Broad River/Beaufort River/Port Royal Sound

Broad River, Beaufort River, Port Royal SoundThe Broad River/Beaufort River/Port Royal Sound Basin (hydrologic unit 03050208) is located in Allendale, Hampton, Jasper, and Beaufort Counties, and encompasses 6 watersheds and 935 square miles. The Broad River/ Beaufort River/Port Royal Sound Basin flows through the Coastal Zone region. Of the 598,127 acres, 37.5% is forested land, 20.6% is forested wetland (swamp), 13.0% is agricultural land, 10.8% is water, 10.7% is nonforested wetland (marsh), 7.1% is urban land, and 0.3% is barren land. The urban land percentage is comprised chiefly of a portion of Hilton Head Island and the Beaufort area. There are approximately 1,482 stream miles, 1,129 acres of lake waters, and 54,485 acres of estuarine areas in this basin.

The Coosawhatchie River originates near the Town of Allendale, and accepts drainage from Black Creek (Lake George Warren) and Cypress Creek before merging with the Pocotaligo River to form the Broad River. The Broad River joins the Chechessee River and the Beaufort River to form Port Royal Sound.

For an overview of water quality in the Broad River/Beaufort River/Port Royal Sound Watershed, download the water quality assessment summary. For specific basin descriptions, facts, figures, and detailed maps click on a watershed below.

HUC 03050208

03050208-01

(Black Creek)

General Description

Watershed 03050208-01 (formerly 03050208-060) is located in Allendale and Hampton Counties and consists primarily of ***Black Creek*** and its tributaries. The watershed occupies 40,363 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes 37.3% forested land, 30.6% agricultural land, 23.2% forested wetland, 7.2% urban land, 0.8% water, 0.8% nonforested wetland, and 0.1% barren land. A map depicting this watershed is found in Appendix C, page C-22.

Black Creek accepts drainage from Filly Branch, Hurricane Branch, and Trowells Mill Branch before flowing through Lake George Warren (Brier Creek) and into the Coosawhatchie River. There are a total of 199.7 stream miles and 291.3 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
CSTL-075	INT	FW	LAKE WARREN, BLACK CREEK ARM, AT S-25-41, 5MI SW OF HAMPTON
RL-03331	RL03	FW	LAKE WARREN, 0.2MI W OF SPILLWAY NE CORNER OF LAKE
CL-062	W	FW	LAKE WARREN IN FOREBAY NEAR DAM

Lake George Warren - There are three SCDHEC monitoring stations along Lake Warren and recreational uses are fully supported at all sites. This is a blackwater system, characterized by naturally low pH and dissolved oxygen conditions. Although pH and dissolved oxygen excursions occurred at all sites, they were typical of values seen in blackwater systems and were considered natural, not standards violations. At the uplake site ***(CSTL-075)***, aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life chronic criterion. At the midlake site ***(RL-03331)***, aquatic life uses are not supported due to total phosphorus concentration, total nitrogen concentration, and chlorophyll excursions, and occurrences of zinc in excess of the aquatic life chronic criterion. At the downlake site ***(CL-062)***, aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life chronic criterion. There is a significant decreasing trend in pH at this site.

Nonpoint Source Management Program

Land Disposal Activities

Land Application Sites

LAND APPLICATION SYSTEM FACILITY NAME		*ND# TYPE*
SPRAYFIELD	ND0069701	
TOW N OF ESTILL	DOMES	TIC

Landfill Facilities

LANDFILL NAME FACILITY TYPE		*PERMIT # STATUS*
HAMPTO N COUNTY LANDFILL	251001-1101	
DOMESTIC	INACTIVE	

HAMPTO DOMESTIC	N COUNTY SANITARY LANDFILL INACTIVE	----------
HAMPTO DOMESTIC	N COUNTY SANITARY LANDFILL INACTIVE	----------
HAMPTO DOMESTIC	N COUNTY LANDFILL #3 INACTIVE	--------

HAMPTON COUNTY C&D & LCD LANDFILL C & D	251001-1201 ACTIVE
HAMPTON COUNTY COMPOSTING FACILITY COMPOSTING	251001-3001 ACTIVE

Mining Activities

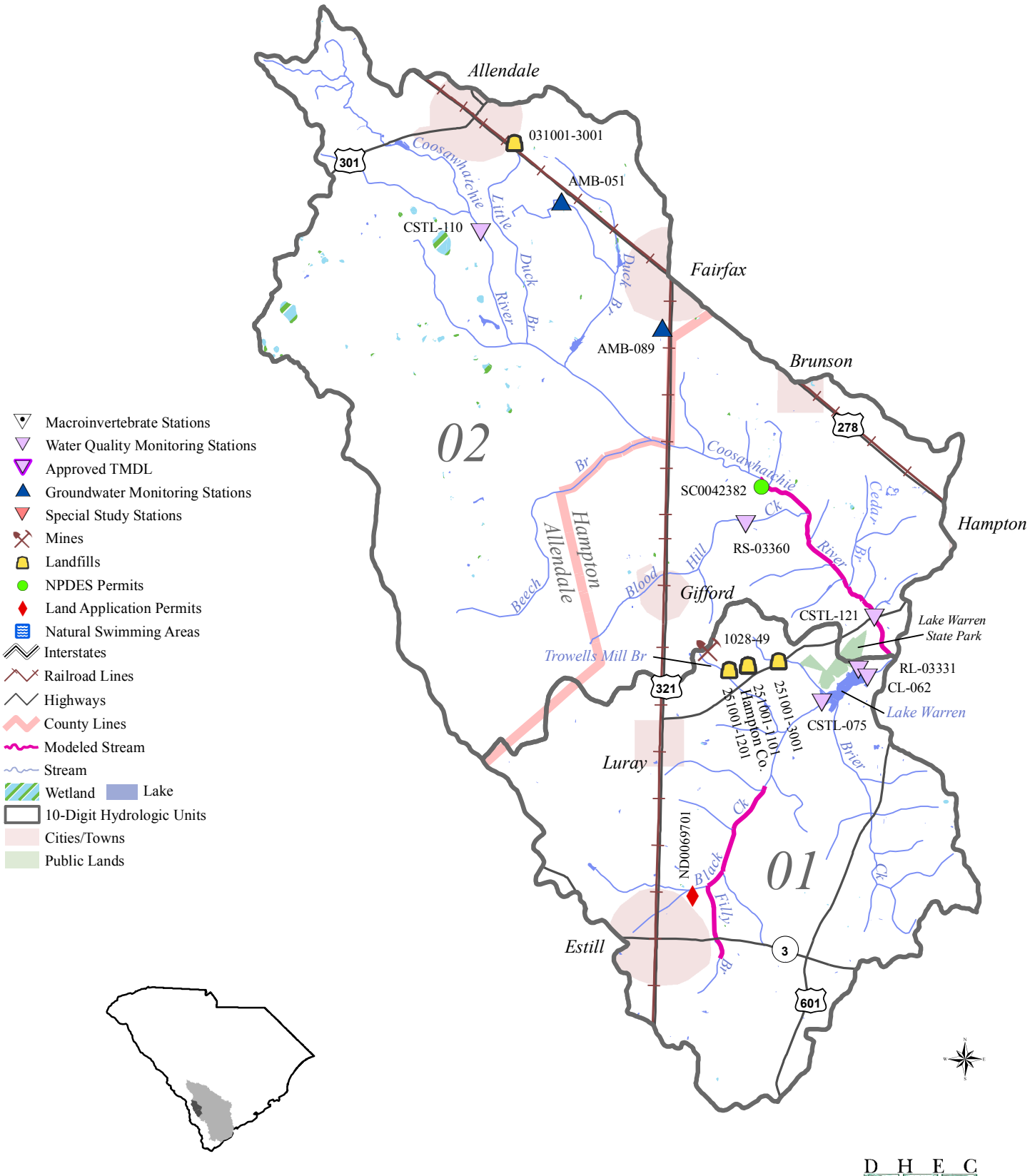
MINING COMPANY ***MINE NAME***	***PERMIT #*** ***MINERAL***
J.R. WILSON CONSTRUCTION COMPANY J.R. WILSON CONSTRUCTION	1028-49 SAND, SAND/CLAY

Growth Potential

There is a low potential for growth in this watershed, which contains the Towns of Luray and Estill. Slight growth is projected associated with the Federal Correctional Institution. Allendale County has adopted a zoning ordinance that includes River and Streamside Management Areas, restricting development within 100 feet of a river and 50 feet from perennial streams, which flow directly into the river.

