

**03050103-04**  
(*Fishing Creek*)

**General Description**

Watershed 03050103-04 (formerly 03050103-050, 060, 070) is located in York and Chester Counties and consists primarily of *Fishing Creek* and its tributaries. The watershed occupies 185,010 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 55.0% forested land, 30.8% agricultural land, 13.0% urban land, 0.7% forested wetland (swamp), and 0.5% water.

Fishing Creek originates near the City of York and accepts drainage from Hope Branch, Langham Branch, and Wildcat Creek (Tools Fork, Dye Creek), which originates near the City of Rock Hill. Taylor Creek enters Fishing Creek downstream of Wildcat Creek, followed by Stoney Fork, Browns Branch, and Clinton Branch. Further downstream, South Fork Fishing Creek (Love Creek, Conrad Creek) merges with Fishing Creek followed by Hicklin Branch (McFadden Branch), Tinkers Creek (Rum Branch, Neelys Creek), Reeves Creek, and Dairy Branch near the Town of Fort Lawn. Lake Oliphant is located on a tributary to Conrad Creek. Fishing Creek empties into and forms the headwaters of Great Falls Reservoir. There are a total of 1,218.3 stream miles and 1,081.1 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>
CW-029	P/W	FW	FISHING CREEK AT SC 49 NE OF YORK
RS-07208	RS07/BIO	FW	LANGHAM BR AT BENFIELD RD, 4.2MI SE OF YORK
CW-005	P/W/BIO	FW	FISHING CREEK AT S-46-347 DOWNSTREAM OF YORK WWTP
CW-225	S/INT	FW	FISHING CREEK AT S-46-503
CW-212	S/W	FW	TOOLS FORK AT S-46-195 7 MI NW OF ROCK HILL
CW-006	S/W	FW	WILDCAT CREEK AT S-46-650
CW-096	S/W	FW	WILDCAT CREEK AT S-46-998 9 MI ENE OF McCONNELLS
CW-224	S/W	FW	FISHING CREEK AT S-46-163
CW-695	BIO	FW	TAYLOR CREEK AT S-46-735
CW-654	BIO	FW	FISHING CREEK AT S-46-655
CL-021	W	FW	LAKE OLIPHANT, FOREBAY EQUIDISTANT FROM DAM & SHORE
CW-007	BIO	FW	SOUTH FORK FISHING CREEK AT S-12-50
CW-008	P/W	FW	FISHING CREEK AT SC 223 NE OF RICHBURG
CW-227	S/W	FW	NEELYS CREEK AT S-46-997
CW-234	W/INT/BIO	FW	TINKERS CREEK AT S-12-599
CW-233	W/INT	FW	FISHING CREEK AT S-12-77

**Fishing Creek** - There are seven SCDHEC monitoring sites along Fishing Creek. At the furthest upstream site (*CW-029*), aquatic life uses are fully supported; however, there are significant decreasing trends in dissolved oxygen concentration and increasing trends in five-day biochemical oxygen demand. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. At the next site downstream (*CW-005*), aquatic life uses are partially supported based on macroinvertebrate community data. In addition, there are significant decreasing trends in dissolved oxygen concentration and significant increasing trends in total nitrogen concentration. There is a significant increasing trend in pH. Recreational uses are

partially supported at this site due to fecal coliform bacteria excursions. Further downstream (*CW-225*), 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 not supported at this site due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria suggests improving conditions for this parameter.

At the next site downstream (*CW-224*), aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions. Aquatic life uses are partially supported at *CW-654* based on macroinvertebrate community data. Further downstream (*CW-008*), aquatic life uses are fully supported; however, there are significant increasing trends in five-day biochemical oxygen demand and total nitrogen concentration. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria suggests improving conditions for this parameter. At the furthest downstream site (*CW-233*), aquatic life uses are fully supported; however, there are significant increasing trends in five-day biochemical oxygen demand. There is a significant increasing trend in pH. Recreational uses are not supported at this site due to fecal coliform bacteria excursions.

