

03050109-06

(Reedy River/Lake Greenwood)

General Description

Watershed 03050109-06 (formerly 03050109-120 plus the Reedy River Arm of Lake Greenwood) is located in Greenville and Laurens Counties and consists primarily of the lower **Reedy River** and its tributaries from Huff Creek to **Lake Greenwood**. The watershed occupies 79,299 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 59.7% forested land, 29.7% agricultural land, 5.4% urban land, 2.4% forested wetland (swamp), 1.8% water, and 1.0% barren land.

This section of the Reedy River accepts drainage from the upper Reedy River watershed, Martin Creek, and Horse Creek before flowing through Boyd Mill Pond. The river then accepts the drainage from Walnut Creek and Long Lick Branch and forms an arm of Lake Greenwood. There are a total of 346.3 stream miles and 1,319.6 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> |
|------------------|-------------|--------------|----------------------------------------------------------------|
| S-835 | BIO | FW | REEDY RIVER AT SR 985 |
| S-986 | BIO | FW | MARTIN CREEK AT CRAIGS ROAD |
| S-778 | BIO | FW | REEDY RIVER AT SR 68 |
| S-862 | BIO | FW | HORSE CREEK AT SR 69 |
| S-070 | W | FW | REEDY RIVER AT US 76 |
| S-987 | BIO | FW | WALNUT CREEK, WARE SHOALS EAST #1 AT SR 347 |
| RL-05403 | RL05 | FW | BOYD MILL POND, 0.5 MI NW OF BRIDGE OVER REEDY RIVER ON SC 252 |
| S-311 | SUMM | FW | BOYD MILL POND 0.6 KM W OF DAM |
| S-861 | BIO | FW | WALNUT CREEK AT SR 64 |
| S-021 | INT | FW | REEDY RIVER AT S-30-06, E OF WARE SHOALS |
| S-308 | SUMM | FW | LAKE GREENWOOD, REEDY RIVER ARM 150YDS ABOVE RABON CREEK |
| S-022 | W | FW | LAKE GREENWOOD, REEDY RIVER ARM AT S-30-29 |

Reedy River – There are four SCDHEC monitoring stations along this section of the Reedy River. At the furthest upstream site (**S-835**), aquatic life is partially supported based on macroinvertebrate community data. At the next site downstream site (**S-778**), aquatic life is fully supported based on macroinvertebrate community data. Further downstream (**S-070**), aquatic life 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. A significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the furthest downstream site (**S-021**), aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Martin Creek (S-986) - Aquatic life uses are fully supported based on macroinvertebrate community data.

Horse Creek (S-862) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Walnut Creek – There are two SCDHEC monitoring stations along Walnut Creek. Aquatic life uses are fully supported at both sites (***S-987, S, 861***) based on macroinvertebrate community data.

Boyd Mill Pond - Boyd Mill Pond is a 182-acre impoundment on the Reedy River, with a maximum depth of approximately 31.2 feet and an average depth of approximately 12.1 feet. The lake’s watershed comprises 244.8 square miles. There are two SCDHEC monitoring stations along Boyd Mill Pond. At the upstream site (***RL-05403***), aquatic life uses are not supported due to pH and total phosphorus excursions. Recreational uses are fully supported. At the downstream site (***S-311***), aquatic life uses are not supported due to pH and total phosphorus excursions. In addition, there is a significant decreasing trend in dissolved oxygen concentration. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are fully supported at this site; however, there is a significant increasing trend in fecal coliform bacteria concentration.

Reedy River Arm of Lake Greenwood – There are two SCDHEC monitoring stations along the Reedy River Arm of Lake Greenwood, and recreational uses are fully supported at both sites. At the upstream site (***S-308***), aquatic life uses are not supported due to pH and total phosphorus excursions. Significant decreasing trends in total phosphorus and total nitrogen concentration suggest improving conditions for these parameters. At the downstream site (***S-022***), aquatic life uses are not supported due to pH excursions. A significant decreasing trend in turbidity suggests improving conditions for this parameter. *Fish tissue analyses on species caught from Lake Greenwood indicate no advisories or restrictions on consumption of fish from these waters.*

Groundwater Quality

| <u>Well #</u> | <u>Class</u> | <u>Aquifer</u> | <u>Location</u> |
|----------------------|---------------------|-----------------------|------------------------|
| AMB-062 | GB | SAPROLITE | FORK SHOALS SHALLOW |
| AMB-079 | GB | SAPROLITE | FORK SHOALS DEEP |

All water samples collected from above ambient monitoring wells meet standards for Class GB groundwater.

