

**03050109-03**  
(*Saluda River*)

**General Description**

Watershed 03050109-03 (formerly 03050109-040, 050, 060, 070) is located in Pickens, Greenville, and Anderson Counties and consists primarily of the *Saluda River* and its tributaries from its origin to Big Creek. The watershed occupies 148,672 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 44.6% forested land, 29.9% agricultural land, 21.4% urban land, 2.0% forested wetland (swamp), 1.1% water, and 1.0% barren land.

The Saluda River is formed by the confluence of the North Saluda River and the South Saluda River Watersheds. Tributaries draining into the upper portion of this watershed include Shoal Creek, Armstrong Creek, Machine Creek (Doddies Creek), Rutledge Lake, and Coopers Creek. The Saluda River then flows through Saluda Lake in the City of Greenville, and is joined by Mill Creek, Georges Creek (Mad Dog Branch, Burdine Creek, Georges Creek Lake, Hamilton Creek, Middle Creek, East Creek, Little Georges Creek, Crayton Creek), Craven Creek, Big Brushy Creek (Brushy Creek, Middle Branch, Hornbuckle Creek, Little Brushy Creek), and Hurricane Creek. Grove Creek (Little Grove Creek, Mill Creek) enters the river next, followed by Big Creek (Big Creek Reservoir, Camp Creek, Camp Creek Reservoir), near the Town of Williamston. This watershed contains a total of 635.9 stream miles and 1,153.1 acres of lake waters, all classified FW.

**Surface Water Quality**

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
S-991	BIO	FW	SHOAL CREEK AT DEER CREEK RD NE OF SC186/SC135 INTERSECTION
S-866	BIO	FW	SHOAL CREEK AT SR 140
S-250	W	FW	SALUDA LAKE AT FARR'S BRIDGE ON SC 183, 7MI NE OF EASLEY
S-314	W	FW	SALUDA LAKE, 0.5 MILES UPSTREAM OF LANDING
RL-03349	RL03	FW	SALUDA LAKE, 0.9 MI SE OF SC 183 IN SMALL ARM
RL-06427	RL06	FW	SALUDA LAKE, 0.7 MI N OF DAM
RL-05401	RL05	FW	SALUDA LAKE, 0.13 MI NE OF DAM
S-315	W	FW	MILL CREEK AT BENT BRIDGE ROAD, BELOW CAROLINA PLATING
S-005	W	FW	GEORGES CREEK TRIBUTARY AT S-39-192, 2.6 MILES NE OF EASLEY
RS-06151	RS06/BIO	FW	BURDINE CREEK AT BRIDGE ON S-39-192, 3 MILES NE OF EASLEY
S-865	BIO	FW	GEORGES CREEK AT ROAD ABOVE SR 36
S-300	INT	FW	GEORGES CREEK AT S-39-28
S-007	W	FW	SALUDA RIVER AT SC 81, SW OF GREENVILLE
S-301	INT/BIO	FW	BIG BRUSHY CREEK AT S-04-143
S-267	W	FW	SALUDA RIVER TRIB. 350 FT BELOW W. PELZER WWTP ON S-23-53
S-171	W	FW	GROVE CREEK BELOW JP STEVENS ESTES PLANT
S-774	BIO	FW	GROVE CREEK AT S-23-541
RS-02462	RS02/BIO	FW	GROVE CREEK AT S-23-52
S-119	INT	FW	SALUDA RIVER AT S-04-178, 3.2 MILES SE WILLIAMSTON
S-302	INT/BIO	FW	BIG CREEK AT S-04-116

***Shoal Creek*** – There are two SCDHEC monitoring stations along Shoal Creek (S-991, S-866). Aquatic life uses at both sites are fully supported based on macroinvertebrate community data.