***Langham Branch (RS-07208)*** – Although macroinvertebrate communities appeared to be impacted at this site, the sample was considered to be not representative due to severe drought conditions that existed during the sampling year. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Tools Fork (CW-212)*** – Aquatic life uses are not supported due to turbidity excursions. There is a significant increasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Wildcat Creek*** - There are two SCDHEC monitoring sites along Wildcat Creek. At the upstream site (*CW-006*), aquatic life uses are not supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. In addition, there are significant increasing trends in five-day biochemical oxygen demand and total phosphorus concentration. Recreational uses are fully supported at this site. At the downstream site (*CW-096*), aquatic life uses are fully supported; however, there are significant increasing trends in five-day biochemical oxygen demand and decreasing trends in dissolved oxygen concentration. There is a significant increasing trend in pH. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

***Taylor Creek (CW-695)*** – Aquatic life uses are partially supported based on macroinvertebrate community data.

**Lake Oliphant (CL-021)** – Aquatic life uses are not supported due to total phosphorus and pH excursions. Recreational uses are fully supported.

**South Fork Fishing Creek (CW-007)** – Aquatic life uses are partially supported based on macroinvertebrate community data.

**Neelys Creek (CW-227)** – Aquatic life uses are fully supported, but recreational uses are not supported due to fecal coliform bacteria excursions.

**Tinkers Creek (CW-234)** – Although macroinvertebrate communities appeared to be impacted at this site, the sample was considered to be not representative due to severe drought conditions that existed during the sampling year. In addition, there is a significant increasing trend in total phosphorus concentration. Recreational uses are partially supported due to fecal coliform bacteria excursions.

## Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-074	GB	PIEDMONT BEDROCK	GUTHRIES

## NPDES Permitted Activities

### Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME</i>	<i>NPDES# TYPE</i>
FISHING CREEK CITY OF YORK/FISHING CREEK WWTP	SC0038156 MAJOR DOMESTIC
FISHING CREEK TRIBUTARY SUBURBAN PROPANE - TIRZAH	SC0046248 MINOR INDUSTRIAL
HOPE BRANCH MCAFEE MHP	SC0027111 MINOR DOMESTIC
FISHING CREEK CITY OF CHESTER/LANDO-MANETTA PLANT	SC0001741 MINOR DOMESTIC
TOOLS FORK UTILITIES OF SC/COUNTRY OAKS SD	SC0039217 MINOR DOMESTIC
TOOLS FORK TRIBUTARY ADNAH HILLS MHP	SC0041670 MINOR DOMESTIC
TAYLOR CREEK MARTIN MARIETTA/ROCK HILL QUARRY	SCG730061 MINOR INDUSTRIAL
CLINTON BRANCH PINETUCK UTILITIES/ PINETUCK SD	SC0041203 MINOR DOMESTIC
CLINTON BRANCH KENTUCKY-CUMBERLAND COAL CO.	SC0042129 MINOR INDUSTRIAL

NEELYS CREEK NEELYS CREEK HOMES, INC.	SC0041904 MINOR DOMESTIC
NEELYS CREEK TRIBUTARY JACK NELSON ENTERPRISES	SC0027341 MINOR DOMESTIC
FISHING CREEK CAROLAWN INC./NPL SITE	SC0047538 MINOR INDUSTRIAL
FISHING CREEK TRIBUTARY CIRCLE S RANCH FEEDMILL	SCG250172 MINOR INDUSTRIAL
FISHING CREEK RAMBO ASSOCIATES/RAMBO MINE	SCG730477 MNOR INDUSTRIAL
FISHING CREEK ROGERS CELLULOSIC LF/ROGERS SAND MINE	SCG730497 MNOR INDUSTRIAL
FISHING CREEK TRIBUTARY ALBERT D. OLIPHANT INTERPROP/ 49/5 MINE	SCG730592 MNOR INDUSTRIAL
FISHING CREEK MARION KING/FISHING CREEK #125	SCG730652 MNOR INDUSTRIAL
TOOLS FORK TRIBUTARY DWIGHT WOOD/ADNAH CHURCH ROAD MINE	SCG730633 MNOR INDUSTRIAL
TOOLS FORK EAGLE CONSTRUCTION CO., INC./JIM WHITE MINE	SCG730998 MNOR INDUSTRIAL
NEELYS CREEK TRIBUTARY CREEKSIDE OF YORK CO., INC./CREEKSIDE OF YORK MINE	SCG730994 MNOR INDUSTRIAL
TAYLOR CREEK EAGLE CONSTRUCTION/HERITAGE MINE	SCG731214 MNOR INDUSTRIAL

