant decreasing trend in pH. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. A significant decreasing trend in total phosphorus concentration suggests improving conditions for this parameter.

**Thorntree Swamp (RS-06018)** - 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.

*A fish consumption advisory has been issued by the Department for mercury and includes the **Black River** within this watershed (see advisory p.75).*

## NPDES Program

### Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
KINGSTREE SWAMP CANAL TRIBUTARY MARTEK BIOSCIENCES KINGSTREE	SC0003123 MINOR INDUSTRIAL
BLACK RIVER TOWN OF KINGSTREE	SC0035971 MAJOR DOMESTIC
BLACK RIVER TOWN OF KINGSTREE/MILLIKEN SITE IND.	SC0049255 MINOR DOMESTIC

## Nonpoint Source Management Program

### Land Disposal Activities

#### Landfill Facilities

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
WILLIAMSBURG COUNTY LANDFILL #1 INDUSTRIAL	IWP-114 INACTIVE
TRAVENOL LABORATORIES, INC. INDUSTRIAL	453305-1601 INACTIVE
BLACK RIVER CORP. MUNICIPAL	452499-3001 ACTIVE
GAUSE TROY -FILL MUNICIPAL	----- INACTIVE
ARC TECHNOLOGY FACILITY RD&D	452767-8001 ACTIVE
WILLIAMSBURG CO. INDUSTRIAL LANDFILL INDUSTRIAL	IWP-153 CLOSED

MARTEK INDUSTRIAL	453349-1601 ACTIVE
WILLIAMSBURG COUNTY LANDFILL MUNICIPAL	451001-1101 ACTIVE
WILLIAMSBURG COUNTY C&D LANDFILL CONSTRUCTION	451001-1201 ACTIVE
WILLIAMSBURG COUNTY SHREDDER MUNICIPAL PULVERIZATION SITE	DWP-055 CLOSED
TOWN OF KINGSTREE DUMP#1 & #2 MUNICIPAL	----- CLOSED
WHITAKER AIR CURTAIN INCINERATOR INCINERATOR	402769-4001 ACTIVE

### **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 to moderate potential for growth in this watershed, which contains the Towns of Kingstree and Lane and a portion of the Town of Greeleyville. Water infrastructure is located in and around all three towns, but sewerage infrastructure is located only in and around the Kingstree area. The U.S. Hwy 52 corridor has the potential for residential, commercial, and industrial growth in the future due to the combination of an increase in the capacity of the sewage treatment plant, industrial areas, and an existing rail line. The former Milliken Industrial WWTF has been reactivated and upgraded by the Town of Kingstree to accommodate new industries and renamed the South Kingstree Industrial Wastewater Facility. Outside of this area, the watershed is rural with predominately agricultural and timberland uses.

# Black River Watershed (03040205-07)

-  Macroinvertebrate Stations
-  Water Quality Monitoring Stations
-  Approved TMDL
-  Surface Water Intakes
-  Shellfish Monitoring 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

