03050202-02

(Stono River)

General Description

Watershed 03050202-02 (formerly the Stono River portions of 03050202-050, -070) located in Charleston County and consists primarily of the ***Stono River*** and its tributaries. The watershed occupies 97,672 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. Land use/land cover in the watershed includes: 29.1% forested land, 23.4% nonforested wetland, 16.4% forested wetland, 12.8% urban land, 9.5% water, 7.7% agricultural land, and 1.1% barren land.

The Stono River drains into the Edisto River Basin and to the Atlantic Ocean via the Stono Inlet. En route to the ocean, the Stono River accepts drainage from Log Bridge Creek (Middle Branch, Mellichamp Branch), the Rantowles Creek Watershed, Penner Branch, Long Branch Creek, Sandy Bay, and Wappoo Creek. The Stono River is connected to the Ashley River Watershed via Wappoo Creek and Elliots Cut.

The Stono River then flows between Johns Island and James Island, accepting drainage from Pennys Creek, Hut Creek, Abbapoola Creek, Green Creek, Alligator Creek, and the Kiawah River from the Johns Island side of the river. The Kiawah River accepts drainage from Captain Sams Creek, Haulover Creek, Mullet Hall Creek, Bryans Creek, and Chaplin Creek. The Kiawah River also drains directly into the Atlantic Ocean through Captain Sams Inlet. Bass Creek (Cinder Creek) drains into the Stono River from Kiawah Island. Streams draining into the Stono River from James Island include James Island Creek or Ellis Creek (Simpson Creek, Wolfpit Run), Holland Island Creek, and Green Creek. The Folly River (Folly Creek, Oak Island Creek, Robbins Creek, King Flats Creek, Cutoff Reach, Cole Creek) drains into the mouth of the Stono River before it drains into the Atlantic Ocean. The Atlantic Intracoastal Waterway (AIWW) follows the Stono River from Wadmalaw Sound in the Edisto Basin to Elliots Cut and into the Charleston Harbor. There are a total of 23.2 stream miles, 23.3 acres of lake waters, and 7,492.6 acres of estuarine areas in this watershed, all classified SFH with the exception of Wappoo Creek (SB).

Surface Water Quality

Station #	Type	Class	Description
MD-121	S/W	SFH	Log Bridge Creek at SC 162
MD-202	P/INT	SFH	Stono River at S-10-20, 2 mi upstream of Clemson Exp. Station
RO-07331	RO-07	SFH	Stono River, 1.75mi SE of S-10-20
RT-08068	RT-08	SB	Mouth of Wappoo Creek at Wappoo Road
MD-025	S/W	SFH	Mouth of Elliots Cut at Edge Water Dr. (S-10-26 off Hwy 17)
MD-026	P/W	SFH	Stono River at SC 700
RT-052112	RT-05	SFH	Abbapoola Creek, 0.9mi WSW of confluence with Stono River
MD-206	S/INT	SFH	Stono River at Abbapoola Creek
RO-046068	RO-04	SFH	Stono River, 0.3mi SSW of mouth of Green Creek
MD-208	S/W	SFH	Stono River mouth at Buoy 10 off Sandy Point
MD-273	INT	SFH	Kiawah River on the flats
MD-207	S/W	SFH	Kiawah River mouth at Stono River
RT-08084	RT-08	SFH	Tidal Flat, 0.3mi NE of the tip of Oak Island off Folly River

MD-130	INT	SFH	FOLLY RIVER AT SC 171
MD-274	INT	SFH	FOLLY CREEK AT SECESSIONVILLE POLLUTION LINE
RT-06020	RT-06	SFH	CUTOFF REACH, 1.5MI WNW OF FOLLY BEACH
RO-08347	RO-08	SFH	FOLLY RIVER, 0.04MI ABOVE COLE CREEK, 30 YDS FROM THE RIGHT BANK

Log Bridge Creek (MD-121) – Aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations. A significant decreasing trend in five-day biological oxygen demand suggests improving conditions for this parameter.

Stono River – There are six water quality monitoring sites along the Stono River. Aquatic life and recreational uses are fully supported at the furthest upstream site ***(MD-202)***. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations. There is a significant decreasing trend in pH. Significant decreasing trends in turbidity, total phosphorus concentration, total nitrogen concentration, and fecal coliform bacteria suggest improving conditions for these parameters. At the next site downstream ***(RO-07331)***, aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations. Further downstream ***(MD-026)***, aquatic life uses are partially supported due to dissolved oxygen excursions. There is a significant increasing trend in pH. Significant decreasing trends in five-day biological oxygen demand, turbidity, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported and a significant decreasing trend in fecal coliform bacteria suggests improving conditions for this parameter.

