03050202-030

(Dorchester Creek/Eagle Creek)

General Description

Watershed 03050202-030 is located in Berkeley, Charleston, and Dorchester Counties and consists primarily of ***Dorchester Creek and Eagle Creek*** and their tributaries. The watershed occupies 21,785 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Yauhannah-Yemassee-Meggett-Brookman series. The erodibility of the soil (K) averages 0.15 and the slope of the terrain averages 1%, with a range of 0-6%. Land use/land cover in the watershed includes: 47.7% forested land, 44.6% urban land, 3.2% agricultural land, 2.9% scrub/shrub land, 1.2% forested wetland, 0.2% barren land, 0.1% nonforested wetland, and 0.1% water.

Sawmill Branch (Limehouse Branch, Stroberfield Branch) flows past the Town of Summerville and is joined by Rose Creek to form Dorchester Creek, which flows into the Ashley River. Sawmill Branch is classified FW, and Dorchester Creek takes on the classification of the Ashley River, which is SA. Limehouse Branch is connected to Ancrum Swamp in watershed 03050201-070. Eagle Creek (SB) accepts drainage from Chandler Bridge Creek, Spencer Branch, and Federwitz Branch before draining into the Ashley River. There are a total of 27.2 stream miles, 36.4 acres of lake waters, and 105.6 acres of estuarine areas in this watershed.

Surface Water Quality

Station #	Type	Class	Description
CSTL-043	S/W	FW	SAWMILL BRANCH AT SC 78 E OF SUMMERVILLE
CSTL-013	P/INT	SA	DORCHESTER CREEK AT SC 165
CSTL-099	P/W	SB	EAGLE CREEK AT SC 642 5 MI SSE OF SUMMERVILLE

***Sawmill Branch (CSTL-043)* -** Aquatic life uses are not supported due to dissolved oxygen excursions. There is a significant increasing trend in pH. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Dorchester Creek (CSTL-013)* -** Aquatic life uses are partially supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. Significant decreasing trends in five-day biochemical oxygen demand, turbidity, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Eagle Creek* (CSTL-099) -** Aquatic life uses are not supported due to turbidity excursions. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-022	GB	BLACK CREEK/MIDDENDORF	SUMMERVILLE NO.5

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME / *FACILITY TYPE*	*PERMIT #* / *STATUS*
TOWN OF SUMMERVILLE MUNICIPAL	181002-6001 ---------

Mining Activities

MINING COMPANY / *MINE NAME*	*PERMIT #* / *MINERAL*
L.J., INC. SHELLMORE FARMS MINE	0644-35 SAND/CLAY
ADDCO MINING CO. EVERGREEN MINE	0252-35 SAND

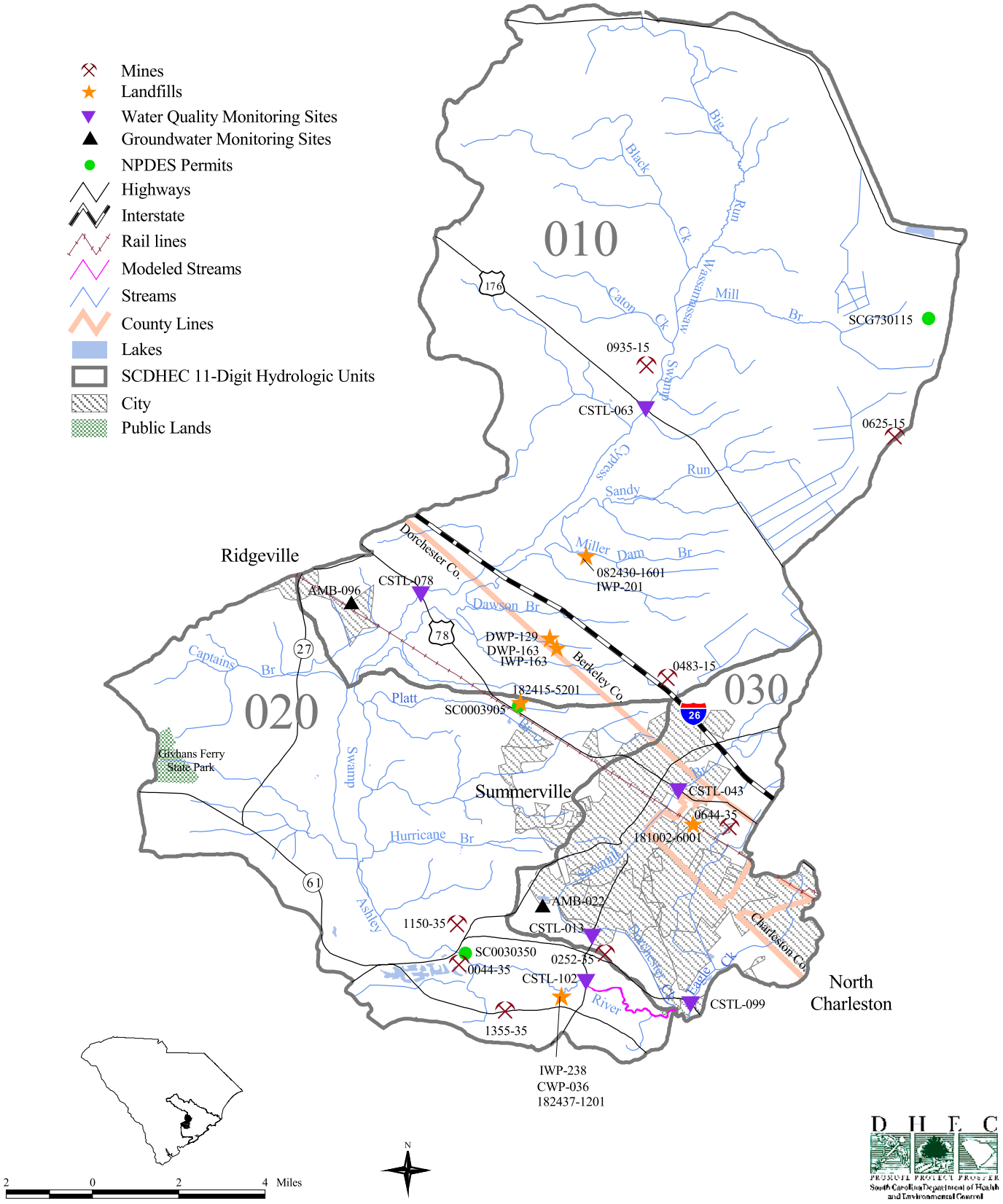
Growth Potential

There is a high potential for growth in this watershed, which contains portions of the Towns of Summerville and Ladson and the City of North Charleston. Water and sewer services are available in these growth areas.

Watershed Protection and Restoration

Total Maximum Daily Loads (TMDLs)

A TMDL was developed by SCDHEC and approved by EPA for ***Sawmill Branch*** water quality monitoring site CSTL-043 and for ***Dorchester Creek*** site CSTL-013 to determine the maximum amount of fecal coliform bacteria it can receive from nonpoint sources and still meet water quality standards. Most of Sawmill Branch and Dorchester Creek have been straightened and channelized. This separates them from their flood plains, removes large woody debris, and eliminates most shade. The primary sources of fecal coliform to the streams were determined to be runoff from urbanized land in the watershed. The TMDL states that a 96% reduction in fecal coliform loading from urban sources for Sawmill Branch and a 93% reduction for Dorchester Creek is necessary for the streams to meet the recreational use standard. 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".

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

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