***Saluda Lake*** - Saluda Lake is a 500-acre impoundment on the Saluda River, with a maximum depth of approximately 40.0 ft and an average depth of approximately 7.9 ft. The lake's watershed comprises 263.0 square miles. There are five monitoring sites along Saluda Lake. At the furthest uplake site (***S-250***), 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 decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions. Further downlake (***S-314***), aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the midlake site (***RL-03349***), aquatic life uses are fully supported, but recreational uses are partially supported due to fecal coliform bacteria excursions. At the two furthest downlake sites (***RL-06427, RL-05401***), aquatic life and recreational uses are fully supported.

***Mill Creek (S-315)*** – Aquatic life uses are not supported due to occurrences of chromium in excess of the aquatic life chronic criterion. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH. A significant decreasing trend in total phosphorus concentration suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions, which are compounded by a significant increasing trend in fecal coliform bacteria concentration.

***Georges Creek Tributary (S-005)*** – Aquatic life uses are fully supported and significant increasing trends in dissolved oxygen concentration and decreasing trends in turbidity suggest improving trends for these parameters. There is a significant increasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Burdine Creek (RS-06151)*** – Aquatic life uses are partially supported based on macroinvertebrate community data. Recreational uses are fully supported.

***Georges Creek*** - There are two SCDHEC monitoring stations along Georges Creek. At the upstream site (***S-865***), aquatic life uses are partially supported based on macroinvertebrate community data. Aquatic life uses are partially supported at the downstream site (***S-300***) due to occurrences of copper in excess of the aquatic life chronic criterion. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. Recreational uses are not supported at this site due to fecal coliform bacteria excursions.

**Saluda River** – There are two SCDHEC monitoring stations along this section of the Saluda River. At the upstream site (*S-007*), aquatic life and recreational uses are fully supported. There is a significant increasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. At the downstream site (*S-119*), aquatic life uses are fully supported; however, there are significant increasing trends in five-day biochemical oxygen demand and total nitrogen concentration. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions.

**Big Brushy Creek (S-301)** - Aquatic life uses are partially supported based on macroinvertebrate community data. In addition, there are significant increasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and total nitrogen concentration. Recreational uses are not supported due to fecal coliform bacteria excursions.

**Saluda River Tributary (S-267)** - Aquatic life uses are fully supported. There is a significant increasing trend in pH. A significant decreasing trend in total phosphorus concentration suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

**Grove Creek** - There are three SCDHEC monitoring stations along Grove Creek. At the upstream site (*S-171*), 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. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the midstream site (*S-774*), aquatic life uses are partially supported based on macroinvertebrate community data. At the downstream site (*RS-02462*), aquatic life uses are fully supported based on macroinvertebrate community data. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

**Big Creek (S-302)** - Aquatic life uses are partially supported based on macroinvertebrate community data. Significant decreasing trends in 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.

## **NPDES Permitted Activities**

### **Active NPDES Facilities**

<b>RECEIVING STREAM FACILITY NAME</b>	<b>NPDES# TYPE</b>
SALUDA RIVER DUKE ENERGY CORP./LEE STEAM STATION	SC0002291 MAJOR INDUSTRIAL
SALUDA RIVER REWA/PIEDMONT WWTP	SC0023906 MAJOR DOMESTIC