Aquatic life and recreational uses are fully supported at ***MD-206***; however, there are significant decreasing trends in dissolved oxygen and increasing trends in five-day biological oxygen demand. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations. There is a significant decreasing trend in pH. Aquatic life and recreational uses are fully supported at ***RO-046068.*** At the furthest downstream site ***(MD-208)***, aquatic life and recreational uses are fully supported. There is a significant decreasing trend in pH at this site.

Wappoo Creek (RT-08068) – Aquatic life and recreational uses are fully supported.

Elliots Cut (MD-025) – Aquatic life uses are not supported due to dissolved oxygen excursions. There is a significant increasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in five-day biological oxygen demand, turbidity, total phosphorus concentration, and fecal coliform bacteria suggest improving conditions for these parameters. Recreational uses are fully supported.

Abbapoola Creek (RT-052112) – Aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations.

Kiawah River – There are two water quality monitoring sites along the Kiawah River and recreational uses are fully supported at both sites. At the upstream site ***(MD-273)***, aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life criterion. In addition, there is a significant increasing trend in five-day biological oxygen demand and total phosphorus concentration. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations. At the downstream site ***(MD-207)***, aquatic life and recreational uses are fully supported. There is a significant decreasing trend in pH. A significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter at this site.

Folly River Tidal Flat (RT-08084) – Aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations.

Folly River – There are two water quality monitoring sites along the Folly River and recreational uses are fully supported at both sites. At the upstream site ***(MD-130)***, aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biological oxygen demand. Aquatic life uses are fully supported at the downstream site ***(RO-08347)***. Although dissolved oxygen excursions occurred at both sites, they were typical of values seen in such systems and were considered natural, not standard violations.

Folly Creek (MD-274) – Aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biological oxygen demand. Although dissolved oxygen excursions occurred, they were typical of values seen in such systems and were considered natural, not standard violations.

Cutoff Reach (RT-06020) – Aquatic life and recreational uses are fully supported.

A fish consumption advisory has been issued by the Department for mercury and includes Pennys Creek and the Atlantic Ocean edging this watershed. For more information and the most current advisory, visit http://www.scdhec.gov/fish .

Shellfish Monitoring Stations

Station #	Description
10A-02	FOLLY CREEK BRIDGE
10A-04	BACKMAN CREEK AT FOLLY CREEK
10A-05	KING FLATS AT FOLLY CREEK
10A-06	OPPOSITE LITTLE ISLAND IN FOLLY CREEK

10A-07	NORTH BOUNDARY OF PROHIBITED AREA AT FOLLY MARINA
10A-08	FOLLY RIVER BRIDGE
10A-09	LAST DOCK NORTH IN FOLLY RIVER
10A-10A	ROBBINS CREEK AT THE 1ST BEND UPSTREAM FROM CUTOFF REACH
10A-15A	FOLLY CREEK AT CONFLUENCE WITH SECESSIONVILLE CREEK
10A-22	FOLLY RIVER STATE SHELLFISH GROUND OPPOSITE FOLLY ISLAND
10A-24	COLE CREEK STATE SHELLFISH GROUND
10A-36	UNNAMED CREEK AT FORK NEAR RIVER FRONT SUBDIVISION
10A-37	FOLLY CREEK AT OAK ISLAND CREEK
11-01	ELLIOTS CUT AT STONO RIVER
11-02A	STONO RIVER AT SOUTHERN BOUNDARY OF ST. JOHN'S YACHT HARBOR MARINA CLOSURE ZONE
11-03	DOCKS BETWEEN MARKERS 10&11 IN STONO RIVER
11-05	MOUTH OF ABBAPOOLA CREEK
11-06	ABBAPOOLA CREEK AT FIRST LARGE BEND
11-0A6	ABBAPOOLA CREEK AT CONFLUENCE WITH SMALL CREEK ON WEST BACK AT 7TH BEND
11-07	GREEN CREEK AT STONO RIVER
11-07A	GREEN CREEK, 4 BENDS UPSTREAM OF STATION 11-07
11-08	MOUTH OF KIAWAH RIVER
11-11	STONO RIVER (AIWW) AT MARKER 21A
11-12	STONO RIVER (AIWW) AT MARKER 27
11-16	STONO RIVER (AIWW) AT MARKER 51
11-17	STONO RIVER (LOG BRIDGE CREEK) AT MARKER 54
11-21	KIAWAH RIVER ON THE FLATS
11-22	KIAWAH RIVER POG AT MINGO POINT
11-23	CAPTAIN SAMS CREEK AND KIAWAH RIVER
11-27	AIWW AT PENNYS CREEK NEAR MARKER #25
11-28	MULLET HALL CREEK 150 YDS FROM MOUTH AT FORK
11-30	KIAWAH RIVER AT MOUTH OF BRYANS CREEK
11-31	BASS CREEK AT CONFLUENCE WITH KIAWAH RIVER
11-32	BASS CREEK AT CONFLUENCE WITH CINDER CREEK
11-33	SOL LEGARE BOAT LANDING
11-34	CINDER CREEK AT PUBLIC DOCK – 3RD BEND FROM CONFLUENCE WITH BASS CREEK
11-35	BASS CREEK AT PUBLIC DOCK – 5TH BEND FROM CONFLUENCE WITH CINDER CREEK