NPDES Permitted Activities

Active NPDES Facilities

*RECEIVING STREAM
FACILITY NAME*

*NPDES#
TYPE*

REEDY RIVER
WR GRACE & CO./MADDEN-KERNELLS MINE

SCG730035
MINOR INDUSTRIAL

HORSE CREEK
VULCAN CONSTR. MATERIALS CO./PRINCETON QUARRY

SCG730429
MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

*RECEIVING STREAM
MUNICIPALITY
RESPONSIBLE PARTY
IMPLEMENTING PARTY*

*NPDES#
MS4 PHASE
MS4 SIZE
COUNTY*

LOWER REEDY RIVER

GREENVILLE COUNTY
GREENVILLE COUNTY

SCS230001
PHASE I
MEDIUM MS4

Nonpoint Source Permitted Activities

Land Disposal Activities

Landfill Facilities

*LANDFILL NAME
FACILITY TYPE*

*PERMIT #
STATUS*

HR GARRET, INC. (GREENVILLE CO.)
C&D

232478-1701
ACTIVE

HR GARRET, INC. (LAURENS CO.)
LCD & YT

232478-1701
INACTIVE

TWIN CHIMNEYS C&D LANDFILL
C&D

231001-1202
ACTIVE

TWIN CHIMNEYS WASTE TIRE COLL. FACILITY
WTC

231001-5104
ACTIVE

TWIN CHIMNEYS WOOD CHIPPING FACILITY
COMPOSTING

231001-3002
ACTIVE

TWIN CHIMNEYS MSW LANDFILL
MUNICIPAL

231001-1102
ACTIVE

GRAMBLING BROTHERS CONTRACTING, INC.
C&D

232486-1701
ACTIVE

Mining Activities

*MINING COMPANY
MINE NAME*

*PERMIT #
MINERAL*

WR GRACE & CO.
MADDEN-KERNELLS MINE

0565-59
VERMICULITE

VULCAN CONSTR. MATERIALS CO.
PRINCETON QUARRY

1072-45
GRANITE

Growth Potential

There is generally a low potential for growth in this watershed, which contains a portion of the Town of Waterloo. Some growth could result from the crossing of US 76 to the City of Laurens and from US 25 to the City of Greenville. Medium density residential areas should expand along the river in Laurens County.

