

03050201-01

(*Lake Moultrie*)

General Description

Watershed 03050201-01 (formerly 03050201-010 less the Tailrace Canal) is located in Berkeley County and consists primarily of *Lake Moultrie* and its tributaries. The watershed occupies 78,638 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 70.4% water, 11.6% forested land, 10.3% forested wetland, 2.9% agricultural land, 2.5% urban land, 2.1% nonforested wetland, and 0.2% barren land.

Lake Moultrie (also known as Pinopolis Reservoir) was created by diverting the Santee River (Lake Marion) through a 7.5 mile Diversion Canal filling a levee-sided basin and impounding it with the Pinopolis Dam. South Carolina Public Service Authority (Santee Cooper) oversees the operation of Lake Moultrie, which is used for power generation, recreation, and water supply. Other bays and swamps draining into the lake include Todd Bay and Duck Pond Creek on the western shore, and Bulltown Ditch, Bulltown Bay, Kirk Swamp, and Crooked Bay on the northern shore. The Tailrace Canal flows out of the Pinopolis dam connecting Lake Moultrie with the West Branch Cooper River near the Town of Moncks Corner, and the Rediversion Canal connects Lake Moultrie with the lower Santee River. There are a total of 14.5 stream miles and 56,759.9 acres of lake waters in this watershed, all classified FW. Additional natural resources in the watershed include the Dennis Wildlife Center near the Town of Bonneau, Sandy Beach Water Fowl Area along the northern lakeshore, and the Santee National Wildlife Refuge covering the lower half of the lake.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CSTL-079/SC-025	W/SC	FW	DIVERSION CANAL AT SC 45 12.6 MI W OF ST. STEPHENS
SC-043	SC	FW	TRIB FLOWING TO LAKE MOULTRIE FROM CROSS GENERATING STATION
SC-026	SC	FW	LAKE MOULTRIE TRIB 0.4 MI UPSTREAM OF SC 6
SC-027	SC	FW	SW QUADRANT OF LAKE MOULTRIE, 0.75 MI E OF SHORELINE
SC-028	SC	FW	NW QUADRANT OF LAKE MOULTRIE NEAR ANGEL'S LANDING COVE
RL-07022	RL-07	FW	LAKE MOULTRIE N END APPROX 1.6MI SE OF OLD CANAL
RL-04462	RL-04	FW	LAKE MOULTRIE, 4.2MI SW OF RUSSELVILLE
RL-07030	RL-07	FW	LAKE MOULTRIE, APPROX. 0.6MI SSW OF REDIVERSION CANAL MOUTH
SC-031	SC	FW	NORTHERN QUAD OF L. MOULTRIE AT MOUTH OF REDIVERSION CANAL
RL-04364	RL-04	FW	LAKE MOULTRIE, 303MI NW OF BONNEAU BEACH
RL-05396	RL-05	FW	LAKE MOULTRIE, 6.25MI WNW OF BONNEAU
RL-07018	RL-07	FW	LAKE MOULTRIE, APPROX. 2.3MI SE OF DIVERSION CANAL
RL-04362	RL-04	FW	LAKE MOULTRIE, 2.2MI SE OF CROSS
RL-08066	RL-08	FW	LAKE MOULTRIE, W END 1MI E OF FRED DAY LANDING
SC-034	SC	FW	DUCK POND CREEK AT SC 6
RL-08050	RL-02	FW	SW LAKE MOULTRIE IN OPEN WATER
ST-037/SC-030	INT/SC	FW	LAKE MOULTRIE AT CHANNEL MARKER 17
RL-07014	RL-07	FW	NE LAKE MOULTRIE, APPROX. 3MI W OF JEHOVAH GOOD SHEPHERD
RL-05400	RL-05	FW	LAKE MOULTRIE, 3.7MI WNW OF BONNEAU
RL-06450	RL-06	FW	LAKE MOULTRIE, 1.7MI WSW OF BONNEAU
SC-046	SC	FW	SE QUADRANT OF LAKE MOULTRIE AT PINOPOLIS EMBAYMENT
SC-032	SC	FW	SE QUADRANT OF LAKE MOULTRIE AT CHANNEL MARKER 2

Diversion Canal (CSTL-079/SC-025) - Aquatic life uses are fully supported; however, there is a significant increasing trend in turbidity. There is a significant increasing trend in pH. Significant decreasing trends in five-day biological oxygen demand, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported.

Lake Moultrie Tributary (SC-043) - Aquatic life uses are partially supported due to occurrences of copper in excess of the aquatic life criterion. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Lake Moultrie Tributary near Hwy 6 (SC-026) - Aquatic life uses are fully supported. Recreational uses are not supported due to fecal coliform bacteria excursions.