Black Creek/Coosawhatchie River Watersheds

(03050208-01,-02)



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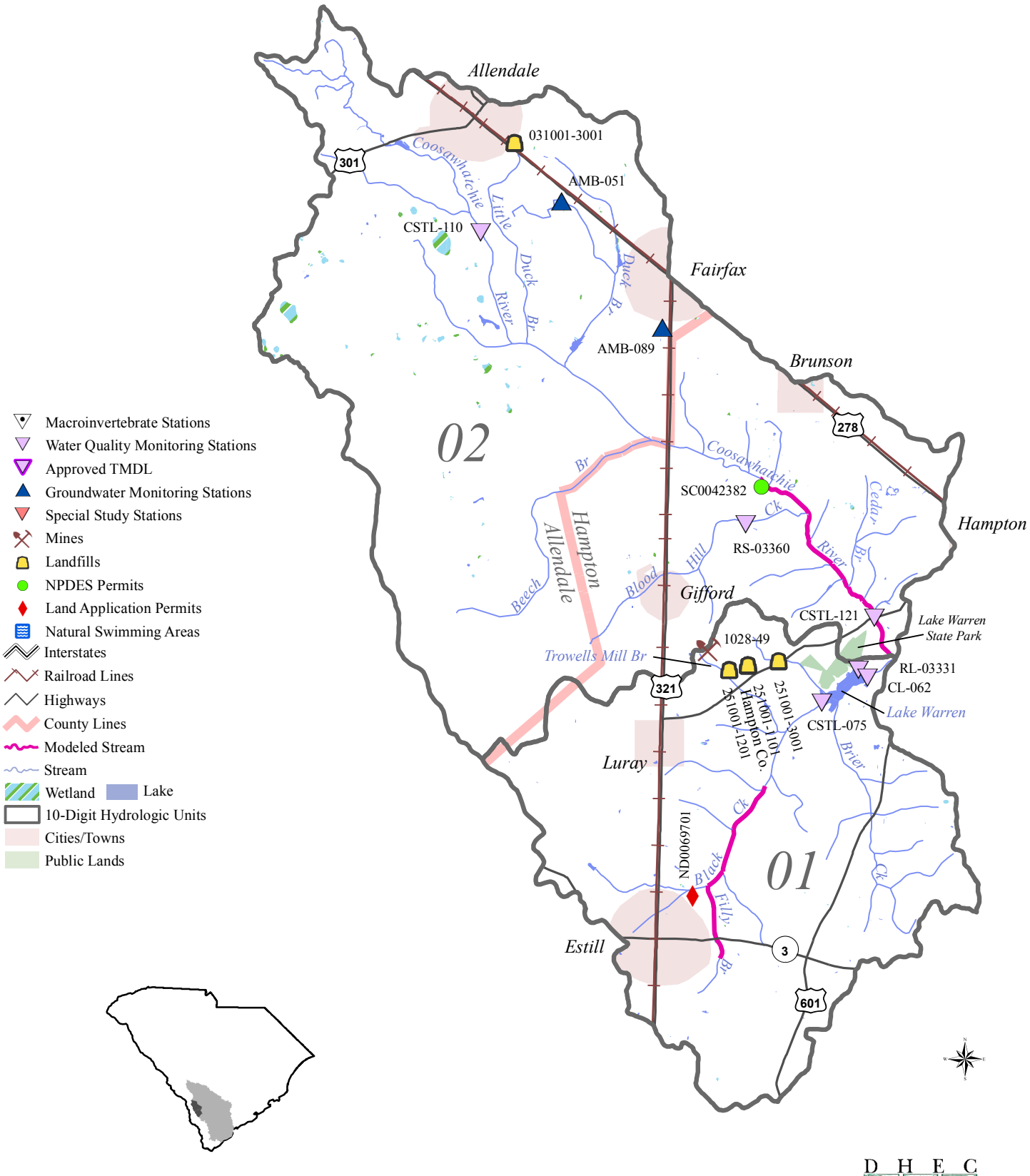
South Carolina Department of Health and Environmental Control

Black Creek/Coosawhatchie River Watersheds

(03050208-01,-02)



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South Carolina Department of Health and Environmental Control

03050208-02

(Coosawhatchie River)

General Description

Watershed 03050208-02 (formerly 03050208-050) is located in Allendale and Hampton Counties and consists primarily of the upper ***Coosawhatchie River*** and its tributaries from its origin to Black Creek The watershed occupies 80,614 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 42.2% forested land, 26.6% forested wetland, 23.7% agricultural land, 6.1% urban land, 0.9% nonforested wetland, 0.4% water, and 0.1% barren land. A map depicting this watershed is found in Appendix C, page C-22.

The Coosawhatchie River originates near the Towns of Allendale and Fairfax and accepts drainage from Swallow Savanna, Harters Pond, Little Duck Branch, Duck Branch, Beech Branch (Levy Bay), Blood Hill Creek, and Cedar Branch. There are a total of 203.0 stream miles and 163.3 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
CSTL-110	W	FW	COOSAWHATCHIE RIVER AT S-03-47
RS-03360	RS03	FW	BLOOD HILL CREEK AT S-25-69, 2.4MI NE OF GIFFORD
CSTL-121	INT	FW	COOSAWHATCHIE RIVER AT SC 363

Coosawhatchie River – There are two SCDHEC monitoring stations along this portion of the Coosawhatchie River. At the upstream site ***(CSTL-110)***, aquatic life uses are partially supported due to dissolved oxygen excursions; which are compounded by a significant decreasing trend in dissolved oxygen concentration. Significant decreasing trends in turbidity, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the downstream site ***(CSTL-121)***, aquatic life uses are not supported due to dissolved oxygen excursions and occurrences of zinc in excess of the aquatic life chronic criterion. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Blood Hill Creek (RS-03360) – Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-051	GB	PEE DEE/BLACK CREEK	ALLENDALE
AMB-089	GB	TERTIARY LIMESTONE	FAIRFAX

All water samples collected from ambient monitoring wells ***AMB-051*** and ***AMB-089*** met standards for Class GB groundwater.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME*	*NPDES#* *TYPE*
COOSAWHATCHIE RIVER TOWN OF BRUNSON	SC0042382 MINOR DOMESTIC

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME *FACILITY TYPE*		*PERMIT #* *STATUS*
TOWN OF ALLENDALE COMPOSTING COMPOSTING	031001-3001	 ACTIVE

Growth Potential

There is a low potential for growth in this watershed, which contains the portions of the Towns of Allendale, Fairfax, and Brunson, and the Town of McColl. Half of Allendale County's population lives in the Towns of Allendale and Fairfax. US 278 runs between the towns and is projected to support increased commercial growth. There is no indication of industrial growth, but Allendale and Fairfax are the only towns in the county with sewer systems and a rail line to support industry. Allendale County has adopted a zoning ordinance that includes River and Streamside Management Areas, restricting development within 100 feet of a river and 50 feet from perennial streams, which flow directly into the river.

03050208-03

(Cypress Creek)

General Description

Watershed 03050208-03 (formerly 03050208-080) located in Hampton and Jasper Counties and consists primarily of the ***Cypress Creek*** and its tributaries. The watershed occupies 54,122 acres of the Lower Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 50.3% forested land, 23.7% forested wetland, 21.9% agricultural land, 3.4% urban land, 0.5% nonforested wetland, and 0.2% water. A map depicting this watershed is found in Appendix C, page C-23.

Cypress Creek originates near the Town of Furman and accepts drainage from Cane Gall, Johns Pen Creek (Zigzag Branch) and Beaverdam Branch before flowing into the Coosawhatchie River. There are a total of 255.9 stream miles and 77.4 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
CSTL-582	BIO	FW	CYPRESS CREEK AT SC 3
CSTL-122	INT	FW	CYPRESS CREEK AT S-27-108

Cypress Creek – There are two SCDHEC monitoring stations along Cypress Creek. At the upstream site ***(CSTL-582)***, aquatic life uses are fully supported based on macroinvertebrate community data. At the downstream site ***(CSTL-122)***, aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life chronic criterion. This is a blackwater system, characterized by naturally low pH and dissolved oxygen conditions. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Significant decreasing trends in turbidity and increasing trends in dissolved oxygen concentration suggest improving conditions for these parameters. Recreational uses are fully supported.

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-099	GB	TERTIARY LIMESTONE	GRAYS
AMB-114	GB	TERTIARY LIMESTONE	WSBH RADIO

