

03060101-08

(Seneca River/Lake Hartwell)

General Description

Watershed 03060101-08 (formerly 03060101-040 minus Six and Twenty Creek and a portion of Coneross Creek) is located in Oconee, Pickens, and Anderson Counties and consists primarily of the *Seneca River arm of Lake Hartwell*. The watershed occupies 68,085 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 49.9% forested land, 19.6% water, 17.0% agricultural land, 12.2% urban land, 1.0% barren land, and 0.3% forested wetland (swamp). A map depicting this watershed is found in Appendix A, page A-39.

The Keowee River flows out of the Keowee Dam and accepts drainage from Fourmile Creek, the Little River (flowing out of the Little River Dam), Sixmile Creek (Wildcat Creek, Lake Issaqueena), and the Twelvemile Creek watershed before merging with Seneca Creek to form the Seneca River. Downstream of the confluence, the Seneca River accepts drainage from Shiloh Branch, Martin Creek, the Coneross Creek watershed, Camp Creek, the Eighteenmile Creek watershed, and the Deep Creek/Lake Hartwell watershed. There are a total of 170.6 stream miles and 13,028.6 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>
SV-249	W	FW	LAKE HARTWELL HEADWATERS, KEOWEE RIVER ARM AT SC 183
SV-205	W/BIO	FW	SIXMILE CREEK AT S-39-160
SV-683	BIO	FW	WILDCAT CREEK AT CLEMSON UNIV. REC. AREA OFF SC 133
SV-360	W	FW	LAKE ISSAQUEENA, FOREBAY EQUIDISTANT FROM DAM AND SHORELINE
RL-06432	RL06	FW	LAKE ISSAQUEENA, 0.1 MI N OF SPILLWAY
SV-106	W	FW	MARTIN CREEK ARM OF LAKE HARTWELL AT S-37-65 N OF CLEMSON
RL-04378	RL04	FW	L. HARTWELL, SENECA R. ARM 0.8 MI WNW OF CLEMSON LOOKOUT TOWER
RL-02330	RL02	FW	L. HARTWELL, 0.4 MI SE OF OCONEE/ANDERSON LINE, 5 MI W OF SANDY SPRINGS
SV-288	W	FW	L. HARTWELL, SENECA R. ARM AT USACE BUOY BETW MRKRS S-28A & S-29
RL-05417	RL05	FW	L. HARTWELL, 0.3 MI S OF SC 24 BRIDGE OVER SENECA R. ARM
SV-339	INT	FW	LAKE HARTWELL, SENECA R. ARM AT USACE BUOY BETW MRKRS S-14 & S-15

Keowee River Arm of Lake Hartwell (SV-249) – Aquatic life and recreational uses are fully supported. There is a significant increasing trend in pH. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters.

Sixmile Creek (SV-205) – Aquatic life uses are fully supported based on macroinvertebrate community data; however, there is a significant increasing trend in five-day biochemical oxygen demand. Recreational uses are not supported due to fecal coliform bacteria excursions.

Wildcat Creek (SV-683) - Aquatic life uses are fully supported based on macroinvertebrate community data.

Lake Issaqueena – There are two SCDHEC monitoring stations along Lake Issaqueena (**SV-360, RL-06432**). Aquatic life and recreational uses are fully supported at both sites; however, there is a significant increasing trend in total nitrogen concentration at the upstream site (**SV-360**).

Martin Creek Arm of Lake Hartwell (SV-106) – Aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand.

Seneca River Arm of Lake Hartwell - There are five SCDHEC monitoring stations along the Seneca River Arm of Lake Hartwell. At the furthest uplake sites (**RL-04378, RL-02330**), aquatic life and recreational uses are fully supported. Moving downlake (**SV-288**), aquatic life and recreational uses are fully supported. There is a significant increasing trend in pH. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters at this site. Aquatic life and recreational uses are again fully supported at **RL-05417**. At the furthest downlake site (**SV-339**), aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters at this site.