NPDES Program

Active NPDES Facilities

RECEIVING STREAM ***FACILITY NAME***	***NPDES#*** ***TYPE***
MIDDLE BRANCH W. FRAZIER CONSTRUCTION/RAVENEL MINE	SCG730126 MINOR INDUSTRIAL
KIAWAH RIVER TRIBUTARY KIAWAH RESORT/CASSIQUE GOLF COURSE	SC0048186 MINOR DOMESTIC
HUT CREEK TO STONO RIVER THREE OAKS/CHICKEN FARM MINE	SCG730083 MINOR INDUSTRIAL
LOG BRIDGE CREEK MURRAY SAND CO./DUNGANNON PIT	SCG730139 MINOR INDUSTRIAL
PENNER BRANCH W. FRAZIER CONSTRUCTION/RAVENEL MINE	SCG730374 MINOR INDUSTRIAL
PENNER BRANCH CHARLESTON CO./KINSEY-BLAKE	SCG730617 MINOR INDUSTRIAL
STONO RIVER TRIBUTARY MURRAY SAND CO./WOODLAND PLANTATION MINE	SCG731004 MINOR INDUSTRIAL

STONO RIVER TRIBUTARY	SCG731009
DH HANKINS TRUCKING LLC/RASHFORD POND II MINE	MINOR INDUSTRIAL
ABBAPOOLA CREEK	SCG731036
JAMES C ONEAL/LEGAREVILLE MINE	MINOR INDUSTRIAL
PENNER BRANCH	SCG731047
ST JOHNS LAKES MINE	MINOR INDUSTRIAL
PENNER BRANCH	SCG731146
BOYER & READEN/BENWOOD FARM MINE	MINOR INDUSTRIAL
ABBAPOOLA CREEK	SCG731172
LOW COUNTRY SITE SERVICES/BRIARS CREEK MINE	MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

RECEIVING STREAM	***NPDES#***
MUNICIPALITY	***MS4 PHASE***
RESPONSIBLE PARTY	***MS4 SIZE***
IMPLEMENTING PARTY	
STONO RIVER	SCR031901
CITY OF CHARLESTON	PHASE II
CITY OF CHARLESTON	SMALL MS4
CITY OF CHARLESTON	
STONO RIVER	SCR031903
CITY OF FOLLY BEACH	PHASE II
CITY OF FOLLY BEACH	SMALL MS4
CHARLESTON COUNTY	
STONO RIVER	SCR031902
UNINCORPORATED AREAS	PHASE II
CHARLESTON COUNTY	SMALL MS4
CHARLESTON COUNTY	

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME	***PERMIT #***
FACILITY TYPE	***STATUS***
BEES FERRY LANDFILL	----------
MUNICIPAL	INACTIVE
BEES FERRY LANDFILL	101001-1101
MUNICIPAL	ACTIVE
CHARLESTON CO. BEES FERRY C&D & LCD LANDFILL	101001-1201
C&D	ACTIVE
TRIDENT SANITARY LANDFILL	----------
MUNICIPAL	INACTIVE
CHARLESTON CO. COMPOSTING FACILITY	101001-3001
COMPOSTING	ACTIVE
SUNNYSIDE FARMS COMPOSTING	102646-3001
COMPOSTING	ACTIVE

