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		***NPDES#***
FACILITY NAME		***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			***NPDES#***
MUNICIPALITY			***MS4 PHASE***
RESPONSIBLE PARTY			***MS4 SIZE***
IMPLEMENTING PARTY			
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		***PERMIT #***
FACILITY TYPE		***STATUS***
ASSOCIATED MATERIALS WOOD GRIND SITE		072731-3001
COMPOSTING		ACTIVE
BEAUFORT WOOD CHIPPING FACILITY		071002-3001
COMPOSTING	INACTIVE	
SHANKLIN ROAD MULCHING FACILITY		072700-3002
COMPOSTING	INACTIVE	
HURRICANE GRACIE LANDFILL	---------	
DOMESTIC	INACTIVE	
OLD BEAUFORT DUMP	--------	
DOMESTIC	INACTIVE	
BARNWELL RESOURCES, INC. LAND CLEARING		072410-3001
COMPOSTING		ACTIVE
BARNWELL RESOURCES, INC. WOOD COMPOSTING		072410-3002
COMPOSTING	INACTIVE	
BARNWELL RESOURCES, INC.	----------	
INDUSTRIAL	INACTIVE	
BARNWELL RESOURCES, INC. C&D LANDFILL		072410-1201
C & D		ACTIVE

Land Application Sites

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

Growth Potential

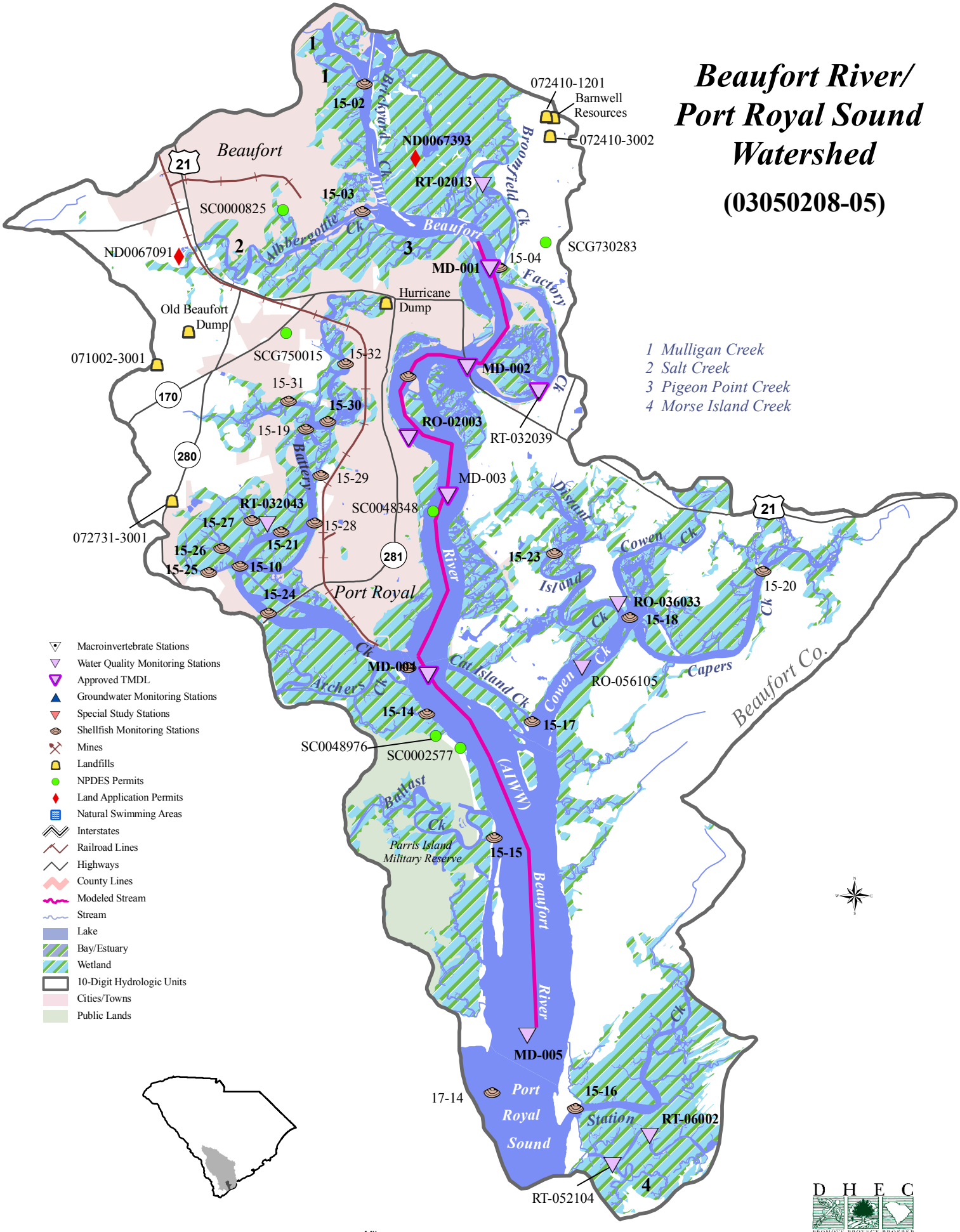
There is a high potential for growth in this watershed, which contains the Town of Port Royal and a large portion of the City of Beaufort. The City of Beaufort and Lady's Island, Burton, and Shell Point are projected to continue experiencing residential and commercial growth. Less than 25% of the total 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

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