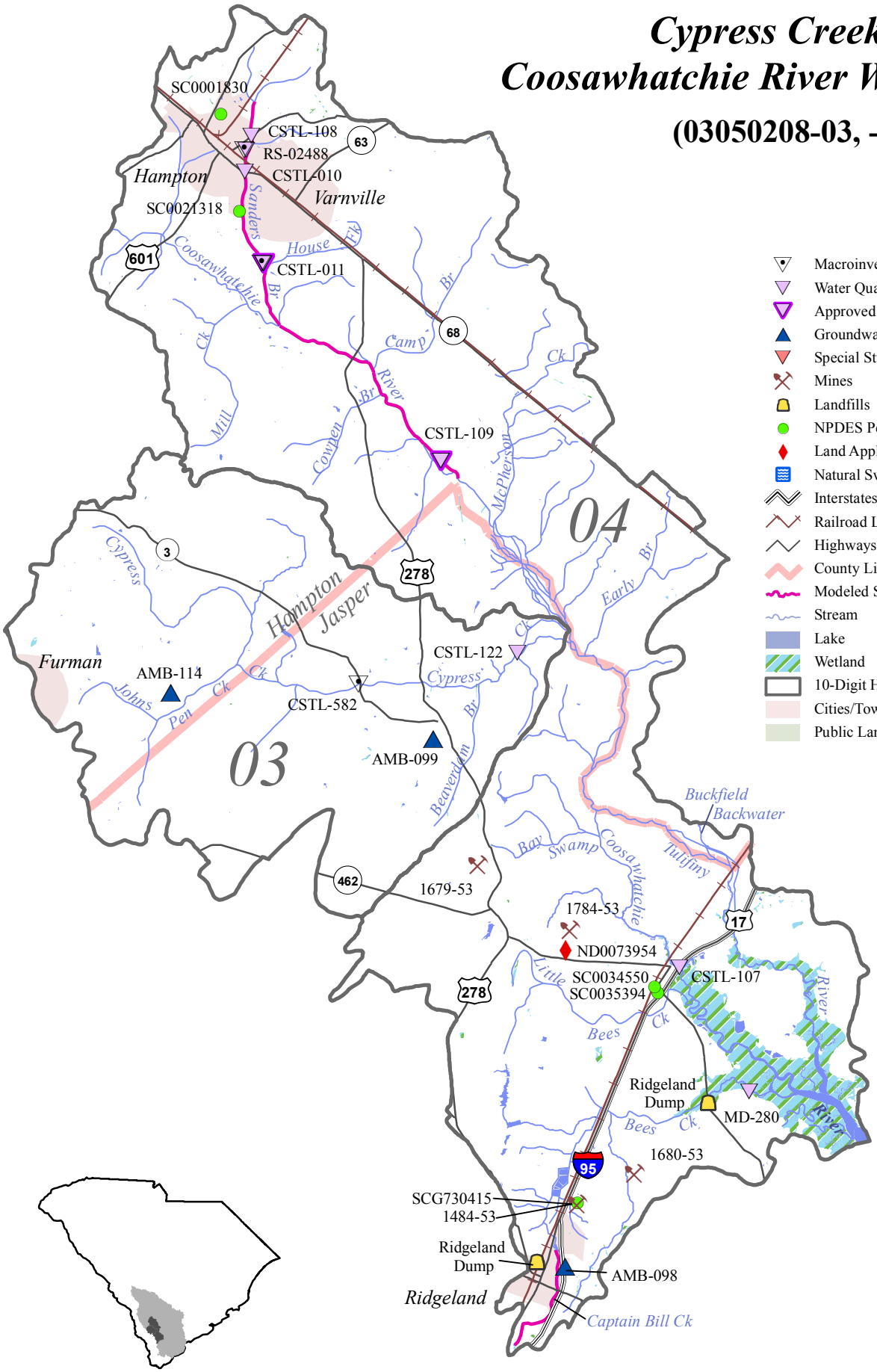
All water samples collected from ambient monitoring wells ***AMB-099*** and ***AMB-144*** met standards for Class GB groundwater.

Growth Potential

There is a low potential for growth in this watershed, which contains a portion of the Town of Furman.

Cypress Creek/ Coosawhatchie River Watersheds

(03050208-03, -04)



- 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

Miles
0 1 2 4 6

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03050208-04

(Coosawhatchie River)

General Description

Watershed 03050208-04 (formerly 03050208-070) is located in Hampton and Jasper Counties and consists primarily of the lower ***Coosawhatchie River*** and its tributaries from Black Creek to its confluence with the Pocotaligo River to form the Broad River. The watershed occupies 139,936 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. Land use/land cover in the watershed includes: 44.8% forested land, 29.1% forested wetland, 14.9% agricultural land, 6.0% urban land, 3.9% nonforested wetland, and 1.3% water. A map depicting this watershed is found in Appendix C, page C-23.

This section of the Coosawhatchie River accepts drainage from Horse Pond, Mill Creek, Sanders Branch (House Fork), Camp Branch, Cowpen Branch, Horsegall Creek, Lowndes Lake, McPherson Creek, Broadway Branch, Big Branch, the Cypress Creek Watershed, and Early Branch. The Tulifiny River (Buckfield Backwater) breaks away from the Coosawhatchie downstream of Early Branch, and rejoins it at the base of the watershed before flowing into the Broad River. Buckfield Backwater connects the Tulifiny River to the Pocotaligo River. Downstream of the division, the Coosawhatchie River accepts drainage from Bay Swamp, Little Bees Creek, and Bees Creek (Captain Bill Creek). There are a total of 590.0 stream miles, 376.4 acres of lake waters, and 947.1 estuarine acres in this watershed. The Coosawhatchie River and its tributaries, with the exception of Sanders Branch and Bees Creek are classified FW above the saltwater intrusion and SFH below the intrusion (in the vicinity of U.S. Hwy 17). Sanders Branch is classified FW* (DO no less than 4 mg/l and pH 5.0-8.5) and Bees Creek is classified SB. Captain Bill Creek is classified FW.

Surface Water Quality

Station #	Type	Class	Description
CSTL-108 W		FW*	SANDERS BRANCH AT SC 363
RS-02488 RS02/BIO		FW	SANDERS BR FROM BRIDGE AT PAVED RD FROM SC 363 N
CSTL-010 W		FW*	SANDERS BRANCH AT SC 278
CSTL-011 W/BIO		FW*	SANDERS BRANCH AT S-25-50
CSTL-109 INT		FW	COOSAWHATCHIE RIVER AT S-25-27, 2.5MI SW OF CUMMINGS
CSTL-107	W	FW/SFH C	OOSAWHATCHIE RIVER AT US 17 AT COOSAWHATCHIE
MD-280	W	SB	BEES CREEK AT WALL FAMILY CAMP FLOATING DOCK

Sanders Branch – There are four SCDHEC monitoring stations along Sanders Branch. At the furthest upstream site ***(CSTL-108)***, aquatic life uses are fully supported. There is a significant increasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions. Further downstream ***(RS-02488)***, aquatic life uses are not supported based on macroinvertebrate community data and occurrences of zinc in excess of the aquatic life chronic criterion. Recreational uses are not supported due to fecal coliform bacteria excursions. At the next site downstream ***(CSTL-010)***, aquatic life uses are fully supported. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions. Although there were occurrences of zinc in excess of the aquatic life

chronic criterion at the furthest downstream site ***(CSTL-011)***, aquatic life uses are fully supported based on macroinvertebrate community data. There is a significant increasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters at this site. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Coosawhatchie River – There are two SCDHEC monitoring stations along this portion of the Coosawhatchie River. At the upstream site ***(CSTL-109)***, aquatic life uses are not supported due to occurrences of zinc 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. Significant decreasing trends in turbidity, total phosphorus and total nitrogen concentration, total suspended solids, and fecal coliform bacteria concentration suggest improving conditions for these parameters. Recreational uses are fully supported. At the downstream site ***(CSTL-107)***, aquatic life uses are not supported due to dissolved oxygen and pH excursions and occurrences of zinc in excess of the aquatic life chronic criterion. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Bees Creek (MD-128) – Aquatic life uses are not supported due to dissolved oxygen and turbidity excursions. Although pH excursions occurred, they were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions.

A fish consumption advisory has been issued by the Department for mercury and includes the Coosawhatchie River within this watershed (see advisory p.74).

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-098	GB	TERTIARY LIMESTONE	RIDGELAND

All water samples collected from ambient monitoring well ***AMB-098*** met standards for Class GB groundwater.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / *FACILITY NAME*		*NPDES#* / *TYPE*
SANDERS BRANCH TOWN OF HAMPTON	MAJOR	SC0021318 DOMESTIC
SANDERS BRANCH NEVAMAR COMPANY, LLC	MAJOR	SC0001830 INDUSTRIAL
LITTLE BEES CREEK COOSAWHATCHIE LAND COMPANY, LLC		SC0035394 MINOR DOMESTIC

LITTLE BEES CREEK TRIBUTARY			SC0034550
STUCKEYS PECAN SHOPPE #083	MINOR		DOMESTIC
COOSAWHATCHIE RIVER TRIBUTARY			SCG730415
NATHAN WILSON/JASPER MINE	MINOR		INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Land Application Sites

LAND APPLICATION SYSTEM FACILITY NAME		*ND# TYPE*
LAND APPLICATION	ND0073954	
DEGLER	SEPTIC TANK & GREASE	DOMESTIC

Landfill Facilities

LANDFILL NAME FACILITY TYPE		*PERMIT # STATUS*
TOWN OF RIDGELAND DUMP	----------	
DOMESTIC	INACTIVE	
TOWN OF RIDGELAND DUMP #3		----------
DOMESTIC	INACTIVE	

Mining Activities

MINING COMPANY MINE NAME		*PERMIT # MINERAL*
JERRY KERBY INC.	1679-53	
KERBY POND MINE	SAND	
DARRELL THOMAS JOHNSON JR.	1784-53	
SLATER MINE	SAND	
NATHAN WILSON	1484-53	
JASPER MINE	SAND	
DOUBLE B CONSTRUCTION	1680-53	
SPRING HILL MINE	SAND	

Growth Potential

There is a low to moderate potential for growth in this watershed, which contains the Town of Varnville and a portion of the Town of Ridgeland. There is a high potential for residential growth in the Ridgeland area. Ridgeland has expanded its regional treatment facility, which was built to address the needs of Del Webb's Sun City and Hilton Head. I-95 crosses the Town of Ridgeland and may provide some growth to the area.