SALUDA RIVER REWA/PIEDMONT REGIONAL WWTP	SC0048470 MAJOR DOMESTIC
SALUDA RIVER TOWN OF PELZER	SC0040797 MINOR DOMESTIC
SALUDA RIVER REWA/GEORGES CREEK PLT	SC0047309 MAJOR DOMESTIC
SALUDA RIVER TRIBUTARY VULCAN CONSTR. MAT. CO./LAKESIDE	SCG730245 MINOR INDUSTRIAL
SALUDA RIVER TRIBUTARY TOWN OF WEST PELZER WWTF	SC0025194 MINOR DOMESTIC
SALUDA LAKE EASLEY COMBINED UTIL./DON L. MOOORE	SCG641007 MINOR DOMESTIC
SALUDA LAKE SALUDA LAKE ASSOC. MINE	SCG730563 MINOR INDUSTRIAL
BIG BRUSHY CREEK TRIBUTARY KING ASPHALT/ELROD MINE	SCG730479 MINOR INDUSTRIAL
SALUDA RIVER KING ASPHALT/THRIFT MINE	SCG730480 MINOR INDUSTRIAL
SALUDA RIVER PALMETTO AGGREGATES LLC/RIVER ROAD PLANT	SCG730628 MINOR INDUSTRIAL
SALUDA RIVER THOMAS SAND CO./COMBINED UTILITY	SCG730629 MINOR INDUSTRIAL
GROVE CREEK REWA/GROVE CREEK WWTP	SC0024317 MAJOR DOMESTIC
GROVE CREEK TRIBUTARY CYTEC CARBON FILTERS LLC	SCG250197 MINOR INDUSTRIAL
GROVE CREEK TRIBUTARY UNITED UTILITIES/VALLEY BROOK WWTP	SC0028673 MINOR DOMESTIC
GEORGES CREEK EASLEY/GEORGES CREEK LAGOON	SC0023043 MINOR DOMESTIC
BURDINE CREEK ALICE MANUFACTURING/ELLISON PLT	SC0001171 MINOR INDUSTRIAL
HAMILTON CREEK TRIBUTARY EASLEY SITE TRUST	SC0046396 MINOR INDUSTRIAL
MIDDLE BRANCH EASLEY COMBINED UTILITY/MIDDLE BRANCH WWTP	SC0039853 MAJOR DOMESTIC
SALUDA RIVER TRIBUTARY BLYTHE CONSTR./BENT BRIDGE MINE	SCG730695 MINOR INDUSTRIAL
SALUDA RIVER TRIBUTARY AIR PRODUCTS & CHEMICALS INC.	SC0048429 MINOR INDUSTRIAL
HURRICANE CREEK TRIBUTARY SLOAN CONSTR./I-85 MINE #3	SCG731070 MINOR INDUSTRIAL