Natural Swimming Areas

FACILITY NAME RECEIVING STREAM	PERMIT # STATUS
FOOTHILLS YMCA LAKE HARTWELL	37-N07 ACTIVE

A fish consumption advisory has been issued by the Department for PCBs (Polychlorinated biphenols) and includes Lake Hartwell and the Seneca River arm of Lake Hartwell within this watershed (see advisory p.38).

NPDES Program

Active NPDES Facilities

RECEIVING STREAM FACILITY NAME	NPDES# TYPE
KEOWEE RIVER TRIBUTARY DUKE POWER/OCONEE NUCLEAR	SC0000515 MAJOR INDUSTRIAL
KEOWEE RIVER (INTERNAL) DUKE POWER/OCONEE NUCLEAR	SC0000515 MAJOR INDUSTRIAL
KEOWEE RIVER TAILRACE DUKE POWER/OCONEE NUCLEAR	SC0000515 MAJOR INDUSTRIAL
LAKE HARTWELL JACABB UTILITIES LLC/POINTE WEST WWTP	SC0000591 MAJOR INDUSTRIAL

LAKE HARTWELL
CLEMSON UNIVERSITY WWTP

SC0034843
MAJOR DOMESTIC

LAKE HARTWELL
MILLIKEN & CO./DEFORE PLT

SC0023353
MINOR INDUSTRIAL

LAKE HARTWELL
CLEMSON UNIVERSITY/CENTRAL ENERGY

SC0022004
MINOR INDUSTRIAL

LAKE HARTWELL TRIBUTARY
ANITA INC.

SC0023311
MINOR DOMESTIC

Municipal Separate Storm Sewer Systems (MS4)

RECEIVING STREAM
MUNICIPALITY
RESPONSIBLE PARTY
IMPLEMENTING PARTY

NPDES#
MS4 PHASE
MS4 SIZE

LAKE HARTWELL
UNINCORPORATED AREAS
ANDERSON COUNTY
ANDERSON COUNTY

SCR030702
PHASE II
SMALL MS4

LAKE HARTWELL
CITY OF CLEMSON
CITY OF CLEMSON
CITY OF CLEMSON

PHASE II
SMALL MS4

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME
FACILITY TYPE

PERMIT #
STATUS

WELLS HWY LC&D LANDFILL
C & D

372649-1701
ACTIVE

JP STEVENS & CO.- DELTA #1
INDUSTRIAL

INACTIVE

WEST POINT HOME
INDUSTRIAL

373317-1601
INACTIVE

CLEMSON UNIVERSITY
LONG TERM C & D, LCD

041804-1202
ACTIVE

CLEMSON UNIVERSITY
SHORT TERM C & D, LCD

041804-1301
INACTIVE

DUKE POWER-BAD CREEK
INDUSTRIAL

INACTIVE

Land Application Sites

LAND APPLICATION SYSTEM
FACILITY NAME

ND#
TYPE

LAGOON
CLEMSON UNIVERSITY/COOPER SER. LAB.

ND0083003
INDUSTRIAL

Growth Potential

There is a moderate to high potential for growth in this watershed, which contains portions of the Town of Six Mile and the Cities of Clemson and Anderson. Residential growth should occur along SC 133 from Clemson to Six Mile. Another growth area surrounds the intersection of I-85 and SC 81, near Six and Twenty Creek. The presence of I-85 and four-lane US 76 to the west of Anderson are attracting industrial growth. Clemson is one of the largest manufacturing areas in the upstate region. Future growth of the manufacturing industry is dependent on infrastructure expansion, which is dependent on the capacity of existing facilities to treat the effluent, and on the assimilative capacity of surrounding streams to absorb the effluent. Several wastewater treatment facilities in the area have been expanded and are able to serve expanding industrial growth.

Seneca River/Lake Hartwell Watershed

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- ▽ 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
- 🟦 Lake
- 🟩 Wetland
- 📏 10-Digit Hydrologic Units
- 🏘️ Cities/Towns
- 🌲 Public Lands