Watershed Protection and Restoration Strategies

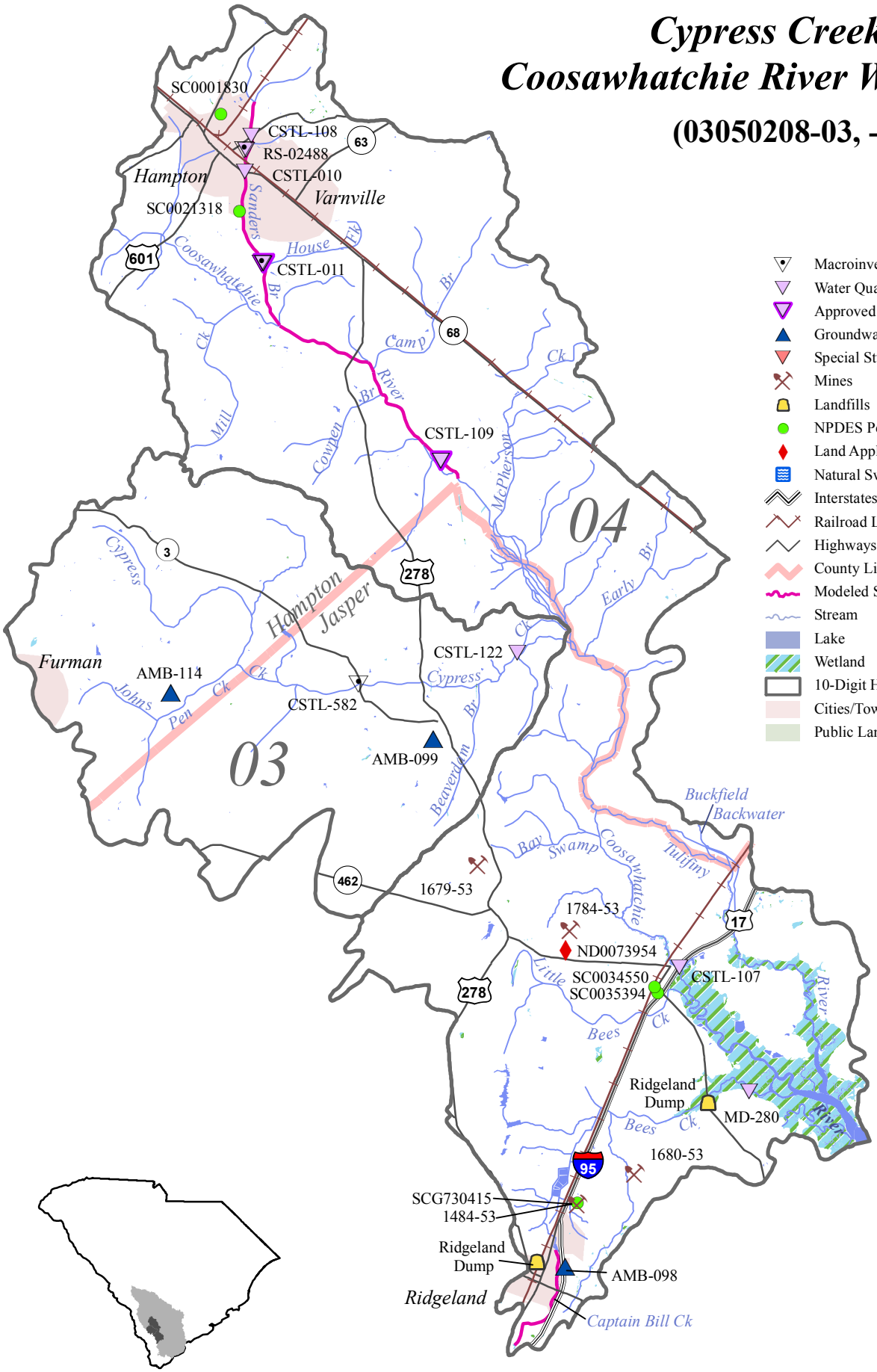
Total Maximum Daily Loads (TMDLs)

Dissolved oxygen (DO) TMDLs were developed by SCDHEC and approved by EPA for **Sanders Branch** and the **Coosawhatchie River** at water quality monitoring sites CSTL-108, CSTL-010, CSTL-011, and CSTL-109. TMDLs determine the maximum amount of biochemical oxygen demand (BOD)

that water bodies can receive and still meet the dissolved oxygen water quality standard. Two continuous NPDES dischargers and one intermittent NPDES discharger are permitted to discharge BOD into Sanders Branch. The TMDL provides BOD_5 and NH_3-N limits for the two NPDES dischargers so that the streams can meet the dissolved oxygen standards. No reductions are required for nonpoint sources.

Cypress Creek/ Coosawhatchie River Watersheds

(03050208-03, -04)



- 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

Miles
0 1 2 4 6

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03050208-05

(Beaufort River/Port Royal Sound)

General Description

Watershed 03050208-05 (formerly portions of 03050208-090, -100) is located in Beaufort County and consists primarily of the ***Beaufort River*** and its tributaries as it flows into ***Port Royal Sound***. The watershed occupies 56,305 acres of the Coastal Zone region of South Carolina. Land use/land cover in the watershed includes: 29.6% nonforested wetland, 25.6% forested land, 21.7% water, 14.4% urban land, 4.3% forested wetland, 3.7% agricultural land, and 0.7% barren land. A map depicting this watershed is found in Appendix C, page C-24.

Brickyard Creek (Mulligan Creek) and Albergottie Creek (Salt Creek) join to form the Beaufort River, which accepts drainage from Pigeon Point Creek, Broomfield Creek, Factory Creek, Battery Creek, Cat Island Creek, Archers Creek, Cowen Creek (Distant Island Creek, Capers Creek), and Ballast Creek before draining into Port Royal Sound. Cowen Creek is also described as Chowan Creek, and Capers Creek is also known as Wallace Creek. Cat Island Creek connects the Beaufort River to Cowen Creek. Archers Creek and Ballast Creek connect the Beaufort River to the Broad River. Station Creek and Morse Island Creek drain directly into Port Royal Sound. There are a total of 10,790.5 estuarine acres in this watershed. The Beaufort River and its tributaries from the confluence of Albergottie Creek and Brickyard Creek (SFH) to a point between Battery Creek and Cat Island Creek are classified SA; and from that point to its confluence with Port Royal Sound they are classified SFH. Cat Island Creek and Cowen Creek are classified SFH. Battery Creek is classified SA from the two unnamed headwater creeks down to a point 100 feet below their confluence at Rabbits Island (which includes Jericho Creek) and SFH from that point to its confluence with the Beaufort River. Archers Creek and Ballast Creek are classified SA in this watershed.

Surface Water Quality

Station #	Type	Class	Description
RT-02013	RT02	SA	BROOMFIELD CREEK, 0.8 MI N OF BEAUFORT
MD-001	INT	SA	BEAUFORT RIVER ABOVE BEAUFORT AT CHANNEL MARKER 231
RT-032039	RT03	SA	FACTORY CREEK, 0.7 MI E OF WHITE HALL LANDING
MD-002	W	SA	BEAUFORT RIVER AT DRAWBRIDGE ON US 21
RO-02003	RO02	SA	BEAUFORT RIVER NEAR SPANISH POINT
MD-003	W	SA	BEAUFORT RIVER BELOW BEAUFORT AT CHANNEL MARKER 244
RT-032043	RT03	SFH	BATTERY CREEK TRIB., 0.1 MI N CONFL & 1.25MI N SC 802 BRIDGE
MD-004	INT	SFH	BEAUFORT RIVER AT JUNCTION WITH BATTERY CREEK NEAR MARKER 42
RO-036033	RO03	SFH	DISTANT ISLAND CREEK, 0.7 MI E OF WHITE HALL LANDING
RO-056105	RO05	SFH	FACTORY CREEK, 0.1 MI NW CONFLUENCE WITH COWEN CREEK
MD-005	W	SFH	BEAUFORT RIVER BELOW OUTFALL OF PARRIS IS. MARINE BASE AT BUOY 29
RT-06002	RT06	SFH	MORSE ISLAND CREEK, 1.2 MI ENE CONFLUENCE WITH PORT ROYAL SOUND
RT-052104	RT05	SFH	MORSE ISLAND CREEK TRIB, 0.7 MI ESE CONFL WITH PORT ROYAL SOUND

Broomfield Creek (RT-02013) - Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low pH and dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Beaufort River – There are six SCDHEC monitoring stations along the Beaufort River. At the furthest upstream site ***(MD-001),*** aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. At the next site downstream (***MD-002),*** aquatic life and recreational uses are fully supported and a significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. Aquatic life and recreational uses are also fully supported at the next site, ***RO-02003.*** Further downstream ***(MD-003),*** aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in turbidity. A significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter at this site. Continuing downstream ***(MD-004),*** aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand and total phosphorus concentration. At the furthest downstream site ***(MD-005),*** aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand and total phosphorus concentration. There is a significant decreasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in total nitrogen concentration and fecal coliform bacteria concentration suggest improving conditions for these parameters.

Factory Creek – There are two SCDHEC monitoring stations along Factory Creek ***(RT-032039, RO-056105)*** and aquatic life and recreational uses are fully supported at both sites. This is a tidally influenced system, which are often characterized by naturally low pH and dissolved oxygen concentrations. Although dissolved oxygen excursions were noted at ***RO-056105***, they were typical of values seen in such systems and are considered natural, not standards violations.

Battery Creek Tributary (RT-032043) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low pH and dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Distant Island Creek (RO-036033) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low pH and dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Morse Island Creek (RT-06002) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low pH and dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Morse Island Creek Tributary (RT-052104) – Aquatic life and recreational uses are fully supported.