HURRICANE CREEK TRIBUTARY  
SNIDER TIRE INC./PELZER PLANT

SCG250260  
MINOR INDUSTRIAL

***Municipal Separate Storm Sewer Systems (MS4)***

***RECEIVING STREAM  
MUNICIPALITY  
RESPONSIBLE PARTY  
IMPLEMENTING PARTY***

***NPDES#  
MS4 PHASE  
MS4 SIZE***

GROVE CREEK  
UNINCORPORATED AREAS  
GREENVILLE COUNTY  
GREENVILLE COUNTY

SCS230001  
PHASE I  
MEDIUM MS4

GROVE CREEK  
UNINCORPORATED AREAS  
ANDERSON COUNTY  
ANDERSON COUNTY

SCR030702  
PHASE II  
SMALL MS4

GROVE CREEK  
CITY OF EASLEY  
CITY OF EASLEY  
CITY OF EASLEY

SCR037701  
PHASE II  
SMALL MS4

GROVE CREEK  
UNINCORPORATED AREAS  
PICKENS COUNTY  
PICKENS COUNTY

SCR037704  
PHASE II  
SMALL MS4

**Nonpoint Source Permitted Activities**

***Land Disposal Activities***

**Landfill Facilities**

***LANDFILL NAME  
FACILITY TYPE***

***PERMIT #  
STATUS***

PLATT SACO LOWELL INC.  
INDUSTRIAL

-----  
INACTIVE

PIEDMONT SANITARY LANDFILL  
MUNICIPAL

-----  
INACTIVE

BLACKBERRY VALLEY LANDFILL  
MUNICIPAL

-----  
INACTIVE

ANDERSON REGIONAL LANDFILL  
MUNICIPAL

042651-1101  
ACTIVE

BIG CREEK C&D LANDFILL  
C&D&LT

041001-1202  
INACTIVE

BIG CREEK MATERIAL RECOVERY FACILITY  
C&D

041001-2002  
INACTIVE

BIG CREEK MUNICIPAL SW LANDFILL  
MUNICIPAL

041001-1102  
INACTIVE

DUKE POWER (LEE STEAM STATION)  
INDUSTRIAL

-----  
INACTIVE

TOWN OF WILLIAMSTON COMPOSTING COMPOSTING	041004-3001 ACTIVE
GREENVILLE COUNTY MUNICIPAL	----- INACTIVE
WCA SHILOH WOOD PROC. FACILITY COMPOSTING	232644-3001 ACTIVE
WCA SOLID WASTE PROC. FACILITY MUNICIPAL	232644-2001 ACTIVE
SOUTHERN GRADING III SITE COMPOSTING	232701-3003 ACTIVE
JP STEVENS & CO. INDUSTRIAL	----- INACTIVE
AMOCO CELL/CONSTR. LANDFILL INDUSTRIAL	233333-1201 INACTIVE
AMOCO PERFORMANCE PRODUCTS, INC. INDUSTRIAL	----- INACTIVE
JONES BROTHERS GRADING C&D LANDFILL C&D	232439-1201 ACTIVE

### ***Mining Activities***

<b><i>MINING COMPANY MINE NAME</i></b>	<b><i>PERMIT # MINERAL</i></b>
THOMAS SAND CO. RIVER ROAD PLANT	0908-07 SAND
KING ASPHALT SALUDA RIVER SITE	1328-07 SAND/RIVER
SALUDA LAKE ASSOC. SALUDA LAKE MINE	1103-77 SAND
VULCAN CONSTR. MATERIALS CO. LAKESIDE QUARRY	0064-45 GRANITE
VULCAN CONSTR. MATERIALS CO. ANDERSON QUARRY	0059-07 GRANITE
THOMAS SAND CO., INC. COMBINED UTILITY SITE	1359-77 SAND/RIVER

### **Water Quantity**

<b><i>WATER USER STREAM</i></b>	<b><i>REG. CAPACITY (MGD) PUMPING CAPACITY (MGD)</i></b>
EASLEY COMBINED UTILITY	34.0
SALUDA LAKE	24.0

## **Growth Potential**

The Towns of Pelzer, West Pelzer, Williamston, Powdersville, Piedmont, and Golden Grove, along with portions of the City of Easley and the Towns of Berea, Parker, Welcome, Duncan, and Gantt are located in this watershed. The upper area of the watershed has a fairly low potential for extensive development or intensive agricultural (other than orchards), except for nonintensive agricultural and low density residential activity along the Saluda River. The central and lower regions of the watershed have a relatively high potential for urban development; rail lines run through these areas along the Saluda River. Significant growth is projected along both sides of the Saluda River from S.C. 183 to Williamston. The Town of Williamston, although not a high growth area, is expected to experience low to moderate growth. A rail line crosses the watershed running from Williamston to the Town of Pelzer (en route to the City of Greenville) and contributes to the growth in the area. The Southern Connector combined with I-85 interchanges and highway improvements of US 25 and SC 20 will continue to spur industrial and commercial growth. The Saluda River bisects the US 123 high growth corridor between the Cities of Easley and Greenville.

The area north and east of Easley to the Saluda River has been cited in the Appalachian Regional Development Plan as an infrastructure expansion area with potential for both industrial and residential growth. The area where US 123 crosses this watershed is lined with strip shopping centers, fast food restaurants, and large parking areas. Behind this line of fast development are located both residential and industrial areas. The southern edge of the City of Easley and the I-85 corridor are high growth areas in the watershed. Other areas of potential growth are the presently unserved interstate interchanges, which have regional plans to be upgraded with water and sewer to encourage development. Regional wastewater facilities have been upgraded to allow for growth. There are also several industrial sites dispersed through the watershed.

