

**03040202-04**  
(*Sparrow Swamp*)

**General Description**

Watershed 03040202-04 is located in Darlington, Florence, and Lee Counties and consists primarily of *Sparrow Swamp* and its tributaries. The watershed occupies 142,641 acres of the Upper and Lower Coastal Plain regions of South Carolina. Land use/land cover in the watershed includes: 48.2% agricultural land, 30.8% forested wetland, 12.3% forested land, 6.6% urban land, 0.3% water, and 1.8% nonforested wetland.

Sparrow Swamp originates near the City of Hartsville, and accepts drainage from Burnt Branch before flowing through Smith Pond and Marco Millpond. Gully Run flows through Bell Pond and joins Sparrow Swamp in Marco Millpond. Long Branch enters the swamp downstream, followed by Harris Branch and Screeches Branch. Boggy Gully Swamp (The Bay, Big Cypress Bay, Little Cypress Bay, Boggy Gully Bay, Bees Wax Bay) also originates near Hartsville, and flows through Harolds Millpond and Andrews Millpond before draining into Sparrow Swamp. Sparrow Swamp then accepts drainage from McCalls Branch, Newman Swamp, Boyds Pond, Long Branch, Deep Hole Swamp (Camel Branch, Bay Branch, Bay Lake, Poplar Branch), and Magnolia Branch. Lake Swamp (Dargans Bay, Jacks Branch, Horse Branch) enters the system next followed by Long Branch (Meadow Prong) at the base of the watershed. The Sparrow Swamp Watershed flows into the Lynches River. Sparrow Swamp, Newman Swamp, and Lake Swamp are classified FW\* (Dissolved oxygen not less than 4 mg/l and pH between 5.0 and 8.5) and the remaining streams in the watershed are classified FW. There are a total of 346.6 stream miles and 227.1 acres of lake waters in this watershed, all classified FW.

**Surface Water Quality**

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
RS-08067	RS08	FW	LONG BRANCH AT S-31-39
PD-229	W	FW*	NEWMAN SWAMP AT S-16-449 0.9 MI NE OF LAMAR
PD-072	W	FW*	SPARROW SWAMP AT S-16-697 2.5 MI E OF LAMAR
PD-345	INT	FW*	LAKE SWAMP AT S-21-38
PD-332	INT	FW*	SPARROW SWAMP AT S-21-55 NEAR JOHNSONS CROSSROADS

**Long Branch (RS-08067)** – Aquatic life and recreational uses are fully supported. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

**Newman Swamp (PD-229)** – Aquatic life uses are not supported due to dissolved oxygen excursions; however, a significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. There is a significant increasing trend in pH. Recreational uses are fully supported.

**Sparrow Swamp** – There are two SCDHEC monitoring sites along Sparrow Swamp. This is a blackwater system, characterized by naturally low dissolved oxygen conditions. Although dissolved oxygen excursions occurred at both sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the upstream site (**PD-072**), aquatic life uses are fully supported and a significant increasing trend in dissolved oxygen concentration suggests improving

conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions, which are compounded by significant increasing trends in fecal coliform bacteria. At the downstream site (*PD-332*), aquatic life uses are fully supported; however, there is a significant decreasing trend in dissolved oxygen concentration. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions, which are compounded by significant increasing trends in fecal coliform bacteria.

**Lake Swamp (PD-345)** – This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Aquatic life uses are fully supported; however, there is a significant increasing trend in turbidity. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions.

**NPDES Program**

**Active NPDES Facilities**

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
SPARROW SWAMP TOWN OF TIMMONSVILLE WWTP	SC0025356 MAJOR DOMESTIC
LAKE SWAMP PALMETTO CORPORATION/HUGGINS MINE	SCG731278 MINOR INDUSTRIAL
LAKE SWAMP PALMETTO CORPORATION/KIRBY MINE	SCG731279 MINOR INDUSTRIAL

**Municipal Separate Storm Sewer Systems (MS4)**

<i>RECEIVING STREAM MUNICIPALITY RESPONSIBLE PARTY IMPLEMENTING PARTY</i>	<i>NPDES# MS4 PHASE MS4 SIZE</i>
SPARROW SWAMP UNINCORPORATED AREAS FLORENCE COUNTY FLORENCE COUNTY	SCR034102 PHASE II SMALL MS4
SPARROW SWAMP TOWN OF TIMMONSVILLE TOWN OF TIMMONSVILLE	SCR0----- PHASE II SMALL MS4