As of 2010, fish tissue analyses on species caught from Port Royal Sound indicate no advisories or restrictions on consumption of fish from these waters. See http://www.scdhec.gov/fish *for current details.*

Shellfish Monitoring Stations

Station #	Description
15-02	Mulligan Creek at Brickyard Creek
15-10	Battery Creek at Five Points Creek
15-14	Parris Island at WWTP outfall
15-15	Ballast Creek at Beaufort River
15-16	Station Creek at Beaufort River
15-17	Cat Island Creek at Cowen Creek
15-18	Second Middle Marsh in Cowen Creek
15-19	Battery Creek 1000 feet below Rabbit Island
15-20	Capers Creek SSG at Penn Community Services Retreat Center
15-21	Unnamed creek at (former) discharge of BC High and Cherry Hill High
15-23	Distant Island State Shellfish Ground
15-24	Battery Creek – SC Hwy 280 bridge
15-25	Battery Creek – Dowlingwood tributary
15-26	Battery Creek – Picket Fence tributary
15-27	Battery Creek – Cherry Hill tributary
15-28	Battery Creek – storm water outfall under RR track
15-29	Battery Creek – Tributary on right side before Battery Shores
15-30	Battery Creek – Cottage Farms Community Dock
15-31	Battery Creek – Battery Point Community Dock
15-32	Battery Creek – under power line
17-14	Port Royal Sound at Parris Island spit

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / *FACILITY NAME*		*NPDES#* / *TYPE*
BEAUFORT RIVER		SC0002577
U.S. MARINES/PARRIS ISLAND DEPOT	MINOR	INDUSTRIAL
ALBERGOTTI CREEK		SC0000825
U.S. MARINES/BEAUFORT AIR STATION	MINOR	INDUSTRIAL
BATTERY CREEK		SCG750015
OC WELCH FORD & LINCOLN MERCURY		MINOR INDUSTRIAL
BEAUFORT RIVER		SC0048348
BJW&SA/PORT ROYAL	MINOR	DOMESTIC
BEAUFORT RIVER		SC0048976
BJW&SA/PARRIS ISLAND RECRUIT DEPOT WWTP	MINOR	DOMESTIC
BEAUFORT RIVER TRIBUTARY		SCG730283
FRED TRASK/TRASK MINE		MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

RECEIVING STREAM / *MUNICIPALITY* / *RESPONSIBLE PARTY* / *IMPLEMENTING PARTY*	*NPDES#* / *MS4 PHASE* / *MS4 SIZE*
BEAUFORT RIVER ----------	
CITY OF BEAUFORT PHASE	II
CITY OF BEAUFORT SMALL	MS4
CITY OF BEAUFORT	

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME / *FACILITY TYPE*	*PERMIT #* / *STATUS*
ASSOCIATED MATERIALS WOOD GRIND SITE COMPOSTING	072731-3001 ACTIVE
BEAUFORT WOOD CHIPPING FACILITY COMPOSTING INACTIVE	071002-3001
SHANKLIN ROAD MULCHING FACILITY COMPOSTING INACTIVE	072700-3002
HURRICANE GRACIE LANDFILL --------- DOMESTIC INACTIVE	
OLD BEAUFORT DUMP -------- DOMESTIC INACTIVE	
BARNWELL RESOURCES, INC. LAND CLEARING COMPOSTING	072410-3001 ACTIVE
BARNWELL RESOURCES, INC. WOOD COMPOSTING COMPOSTING INACTIVE	072410-3002
BARNWELL RESOURCES, INC. ---------- INDUSTRIAL INACTIVE	
BARNWELL RESOURCES, INC. C&D LANDFILL C & D	072410-1201 ACTIVE

Land Application Sites

LAND APPLICATION SYSTEM / *FACILITY NAME*	*ND#* / *TYPE*
SPRAYSITE ND0067091 BEACHWOOD MHP DOMESTIC	
GOLF COURSE ND0067393 TJ BARNWELL UTILITIES, INC. DOMES	TIC

Growth Potential

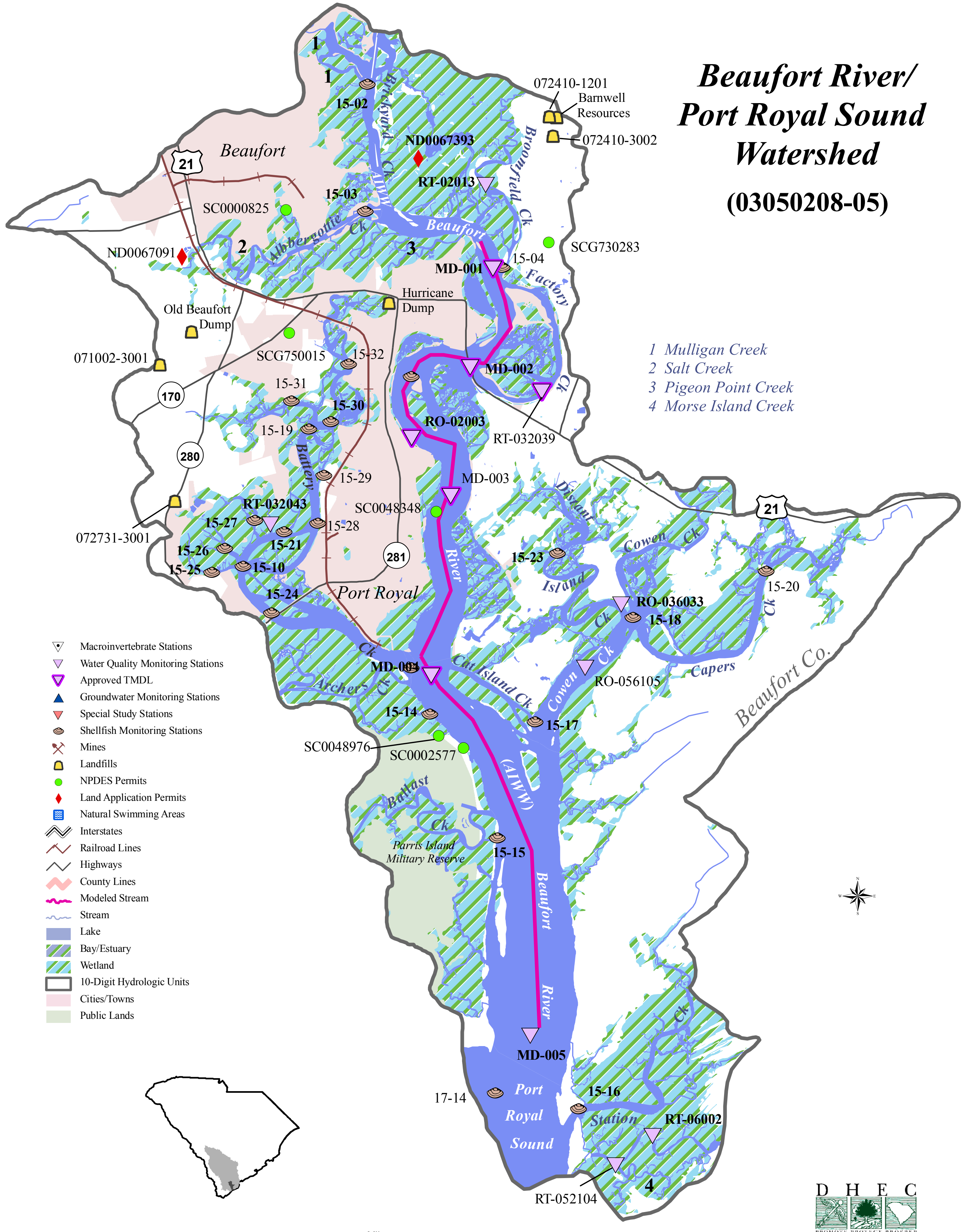
There is a high potential for growth in this watershed, which contains the Town of Port Royal and a large portion of the City of Beaufort. The City of Beaufort and Lady's Island, Burton, and Shell Point are projected to continue experiencing residential and commercial growth. Less than 25% of the total land area of Lady's Island, Burton or Shell Point is suitable for septic system installations; and another 25% or less is classified as marginally suitable.

The Town of Bluffton is an area experiencing substantial growth. Del Webb's Sun City retirement community development near Bluffton has added tremendous residential and commercial growth to the area. Between 25 and 50% of the total land area is suitable for septic system installations; and another 25% or less is classified as marginally suitable. Beaufort-Jasper Water and Sewer Authority has extended water and sewer services to the area to provide for the growth. They were then able to extend the services over to Hilton Head, where the natural aquifer is becoming shallow and salty. The area along US 278 en route from Bluffton to Hilton Head is a high growth commercial corridor. There are numerous golf and/or residential developments, and plans to develop nearby areas in a similar fashion. The new toll road that by-passes a portion of US 278 diverts the heavy commercial tourism traffic to more residential areas and the beaches. Calawassie Island on the Colleton River is currently being developed and a bridge has been built to Spring Island, which has allowed for residential development to occur.

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

Dissolved oxygen (DO) TMDLs were developed by SCDHEC and approved by EPA for the **Beaufort River** at water quality monitoring sites MD-001, MD-002, MD-003, MD-004, and RO-02003. TMDLs determine the maximum amount of ultimate oxygen demand (UOD) that water bodies can receive and still meet water quality standards for dissolved oxygen. Three NPDES facilities are permitted to discharge oxygen demanding constituents into the Beaufort River watershed. The TMDLs require reductions in the UOD WLA (wasteload allocation) to the Beaufort River from the NPDES dischargers to meet the target of dissolved oxygen depression of no more than 0.1 mg/L. Two scenarios are provided to accomplish the goal. No reductions are required for nonpoint sources.