Lake Moultrie – There are thirteen SCDHEC monitoring sites in the open waters of Lake Moultrie and six South Carolina Public Service Authority - Santee Cooper (SCPSA) monitoring sites, many overlapping to provide greater coverage of a site. All lake sites are fully supported for recreational uses. Aquatic life uses are fully supported in the northwest quadrant of the lake at monitoring sites ***SC-028, SC-027, and RL-07018***. In the southwest quadrant, aquatic life uses are fully supported at ***RL-04362*** and ***RL-08066***, and are not supported at ***RL-08050*** due to ammonia excursions.

In the northeast quadrant of the lake, aquatic life uses are fully supported at monitoring sites ***RL-07022, RL-05396, RL-04364, RL-04462, RL-07030, SC-031, RL-07014, and RL-05400***. In the southeast quadrant, aquatic life uses are fully supported at ***SC-046***. Aquatic life uses are also fully supported at ***ST-037*** and significant decreasing trends in total nitrogen concentration suggest improving trends for this parameter at this site. Aquatic life uses are partially supported at ***SC-032*** due to pH excursions. Aquatic life uses are fully supported at ***RL-06450***. Although pH excursions occurred, they were typical of values seen in lake systems and were considered natural, not standard violations.

Duck Pond Creek (SC-034) – Aquatic life and recreational uses are fully supported. Although pH excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations.

A fish consumption advisory has been issued by the Department for mercury and includes the Diversion Canal and Lake Moultrie within this watershed. For more information and the most current advisory, visit <http://www.scdhec.gov/fish>.

Natural Swimming Areas

<i>FACILITY NAME</i>	<i>PERMIT #</i>
<i>RECEIVING STREAM</i>	<i>STATUS</i>
OVERTON RECREATION PARK LAKE MOULTRIE	08-1012N ACTIVE
SHORT STAY LAKE MOULTRIE	08-1061N ACTIVE
SOMERSET POINT LAKE MOULTRIE	08-N06 ACTIVE
LIONS BEACH LAKE MOULTRIE	08-N01 ACTIVE
BERKELEY FAMILY YMCA LAKE MOULTRIE	08-1006N ACTIVE

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM</i>	<i>NPDES#</i>
<i>FACILITY NAME</i>	<i>TYPE</i>
LAKE MOULTRIE SCPSA/CROSS GENERATING STATION	SC0037401 MAJOR INDUSTRIAL
LAKE MOULTRIE US NAVY/SHORT STAY REC. FAC.	SC0024708 MINOR INDUSTRIAL
LAKE MOULTRIE BERKELEY COUNTY/CROSS HIGH SCHOOL	SC0027103 MINOR DOMESTIC
DUCK POND CREEK BERKELEY COUNTY/CROSS ELEM SCHOOL	SC0034479 MINOR DOMESTIC
LAKE MOULTRIE GA PACIFIC CORP.	SCG250240 MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

<i>LANDFILL NAME</i>	<i>PERMIT #</i>
<i>FACILITY TYPE</i>	<i>STATUS</i>
SCPSA/CROSS GENERATING STATION INDUSTRIAL	083337-1601 ACTIVE

Water Quantity

<i>WATER USER</i>	<i>REG. CAPACITY (MGD)</i>
<i>STREAM</i>	<i>PUMP. CAPACITY (MGD)</i>
SANTEE COOPER REG. WTR. AUTH.	36.0
LAKE MOULTRIE	48.0

Growth Potential

There is a moderate potential for growth in this watershed. Lake Moultrie contributes significantly to the growth in the area in terms of fishery tourism and residential development. The Towns of Monk Corner, Cross, and Bonneau should benefit from the lake-based growth. Monks Corner provides both water and sewer services and may encourage future growth. The Pinopolis peninsula has low density residential, including several historic structures, and a Santee Cooper semi-private recreation/conference center. There is a regional domestic water supply system on Lake Moultrie near Lions Beach (water withdrawn from Pinopolis cove) that serves the Berkeley County Water and Sewer Authority, Moncks Corner, Goose Creek, and the Summerville Public Service Area.

