03050206-02

(Indian Field Swamp)

General Description

Watershed 03050206-02 (formerly 03050205-040) is located in Dorchester and Orangeburg Counties and consists primarily of ***Indian Field Swamp*** and its tributaries. The watershed occupies 101,993 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 36.7% forested land, 32.0% agricultural land, 24.8% forested wetland (swamp), 6.0% urban land, 0.2% water, 0.2% barren land, and 0.1% nonforested wetland (marsh).

Mill Branch and Snell Branch combine to form Indian Field Swamp, which eventually drains into the Edisto River. Downstream from the confluence, Dove Branch and Wadboo Branch (Wadboo Swamp) enter the stream, followed by Spring Branch, Big Branch, Tom and Kate Branch, Pineland Branch, Millpond Branch, and Gum Branch. Polk Swamp (Bear Branch, Cowtail Creek) flows into Indian Field Swamp at the base of the watershed. There are a total of 462.0 stream miles and 180.1 acres of lake waters in this watershed. Indian Field Swamp, Gum Branch, and Polk Swamp are classified FW* (Site specific standards - DO not less than 4.0 mg/l, pH between 5.0-8.5 SU), and the remaining streams are classified FW.

Surface Water Quality

Station #	Type	Class	Description
E-597	BIO	FW*	INDIAN FIELD SWAMP AT US 78
RS-05572	RS05	FW*	GUM BRANCH AT S-18-167, 4.9 MI SE OF ST. GEORGE
E-032	INT	FW*	INDIAN FIELD SWAMP AT S-18-19
E-016	W	FW*	POLK SWAMP AT S-18-180, 2 MILES S OF ST. GEORGE
E-109	INT/BIO	FW*	POLK SWAMP AT S-18-19

Indian Field Swamp – There are two SCDHEC monitoring stations along Indian Field Swamp. At the upstream site ***(E-597)***, aquatic life uses are fully supported based on macroinvertebrate community data. At the downstream site ***(E-032)***, aquatic life uses are partially supported due to dissolved oxygen excursions. There is a significant increasing trend in pH. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

Gum Branch (RS-05572) – Aquatic life uses are fully supported, but recreational uses are not supported due to fecal coliform bacteria excursions.

Polk Swamp - There are two SCDHEC monitoring stations along Polk Swamp. Aquatic life uses are not supported at the upstream site ***(E-016)*** due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. A significant decreasing trend in total nitrogen concentration suggests improving conditions for this parameter. Recreational uses are fully supported. Although dissolved oxygen excursions occurred at the downstream site ***(E-109)***, aquatic life uses are fully supported based on macroinvertebrate

community data. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

NPDES Permitted Activities

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME*	*NPDES#* *TYPE*
TOM AND KATE BRANCH ARGOS CEMENT LLC/HARLEYVILLE CEMENT PLT	SC0022586 MINOR INDUSTRIAL
TOM AND KATE BRANCH TOWN OF HARLEYVILLE	SC0038504 MINOR DOMESTIC
POLK SWAMP DORCHESTER CO./UPPER DORCHESTER CO. WWTP	SC0025844 MINOR DOMESTIC

Nonpoint Source Permitted Activities

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
PAUL W. JONES HAULING P&M MINE	0950-35 SAND
ARGOS CEMENT LLC HARLEYVILLE QUARRY	0110-35 LIME

Growth Potential

Portions of this watershed, which contains the Towns of Reevesville and St. George, and a portion of the Town of Harleyville, have a moderate to high potential for growth. Interstate 95 crosses US 78 near St. George in the center of the watershed. This interchange area has a high growth potential, particularly as segments of US 78 are widened. The I-95 interchange with US 178 is another growth area. A rail line parallels US 78 through St. George and together with the presence of I-95, provides a high industrial growth potential. A growth of over 900 residential units (2010 - 2035) is estimated for this watershed.