Beaufort River/
Port Royal Sound
Watershed
(03050208-05)
1 Mulligan Creek
2 Salt Creek
3 Pigeon Point Creek
4 Morse Island Creek
Beaufort
Port Royal
Parris Island
Military Reserve
Beaufort Co.
Port Royal Sound
Beaufort River
(AIWW)
Broomfield Ck
Factory Ck
Albergottie Ck
Battery Ck
Archers Ck
Ballast Ck
Distant Island Ck
Cowen Ck
Capers Ck
Cat Island Ck
Station Ck
Brickyard Ck
072410-1201
Barnwell
Resources
072410-3002
ND0067393
RT-02013
SC0000825
SCG730283
ND0067091
MD-001
15-04
Hurricane
Dump
Old Beaufort
Dump
071002-3001
SCG750015
15-32
MD-002
RT-032039
15-31
15-30
15-19
RO-02003
MD-003
15-29
SC0048348
RT-032043
15-27
15-28
15-21
15-26
15-25
15-10
15-24
15-23
15-20
RO-036033
15-18
072731-3001
15-02
15-03
MD-004
RO-056105
15-14
15-17
SC0048976
SC0002577
15-15
MD-005
17-14
15-16
RT-06002
RT-052104
21
170
280
281
Macroinvertebrate Stations
Water Quality Monitoring Stations
Approved TMDL
Groundwater Monitoring Stations
Special Study Stations
Shellfish Monitoring Stations
Mines
Landfills
NPDES Permits
Land Application Permits
Natural Swimming Areas
Interstates
Railroad Lines
Highways
County Lines
Modeled Stream
Stream
Lake
Bay/Estuary
Wetland
10-Digit Hydrologic Units
Cities/Towns
Public Lands
0 1 2 4 Miles
D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

03050208-06

(Broad River/Port Royal Sound)

General Description

Watershed 03050208-06 (formerly a portion of 03050208-090) is located in Hampton, Jasper, and Beaufort Counties and consists primarily of the ***Broad River*** and ***Port Royal Sound*** and their tributaries. The watershed occupies 226,787 acres of the Coastal Zone region of South Carolina. Land use/land cover in the watershed includes: 31.3% forested land, 21.9% water, 17.8% nonforested wetland, 16.2% forested wetland, 7.2% urban land, 5.1% agricultural land, and 0.5% barren land. A map depicting this watershed is found in Appendix C, page C-25.

The Coosawhatchie River Watershed and the Pocotaligo River (Buckfield Backwater, Haulover Creek) join to form the Broad River. Downstream from the confluence, the Broad River accepts drainage from South Haulover Creek and Whale Branch (Huspa Creek, Haulover Creek, Big Island Creek). Whale Branch connects the Broad River to the Coosaw River. Downstream from Whale Branch, the river accepts drainage from Boyd Creek (West Branch Boyd Creek, East Branch Boyd Creek, Coles Creek, Big Pond, Middle Pond, River Pond), Habersham Creek, Euhaw Creek (White Hall Pond, Gregory Pond, Hazzard Creek, Bird Island Creek), Archers Creek, Ribbon Creek, and Ballast Creek before flowing into Port Royal Sound. Archers Creek and Ballast Creek connect the Broad River to the Beaufort River. The Chechessee River accepts drainage from Hazzard Creek (Whig Swamp, Sandy Hill Backwater), Chechessee Creek, the Colleton River (Okatie River, Callawassie Creek, Sawmill Creek), Mackay Creek, and Skull Creek (AIWW) before flowing into Port Royal Sound. Hazzard Creek drains into both Euhaw Creek and the Chechessee River. Mackay Creek and
Skull Creek connect Port Royal Sound to Calibogue Sound. There are a total of 233.9 stream miles, 220.6 acres of lake waters, and 42,747.8 estuarine acres in this watershed.

The Broad River and its tributaries are classified SFH, as is Port Royal Sound. The Chechessee River and its tributaries, except for the Colleton River, are classified SFH. The Colleton River and its tributaries including the Okatie River, Callawassie Creek, and Sawmill Creek are classified ORW.

Surface Water Quality

Station #	Type	Class		Description
MD-007 W		SFH	P	OCOTALIGO RIVER AT US 17 AT POCOTALIGO
RO-036031 RO03		SFH		BROAD RIVER, 0.6MI NW OF OLD SEABOARD COAST LINE RR CROSSING
RT-042061 RT04		SFH		SOUTH HAULOVER CREEK, 5.5MI SSW OF SHELDON
MD-254 INT		SFH	H	USPA CREEK AT RAILROAD TRESTLE
RO-056103 RO05		SFH		BROAD RIVER, 1.0MI W OF COTTON ISLAND
RT-02007 RT02		SFH		WHALE BRANCH TRIB., 0.3MI E OF CONFLUENCE WITH BROAD RIVER
MD-279 SSS		SFH	W	HALE BRANCH AT CONFLUENCE WITH BROAD RIVER
RO-06309 RO06		SFH		BROAD RIVER, 5.8MI N OF SC 170 BRIDGE OVER BROAD RIVER
RT-02009 RT09		SFH		BOYD CREEK, 3.3MI NW FROM CONFLUENCE WITH BROAD RIVER
RO-036035 RO03		SFH		WEST BRANCH BOYD CREEK, 1.3MI NWCONFL W/EAST BRANCH BOYD CREEK
RO-046075 RO04		SFH		BROAD RIVER, 2MI NNW (UPRIVER) OF SC 170
RO-06306 RO06		SFH		BROAD RIVER, 1.8MI N SC 170 BRIDGE OVER BROAD RIVER
RO-056097 RO05		SFH		BROAD RIVER, 1.2MI N SC 170
RT-052097 RT05		SFH		EUHAW CREEK, 1.5MI N SC 170 BRIDGE OVER BROAD RIVER

MD-116	INT	SFH	B	road River at SC 170, 7.5mi SW of Beaufort
MD-172	W	SFH	B	road River at mouth of Archer Creek on SW side of USMC
RO-046063	RO04	SFH		Broad River off Parris Is. betw Ballast and Ribbon Creeks
MD-012	W	SFH	M	outh of Broad River opposite Ballast Creek
MD-117	W	SFH	C	hechessee River at SC 170, 10.5mi SW of Beaufort
MD-176	INT	ORW	C	olleton River at Colleton Neck at jct with Chechessee River
RT-06013	RT06	ORW		Colleton River Trib, 5.1mi SSE of SC 170 bridge over Chechessee R.
MD-245	W	ORW	C	olleton River near mouth (shellfish station 18-5)
RO-036032	RO03	SFH		Chechessee River, 1.4mi SE confl with Colleton River
RO-056104	RO05	SFH		Chechessee River, 6.2mi SE of SC 170 near Daws Island
RO-036036	RO03	SFH		Chechessee River, 1.4mi N of Mackay Creek mouth
RO-036034	RO03	SFH		Port Royal Sound, 1.8mi SW of tip of Parris Island
RO-06302	RO06	SFH		Port Royal Sound,2.3mi SE of Daws Island
MD-006	W	SFH	P	ort Royal between buoy 25&24, W of Bay Point Island

Pocotaligo River (MD-007) – Aquatic life uses are not supported due to turbidity excursions. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations and pH levels. Although dissolved oxygen and pH excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations. 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 concentration suggests improving conditions for this parameter.

Broad River – There are ten SCDHEC monitoring stations along the Broad River. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations and pH levels. At the furthest upstream site ***(RO-036031)***, aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations. Further downstream (***RO-056103***), aquatic life and recreational uses are fully supported. At the next site downstream ***(RO-06309)***, aquatic life and recreational uses are fully supported. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations. Aquatic life and recreational uses are also fully supported at the next few sites downstream ***(RO-046075, RO-06306, RO-056097)***.

Further downstream ***(MD-116)***, aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life chronic criterion. In addition, there are significant increasing trends in five-day biochemical oxygen demand, turbidity, and total phosphorus concentration. There is a significant decreasing trend in pH. Significant increasing trends in dissolved oxygen concentration and decreasing trends in total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported. Aquatic life and recreational uses are fully supported at the next site downstream ***(MD-172)***; however, there is a significant increasing trend in total phosphorus concentration. At the furthest downstream sites ***(RO-046063, MD-012)***, aquatic life and recreational uses are fully supported.

South Haulover Creek (RT-042061) – Aquatic life and recreational uses are fully supported.

Huspa Creek (MD-254) – Aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life chronic criterion. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations. There is a significant decreasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration.

Tributary to Whale Branch (RT-02007) – Aquatic life and recreational uses are fully supported.

Whale Branch (MD-279) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Boyd Creek (RT-02009) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

West Branch Boyd Creek (RO-036035) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Euhaw Creek (RT-052097) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Chechessee River – There are four SCDHEC monitoring stations along the Chechessee River ***(MD-117, RO-036032, RO-056104, RO-036036)***. Aquatic life and recreational uses are fully supported at ***MD-117, RO-056104,*** and ***RO-036036.*** At ***RO-036032***, aquatic life uses are partially supported due to dissolved oxygen excursions. Recreational uses are fully supported.

Colleton River – There are two SCDHEC monitoring stations along the Colleton River. At the upstream site ***(MD-176)***, aquatic life uses are partially supported due to dissolved oxygen excursions. In addition, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration. At the downstream site ***(MD-245)***, aquatic life and

recreational uses are fully supported and a significant decreasing trend in total nitrogen concentration suggests improving conditions for this parameter.

