

03040206-08
(Kingston Lake)

General Description

Watershed 03040206-08 is located in Horry County and consists primarily of *Kingston Lake* and its tributaries. The watershed occupies 83,444 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 36.2% forested wetland, 28.0% agricultural land, 23.5% forested land, 9.9% urban land, 1.9% nonforested wetland, 0.4% water, and 0.1% barren land.

Kingston Lake accepts drainage from Jacks Bay, Alligator Swamp, and White Oak Swamp. White Oak Swamp receives drainage from Little White Oak Swamp (Cane Branch), Horsepen Branch, Huckleberry Branch, Bug Swamp (Bay Gully Branch, Bayboro Branch, Hellhole Swamp), and Fox Branch. Camp Swamp enters the system next followed by Horsepen Creek, Maple Swamp (Big Baxter Swamp, Little Baxter Swamp, Horse Creek, Cross Branch, Poplar Swamp, Booth Branch, Smith Branch, Boggy Swamp), Grier Swamp (Priver Branch, Mill Branch, Long Swamp, St. Paul Branch, Brown Swamp, Mary Branch), and Crab Tree Swamp (Ned Creek, Thompson Swamp, Oakey Swamp, Beaver Hole Swamp, Altman Branch). The Kingston Lake Watershed drains into the Waccamaw River. There are a total of 183.8 stream miles and 161.8 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-10389	RS10	FW	BROWN SWAMP AT US 701
RS-04375	RS04	FW	CRAB TREE SWAMP AT US 501 BRIDGE, 1.5 MI NW OF CONWAY
MD-158	S/W	FW	CRAB TREE SWAMP AT LONG ST. BELOW CONWAY #1 POND OUTFALL
MD-107	S/INT	FW	KINGSTON LAKE NEAR PUMP STATION ON LAKESIDE DRIVE IN CONWAY

Brown Swamp (RS-10389) – Aquatic life uses are not supported due to dissolved oxygen excursions. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are fully supported.

Crab Tree Swamp – There are two monitoring stations along Crab Tree Swamp. At the upstream site (**RS-04375**), aquatic life uses are fully supported. Recreational uses are not supported due to fecal coliform bacteria excursions. At the downstream site (**MD-158**), aquatic life uses are not supported due to dissolved oxygen excursions and recreational uses are not supported due to fecal coliform bacteria excursions.

Kingston Lake (MD-107) – Aquatic life uses are not supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. Recreational uses are not supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

*RECEIVING STREAM
FACILITY NAME*

*NPDES#
TYPE*

MAPLE SWAMP
HOT MIX, INC./ADRIAN MINE

SCG730422
MINOR INDUSTRIAL

CRAB TREE SWAMP
BROWNS MOBILE HOME PARK/BROWN MINE

SCG731247
MINOR INDUSTRIAL

BUG SWAMP
FAITH LANDSCAPING-CAROLINA MINE

SCG731301
MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

*RECEIVING STREAM
MUNICIPALITY
RESPONSIBLE PARTY
IMPLEMENTING PARTY*

*NPDES#
MS4 PHASE
MS4 SIZE*

KINGSTON LAKE
CITY OF CONWAY
CITY OF CONWAY
CITY OF CONWAY

SCR035103
PHASE II
SMALL MS4

Nonpoint Source Management Program

Mining Activities

*MINING COMPANY
MINE NAME*

*PERMIT #
MINERAL*

HOT MIX, INC.
ADRIAN MINE

1489-51
SAND

BROWNS MOBILE HOME PARK
BROWN MINE

2029-51
SAND/TOP SOIL

Water Quantity

Portions of this watershed fall within the Waccamaw Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.22).

Growth Potential

There is a moderate potential for residential and commercial growth in this watershed, which contains a portion of the City of Conway. Water and sewerage infrastructure is located in and around Conway, and water is available along the U.S. Hwy 701 corridor. An industrial area is located along U.S. Hwy 701 and should see growth due to an existing rail line and highways that make the area accessible from all directions. The proposed Preferred Alternative route of I-73 (Southern Corridor) would cross this watershed and could bring some growth to the area, especially around interchanges.

Watershed Protection and Restoration

Special Projects

Wetland Program Development Grant

In 2005, USEPA Region IV awarded a 4-year Wetland Program Development Grant to build local capacity for watershed planning in the Kingston Lake Watershed. Coastal Carolina University's Waccamaw Watershed Academy is serving as the lead agency. Collaborators include Horry County, the City of Conway, and the Waccamaw Regional Council of Governments along with various state and federal agencies including SCDHEC's BOW and OCRM. The primary project goal is development of a watershed management plan. Current activities include a volunteer monitoring program compliant with USEPA quality control criteria with online data access. The increased local capacity for watershed planning is intended to stimulate and support similar efforts in the other watersheds of the Waccamaw River Basin. These efforts are a follow on to a USEPA 319 Program project conducted from 1999 to 2002 in which significant nonpoint pollution problems were quantified. A demonstration stormwater BMP was also assessed for pollution removal efficiency and is now being used as an educational resource.

Crabtree Swamp Water Quality Improvement Project

In 2008, Horry County and the City of Conway signed a Memorandum of Understanding with the Horry Soil and Water Conservation District and Crabtree Swamp Watershed Conservation District to undertake an initiative to restore Crabtree Swamp to a more natural state. In 2009, the group completed the first phase of a floodplain restoration project with help from project partners that included Coastal Carolina University, Clemson University, the U.S. Fish and Wildlife Service, USDA/NRCS, SCDHEC, and USEPA. The project was designed to increase flood storage capacity, stabilize canal banks, filter pollutants from water with native plantings, and provide wildlife habitat. In 2012, the project received a 319 Grant with the goal of improving water quality by reducing bacteria levels within the watershed to allow for improved water quality at impaired stations MD-158 and MD-107. Project leaders continue to help livestock producers implement best management practices and to repair and replace failing septic systems. The project also has an education component geared toward improving water quality awareness in the community. Project monitoring and assessment are ongoing. The project is scheduled to be completed in the fall of 2015.

Kingston Lake Watershed

(03040206-08)

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