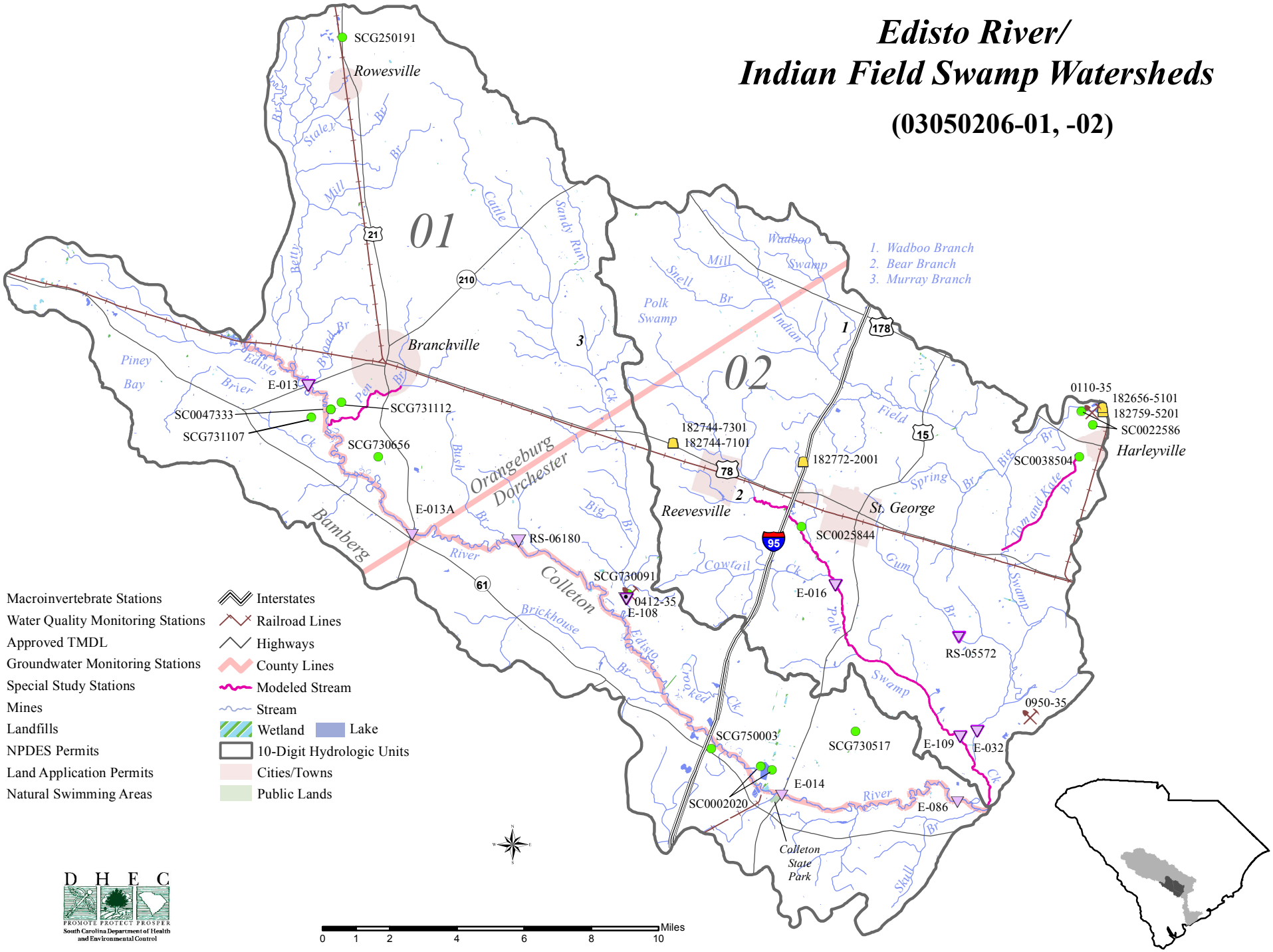
Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

A TMDL was developed by SCDHEC and approved by EPA for **Indian Field Swamp** at water quality monitoring site E-032. TMDLs determine the maximum amount of fecal coliform bacteria waterbodies can receive from sources and still meet water quality standards. There is one minor permitted wastewater treatment facility in the watershed. This watershed has no designated or potential MS4s. Probable sources of fecal coliform bacteria that were identified in the watershed are grazing animals, especially cattle with access to streams, failing septic

systems, urban runoff, and wildlife. The TMDL states that a reduction of 60% in fecal coliform loading is necessary for the stream to meet the recreational use standard.

TMDLs were developed by SCDHEC and approved by EPA for **Polk Swamp** at water quality monitoring sites E-016 and E-109. There is one minor permitted wastewater treatment facility in the watershed. This watershed has no designated or potential MS4s. Probable sources of fecal coliform bacteria that were identified in the watershed are grazing animals, especially cattle with access to streams, failing septic systems, and wildlife. The TMDLs state that reductions of 43% and 52% in fecal coliform loading are necessary for the stream to meet the recreational use standard.


Edisto River/
Indian Field Swamp Watersheds
(03050206-01, -02)
01
02
1. Wadboo Branch
2. Bear Branch
3. Murray Branch
SCG250191
Rowesville
Branchville
Reevesville
St. George
Harleyville
Orangeburg
Dorchester
Bamberg
Colleton
Colleton State Park
E-013
SC0047333
SCG731107
SCG731112
SCG730656
E-013A
RS-06180
SCG730091
0412-35
E-108
182744-7301
182744-7101
182772-2001
SC0025844
E-016
RS-05572
0110-35
182656-5101
182759-5201
SC0022586
SC0038504
0950-35
SCG750003
SCG730517
E-109
E-032
E-014
SC0002020
E-086
Macroinvertebrate Stations
Water Quality Monitoring Stations
Approved TMDL
Groundwater Monitoring Stations
Special Study Stations
Mines
Landfills
NPDES Permits
Land Application Permits
Natural Swimming Areas
Interstates
Railroad Lines
Highways
County Lines
Modeled Stream
Stream
Wetland
Lake
10-Digit Hydrologic Units
Cities/Towns
Public Lands
D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control
0 1 2 4 6 8 10
Miles