

03050202-020

(Cypress Swamp/Ashley River)

General Description

Watershed 03050202-020 is located in Dorchester and Berkeley Counties and consists primarily of the *Cypress Swamp* and the *Ashley River* and their tributaries from Captains Branch to Dorchester Creek. The watershed occupies 48,172 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Daleville-Jedburg-Meggett-Brookman series. The erodibility of the soil (K) averages 0.28 and the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 65.9% forested land, 10.5% urban land, 10.4% forested wetland, 8.5% agricultural land, 2.7% scrub/shrub land, 1.4% nonforested wetland, 0.3% water, and 0.3% barren land.

Cypress Swamp accepts drainage from Captains Creek (McKeown Branch), Platt Branch, Rumphs Hill Creek (Negro Branch), Tina Branch, and Hurricane Branch. The confluence of Cypress Swamp and Hurricane Branch forms the headwaters of the Ashley River near the Town of Summerville. The river then flows through Bobs Lake and Schultz Lake to Bacon Bridge and drains into the lower Ashley River. The river is classified FW upstream of Bacon Bridge, and classified SA downstream of the bridge. There are a total of 83.5 stream miles, 237.9 acres of lake waters, and 38.9 acres of estuarine areas in this watershed. Givhans Ferry State Park is located in the headwaters of this watershed.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CSTL-102	P/INT	FW/SA	ASHLEY RIVER AT SC 165 4.8 MI SSW OF SUMMERVILLE

Ashley River (CSTL-102) - Aquatic life uses are not supported for both fresh and saltwater classifications due to dissolved oxygen excursions. A significant increasing trend in pH occurred with both classifications. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration occurred with both classifications, suggesting improving conditions for these parameters. Recreational uses are partially supported for both classifications due to fecal coliform bacteria excursions, which are compounded by a significant increasing trend in fecal coliform bacteria concentration.

A fish consumption advisory has been issued by the Department for mercury and includes portions of the Ashley River within this watershed (see advisory p.69).

NPDES Program

Active NPDES Facilities

RECEIVING STREAM

FACILITY NAME

PERMITTED FLOW @ PIPE (MGD)

NPDES#

TYPE

COMMENT

ASHLEY RIVER
CWS/TEAL-ON-THE-ASHLEY
PIPE #: 001 FLOW: 0.03

SC0030350
MINOR DOMESTIC

PLATT BRANCH
LINQ INDUSTRIAL FABRICS, INC.
PIPE #: 001 FLOW: M/R

SC0003905
MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME

FACILITY TYPE

PERMIT #

STATUS

AMERIACAN RESOURCES INC.

182415-5201

WESTCO PLANTATION
INDUSTRIAL

182437-1201 (IWP-138, CWP-036)
ACTIVE

Mining Activities

MINING COMPANY

MINE NAME

PERMIT #

MINERAL

MURRAY MINES, INC.
MURRAY MINE

0044-35
SAND

JENNER TRUCKING & CONSTRUCTION, INC.
JENNER RECYCLING

1355-35
CLAY

PALMETTO SAND CO.
THE PONDS

1150-35
SAND

Growth Potential

There is a high potential for growth in this watershed, which contains a portion of the Town of Summerville, and water and sewer services are available to these growth areas.

Watershed Protection and Restoration

Total Maximum Daily Loads (TMDLs)

Two TMDLs addressing dissolved oxygen were developed by SCDHEC for the *Charleston*

Harbor Estuary: one covering the *Ashley River* and the other covering the Charleston Harbor, the Cooper River, and the Wando River. The Ashley River portion of the system contains watersheds 03050202-020 and 03050202-040. Dissolved oxygen violations at two stations along the Ashley River (CSTL-102 and MD-049) are considered natural due to conditions exacerbated by point and nonpoint sources of pollution. A water quality model was developed to predict the impact of point source dischargers on dissolved oxygen concentration in the system. Results indicate the need for an overall 36% reduction in discharge of ultimate oxygen demand (UOD) to the Ashley River. For more detailed information on TMDLs, please visit the SCDHEC's Bureau of Water homepage at <http://www.scdhec.gov/water> and click on "Watersheds and TMDLs" and then "TMDL Program".

Special Models

Charleston Harbor System TMDLs

The modeling efforts for Charleston Harbor and its tributaries have been completed and phased TMDLs for the Ashley and the Cooper systems have been issued by the Department and approved by EPA Region 4. Interim TMDL limits were included in NPDES permits for a number of dischargers while final TMDL limits were included for some dischargers who were already meeting the final limits. Permits included compliance schedules that allowed the opportunity for additional modeling work to be completed before compliance with final limits is required. A group of dischargers working through the local Councils of Government has initiated another modeling effort that is currently underway. If this effort is successfully completed within the allotted time, the existing TMDLs will be revised and, as appropriate, new limits incorporated into NPDES permits for discharges covered by the TMDL.

Cypress Swamp, Ashley River, and Dorchester Creek/Eagle Creek Watersheds

(03050202-010, -020,-030)

-  Mines
-  Landfills
-  Water Quality Monitoring Sites
-  Groundwater Monitoring Sites
-  NPDES Permits
-  Highways
-  Interstate
-  Rail lines
-  Modeled Streams
-  Streams
-  County Lines
-  Lakes
-  SCDHEC 11-Digit Hydrologic Units
-  City
-  Public Lands