**Nonpoint Source Management Program**

**Land Disposal Activities**

**Landfill Facilities**

<i>LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
LEE COUNTY COMPOSTING FACILITY COMPOSTING	312640-3001 ACTIVE

LEE COUNTY C&D LANDFILL  
C&D

312640-2001  
ACTIVE

### ***Mining Activities***

***MINING COMPANY***  
***MINE NAME***

***PERMIT #***  
***MINERAL***

WILLIS CONSTRUCTION INC.  
HUGGINS MINE

1912-41  
SAND; TOP SOIL

### **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**

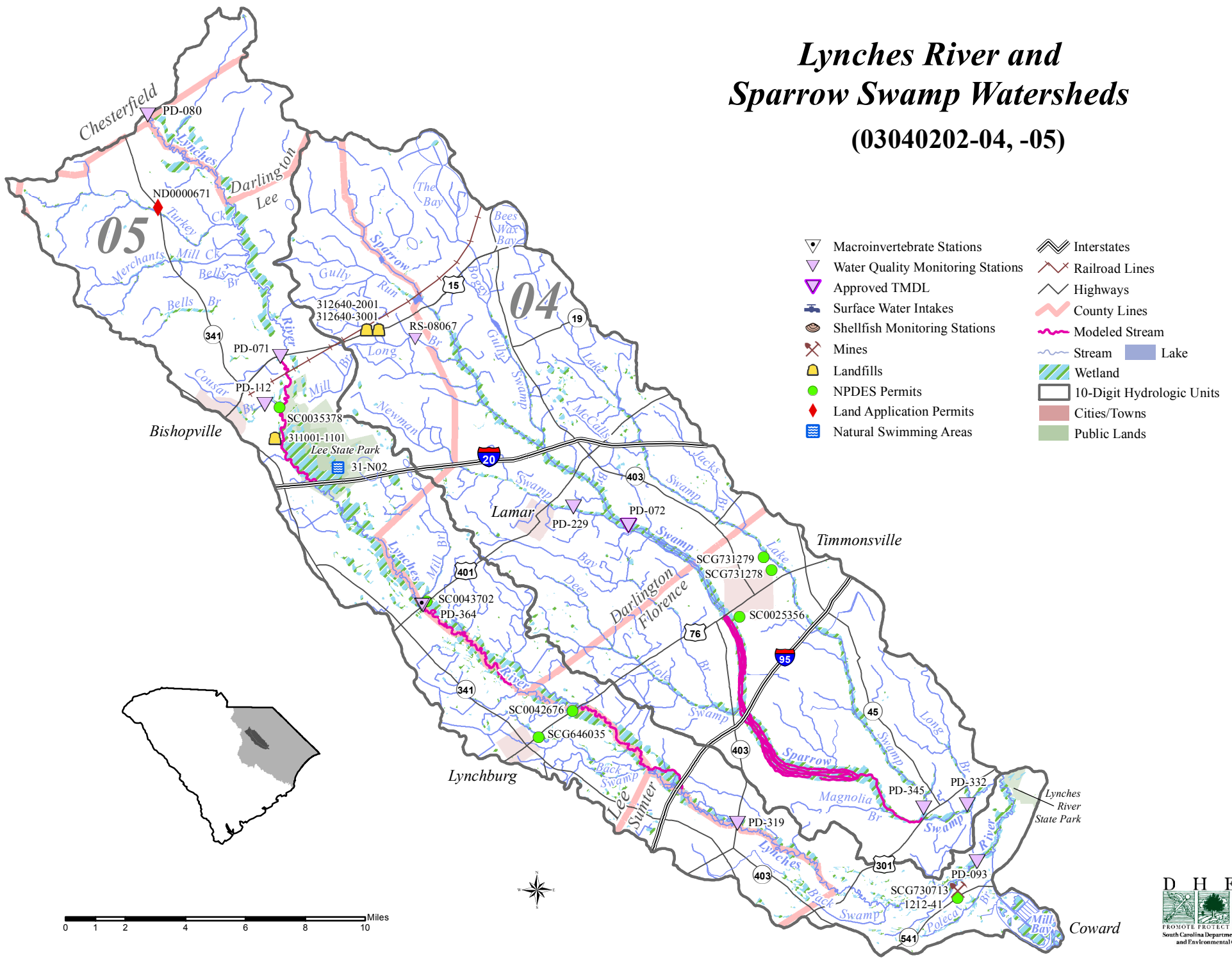
There is a moderate potential for growth in this watershed, which contains the Towns of Lydia and Lamar, and a portion of the Town of Timmons ville. U.S. Hwy. 76 and a rail line cross the watershed at Timmons ville connecting the Cities of Sumter and Florence, and U.S. Hwy. 401 crosses the watershed at the Town of Lamar. Water and sewer services are provided for Timmons ville and Lamar and the immediate surrounding area. Improved water and sewer systems in these areas hold the potential for future industrial growth in the area. Interstates I-20 and I-95 cross the watershed, and an expansion of the Timmons ville Water and Sewer System along S.C. 403 to I-95 will encourage growth. The expansion of the Honda plant at the I-95/CR21-83 should spur future growth. The widening of U.S. Hwy. 76 east of Timmons ville to I-95 is presently taking place and should bring about commercial growth.

### **Watershed Restoration and Protection**

#### **Total Maximum Daily Loads (TMDLs)**

A fecal coliform TMDL was developed by SCDHEC and approved by the USEPA for water quality monitoring site PD-072 on *Sparrow Swamp*. Probable sources of fecal contamination include direct loading of livestock, failing septic systems, surrounding wildlife, and other agricultural activities. In order to achieve the target load (slightly below water quality standards) for Sparrow Swamp, reductions in the existing loads of up to 19% will be necessary at station PD- 072.

# Lynches River and Sparrow Swamp Watersheds (03040202-04, -05)



- |  |                                   |  |                           |
|--|-----------------------------------|--|---------------------------|
|  | Macroinvertebrate Stations        |  | Interstates               |
|  | Water Quality Monitoring Stations |  | Railroad Lines            |
|  | Approved TMDL                     |  | Highways                  |
|  | Surface Water Intakes             |  | County Lines              |
|  | Shellfish Monitoring Stations     |  | Modeled Stream            |
|  | Mines                             |  | Stream                    |
|  | Landfills                         |  | Lake                      |
|  | NPDES Permits                     |  | Wetland                   |
|  | Land Application Permits          |  | 10-Digit Hydrologic Units |
|  | Natural Swimming Areas            |  | Cities/Towns              |
|  |                                   |  | Public Lands              |