Tributary to Colleton River (RT-06013) – Aquatic life and recreational uses are fully supported. This is a tidally influenced system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions were noted, they were typical of values seen in such systems and are considered natural, not standards violations.

Port Royal Sound – There are three SCDHEC monitoring stations along Port Royal Sound. At the upstream site ***(RO-036034)***, aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life chronic criterion. Recreational uses are fully supported. At the midstream site ***(RO-06302)***, aquatic life and recreational uses are fully supported. Aquatic life and recreational uses are also fully supported at the downstream site ***(MD-006)***; however, there is a significant increasing trend in total phosphorus concentration. Significant increasing trends in dissolved oxygen concentration and decreasing trends in fecal coliform bacteria concentration suggest improving conditions for these parameters. *As of 2010, fish tissue analyses on species caught from Port Royal Sound indicate no advisories or restrictions on consumption of fish from these waters.*

A fish consumption advisory has been issued by the Department for mercury and includes the Coosawhatchie River within this watershed (see advisory p.74).

Shellfish Monitoring Stations

Station #	Description
14-14	HUSPA CREEK AT RAILROAD TRESTLE
14-18	HUSPA CREEK AT BULL POINT- WHALE BRANCH POG
17-01	BROAD RIVER AT S.A.L. RR BRIDGE
17-02	BOYD CREEK AT BROAD RIVER
17-03	BROAD RIVER AT WHALE BRANCH
17-04A	USMC LAUREL BAY WWTP OUTPUT
17-07	MOUTH OF CHECHESSEE CREEK AT CHECHESSEE RIVER
17-08	CHECHESSEE RIVER BRIDGE
17-09	MOUTH OF EUHAW CREEK AT HAZZARD CREEK
17-10A	ARCHERS CREEK 1000 FEET WEST OF BRIDGE
17-12A	BALLAST CREEK NEAR PAGE FIELD ROAD CAUSEWAY
17-13	BROAD RIVER AT CREEK BELOW BALLAST CREEK
17-16	BROAD RIVER AT CORN ISLAND – MOUTH OF CREEK
17-16A	FIRST SPLIT IN HABERSHAM CREEK ABOVE STATION #16
17-17	HAZZARD CREEK AT CHECHESSEE RIVER
17-18	HAZZARD CREEK AT CHELSEA PLANTATION CLUBHOUSE
17-21	CONFLUENCE OF MIDDLE CREEK AND WHALE BRANCH
17-22	CONFLUENCE OF EAST AND WEST BRANCH OF BOYD CREEK
17-23	HEADWATERS OF EUHAW CREEK ONE MILE ABOVE BOLIN HALL LANDING
17-25	HAZZARD CREEK AT SECOND RIGHT BEND ABOVE STATION 17-17 AND 17-18
18-01	OKATIE RIVER AT CAMP ST. MARY'S DOCK
18-02	OKATIE RIVER BEHIND BAILEY'S OYSTER DOCK
18-03	CHECHESSEE CREEK AT OKATIE RIVER
18-04	CALLAWASSIE CREEK AT COLLETON RIVER, MOUTH OF CREEK

18-05	CALLAWASSIE CREEK AT COLLETON CREEK AT TREE LINE
18-06	SAWMILL CREEK AT COLLETON CREEK
18-07	OKATIE RIVER AT INDIGO PLANTATION
18-08	OKATIE RIVER AT DOCK WITHOUT HOUSE
18-09	FIRST UNNAMED TRIBUTARY IN CHECHESSEE CREEK FROM COLLETON RIVER
18-10	SECOND BRIDGE TO CALLAWASSIE ISLAND
18-11	FIRST BRIDGE TO CALLAWASSIE ISLAND
18-12	SERIES OF UNNAMED TRIBUTARIES IN CHECHESSEE CREEK
18-13	FIRST UNNAMED TRIBUTARY TO CHECHESSEE POINT IN CHECHESSEE CREEK
18-14	TRIBUTARY FROM SPRING ISLAND SHRIMP POND
18-15	DOCK AT WADDELL MARICULTURE CENTER
18-16	OKATIE RIVER AT CONFLUENCE OF PINKNEY COLONY TRIBUTARY
18-17	OKATIE RIVER AT CONFLUENCE OF CHERRY POINT TRIBUTARY
20-09	MACKEY CREEK AND CHECHESSEE RIVER
20-13	SKULL CREEK AND PORT ROYAL SOUND
20-27	FISH HAUL CREEK AT PORT ROYAL SOUND

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-029	GB	MIDDENDORF	PARRIS ISLAND
AMB-091	GB	TERTIARY LIMESTONE	SHELDON
AMB-093	GB	TERTIARY LIMESTONE	BLUFFTON

All water samples collected from ambient monitoring wells ***AMB-029, AMB-091,*** and ***AMB-093*** met standards for Class GB groundwater.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME*		*NPDES#* *TYPE*
BROAD RIVER USMC/MARINE CORPS AIR STATION		SC0000825 MINOR INDUSTRIAL
HUSPA CREEK BRAYS ISLAND PLANTATION WWTP		SC0047228 MINOR DOMESTIC
PALMETTO HALL PLANTATION WETLANDS HILTON HEAD NO.1 PSD WWTP		SC0046191 MAJOR DOMESTIC
BUCKFIELD BACKWATER DRAINAGE NATHAN WILSON/EARLY BRANCH MINE	MINOR	SCG730366 INDUSTRIAL
EUHAW CREEK DRAINAGE COASTAL CONCRETE INC./BEES CREEK MINE		SCG730670 MINOR INDUSTRIAL
DEL WEBB WETLAND BJW&SA/OKATIE WATER RECLAIM. FACILITY		SC0047279 MAJOR DOMESTIC
WHALE BRANCH TRIBUTARY REA CONTRACTING/BEAUFORT PIT	MINOR	SCG730609 INDUSTRIAL
HAZZARD CREEK OKEETEE CLUB/CROWFIELD ROAD MINE	MINOR	SCG730325 INDUSTRIAL

HAZZARD CREEK TRIBUTARY SCG731109
MALPHRUS UTILITIES/R&M PLANTATION MINE MINOR INDUSTRIAL

COLLETON RIVER TRIBUTARY SCG750028
NEIGHBORS CAR WASH MINOR INDUSTRIAL

Municipal Separate Storm Sewer Systems (MS4)

RECEIVING STREAM ***NPDES#***
MUNICIPALITY ***MS4 PHASE***
RESPONSIBLE PARTY ***MS4 SIZE***
IMPLEMENTING PARTY

BROAD RIVER ----------
CITY OF BEAUFORT PHASE II
CITY OF BEAUFORT SMALL MS4
CITY OF BEAUFORT

BROAD RIVER ----------
CITY OF HILTON HEAD ISLAND PHASE II
CITY OF HILTON HEAD ISLAND SMALL MS4
CITY OF HILTON HEAD ISLAND

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME ***PERMIT #***
FACILITY TYPE ***STATUS***