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

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

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

FISHING CREEK ROCK HILL ROCK HILL ROCK HILL	SCR039102 PHASE II SMALL MS4
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**Nonpoint Source Permitted Activities**

***Land Disposal Activities***

**Landfill Facilities**

<b><i>LANDFILL NAME FACILITY TYPE</i></b>	<b><i>PERMIT # STATUS</i></b>
YORK COUNTY LANDFILL MUNICIPAL	461001-1101 INACTIVE
YORK COUNTY LANDFILL C & D	461001-1201 ACTIVE

YORK COUNTY SOLID WASTE TRANSFER STATION MUNICIPAL TRANSFER STATION	461001-6001 ACTIVE
YORK COUNTY SANITARY LANDFILL MUNICIPAL	----- INACTIVE
YORK COUNTY SANITARY #1 LANDFILL MUNICIPAL	----- INACTIVE
YORK COUNTY SUBTITLE D MUNC. SW LF MUNICIPAL	461001-1102 INACTIVE
YORK COUNTY TIRE PROCESSING FACILITY WTP	461001-5201 INACTIVE
YORK COUNTY WOOD CHIPPING FACILITY COMPOSTING	461001-3001 ACTIVE
ROGERS C&D LANDFILL C&D	462427-1201 ACTIVE
ROGERS COMPOSTING FACILITY COMPOSTING	462636-3001 ACTIVE
CITY OF ROCK HILL LCD&YT LF C&D	461002-1702 ACTIVE
CITY OF ROCK HILL IWP	461002-1201 INACTIVE
CITY OF ROCK HILL COMPOSTING	461002-3001 INACTIVE
CITY OF ROCK HILL C&D	461002-1201 INACTIVE
CITY OF ROCK HILL COMPOSTING FACILITY COMPOSTING	461002-3002 ACTIVE
CITY OF ROCK HILL IWP	----- INACTIVE
CITY OF ROCK HILL INERT SW DIV. -----	----- INACTIVE
CITY OF ROCK HILL C&D	461002-1202 INACTIVE
CITY OF ROCK HILL COMPOSTING	461006-3001 INACTIVE
COUNTRY SQUIRE LANDFILL C&D	462452-1301 INACTIVE
COUNTRY SQUIRE LCD&YT LANDFILL C&D	462452-1701 INACTIVE
POPE CONSTRUCTION CO. C/C LANDFILL CONSTRUCTION	462424-1601 INACTIVE
POPE CONSTRUCTION CO. CONSTRUCTION	462424-1201 INACTIVE

POPE CONSTRUCTION CO. IWP	----- INACTIVE
CLAWSON LCD&YT LANDFILL C&D	462620-1701 ACTIVE
VERNSDALE ROAD C&D LANDFILL C&D	462774-1201 ACTIVE
SECOND CHANCE MULCH CENTER COMPOSTING	462751-3001 ACTIVE
ARTHUR SHORT TERM C&D C & D	122901-1301 INACTIVE
ATLANTIC OIL COLLECTION SERVICES INC. USED OIL - UOM	462724-7301 ACTIVE

### ***Mining Activities***

<b><i>MINING COMPANY MINE NAME</i></b>	<b><i>PERMIT # MINERAL</i></b>
ALBERT D. OLIPHANT INTERPROP 49/5 MINE	1096-91 SAND/CLAY
JULE ROGERS ROGERS SAND MINE	1265-91 SAND
REA CONSTRUCTION CO. FISHING CREEK MINE	0178-23 SAND
MARTIN MARIETTA AGGREGATES ROCK HILL QUARRY	0104-91 GRANITE
RAMBO ASSOCIATES RAMBO MINE	1112-91 SAND; SAND/CLAY
JAD LAND DEVELOPMENT, INC. DUNLAP RODDEY SOIL MINE	1275-91 SAND
BOGGS PAVING INC. JUDSON LAWRENCE PIT	1279-91 SAND