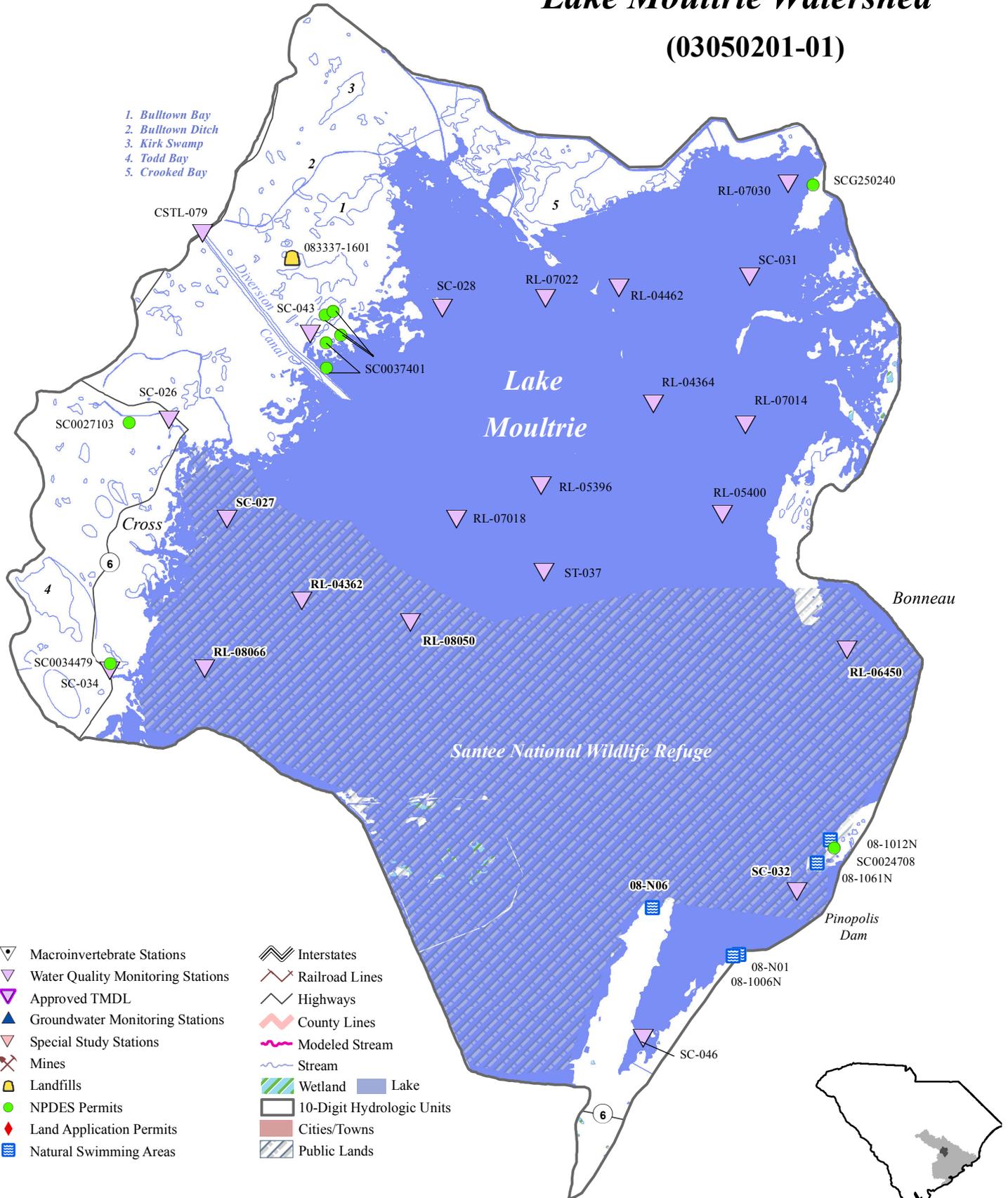
Special Projects

Santee Cooper FERC Relicensing

Hydroelectric projects require licenses issued by the Federal Energy Regulatory Commission in order to operate. These licenses require re-evaluation periodically in order to incorporate new information for the protection of the common good and typically last from 30 to 50 years. In addition to economic factors, a wide variety of natural resource elements can be considered including: reservoir water quality, downstream water quality, fisheries issues, flow issues, and shoreline management issues. State and federal agencies as well as citizens and nonprofit groups have been meeting to discuss these issues in the Santee Cooper re-licensing process. All federal permits, which have any bearing on waters of the state, must first receive a §401 water quality certification. The §401 water quality certification will be SCDHEC's main responsibility in the process. Santee Cooper is presently operating under an annual renewal of the existing license until a final assessment of the application filed with the FERC is completed. For more information on Santee Cooper's re-licensing, view their website at:

<http://www.santeecooper.com/environment/ferc/index.html> .

Lake Moultrie Watershed (03050201-01)



1. Bulltown Bay
2. Bulltown Ditch
3. Kirk Swamp
4. Todd Bay
5. Crooked Bay

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|--|-----------------------------------|--|---------------------------|
| | Macroinvertebrate Stations | | Interstates |
| | Water Quality Monitoring Stations | | Railroad Lines |
| | Approved TMDL | | Highways |
| | Groundwater Monitoring Stations | | County Lines |
| | Special Study Stations | | Modeled Stream |
| | Mines | | Stream |
| | Landfills | | Wetland |
| | NPDES Permits | | Lake |
| | Land Application Permits | | 10-Digit Hydrologic Units |
| | Natural Swimming Areas | | Cities/Towns |
| | | | Public Lands |