## **Watershed Protection and Restoration Strategies**

### ***Total Maximum Daily Loads (TMDLs)***

TMDLs were developed for SCDHEC and approved by EPA for the **Saluda River** and a tributary at water quality monitoring sites S-007, S-250, and S-267. The TMDLs determine the maximum amount of fecal coliform bacteria these streams can receive and still meet water quality standards. There were three permitted NPDES facilities that are permitted to discharge fecal coliform bacteria located on the Saluda River and its tributary upstream of these impaired sites. Much of the Saluda River watershed has been designated as a MS4, but none the watershed of the tributary. Probable sources of fecal coliform bacteria that were identified in the watershed are leaking sewers, SSOs, failing septic systems, agricultural runoff, cattle-in-streams, and wildlife. The TMDLs require reductions of 33% to 80% in fecal coliform loading for these streams to meet the recreational use standard.

A TMDL was developed for SCDHEC and approved by EPA for **Mill Creek** at water quality monitoring site S-315. Data from SCDHEC ambient monitoring station S-315 on Mill Creek shows that recreational uses are not supported due to violations of the 400/100 ml fecal

coliform criterion. Station S-315 is also considered impaired for aquatic life use based on observed elevated levels of zinc and chromium. However, this TMDL will address only the recreational use impairment. Probable sources of fecal coliform bacteria are those found in urbanized areas and may include leaking sewers, SSOs, failing septic systems, and fecal matter from urban wildlife populations. The TMDL requires a reduction of 61% in fecal coliform loading for this stream to meet the recreational use standard.

TMDLs were developed for SCDHEC and approved by EPA for **Georges Creek** at water quality monitoring sites S-005 and S-300. There were two permitted NPDES facilities that are permitted to discharge fecal coliform bacteria in the watershed. Parts of the Georges Creek watershed have been designated as MS4s. Probable sources of fecal coliform bacteria that were identified in the watershed are leaking sewers, SSOs, failing septic systems, agricultural runoff, cattle-in-streams, urban runoff, and wildlife. The TMDL requires a reduction of 64% in fecal coliform loading for both sites for this stream to meet the recreational use standard.

A TMDL was developed for SCDHEC and approved by EPA for **Grove Creek** at water quality monitoring site S-171. There was no NPDES facility permitted to discharge fecal coliform bacteria in this watershed. The Grove Creek watershed is entirely within one or more designated MS4s. Possible sources of fecal coliform bacteria in this watershed are leaking sanitary sewers, sanitary sewer overflows (SSOs), urban runoff, agricultural activities, and wildlife. The TMDL requires a reduction of 72% in fecal coliform loading for this stream to meet the recreational use standard.

A TMDL was developed for SCDHEC and approved by EPA for **Big Creek** at water quality monitoring site S-302. There was no NPDES facility permitted to discharge fecal coliform bacteria in this watershed. At this time there are no designated MS4s in the Big Creek watershed. Possible sources of fecal coliform bacteria in this watershed are leaking sanitary sewers, sanitary sewer overflows (SSOs), urban runoff, agricultural activities, and wildlife. The TMDL requires a reduction of 46% in fecal coliform loading for this stream to meet the recreational use standard.

A TMDL was developed for SCDHEC and approved by EPA for **Big Brushy Creek** at water quality monitoring site S-301. There is one NPDES facility permitted to discharge fecal coliform bacteria in this watershed. The Big Brushy Creek watershed is mostly within areas designated as MS4s. Possible sources of fecal coliform bacteria in this watershed are leaking sanitary sewers, sanitary sewer overflows (SSOs), urban runoff, agricultural activities, and wildlife. The TMDL requires a reduction of 52% in fecal coliform loading for this stream to meet the recreational use standard.

# Saluda River Watershed (03050109-03)

-  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

- 1 East Creek
- 2 Big Creek Reservoir
- 3 Camp Creek Reservoir