### **Growth Potential**

This watershed has moderate potential for growth. One major growth area is the City of York and its surrounding area where there is available water and sewer service. The nearby East York Industrial Park has several major industrial and commercial developments with room to expand. Another major growth area in the watershed is the southern and western portions of the City of Rock Hill. Portions of the towns of McConnells, Lowrys, Richburg, Fort Lawn, and Great Falls, together with the unincorporated communities of Edgemoor and Lando, are also located in this watershed. Water and sewer services in this portion of the watershed are limited to the areas around Rock Hill and Richburg, Fort Lawn, and Great Falls in Chester County. Industrial and commercial development continues to occur around the I-77/ S.C. Hwy 9 interchange near Richburg and around Rock Hill. The area surrounding McConnells and Lowrys

has a high level of agricultural activity. The potential for future development is greatest near Rock Hill and York and around the I-77/S.C. Hwy 9 interchange near Richburg. A factor that may promote industrial growth is the rail service available from York and Rock Hill in York County, and Richburg, Fort Lawn, and Great Falls in Chester County.

## **Watershed Protection and Restoration**

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

A TMDL was developed by SCDHEC and approved by EPA for several water quality monitoring sites in the *Fishing Creek* watershed including CW-029, CW-005, CW-225, CW-224, CW-008, and CW-233 along *Fishing Creek*, CW-212 on *Tools Fork*, CW-006 and CW-096 on *Wildcat Creek*, CW-227 on *Neelys Creek* and CW-234 on *Tinkers Creek* to determine the maximum amount of fecal coliform bacteria they can receive from nonpoint sources and still meet water quality standards. The primary sources of fecal coliform to the sites were determined to be runoff from urban and pasture lands, failing septic systems, leaking or overflowing sanitary sewers, and livestock with uncontrolled access to streams. The TMDL states that an 84.2% reduction in fecal coliform loading from these urban and agricultural sources at monitoring site CW-029, a 69.1% reduction at sites CW-005 and CW-225, a 72.3% reduction at CW-224, a 46.3% reduction at CW-008, and a 47.5% reduction at CW-233 are necessary for these streams to meet the recreational use standard. The TMDL also states that a 97.4% reduction in fecal coliform loading from these urban and agricultural sources at monitoring site CW-212, a 79.5% reduction at CW-006, a 79.2% reduction at CW-096, and a 69.5% reduction at CW-227 and CW-234 are necessary for these streams to meet the recreational use standard. For more detailed information on TMDLs, please visit [www.scdhec.gov/tmdl](http://www.scdhec.gov/tmdl).

### ***Special Projects***

#### **TMDL Implementation for Fecal Coliform in Fishing Creek Watershed, York County, SC**

A §319 implementation project to reduce the load of fecal coliform in the Fishing Creek watershed began in 2005 and ran through 2007. It was implemented by a partnership of organizations including the York and Chester Soil and Water Conservation District, Clemson Extension Service, York County Government, USDA-NRCS, Chester and York County Cattlemen's Associations and Research Planning, Inc. Best Management Practices (BMPs) and effective outreach activities were implemented at selected sites to reduce the load of fecal coliform bacteria so that state water quality standards. Due to elevated bacteria levels, the study is on-going and BMPs are being re-evaluated.

#### **NPS Assessment and TMDL Development for Nutrients in the Catawba River Basin**

SCDHEC continues to address nutrient loading concerns in the impaired reservoirs (Fishing Creek, Great Falls, and Cedar Creek Reservoirs and Lake Wateree) of the lower Catawba-Wateree Basin using the WARMF (Watershed Analysis Risk Management Framework) water quality model. This watershed model was updated previously through 2005, but changes in phosphorus loading, land use, and population made the model out dated in terms of the model

time period. Significant changes in the watershed since 2005 include new phosphorus limits on the three Charlotte-Mecklenburg WWTPs in the Sugar Creek watershed, closing of two major industrial dischargers in the South Carolina portion of the basin, and a significant increase in population and developed land use in the Charlotte – Rock Hill area. In late 2012 SCDHEC began an update of the model that will incorporate these changes in the watershed and make the model as current as feasible. SCDHEC intends to use the updated model for nutrients and pH TMDLs by determining new Wasteload Allocations for point source dischargers and Municipal Separate Storm Sewer Systems (MS4s) and Load Allocations for the nonpoint sources within the Basin.

# Fishing Creek Watershed (03050103-04)