DIMARE'S LAND APPLICATION	102643-8001
LAND APPLICATION	ACTIVE

Land Application Sites

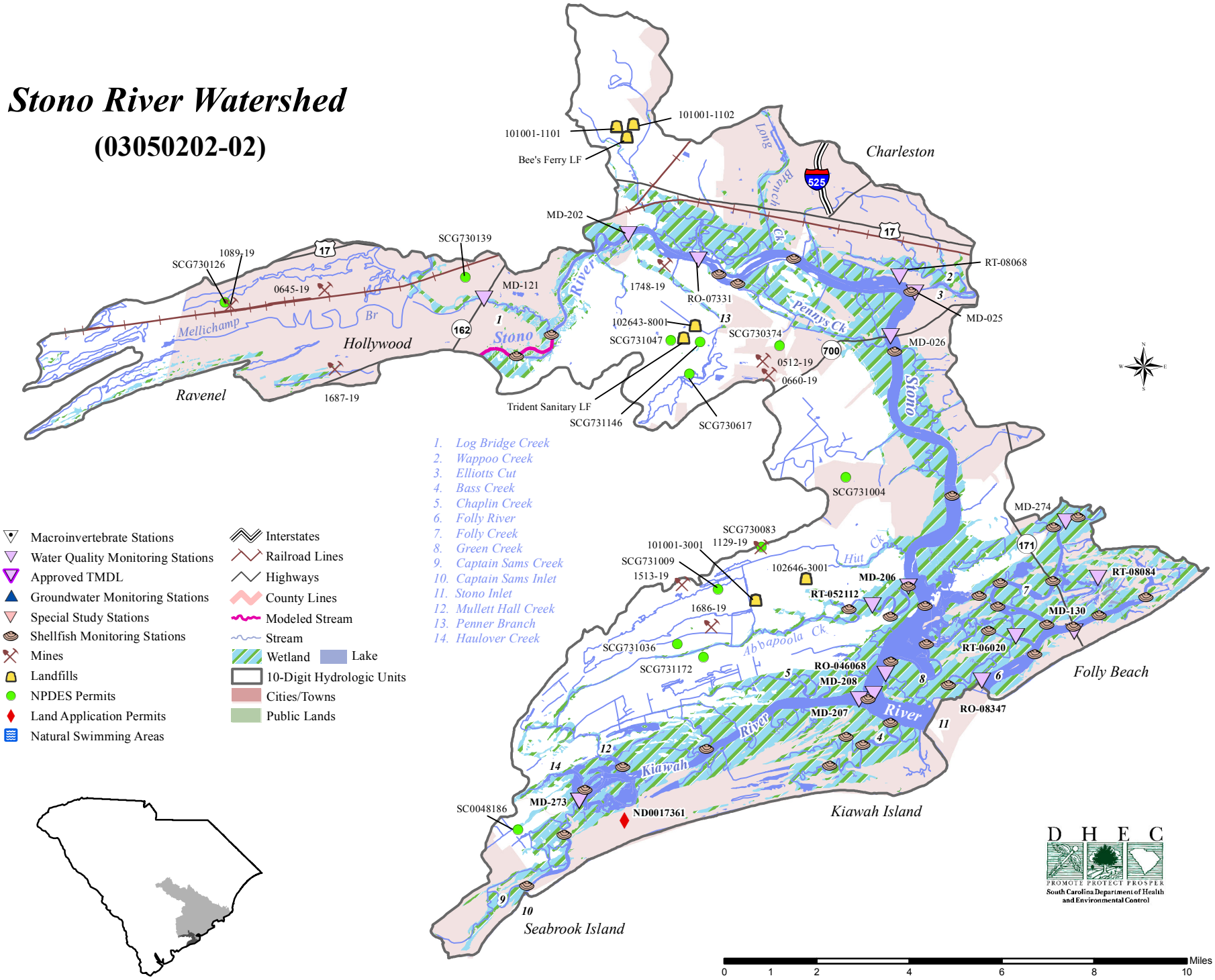
LAND APPLICATION FACILITY NAME	***PERMIT # YPE***
SPRAY ON GOLF COURSE	ND0017361
KIAWAH ISLAND UTILITIES	DOMESTIC

Mining Activities

MINING COMPANY MINE NAME	***PERMIT # MINERAL***
MAD DOG MINING, INC. (FELDER)	0645-19
MAD DOG MINE #2	SAND; SAND/CLAY
D&A PARTNERSHIP	1089-19
RAVENEL MINE	SAND
W. FRAZIER CONSTRUCTION CO., INC. (DIRTCO)	0512-19
MURRAY WOODS PIT	SAND/CLAY
ISLAND CONSTRUCTION CO., INC.	0660-19
TREMONT MINE	SAND
THREE OAKS CONTRACTORS, INC.	1129-19
CHICKEN FARM MINE	SAND
MURRAY SAND CO., INC.	1513-19
DAVIS PIT	SAND
DH HANKINS TRUCKING CO. LLC	1686-19
RASHFORD MINE	SAND/TOP SOIL
JOHN & BEAULAH MITCHELL	1687-19
WOODROW ROAD MINE	SAND/TOP SOIL
OLD POND LLC	1748-19
OLD POND SAND MINE	SAND/TOP SOIL

Growth Potential

There is a high potential for growth in this watershed, which contains the Towns of Kiawah Island, Ravenel and Hollywood, the City of Folly Beach, and portions of the City of Charleston and the Towns of Seabrook Island, and Mount Pleasant. Suburban growth areas include: the Dills Property, Ellis Property II, Stiles Point Plantation, Stonefield, Fort Lamar, Grimbel Shores and Harborwoods III on James Island; Kiawah Island; Andell Property, Hope Plantation, Rushland Plantation, Headquarters Plantation, and Fenwick Acres on Johns Island; Stono Ferry in Hollywood; and Bees Landing and Essex Farms in the City of Charleston. Water and Sewer services are available to all these growth areas.

Stono River Watershed

(03050202-02)