HICKORY HILL LANDFILL & RECYCLING CTR 272401-1101
DOMESTIC ACTIVE

HICKORY HILL LANDFILL & RECYCLING CTR 272401-1102
DOMESTIC INACTIVE

HICKORY HILL YT WASTE PROCESSING CTR 272401-3001
COMPOSTING INACTIVE

TOWN OF RIDGELAND DUMP #2 ----------
DOMESTIC INACTIVE

US MARINE CORP. RECRUITING DEPOT ----------
INDUSTRIAL INACTIVE

US MARINE CORP. RECRUITING DEPOT ----------
--------- INACTIVE

US MARINE CORP. RECRUITING DEPOT CC LANDFILL 075001-1201
INDUSTRIAL INACTIVE

US MARINE CORP. RECRUITING DEPOT ----------
--------- INACTIVE

BEAUFORT COUNTY SANITARY LANDFILL ----------
DOMESTIC INACTIVE

CITY OF BEAUFORT WWPT ----------
INDUSTRIAL INACTIVE

OAKWOOD C&D WOOD GRINDING SITE 272438-3001
COMPOSTING ACTIVE

OAKWOOD C&D RECYCLING CENTER 272438-1201
C&D INACTIVE

OAKWOOD C&D RECYCLING CENTER CELL 2 272438-1202
C&D ACTIVE

SNAKE ROAD C&D LANDFILL 272742-1201
C & D ACTIVE

TOWN OF YEMASSEE SHREDDING FACILITY 251002-3001
COMPOSTING ACTIVE

MRR SOUTHERN, LLC ---------
INDUSTRIAL PROP OSED

ASSOCIATED MATERIALS WOOD GRINDING SITE#2 072731-3002
COMPOSTING ACTIVE

SHANKLIN ROAD MULCHING FACILITY 072700-3002
COMPOSTING INACTIVE

COASTAL DEBRIS CO. AIR CURTAIN INCENERATOR 272770-4001
INCENERATOR ACTIVE

CLELAND RIDGELAND WOOD CHIPPING FACILITY 272605-3001
COMPOSTING ACTIVE

WASTECO SERVICES AIR CURTAIN INCENERATOR 272773-4001
INCENERATOR ACTIVE

BEAUFORT CO. – BLUFFTON RD COMPOSTING FACILITY 072700-3001
COMPOSTING INACTIVE

ULMER BROTHERS AIR CURTAIN INCENERATOR 072711-4001
INCENERATOR ACTIVE

HILTON HEAD PLANTATION P.O.A. WOOD CHIPPING 072413-3001
COMPOSTING ACTIVE

SEA PINES PUBLIC SERVICE DISTRICT --------
INDUSTRIAL INACTIVE

EVERGREEN TREE & TURF CARE WOOD CHIPPING FAC. 272705-3001
COMPOSTING ACTIVE

CLELAND CONSTR. DAVIS RD WOOD CHIPPING FACILITY 272605-3002
COMPOSTING INACTIVE

MALPHRUS CONSTR. CO. AIR CURTAIN INCENERATOR 272716-4001
INCENERATOR ACTIVE

Land Application Sites

LAND APPLICATION SYSTEM ***ND#***
FACILITY NAME ***TYPE***

SPRAYFIELD ND0068781
BJW&SA/POINT SOUTH WWTP DOMESTIC

SPRAYSITES ND0064513
BJW&SA/PALM KEY WWTP DOMESTIC

GOLF COURSE ND0062235
CALLAWASSIE DEVELOPMENT DOMES TIC

SPRAYSITE ND0067091
BEACHWOOD MHP DOMESTIC

GOLF COURSE ND0067393
TJ BARNWELL UTILITIES, INC. DOMES TIC

GOLF COURSE AND SPRAYSITES ND0068462
HILTON HEAD #1 PSD DOMESTIC

GOLF COURSE ND0077828
SPRING ISLAND CO./SPRING ISLAND WWTP DOMESTIC

Mining Activities

MINING COMPANY ***PERMIT #***
MINE NAME ***MINERAL***

FREDERICK G. TRASK 1248-13
TRASK MINE SAND

NATHAN WILSON 1352-49
EARLY BRANCH MINE SAND/S ANDCLAY

CLELAND SITE PREP INC. 1629-13
SANDHILL TRACT MINE SAND

REA CONTRACTING LLC 0890-13
JETER BORROW PIT SAND

COASTAL CONCRETE INC. 1471-53
BEES CREEK MINE SAND

OKEETEE CLUB INC. 0078-53
MINE #4-A SAND

MALPHRUS CONSTRUCTION COMPANY, INC. 1141-53
MALPHRUS SAND

CLELAND CONSTRUCTION COMPANY 1108-13
CLELAND – D.R. MINE SAND

Growth Potential

There is a high potential for growth in this watershed, which contains portions of the City of Beaufort and the Towns of Yemassee, Bluffton, and Hilton Head. The City of Beaufort and the Communities of Lady's Island, Burton, and Shell Point are projected to continue experiencing residential and commercial growth. Less than 25% of the total land area of Lady's Island, Burton or Shell Point is suitable for septic system installations; and another 25% or less is classified as marginally suitable.

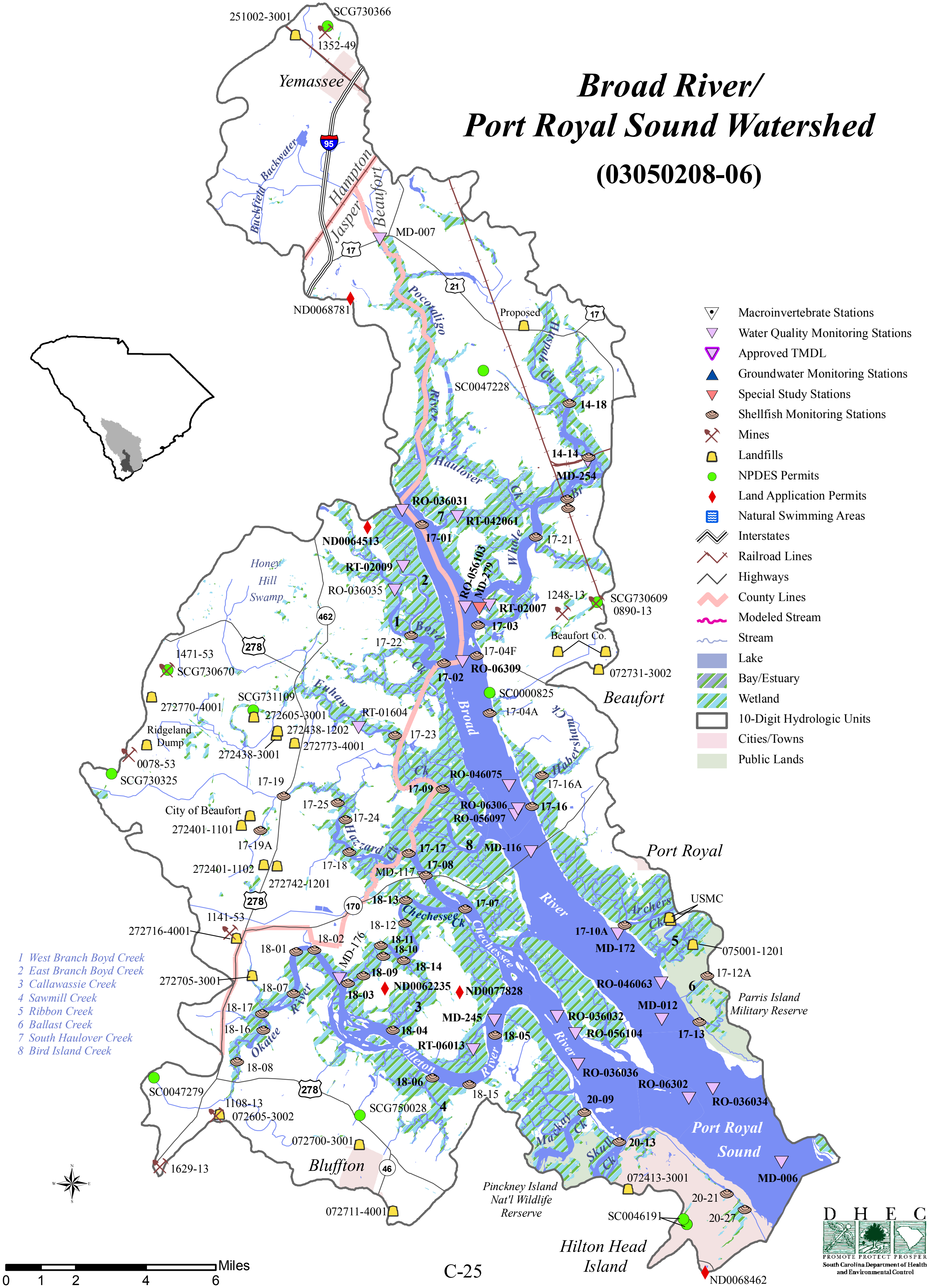
The Town of Bluffton is an area experiencing substantial growth. Del Webb's Sun City retirement community development near Bluffton has added tremendous residential and commercial growth to the area. Between 25 and 50% of the total land area is suitable for septic system installations;

and another 25% or less is classified as marginally suitable. Beaufort-Jasper Water and Sewer Authority has extended water and sewer services to the area to provide for the growth. They were then able to extend the services over to Hilton Head, where the natural aquifer is becoming shallow and salty. The area along US 278 en route from Bluffton to Hilton Head is a high growth commercial corridor. There are numerous golf and/or residential developments, and plans to develop nearby areas in a similar fashion. The new toll road that by-passes a portion of US 278 diverts the heavy commercial tourism traffic to more residential areas and the beaches. Calawassie Island on the Colleton River is currently being developed and a bridge has been built over to Spring Island, which has allowed for residential development to occur there.

Watershed Protection and Restoration Strategies

Special Projects

SCDHEC awarded the Lowcountry Council of Governments (LCOG) a Section 319 grant to implement a watershed-based plan to restore the Okatie River. LCOG, along with a host of local partners, will work to reduce fecal coliform levels in the Okatie River, specifically at stations 18-07, 18-08, 18-16, 18-17, in order to reopen shellfish beds for harvesting. Project cooperators aim to reduce pollutant loadings from all sources of fecal coliform in the watershed. To that end, the project will include a watershed-wide septic rehabilitation program, stormwater and other low-impact retrofits, buffer plantings, institutional BMPs, livestock management measures, and educational efforts targeted to pet owners and recreational boaters. Currently, the project is scheduled to be completed in July 2013.


Broad River/
Port Royal Sound Watershed
(03050208-06)
Macroinvertebrate Stations
Water Quality Monitoring Stations
Approved TMDL
Groundwater Monitoring Stations
Special Study Stations
Shellfish Monitoring Stations
Mines
Landfills
NPDES Permits
Land Application Permits
Natural Swimming Areas
Interstates
Railroad Lines
Highways
County Lines
Modeled Stream
Stream
Lake
Bay/Estuary
Wetland
10-Digit Hydrologic Units
Cities/Towns
Public Lands
1 West Branch Boyd Creek
2 East Branch Boyd Creek
3 Callawassie Creek
4 Sawmill Creek
5 Ribbon Creek
6 Ballast Creek
7 South Haulover Creek
8 Bird Island Creek
Yemassee
Beaufort
Port Royal
Bluffton
Hilton Head Island
Port Royal Sound
Broad River
Pocotaligo River
Parris Island Military Reserve
Pinckney Island Nat'l Wildlife Rerserve
Honey Hill Swamp
City of Beaufort
Ridgeland Dump
USMC
Beaufort Co.
Proposed
Miles
0 1 2 4 6
D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control