03050203-02 (North Fork Edisto River - Middle Reach)

General Description

Watershed 03050203-02 (formerly 03050203-040, 050) is located in Lexington, Aiken, Orangeburg, and Calhoun Counties and consists primarily of the *North Fork Edisto River* and its tributaries from Black Creek to Bull Swamp Creek. The watershed occupies 177,721 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. Land use/land cover in the watershed includes: 42.0% agricultural land, 41.0% forested land, 9.9% forested wetland (swamp), 6.4% urban land, 0.5% water, and 0.2% nonforested wetland (marsh).

This section of the North Fork Edisto River accepts drainage from Cedar Creek (Fort Pond, Lynch Branch, Rast Pond, Thrasher Branch, Crawford Branch), Jackson Branch, Hollow Creek (Ritter Branch, Little Hollow Creek), Pond Branch (Hunter Branch), and Salem Creek. Further downstream, Penn Branch enters the river followed by Big Beaver Creek (Little Beaver Creek), Turkey Branch (Gibson Branch, Hutto Mill Pond), and Bull Swamp Creek. Bull Swamp Creek originates near Gaston and accepts drainage from Spires Pond, Boggy Branch, Fourth Creek, Third Creek (Redmond Pond), Cow Branch, Gardner Branch, Little Bull Swamp Creek (Cowpen Swamp, Turkey Branch) and Etheridge Mill Pond before flowing into the North Fork Edisto River. There are a total of 352.5 stream miles and 1,264.8 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
E-092	W	FW	NORTH FORK EDISTO RIVER AT SC 3, 5.5 MI NW OF NORTH
E-034	W	FW	BULL SWAMP CREEK AT CULVERT, 1.1 MI NW OF SWANSEA
E-035	W	FW	BULL SWAMP CREEK AT US 321, 0.9 MI S OF SWANSEA
E-042	INT/BIO	FW	BULL SWAMP CREEK AT S-38-189
E-104	INT	FW	NORTH FORK EDISTO RIVER AT S-38-73

North Fork Edisto River – There are two SCDHEC monitoring stations along this portion of the North Fork Edisto River. This is a blackwater system, characterized by naturally low pH conditions. Although pH 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 (*E-092*), aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the downstream site (*E-104*), aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a refully supported; however, there is a significant increasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the downstream site (*E-104*), aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter.

Bull Swamp Creek – There are three SCDHEC monitoring stations along Bull Swamp Creek. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred at all sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the upstream site (E-034), aquatic life uses are not supported due to dissolved oxygen excursions. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. Recreational uses are fully supported. At the midstream site (E-035), aquatic life uses are fully supported. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the downstream site (E-042), aquatic life uses are fully supported based on macroinvertebrate community data; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are fully supported.

A fish consumption advisory has been issued by the Department for mercury and includes portions of the North Fork Edisto River within this watershed (see advisory p.41).

Groundwater Quality

Well #	Class	<u>Aquifer</u>	Location
AMB-104	GB	TERTIARY SANDS	North
AMB-040	GB	MIDDENDORF	SWANSEA

All water samples collected from ambient monitoring wells *AMB-104* and *AMB-040* met standards for Class GB groundwater.

NPDES Permitted Activities

Active NPDES Facilities					
RECEIVING STREAM	NPDES#				
FACILITY NAME	ТҮРЕ				
NORTH FORK EDISTO RIVER	SC0047821				
TOWN OF NORTH	MINOR DOMESTIC				
BOGGY BRANCH	SC0034541				
GASTON COPPER RECYCLING COR	P. MINOR INDUSTRIAL				
BULL SWAMP CREEK	SCG730731				
CHEROKEE INC./HOFFMAN PIT	MINOR INDUSTRIAL				

Nonpoint Source Permitted Activities Land Disposal Activities	
	DEDMIT #
FACILITY TYPE	STATUS
WASTE TIRE MANAGEMENT WTP	322475-5201 INACTIVE
Land Application Sites	
LAND APPLICATION SYSTEM FACILITY NAME	ND# TYPE
SPRAY IRRIGATION	ND0013561
PELION ELEM. SCHOOL	DOMESTIC
SEPTAGE INJECTION	ND0070149
CE TAYLOR PUMPING, INC.	DOMESTIC

Growth Potential

Since 2000, there has been a steady amount of growth in this watershed, which contains the Towns of Pelion, North, Livingston, Swansea, and Woodford and portions of the Towns of Neeses and Gaston. There is a small industrial park north of the Town of Pelion that may attract future industrial prospects. A sewer line from the Town of Swansea to the City of Cayce WWTP has been constructed, which may be an impetus for continued growth. Calhoun County is experiencing primarily residential growth in the northwestern "horse's neck" area of the county, adjacent to Lexington County, and along the northeastern part of the county near Lake Marion.

(Middle) North Fork Edisto River Watershed

(03050203-02)