Watershed Protection and Restoration Strategies

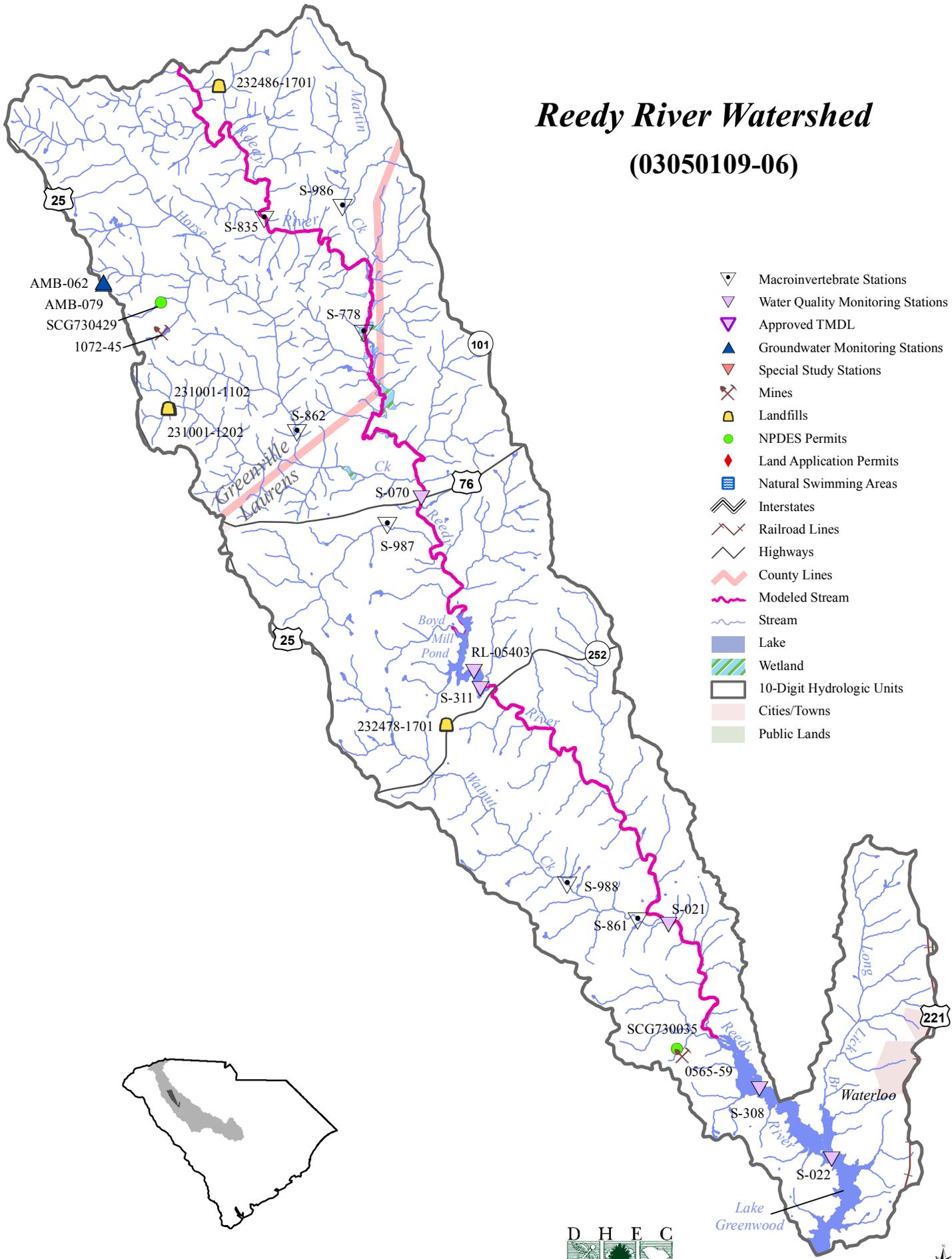
Total Maximum Daily Loads (TMDLs)

TMDLs are under development by SCDHEC for the **Reedy River** at water quality monitoring sites RL-05403, RL-08047, S-308 and S-311. TMDLs determine the maximum amount of total nitrogen and total phosphorous waterbodies can receive and still meet water quality standards. There are currently two major and three minor NPDES facilities located in the watershed. Much of the watershed has been designated as part of one or more small or large MS4s. Possible sources of nutrients in this watershed include livestock in streams, agricultural runoff, failing septic systems, urban runoff, wastewater treatment facilities and land disturbance. The TMDLs would require reductions in existing phosphorous and nitrogen loading to meet the aquatic life use standard in Boyd Mill Pond and in the Reedy River arm of Lake Greenwood.

TMDLs are also under development by SCDHEC for the **Reedy River** at water quality monitoring sites S-013, S-018, S-067, S-070, S-072, S-073, S-091, S-178, S-264, S-319 and S-323. TMDLs determine the maximum amount of fecal coliform bacteria waterbodies can receive and still meet water quality standards. There are currently two major and three minor NPDES facilities permitted to discharge fecal coliform bacteria in the watershed. Much of the watershed has been designated as part of one or more small or large MS4s. Possible sources of fecal coliform bacteria in the watershed include SSOs, failing septic systems, agricultural runoff, livestock-in-streams, urban runoff and wildlife. The TMDLs would require a reduction in fecal coliform loading at all sites for this stream to meet the recreational use standard.

The nonpoint source component of the pending Reedy River nutrient TMDLs within the Walnut Creek watershed is currently being implemented using §319 grant funds. Implementation is scheduled to be completed in October 2014. For more information on §319 grants, visit <http://www.scdhec.gov/environment/water/grants.htm#319>.

Reedy River Watershed (03050109-06)



- ▽ 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

